

1974

Water Resources Data for Iowa

Part 1. Surface Water Records

Part 2. Water Quality Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the Iowa Geological Survey
and with other State and Federal agencies

CALENDAR FOR WATER YEAR 1974

1973

OCTOBER

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1974

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SEPTEMBER

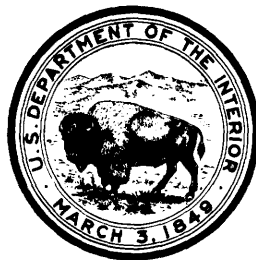
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**Prepared in cooperation with the Iowa Geological Survey
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Iowa Geological Survey
Iowa State Highway Commission
Iowa Natural Resources Council
University of Iowa, Institute of Hydraulic Research
Iowa State University, Agricultural Experiment Station
Iowa State University
Linn County
City of Cedar Rapids
City of Des Moines
City of Fort Dodge
Corps of Engineers, U.S. Army
Environmental Protection Agency

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
P.O. Box 1230
Iowa City, Iowa 52240

March 1975

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FOR WHICH RECORDS ARE PUBLISHED

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WATER QUALITY STATIONS, IN DOWNSTREAM ORDER
FOR WHICH RECORDS ARE PUBLISHED

(Letters after station name designate type of data:
c, chemical; t, water temperature; s, sediment)

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WATER RESOURCES DATA FOR IOWA, 1974

Part 1. Surface-Water Records

Part 2. Water-Quality Records

INTRODUCTION

Water resources data for the 1974 water year for Iowa including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, and records of water-quality data on the chemical and physical characteristics of surface and ground water, are given in this report. In Part 1, records are included for 127 gaging stations of which 119 are streamflow discharge stations, and 8 are reservoir or lake stations; also included are records for 426 low-flow partial-record stations, 128 crest-stage partial-record stations, and 30 miscellaneous sites. Locations of gaging stations are shown in Figure 2. In Part 2, water quality data on chemical, physical, biological, and sediment characteristics of surface water were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly, or less frequently. Records are given for 353 sampling stations of which 23 are continuous record stations, 9 are partial-record stations, and 321 are miscellaneous sites. Locations of water-quality stations are shown in Figure 3. A summary of periodic water temperature data is given for 98 regular gaging stations. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of S. W. Wiitala, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Iowa.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records beginning with the 1964 water year have been similarly released either in separate reports or in conjunction with streamflow records. These reports are for limited distribution and are designed primarily for rapid release of data shortly after the end of the water year.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and since then are in a 5-year series. Records of chemical quality, water temperatures, and suspended sediment have been published since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." More information is given under the headings "Publications" on pages 18 and 24.

COOPERATION

The U.S. Geological Survey and organizations of the State of Iowa have had cooperative agreements for the systematic collection of streamflow records since 1914, and for water-quality records since 1943. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Iowa Geological Survey, Samuel J. Tuthill, director and State Geologist

University of Iowa Institute of Hydraulic Research, Robert B. Hering, dean of College of Engineering and J. F. Kennedy, director

Iowa State Highway Commission, H. F. Gunnerson, Chief Engineer, and S. E. Roberts, director of research

Iowa Natural Resources Council, O. R. McMurry, director

Iowa State University, Richard E. Hasbrook, contracts and grants officer, and Agricultural Experiment Station, John Mahlstedt, associate director

Linn County, W. G. Harrington, county engineer

City of Cedar Rapids, Donald Canney, mayor

City of Des Moines, Leo L. Johnson, director, department of public works

City of Fort Dodge, Vincent B. Gardner, general manager, department of municipal utilities

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 64 gaging stations, and by the Environmental Protection Agency, in collecting records for seven water-quality stations published in this report. Assistance was also furnished by the Environmental Science Services Administration of the U.S. Department of Commerce.

The following organizations aided in collecting records:

Union Electric Co.; Des Moines Water Works; Ottumwa Water Works; Waterloo Sewage Treatment Plant; University of Iowa; and cities of Ames, Charles City, Council Bluffs, Iowa City, Marshalltown, Sioux City, and Waterloo.

DEFINITION OF TERMS

Terms related to streamflow, water-quality and other hydrologic data, as used in this report, are defined below. See also table for converting English Units to International System (SI) Units on page 25.

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 metres.

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

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

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

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

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

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

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

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

Ash weight is the weight or amount of residue present after the residue from the dry weight determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash weight values of zooplankton and phytoplankton are expressed in g/m³ (grams per cubic metre), and periphyton and benthic organisms in g/m² (grams per square metre).

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

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

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

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-ft, or about 646,000 gallons or 2,445 cubic metres. It represents a runoff of approximately 0.0372 inch from 1 square mile or 0.3468 millimetre from 1 square kilometre.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in water and varies with water composition(s), temperature, period of contact, and other factors.

Contents is the volume of water in a reservoir, lake, stream or aquifer. Contents herein is that of a reservoir and unless otherwise indicated, 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 (FT^3/S , ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic metres per second.

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

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

Instantaneous discharge is the discharge at a given time.

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

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

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is 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).

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per litre (UG/L, ug/l) is a unit expressing the concentration of chemical constituents in solution as the weight (micrograms) of solute per unit volume (litre) of water. One thousand micrograms per litre is equivalent to one milligram per litre.

Milligrams per litre (MG/L, mg/l) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per litre represents the weight of solute per unit volume of water. Milligrams or micrograms per litre may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per litre by multiplying by the factors in table 1, page 8. Concentration of suspended sediment also is expressed in mg/l, and is based on the weight of sediment per litre of water-sediment mixture. Sediment concentrations may be converted to parts per million by using the factors in table 2, p. 9.

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

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multi-celled and are counted according to the number of contained cells per sample volume, usually millilitres (ml) or litres (l).

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square metres (m²), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually millilitres (ml) or litres (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 or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimetres (mm), of suspended sediment or bed material determined by either 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 distribution given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

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

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

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

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

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

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

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.

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

<u>Ion</u>	<u>Multi- ply_by</u>	<u>Ion</u>	<u>Multi- ply_by</u>
Aluminum (Al ⁺³)*....	0.11119	Iodide (I ⁻¹).....	0.00788
Ammonia as NH ⁺¹05544	Iron (Fe ⁺³)*.....	.05372
Barium (Ba ⁺²).....	.01456	Lead (Pb ⁺²)*.....	.00965
Bicarbonate (HCO ⁻¹)	.01639	Lithium (Li ⁺¹)*...	.14411
Bromide (Br ⁻¹).....	.01251	Magnesium (Mg ⁺²)..	.08226
Calcium (Ca ⁺²).....	.04990	Manganese (Mn ⁺²)*.	.03640
Carbonate (CO ⁻²)...	.03333	Nickel (Ni ⁺²)*....	.03406
Chloride (Cl ⁻¹).....	.02821	Nitrate (NO ⁻¹)...	.01613
Chromium (Cr ⁺⁶)*....	.11539	Nitrite (NO ⁻¹)...	.02174
Cobalt (Co ⁺²)*.....	.03394	Phosphate (PO ⁻³)..	.03159
Copper (Cu ⁺²)*.....	.03148	Potassium (K ⁺¹)...	.02557
Cyanide (CN ⁻¹).....	.03844	Sodium (Na ⁺¹).....	.04350
Fluoride (F ⁻¹).....	.05264	Strontium (Sr ⁺²)*.	.02283
Hydrogen (H ⁺¹).....	.99209	Sulfate (SO ⁻²)...	.02082
Hydroxide (OH ⁻¹)....	.05880	Zinc (Zn ⁺²)*.....	.03060

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

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

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

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

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

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

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

Table 2.--Factors for conversion of sediment concentration in milligrams per litre to parts per million* (All values calculated to three significant figures)

Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

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

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

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

Substrate is the physical surface upon which an organism lives.

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

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The use of artificial substrates 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 multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

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

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

Thermograph is 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 presence of a thermograph or a digital mechanism that automatically records water temperatures on paper tape.

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

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

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir. See also table for converting English Units to International Units on p.29.

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

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

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural

from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network is an accounting network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design.

Areal configuration of the network is based on river-basin accounting units designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of water-quality conditions nationwide on a year-to-year basis and (2) to detect and assess long-term changes in stream quality.

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each gaging station, partial-record station, and water-quality 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 gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the 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 05387500, which appears just to the left of the station name includes the 2-digit part number "05" plus the 6-digit downstream order number "387500." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 5 (Upper Mississippi River basin) and

Part 6 (Missouri River basin). All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

SURFACE WATER RECORDS

Collection and computation of data

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

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

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of

an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change 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 being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

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

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

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. 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. A calendar for the current water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging stations gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. 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. The maximum discharge (or contents) and the maximum gage height, the minimum daily discharge (or minimum contents) and the minimum gage height if it is significant are given under "EXTREMES." In the first paragraph headed "Current year," the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge (or contents), it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS;" for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been

added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. 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.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis.

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 following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

Footnotes to the table of daily discharges are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge

relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subjected to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330.

For gaging stations on lakes and reservoirs the data presented comprise a description of the station and a daily summary table of stage or contents. A skeleton table of capacity at given stages is published for all reservoirs.

Data collected at partial-record stations and miscellaneous sites are given in four tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, the third is a table of discharge measurements at miscellaneous sites, and the fourth is a table of supplemental low-flow measurements made during periods of low flow.

Accuracy of data

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

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent of true value; "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 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules

apply to discharge figures listed for partial-record stations and miscellaneous sites.

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

Publications

In each water-supply paper entitled, "Surface Water Supply of the United States" there is a list of numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in Iowa for the period October 1960 to September 1965 are in Water-Supply Papers 1914, 1915, 1917, 1918, and 1919. Records for stations in Iowa for the period October 1965 to September 1970 are in Water-Supply Papers 2114, 2115, 2117, 2118, and 2119.

Two series of summary reports entitled, "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950 and the second series covers the period October 1950 to September 1960. These reports contain summaries of monthly and annual discharge and month-end storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station. Records for stations in Iowa are compiled in Water-Supply Papers 1308, 1309, and 1310 through September 1950, and in 1728, 1729, and 1730 for October 1950 to September 1960.

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

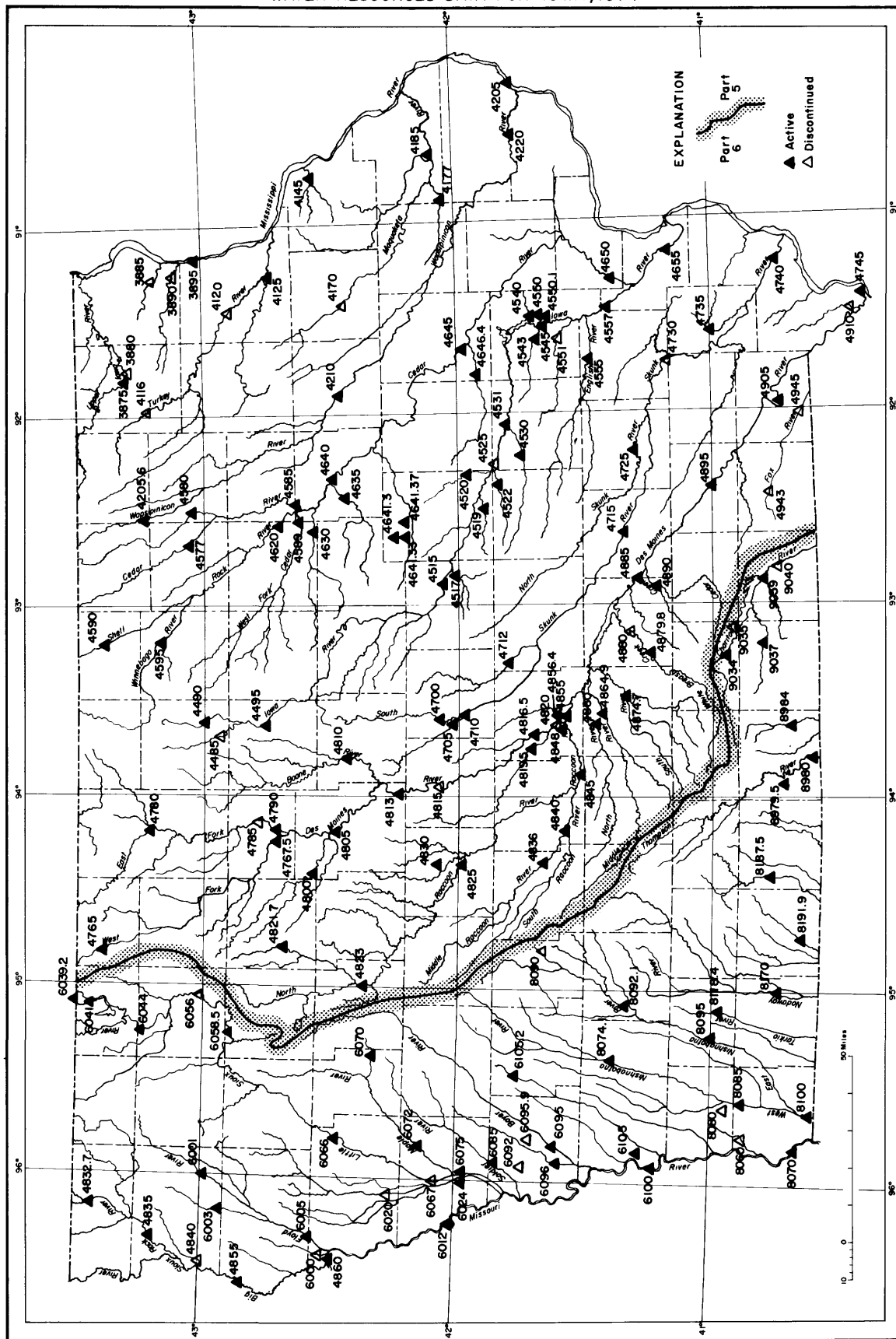


Figure 1.--Map of Iowa showing location of continuous-record gaging stations.

Other data available

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

WATER QUALITY RECORDS

Collection and examination of data

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

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

Water-quality information is presented for chemical quality, biological, microbiological quality, water temperature, and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, sodium adsorption ratio, specific conductance, and pH. The biological information includes qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter present. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a continuous temperature recorder furnished information from which daily minimums and maximums are obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment and bed material.

Prior to 1968 water year, data for chemical constituents and concentration of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967 the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per litre (mg/l) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 g/ml (grams per millilitre), parts per million and milligrams per litre can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per

litre. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using table 3 below.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per litre instead of milligrams per litre. (See "Definition of Terms," p. 6 and table for converting English Units to SI Units, p.29).

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

* C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32

Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman. The method for determining elemental constituents by emission spectrographic techniques is described by Barnett and Mallory. Analysis of pesticides, herbicides, and organic substances in water are described by Goerlitz and Lamar, Lamar, Goerlitz, and Law, and Goerlitz and Brown. The collection and analysis of aquatic, biological and microbiological samples are described by Slack and others.

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 conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis.

Temperature

Water temperatures are measured at most of the water-quality stations. For daily stations, the water temperatures are taken about the same time each day when the sample is collected. Large streams have a small diurnal temperature change while small, 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 continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day and the monthly averages.

In addition, water temperatures are taken at time of discharge measurements for surface water stations. Although these temperatures are measured on different days of the month, an analysis of these data for each month for a long period of record will indicate significant thermal characteristics of the stream. Data have been analyzed for the period of record through 1974 for gaging stations with 10 or more years of record. A summary is published in this report in the table entitled "Extremes and Mean Periodic Water Temperature" for each month.

Sediment

Suspended-sediment concentrations are determined from samples collected 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 are collected, daily loads of suspended sediment are 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 are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, 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 periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

Publications

The annual series of water-supply papers that contain information on quality of surface waters in Iowa are listed below.

<u>Water</u> <u>year</u>	<u>WSP</u> <u>No.</u>	<u>Water</u> <u>year</u>	<u>WSP</u> <u>No.</u>	<u>Water</u> <u>year</u>	<u>WSP</u> <u>No.</u>	<u>Water</u> <u>year</u>	<u>WSP</u> <u>No.</u>
1941	942	1948	1132	1955	1401	1962	1943
1942	950	1949	1162	1956	1451	1963	1949
1943	970	1950	1187	1957	1521	1964	1956
1944	1022	1951	1198	1958	1572	1965	1963
1945	1030	1952	1251	1959	1643	1966	1993
1946	1050	1953	1291	1960	1743	1967	2013
1947	1102	1954	1351	1961	1883	1968	2094,2095
						1969	2144,2145
						1970	2154,2155

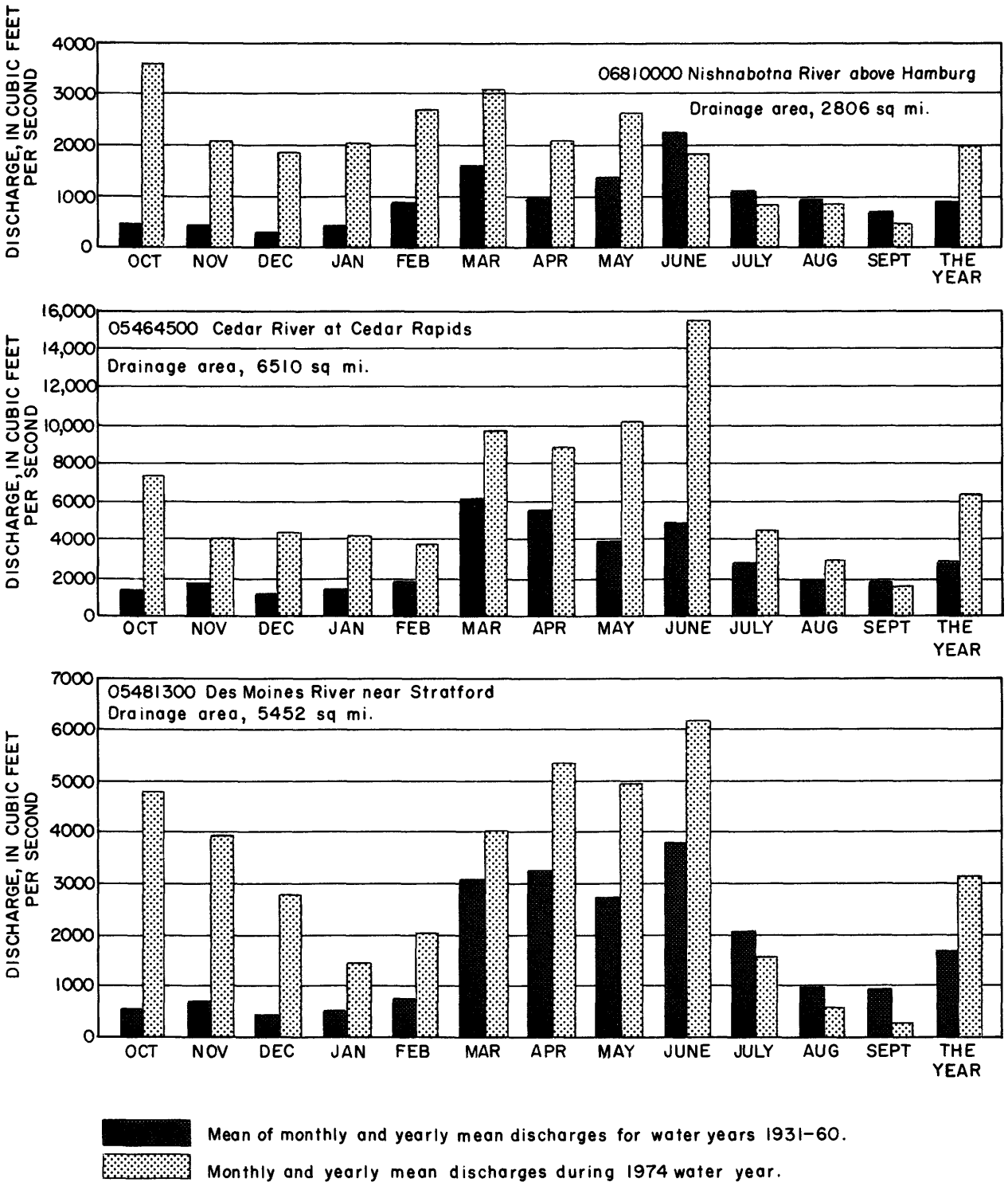


FIGURE 3.-- RUNOFF DURING 1974 WATER YEAR COMPARED WITH MEAN RUNOFF FOR PERIOD 1931-60 FOR THREE REPRESENTATIVE GAGING STATIONS

HYDROLOGIC CONDITIONS

Annual runoff for the 1974 water year was above normal except in the northwestern part of the state, which was normal (2 to 4 inches). Runoff from the eastern two thirds of the state was 10 to 20 inches compared to a normal of 5 to 8 inches. Some key stations had the highest December and January runoff of many years but not for the period of record.

The winter season departed with little ice or snow cover. Some scattered heavy rains in April, July and August produced bankfull stages or minor flooding on various tributaries and heavy general rains during May and June in central and east-central Iowa produced outstanding floods on the Wapsipinicon River at Elma and DeWitt, and tributaries to the Iowa River near Iowa City and to the Des Moines River near Des Moines.

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Table 4.--Factors for converting English Units to International System (SI) Units

The following factors may be used to convert the English units published herein to the International System of Units (SI). This report contains and subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
Length		
inches (in)	25.4	millimetres (mm)
feet (ft)	.3048	metres (m)
miles (mi)	1.609	kilometres (km)
Area		
acres	4,047	square metres (m ²)
square miles (mi ²)	2.590	square kilometres (km ²)
Volume		
gallons (gal)	.003785	cubic metres (m ³)
cubic feet (ft ³)	.02832	cubic metres (m ³)
cfs-day (ft ³ /s-day)	2,447	cubic metres (m ³)
acre-feet (acre-ft)	1,233	cubic metres (m ³)
Flow		
cubic feet per second (ft ³ /s)	.02832	cubic metres per second (m ³ /s)
	28.32	cubic decimeters per second (dm ³ /s)
gallons per minute (gpm)	.06309	cubic decimetres per second (dm ³ /s)
Mass		
tons (short)	.9072	tonnes (t)

PART 1. SURFACE WATER RECORDS

05387500 UPPER IOWA RIVER AT DECORAH, IOWA

LOCATION.--Lat 43°18'19", long 91°47'48", in NE1/4 SW1/4 sec.16, T.98 N., R.8 W., Winneshiek County, on right bank 1,200 ft (366 m) upstream from bridge on U.S. Highway 52 (city route) in Decorah, 1,500 ft (457 m) downstream from Dry Run cutoff, and 3.0 mi (4.8 km) upstream from Trout Run.

DRAINAGE AREA.--511 mi² (1,323 km²).

PERIOD OF RECORD.--August 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 850.00 ft (259.08 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 306 ft³/s (8.67 m³/s), 8.13 in/yr (207 mm/yr), 221,700 acre-ft/yr (273 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,120 ft³/s (202 m³/s) June 10, gage height, 9.82 ft (2.993 m); minimum daily, 97 ft³/s (2.75 m³/s) Feb. 11.
 Period of record: Maximum discharge, 20,200 ft³/s (572 m³/s) Mar. 27, 1961, gage height, 13.08 ft (3.987 m); minimum daily, 22 ft³/s (0.62 m³/s) Feb. 2-7, 1959.
 Maximum flood known, probably since at least 1913, occurred May 29, 1941, at site of former gaging station near Decorah, 4 mi (6.4 km) downstream, discharge, 28,500 ft³/s (807 m³/s).

REMARKS.--Records good except those for winter period, which are fair. Records of daily temperature and periodic chemical analyses for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,390	227	310	450	111	154	938	435	506	559	238	163
2	763	222	300	320	123	240	888	412	480	529	237	160
3	584	217	290	240	140	2,300	1,330	405	468	494	243	157
4	1,040	213	295	230	160	3,450	3,070	389	2,400	488	238	155
5	1,710	210	282	220	120	2,820	3,000	380	1,790	466	230	154
6	1,070	206	230	230	120	2,790	1,460	368	775	439	221	152
7	625	203	167	260	130	2,930	1,100	369	673	428	214	154
8	524	203	210	260	130	2,280	946	405	658	412	209	152
9	475	192	280	260	120	1,710	854	405	2,340	385	203	151
10	452	199	230	250	110	1,720	771	416	5,750	406	230	148
11	445	199	201	280	97	1,400	734	953	2,840	482	365	144
12	546	199	249	290	98	1,030	751	1,120	1,500	430	235	146
13	724	196	256	260	100	909	815	1,020	1,120	393	217	150
14	572	196	235	220	100	978	1,180	1,680	950	362	206	145
15	460	210	233	189	110	830	1,180	1,950	823	343	199	141
16	399	230	260	164	110	703	1,090	1,400	746	328	195	138
17	363	250	290	161	100	624	818	1,070	677	316	192	135
18	336	254	230	162	110	578	709	929	632	310	189	134
19	317	234	180	167	110	544	637	845	926	334	184	132
20	300	234	250	171	120	509	604	844	982	318	180	131
21	286	295	280	177	130	474	618	775	5,050	315	185	129
22	275	1,230	240	175	130	445	683	1,660	4,200	314	207	129
23	266	823	190	171	120	399	666	2,300	1,980	288	207	131
24	258	541	190	167	120	355	571	1,110	1,240	283	197	135
25	255	461	190	168	130	359	521	824	990	388	183	132
26	248	428	180	169	140	384	491	717	854	346	177	129
27	243	395	180	172	171	365	469	650	767	293	177	129
28	237	385	170	164	167	357	453	795	697	281	173	138
29	235	380	170	166	-----	386	513	648	638	264	169	140
30	232	345	210	169	-----	547	465	585	595	252	168	132
31	230	-----	300	157	-----	632	-----	542	-----	244	172	-----
TOTAL	15,860	9,577	7,278	6,639	3,427	33,202	28,325	26,401	44,047	11,490	6,440	4,266
MEAN	512	319	235	214	122	1,071	944	852	1,468	371	208	142
MAX	1,710	1,230	310	450	171	3,450	3,070	2,300	5,750	559	365	163
MIN	230	192	167	157	97	154	453	368	468	244	168	129
CFSM	1.00	.62	.46	.42	.24	2.10	1.85	1.67	2.87	.73	.41	.28
IN.	1.15	.70	.53	.48	.25	2.42	2.06	1.92	3.21	.84	.47	.31
AC-FT	31,460	19,000	14,440	13,170	6,800	65,860	56,180	52,370	87,370	22,790	12,770	8,460
CAL YR 1973	TOTAL 226,209	MEAN 620	MAX 5,550	MIN 156	CFSM 1.21	IN 16.47	AC-FT 448,700					
WTR YR 1974	TOTAL 196,952	MEAN 540	MAX 5,750	MIN 97	CFSM 1.06	IN 14.34	AC-FT 390,700					

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-4	0330	8.69	5,040	6-10	2130	9.82	7,120
4-5	0245	8.18	4,280	6-21	1900	9.73	6,920
6-4	2030	8.16	4,320				

MISSISSIPPI RIVER MAIN STEM

05389500 MISSISSIPPI RIVER AT MCGREGOR, IOWA

LOCATION.--Lat 43°01'29", long 91°10'21", in SE1/4 SE1/4 sec.22, T.95 N., R.3 W., Clayton County, on right bank in city park at east end of Main Street in McGregor, 2.6 mi (4.2 km) upstream from Wisconsin River, 4.3 mi (6.9 km) downstream from Yellow River, and at mile 633.4 (1,019.1 km) upstream from Ohio River.

DRAINAGE AREA.--67,500 mi² (174,800 km²), approximately.

PERIOD OF RECORD.--August 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 605.30 ft (184.50 m) above mean sea level, adjustment of 1912. Prior to June 1, 1937, and since June 2, 1939, auxiliary water-stage recorder; June 1, 1937 to June 1, 1939, auxiliary nonrecording gage 14.1 mi (22.7 km) upstream in tailwater of dam 9, at datum 5.30 ft (1.615 m) lower.

AVERAGE DISCHARGE.--38 years, 33,700 ft³/s (954 m³/s), 6.78 in/yr (172 mm/yr), 24,420,000 acre-ft/yr (30,100 hm³/yr).

EXTREMES.--Current year: Maximum daily discharge, 104,000 ft³/s (2,950 m³/s) June 22-24; maximum gage height, 14.53 ft (4.429 m) June 21; minimum daily discharge, 9,920 ft³/s (281 m³/s) July 19; minimum gage height, 6.10 ft (1.859 m) July 21.

Period of record: Maximum daily discharge, 276,000 ft³/s (7,820 m³/s) Apr. 24, 1965; maximum gage height, 25.38 ft (7.736 m) Apr. 24, 1965; minimum daily discharge, 6,200 ft³/s (176 m³/s) Dec. 9, 1936; minimum gage height, -0.86 ft (-0.262 m) Aug. 18, 1936.

Maximum stage since at least 1828, that of Apr. 24, 1965.

REMARKS.--Records good except those for winter period, which are fair. Stage-discharge relation affected by backwater from Wisconsin River and Dam 10. Flcw regulated by navigation dams.

COOPERATION.--Gage height record at Dam 9 collected in cooperation with Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37,500	43,200	45,300	26,000	23,500	22,000	39,100	78,900	50,700	48,900	22,600	24,200
2	38,100	42,300	44,800	25,500	22,500	22,000	39,300	74,700	50,000	45,200	20,500	22,100
3	37,500	41,000	46,500	25,000	21,500	23,000	41,500	72,500	49,600	38,200	19,200	19,300
4	37,400	40,300	45,500	24,500	21,500	27,000	46,700	69,300	49,700	35,700	19,900	16,200
5	36,200	39,500	45,300	24,000	21,000	35,000	54,000	67,500	49,600	35,000	21,400	15,300
6	35,400	37,300	44,100	23,000	21,000	43,700	64,100	60,300	49,600	35,000	22,500	14,300
7	35,200	36,000	39,800	23,000	21,000	46,300	68,100	61,200	52,200	33,000	24,000	14,800
8	35,100	35,700	34,400	23,000	21,000	48,800	69,900	60,400	56,100	25,400	26,800	16,400
9	33,100	34,900	29,000	23,000	21,000	55,500	70,600	58,400	59,700	25,800	27,300	23,500
10	29,900	32,400	26,000	23,000	20,500	58,200	70,500	55,100	64,000	25,700	28,600	28,700
11	27,900	28,700	22,000	23,000	20,000	58,100	70,500	54,000	67,100	27,800	29,600	30,300
12	28,800	26,200	21,000	23,000	20,000	58,000	71,600	56,300	70,200	30,500	31,200	29,600
13	35,200	27,500	20,900	23,000	20,000	56,800	74,200	56,400	73,800	30,700	31,800	30,300
14	40,500	30,000	21,000	22,000	20,000	54,700	75,600	58,600	79,000	30,300	29,300	27,500
15	44,300	29,500	22,000	19,500	20,000	52,600	75,500	59,100	85,600	28,500	26,400	20,900
16	45,400	27,300	23,000	19,500	20,500	50,500	75,000	58,600	90,300	22,600	24,100	20,800
17	46,900	27,900	24,000	19,400	21,000	47,000	76,400	58,900	94,400	15,300	22,700	20,500
18	50,400	29,800	25,000	19,300	21,500	44,400	80,500	61,700	96,700	11,000	21,700	20,600
19	53,100	31,600	24,000	19,800	23,000	43,600	85,800	64,300	97,600	9,920	20,000	19,300
20	54,900	31,300	24,000	20,500	24,000	43,200	89,900	65,400	97,400	10,000	17,500	17,000
21	55,900	34,200	24,000	21,000	26,000	41,900	93,300	66,900	100,000	14,600	21,900	14,600
22	56,700	36,400	24,000	22,000	27,000	40,900	94,300	69,000	104,000	18,100	36,300	14,700
23	57,800	39,800	24,000	23,000	27,000	37,800	93,300	69,700	104,000	20,600	41,000	14,500
24	57,900	41,800	24,500	23,500	26,000	32,400	92,500	70,400	104,000	21,000	38,200	14,900
25	57,700	42,500	25,000	23,800	25,000	26,200	89,400	71,200	98,900	22,400	27,800	14,700
26	55,700	42,200	26,000	23,800	24,000	30,400	89,000	69,900	91,200	24,900	20,000	16,700
27	53,600	42,700	28,000	23,800	23,000	35,500	87,000	68,300	82,100	26,400	17,900	17,500
28	50,900	43,300	27,500	23,600	22,000	35,500	83,700	65,800	73,600	27,000	16,800	17,300
29	47,600	44,000	27,000	23,600	-----	35,200	83,100	62,200	63,500	25,400	15,000	18,400
30	44,800	45,300	27,000	23,600	-----	38,100	82,100	57,400	55,000	21,100	15,500	18,200
31	43,300	-----	26,500	23,600	-----	39,100	-----	54,400	-----	21,900	20,500	-----
TOTAL	1,364.7M	1,084.6M	911.100	704,300	624,500	1,283.4M	2,226.5M	1,976.8M	2,259.6M	807,920	758,000	593,100
MEAN	44,020	36,150	29,390	22,720	22,300	41,400	74,220	63,770	75,320	26,060	24,450	19,770
MAX	57,900	45,300	46,500	26,000	27,000	58,200	94,300	78,900	104,000	48,900	41,000	30,300
MIN	27,900	26,200	20,900	19,300	20,000	22,000	39,100	54,000	49,600	9,920	15,000	14,300
CFSM	.65	.54	.44	.34	.33	.61	1.10	.94	1.12	.39	.36	.29
IN.	.75	.60	.50	.39	.34	.71	1.23	1.09	1.25	.45	.42	.33
AC-FT	2,707M	2,151M	1,807M	1,397M	1,239M	2,546M	4,416M	3,921M	4,482M	1,603M	1,503M	1,176M
CAL YR 1973	TOTAL 17,397,800	MEAN 47,670	MAX 151,000	MIN 16,200	CFSM .71	IN 9.59	AC-FT 34,510,000					
WTR YR 1974	TOTAL 14,594,520	MEAN 39,980	MAX 104,000	MIN 9,920	CFSM .59	IN 8.04	AC-FT 28,950,000					

M Expressed in thousands.

05412500 TURKEY RIVER AT GARBER, IOWA

LOCATION.--Lat 42°44'24", long 91°15'42", in SE1/4 NW1/4 sec.36, T.92 N., R.4 W., Clayton County, on left bank 10 ft (3 m) downstream from bridge on county highway C43, 800 ft (244 m) upstream from Wayman Creek, 1,000 ft (305 m) southeast of Garber, 2,000 ft (610 m) downstream from Elk Creek, 1 mi (1.6 km) downstream from Volga River, and 19.8 mi (31.9 km) upstream from mouth.

DRAINAGE AREA.--1,545 mi² (4,002 km²).

PERIOD OF RECORD.--August 1913 to November 1916, May 1919 to September 1927, April 1929 to September 1930, October 1932 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 634.46 ft (193.38 m) above mean sea level. Prior to Feb. 7, 1935, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--54 years (1913-16, 1919-27, 1929-30, 1932-74), 906 ft³/s (25.7 m³/s), 7.96 in/yr (202 mm/yr), 656,400 acre-ft/yr (809 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 15,700 ft³/s (445 m³/s) June 21, gage height, 21.08 ft (6.425 m); minimum daily, 280 ft³/s (7.93 m³/s) Jan. 12.
Period of record: Maximum discharge, 32,300 ft³/s (915 m³/s) Feb. 23, 1922, gage height, 28.06 ft (8.553 m), from floodmark; minimum daily, 49 ft³/s (1.39 m³/s) Jan. 28, 29, 1940.
Maximum stage since at least 1890, that of Feb. 23, 1922.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Six discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1308: 1922-25 (M), 1927 (M). WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	615	461	646	340	600	2,950	1,430	1,300	1,570	1,590	726	532
2	622	462	626	320	520	3,250	1,440	1,260	1,420	1,500	710	511
3	633	454	614	310	460	7,980	1,720	1,220	1,320	1,420	742	499
4	677	444	626	310	420	6,290	3,070	1,190	1,270	1,590	750	487
5	661	435	786	310	390	5,240	4,520	1,170	1,300	1,510	678	475
6	627	432	600	310	440	3,810	3,320	1,140	1,600	1,310	646	468
7	692	428	430	300	500	2,930	2,310	1,100	2,130	1,220	626	468
8	658	433	350	300	560	2,560	1,940	1,100	2,100	1,160	610	470
9	612	424	360	300	580	2,820	1,740	1,100	5,300	1,100	594	454
10	596	418	380	290	580	2,630	1,590	1,080	8,920	1,080	618	446
11	698	411	420	290	560	2,730	1,480	1,170	8,760	1,120	1,180	439
12	713	425	430	280	540	2,330	1,500	1,220	4,830	1,140	1,050	441
13	781	438	450	290	520	2,100	1,700	2,180	3,280	1,080	885	451
14	755	441	450	290	510	1,990	4,860	2,360	2,840	1,070	730	435
15	726	452	440	300	500	1,840	5,460	3,640	2,400	984	678	429
16	655	451	430	310	490	1,600	3,910	3,790	2,150	934	726	416
17	608	446	410	320	490	1,440	3,120	3,030	1,960	894	714	411
18	584	442	390	330	520	1,340	2,670	2,250	1,820	880	650	401
19	564	441	380	350	600	1,250	2,520	2,720	2,050	948	622	393
20	550	474	370	850	700	1,180	2,350	4,210	3,310	1,010	622	389
21	537	580	360	1,000	1,400	1,110	2,190	3,490	12,400	885	593	384
22	523	566	350	650	5,000	1,060	2,110	3,270	8,100	840	696	380
23	515	654	350	540	4,500	980	1,980	2,750	5,660	818	673	379
24	508	818	360	500	4,160	916	1,880	2,960	3,570	818	603	381
25	500	808	370	470	3,560	800	1,760	2,230	2,750	2,030	573	376
26	485	764	390	600	3,140	890	1,650	1,940	2,430	1,930	561	369
27	478	730	410	1,600	2,730	952	1,560	1,810	2,160	1,120	1,060	366
28	475	710	420	900	3,000	916	1,470	1,900	1,980	944	835	377
29	468	686	420	750	-----	930	1,420	1,880	1,830	862	614	406
30	466	666	400	750	-----	1,440	1,370	2,130	1,740	800	566	403
31	469	-----	370	840	-----	1,500	-----	1,830	-----	754	556	-----
TOTAL	18,451	15,794	13,788	15,300	37,970	69,754	70,040	64,420	102,950	35,341	21,887	12,836
MEAN	595	526	445	494	1,356	2,250	2,335	2,078	3,432	1,140	706	428
MAX	781	818	786	1,600	5,000	7,980	5,460	4,210	12,400	2,030	1,180	532
MIN	466	411	350	280	390	800	1,370	1,080	1,270	754	556	366
CFSM	.39	.34	.29	.32	.88	1.46	1.51	1.35	2.22	.74	.46	.28
IN.	.44	.38	.33	.37	.91	1.68	1.69	1.55	2.48	.85	.53	.31
AC-FT	36,600	31,330	27,350	30,350	75,310	138,400	138,900	127,800	204,200	70,100	43,410	25,460

CAL YR 1973 TOTAL 628,186 MEAN 1,721 MAX 19,100 MIN 350 CFSM 1.11 IN 15.13 AC-FT 1,246,000
WTR YR 1974 TOTAL 478,531 MEAN 1,311 MAX 12,400 MIN 280 CFSM .85 IN 11.52 AC-FT 949,200

PEAK DISCHARGE (BASE, 8,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-3	2400	16.40	8,680	6-21	1200	21.08	15,700
6-10	2000	16.80	9,160				

LITTLE MAQUOKETA RIVER BASIN

05414500 LITTLE MAQUOKETA RIVER NEAR DURANGO, IOWA

LOCATION.--Lat 42°33'18", long 90°44'46", in NW1/4 NE1/4 sec.5, T.89 N., R.2 E., Dubuque County, on left bank 10 ft (3 m) upstream from bridge on county highway, 300 ft (91 m) upstream from Cloie Branch, 1.7 mi (2.7 km) east of Durango, 5.6 mi (9.0 km) northwest of court house at Dubuque, and 6.4 mi (10.3 km) upstream from mouth.

DRAINAGE AREA.--130 mi² (337 km²).

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 612.03 ft (186.55 m) above mean sea level. Prior to Jan. 5, 1939, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--40 years, 87.4 ft³/s (2.48 m³/s), 9.13 in/yr (232 mm/yr), 63,320 acre-ft/yr (78.1 hm³/yr); median of yearly mean discharges, 73 ft³/s (2.07 m³/s), 7.6 in/yr (193 mm/yr), 52,900 acre-ft/yr (65.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 9,250 ft³/s (262 m³/s) June 21, gage height, 16.66 ft (5.078 m); minimum daily, 31 ft³/s (0.880 m³/s) Jan. 2.

Period of record: Maximum discharge, 40,000 ft³/s (1,130 m³/s) Aug. 2, 1972, gage height, 23.13 ft (7.050 m) in gage well, 23.8 ft (7.25 m), from floodmarks, on basis of slope-area measurement of peak flow; minimum daily, 5 ft³/s (142 m³/s) July 12, 13, 1936.

Flood of June 15, 1925, reached a stage of about 22.1 ft (6.74 m), discharge, about 29,000 ft³/s (821 m³/s), computed by Corps of Engineers.

REMARKS.--Records excellent except those for winter period, which are good.

COOPERATION.--Five discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1508: 1935-38, 1939 (M), 1940, 1943 (M), 1946, 1948.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	49	49	32	80	178	162	75	138	138	67	50
2	67	47	49	31	70	667	143	78	129	134	73	49
3	64	45	51	35	60	645	177	94	118	120	87	48
4	60	43	355	37	52	717	248	85	112	120	73	46
5	56	42	270	36	59	318	179	77	117	108	63	45
6	55	42	130	36	54	212	151	77	143	101	60	45
7	60	43	90	35	52	180	141	80	118	96	59	47
8	59	43	80	33	49	204	123	148	234	93	58	46
9	56	40	70	34	49	325	117	111	3,510	91	57	45
10	56	39	62	35	50	210	112	103	534	122	64	44
11	65	43	69	37	48	169	110	239	238	185	116	45
12	67	43	68	36	51	194	120	149	194	105	70	48
13	58	44	68	35	65	192	108	190	186	93	67	49
14	54	48	58	36	57	153	1,260	865	202	86	58	44
15	52	66	54	37	46	153	468	591	166	81	54	43
16	50	54	50	38	49	146	302	1,050	146	76	221	42
17	49	46	52	38	61	133	230	483	138	74	106	42
18	50	45	50	60	250	123	198	516	131	73	67	42
19	49	44	45	110	230	114	168	392	128	95	60	41
20	48	51	40	520	199	104	151	591	130	75	85	40
21	48	124	38	321	208	97	148	642	3,240	69	63	40
22	48	69	40	139	182	99	137	1,770	2,910	102	114	40
23	48	59	42	83	82	81	119	405	495	77	65	40
24	48	78	45	65	61	73	107	312	345	73	57	42
25	48	67	150	80	58	83	99	275	275	80	54	41
26	47	61	130	707	59	87	95	218	228	90	54	41
27	46	61	75	975	92	78	91	202	200	72	58	41
28	47	57	60	149	271	78	91	194	179	69	53	44
29	47	53	53	108	-----	218	144	194	164	65	51	49
30	46	52	42	334	-----	305	80	164	154	63	50	42
31	49	-----	40	291	-----	180	-----	157	-----	62	57	-----
TOTAL	1,666	1,598	2,475	4,543	2,644	6,516	5,779	10,527	15,002	2,888	2,241	1,321
MEAN	53.7	53.3	79.8	147	94.4	210	193	340	500	93.2	72.3	44.0
MAX	69	124	355	975	271	717	1,260	1,770	3,510	185	221	50
MIN	46	39	38	31	46	73	80	75	112	62	50	40
CFSM	.41	.41	.61	1.13	.73	1.62	1.48	2.62	3.85	.72	.56	.34
IN.	.48	.46	.71	1.30	.76	1.86	1.65	3.01	4.29	.83	.64	.38
AC-FT	3,300	3,170	4,910	9,010	5,240	12,920	11,460	20,880	29,760	5,730	4,450	2,620
CAL YR 1973	TOTAL 63,459	MEAN 174	MAX 2,580	MIN 38	CFSM 1.34	IN 18.16	AC-FT 125,900					
WTR YR 1974	TOTAL 57,200	MEAN 157	MAX 3,510	MIN 31	CFSM 1.21	IN 16.37	AC-FT 113,500					

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-27	0145	10.79	3,000	6-9	2100	13.25	5,020
5-22	0555	10.87	3,060	6-21	0700	16.66	9,250

05417700 BEAR CREEK NEAR MONMOUTH, IOWA

LOCATION.--Lat 42°02'18", long 90°52'59", in NE1/4 SE1/4 sec.31, T.84 N., R.1 E., Jackson County, on right bank 15 ft (5 m) downstream from bridge on county highway, 1.6 mi (2.6 km) upstream from Bat Run, 2.8 mi (4.5 km) south of Monmouth, and 8.2 mi (13.2 km) upstream from mouth.

DRAINAGE AREA.--61.3 mi² (159 km²).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 728.80 ft (222.14 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 46.9 ft³/s (1.33 m³/s), 10.39 in/yr (264 mm/yr), 33,980 acre-ft/yr (41.9 hm³/yr); median of yearly mean discharges, 39 ft³/s (1.10 m³/s), 8.6 in/yr (218 mm/yr), 28,300 acre-ft/yr (34.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,410 ft³/s (96.6 m³/s) May 16, gage height, 11.80 ft (3.597 m); minimum daily, 14 ft³/s (0.40 m³/s) Sept. 20.

Period of record: Maximum discharge, 7,340 ft³/s (208 m³/s) Sept. 21, 1965, gage height, 13.76 ft (4.194 m); minimum daily, 1.8 ft³/s (51 dm³/s) Dec. 8-12, 1958.

Flood in June 1944 reached a stage of about 21.5 ft (6.55 m), from floodmark, from information by local residents, discharge not determined.

REMARKS.--Records good except those for winter period, which are poor. Records of periodic chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1708: 1959.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	20	23	52	85	119	74	88	142	58	26	18
2	57	20	24	56	70	154	64	76	119	60	30	18
3	40	18	24	54	50	234	64	68	103	57	29	18
4	75	17	65	45	35	234	100	59	92	55	28	17
5	55	17	106	32	45	180	88	55	89	46	24	16
6	40	18	61	26	60	119	73	50	85	44	23	16
7	36	18	44	23	66	100	67	60	223	41	22	17
8	34	18	46	22	74	106	58	129	239	39	21	16
9	31	15	45	21	80	123	54	86	1,090	37	20	16
10	32	15	22	20	78	95	53	77	341	68	21	16
11	44	17	45	25	65	84	51	112	197	581	20	17
12	38	17	43	28	72	85	53	89	149	116	21	19
13	36	17	41	30	85	76	53	105	117	73	50	20
14	31	18	33	31	58	68	345	407	93	58	24	16
15	29	18	32	32	37	66	229	190	82	50	20	16
16	26	16	26	29	50	63	148	1,990	75	43	20	15
17	24	16	36	29	130	55	113	1,350	70	39	113	15
18	23	16	40	32	280	54	94	615	66	36	29	15
19	23	16	38	35	170	51	82	237	166	34	23	15
20	22	27	34	380	110	46	73	423	93	31	22	14
21	21	40	36	200	110	42	71	146	715	30	22	15
22	20	24	38	100	190	43	66	277	1,280	90	201	15
23	19	21	35	60	65	33	56	95	660	40	50	15
24	21	72	36	42	45	32	51	59	200	33	32	16
25	21	42	54	43	37	44	49	46	148	31	28	16
26	19	33	75	110	42	41	47	40	115	30	25	16
27	19	31	58	450	60	35	45	35	94	28	23	15
28	19	28	43	130	189	35	52	42	82	26	21	16
29	19	26	35	65	-----	48	243	372	74	25	19	17
30	19	25	25	110	-----	112	125	320	67	23	18	16
31	20	-----	40	240	-----	86	-----	168	-----	22	18	-----
TOTAL	964	696	1,303	2,552	2,438	2,663	2,741	7,866	7,066	1,944	1,043	487
MEAN	31.1	23.2	42.0	82.3	87.1	85.9	91.4	254	236	62.7	33.6	16.2
MAX	75	72	106	450	280	234	345	1,990	1,280	581	201	20
MIN	19	15	22	20	35	32	45	35	66	22	18	14
CFSM	.51	.38	.69	1.34	1.42	1.40	1.49	4.14	3.85	1.02	.55	.26
IN.	.59	.42	.79	1.55	1.48	1.62	1.66	4.77	4.29	1.18	.63	.30
AC-FT	1,910	1,380	2,580	5,060	4,840	5,280	5,440	15,600	14,020	3,860	2,070	966

CAL YR 1973 TOTAL 27,576.2 MEAN 75.6 MAX 771 MIN 6.7 CFSM 1.23 IN 16.73 AC-FT 54,700
 WTR YR 1974 TOTAL 31,763.0 MEAN 87.0 MAX 1,990 MIN 14 CFSM 1.42 IN 19.28 AC-FT 63,000

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-16	1330	11.80	3,410	6-9	1930	9.52	1,610
5-29	2245	8.41	1,060	6-22	2030	10.60	2,320

MAQUOKETA RIVER BASIN

05418500 MAQUOKETA RIVER NEAR MAQUOKETA, IOWA

LOCATION.--Lat 42°05'05", long 90°38'04", in SW1/4 NE1/4 sec.17, T.84 N., R.3 E., Jackson County, on right bank 500 ft (152 m) upstream from bridge on State Highway 62, 1,200 ft (366 m) upstream from Prairie Creek, 2.0 mi (3.2 km) northeast of Maquoketa, 2.2 mi (3.5 km) downstream from North Fork, and 26.7 mi (43.0 km) upstream from mouth.

DRAINAGE AREA.--1,553 mi² (4,022 km²).

PERIOD OF RECORD.--September 1913 to current year. Prior to October 1939, published as "below North Fork near Maquoketa". Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 626.52 ft (190.96 m) above mean sea level, adjustment of 1912. Prior to July 14, 1924, nonrecording gage, and July 15, 1924 to Sept. 30, 1972, recording gage at same site at datum 10.00 ft (3.048 m) higher.

AVERAGE DISCHARGE.--61 years, 1,019 ft³/s (28.9 m³/s), 8.91 in/yr (226 mm/yr), 738,300 acre-ft/yr (910 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 19,600 ft³/s (555 m³/s) June 23, gage height, 27.51 ft (8.385 m); minimum daily, 663 ft³/s (18.8 m³/s) Nov. 12.

Period of record: Maximum discharge, 48,000 ft³/s (1,360 m³/s) June 27, 1944, gage height, 24.70 ft (7.529 m); minimum daily, 105 ft³/s (2.97 m³/s) Feb. 11-20, 1936.

A flood, probably in 1903, reached a stage of 23.5 ft (7.16 m), discharge, 43,000 ft³/s (1,220 m³/s).

REMARKS.--Records good except those for winter period, which are poor. Diurnal fluctuation caused by powerplant 4 mi (6.4 km) above station.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 405: 1914. WSP 1438: Drainage area. WSP 1508: 1914-17, 1919-25, 1926 (M), 1929, 1933-34 (M), 1943.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,260	796	873	1,800	3,620	2,220	2,000	2,100	2,460	2,180	1,100	913
2	1,360	760	807	1,900	1,440	2,500	1,890	1,700	2,260	1,800	1,080	915
3	1,240	727	847	2,000	1,490	4,650	1,870	1,560	2,150	2,290	1,080	912
4	1,630	707	1,080	1,900	1,210	4,560	2,150	1,460	2,050	1,920	1,120	840
5	1,220	696	1,780	1,700	930	4,190	2,390	1,370	1,970	1,690	1,120	888
6	1,100	692	1,550	1,400	984	3,230	2,640	1,330	1,900	1,600	1,100	847
7	1,070	678	1,270	1,200	977	2,420	2,090	1,360	2,560	1,740	1,070	859
8	962	690	1,110	1,100	954	2,490	1,990	2,050	3,830	1,660	1,020	850
9	914	691	960	1,000	960	2,330	1,720	1,980	11,800	1,630	1,030	845
10	900	669	820	940	995	2,230	1,650	1,890	10,200	1,590	1,040	826
11	993	714	670	890	1,020	2,020	1,420	2,490	5,530	3,080	1,040	809
12	975	663	720	900	954	2,140	1,700	2,380	4,200	2,040	1,180	870
13	996	694	780	920	1,170	2,140	1,360	2,250	3,250	1,790	1,190	855
14	938	717	860	920	1,480	1,840	3,350	3,960	2,920	1,640	1,820	809
15	918	802	800	940	1,350	1,650	4,190	4,070	2,830	1,530	1,390	781
16	868	769	760	1,000	1,390	1,670	4,470	11,600	2,450	1,460	1,290	783
17	845	742	730	1,030	1,460	1,790	3,660	15,200	2,300	1,410	1,550	761
18	823	741	700	1,060	2,220	1,460	2,940	7,400	2,180	1,390	1,400	767
19	774	733	730	1,100	3,540	1,330	2,050	6,870	2,060	1,590	1,260	761
20	784	757	780	3,000	2,590	1,460	2,110	7,340	2,230	1,410	1,320	746
21	744	1,010	850	2,900	1,990	1,350	1,950	5,960	7,920	1,320	1,270	748
22	765	960	1,140	2,600	2,780	1,220	1,890	11,500	12,200	1,420	1,820	695
23	789	899	1,420	1,980	1,860	1,200	1,780	7,320	17,700	1,760	1,620	728
24	772	1,290	1,350	1,300	1,380	1,160	1,640	4,360	12,000	1,380	1,230	718
25	777	1,110	1,010	1,110	1,070	1,240	1,570	3,570	5,180	1,290	1,090	732
26	758	1,180	1,370	1,730	990	1,300	1,440	3,070	3,730	1,260	1,060	733
27	737	1,040	1,530	8,920	1,110	1,160	1,400	2,810	3,300	1,250	948	733
28	711	972	1,280	4,970	1,440	1,050	1,460	2,670	2,960	1,220	1,150	728
29	696	905	1,100	2,680	-----	1,050	3,340	3,000	2,720	1,170	1,090	760
30	692	888	1,000	2,220	-----	1,640	2,490	4,920	2,600	1,150	1,040	728
31	780	-----	1,100	5,720	-----	1,970	-----	2,750	-----	1,110	997	-----
TOTAL	28,791	24,692	31,777	62,830	43,354	62,660	66,600	132,290	141,440	49,770	38,115	23,940
MEAN	929	823	1,025	2,027	1,548	2,021	2,220	4,267	4,715	1,605	1,230	798
MAX	1,630	1,290	1,780	8,920	3,620	4,650	4,470	15,200	17,700	3,080	1,820	915
MIN	692	663	670	890	930	1,050	1,360	1,330	1,900	1,110	948	695
CFSM	.60	.53	.66	1.31	1.00	1.30	1.43	2.75	3.04	1.03	.79	.51
IN.	.69	.59	.76	1.51	1.04	1.50	1.60	3.17	3.39	1.19	.91	.57
AC-FT	57,110	48,980	63,030	124,600	85,990	124,300	132,100	262,400	280,500	98,720	75,600	47,480
CAL YR 1973	TOTAL 748,021	MEAN 2,049	MAX 15,200	MIN 640	CFSM 1.32	IN 17.92	AC-FT 1,484,000					
WTR YR 1974	TOTAL 706,259	MEAN 1,935	MAX 17,700	MIN 663	CFSM 1.25	IN 16.92	AC-FT 1,401,000					

PEAK DISCHARGE (BASE, 7,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-27	1000	23.07	10,700	5-22	1930	25.58	15,300
3-17	0415	27.21	19,300	6-09	2030	26.27	16,600
5-20	1500	21.95	9,420	6-23	0715	27.51	19,600

05420500 MISSISSIPPI RIVER AT CLINTON, IOWA

LOCATION.--Lat 41°46'53", long 90°15'04", in NW1/4 sec.34, T.81 N., R.6 E., Clinton County, on right bank at foot of Seventh Avenue in Camanche, 5.0 mi (8.0 km) upstream from Wapsipinicon River, 6.4 mi (10.3 km) downstream from Clinton, 10.6 mi (17.1 km) downstream from dam 13, and at mile 511.8 (823.5 km) upstream from Ohio River. Prior to June 6, 1969, at site 400 ft (122 m) downstream.

DRAINAGE AREA.--85,600 mi^2 (221,700 km^2), approximately, at Fulton-Lyons Bridge where discharge measurements are made.

PERIOD OF RECORD.--June to August 1873 (fragmentary), October 1873 to current year (October 1932 to September 1939, published as "at Le Claire").

GAGE.--Water-stage recorder. Datum of gage is 562.68 ft (171.50 m) above mean sea level. Oct. 1, 1955, to June 5, 1969, water-stage recorder at site 400 ft (121 m) downstream at same datum. Auxiliary water-stage recorder at dan 13 since Oct. 1, 1958. See WSP 1728 for history of changes prior to Oct. 1, 1955.

AVERAGE DISCHARGE.--101 years, 47,340 ft^3/s (1,340 m^3/s), 7.51 in/yr (191 mm/yr), 34,300,000 acre-ft/yr (42,300 ha^3/yr).

EXTREMES.--Current year: Maximum daily discharge, 158,000 ft^3/s (4,470 m^3/s) June 24; maximum gage height, 17.68 ft (5.389 m) June 24; minimum daily discharge, 18,200 ft^3/s (515 m^3/s) July 22; minimum gage height, 8.75 ft (2.667 m) July 22.

Period of record: Maximum daily discharge, 307,000 ft^3/s (8,690 m^3/s) Apr. 28, 1965; maximum gage height, 24.65 ft (7.513 m) Apr. 28, 1965; minimum daily discharge, 6,500 ft^3/s (184 m^3/s) Dec. 25-27, 1933.

REMARKS.--Records good except those for winter period, which are poor. Minor flow regulation caused by navigation dams. Records of water temperature for the current year are published in Part 2, Water Resources Data for Illinois.

COOPERATION.--Eight discharge measurements furnished by Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48,700	55,100	54,900	33,500	40,000	36,000	56,600	106,000	74,200	84,400	31,100	29,500
2	48,800	52,300	54,300	33,000	42,000	40,000	56,500	102,000	70,700	71,500	30,200	28,900
3	48,800	50,900	54,300	30,000	38,000	48,800	57,400	97,100	66,900	61,600	29,400	29,700
4	49,100	51,000	55,600	27,000	35,000	60,200	60,900	87,800	62,900	59,800	28,100	28,800
5	49,100	51,300	59,100	26,500	31,300	65,100	63,300	86,600	62,300	55,500	29,400	24,600
6	48,800	47,700	62,000	26,500	29,000	65,400	66,200	82,600	62,200	44,200	31,600	22,700
7	48,300	45,800	59,600	26,500	26,000	68,900	72,000	78,300	65,900	41,600	30,900	22,600
8	46,000	45,800	51,800	26,600	25,000	72,600	75,000	77,500	69,800	43,200	31,300	21,700
9	44,900	46,200	48,100	26,000	24,500	73,400	78,900	73,400	73,100	43,000	34,700	22,100
10	44,700	45,600	43,900	26,000	24,000	73,200	83,700	70,100	88,800	36,100	37,200	25,700
11	42,800	42,600	37,400	25,800	23,000	74,200	84,900	69,100	94,400	31,700	39,100	28,400
12	41,400	39,700	31,000	25,500	23,000	77,000	87,000	70,600	92,700	32,700	41,200	30,700
13	40,200	39,000	29,000	25,000	23,500	78,100	89,100	70,500	91,700	37,400	41,300	35,100
14	39,400	38,500	26,000	25,000	24,000	77,900	90,800	69,800	91,100	39,300	41,100	33,400
15	49,000	38,800	24,000	25,000	24,000	76,300	93,900	74,600	93,500	41,000	40,400	29,700
16	53,600	39,600	23,600	25,000	25,000	71,800	97,400	84,100	94,300	40,100	35,000	27,200
17	53,600	39,700	24,000	25,000	26,000	67,600	101,000	114,000	91,800	36,200	32,200	26,400
18	53,900	39,100	25,000	24,500	26,500	61,700	101,000	108,000	99,200	26,300	32,300	27,200
19	54,700	39,400	25,500	24,500	28,000	61,800	99,700	96,200	103,000	23,100	32,900	28,200
20	56,400	40,600	26,000	28,000	29,000	61,500	99,400	91,400	107,000	20,800	30,500	27,200
21	59,400	43,200	27,500	35,000	31,000	61,400	102,000	97,000	126,000	19,800	29,100	25,600
22	60,900	46,300	29,000	42,000	33,000	60,100	110,000	106,000	146,000	18,200	29,100	22,500
23	62,900	47,300	30,500	41,000	35,000	57,400	115,000	112,000	156,000	20,200	31,900	21,300
24	64,500	48,900	31,000	37,500	34,000	50,200	114,000	106,000	158,000	26,200	37,600	21,200
25	63,600	51,200	31,000	33,000	33,500	43,500	111,000	96,300	153,000	31,600	38,200	19,900
26	63,900	52,500	33,000	30,000	34,000	42,500	110,000	91,800	143,000	31,100	35,900	22,000
27	63,700	52,800	35,000	41,000	34,000	44,100	108,000	89,100	132,000	36,700	29,100	23,700
28	62,700	53,400	36,000	49,000	35,000	43,800	107,000	88,400	123,000	39,300	27,400	25,100
29	62,000	54,000	36,000	45,000	-----	45,400	108,000	86,500	109,000	38,300	26,300	25,200
30	59,800	54,800	35,000	40,000	-----	51,500	108,000	81,300	98,200	35,100	30,800	26,100
31	57,400	-----	34,000	37,000	-----	56,100	-----	77,900	-----	31,400	31,700	-----
TOTAL	1,643.0M	1,393.1M	1,173.1M	965,400	836,300	1,867.5M	2,707.7M	2,742.0M	2,999.7M	1,197.4M	1,027.0M	782,400
MEAN	53,000	46,440	37,840	31,140	29,870	60,240	90,260	88,450	99,990	38,630	33,130	26,080
MAX	64,500	55,100	62,000	49,000	42,000	78,100	115,000	114,000	158,000	84,400	41,300	35,100
MIN	39,400	38,500	23,600	24,500	23,000	36,000	56,500	69,100	62,200	18,200	26,300	19,900
CFSM	.62	.54	.44	.36	.35	.70	1.05	1.03	1.17	.45	.39	.30
IN.	.71	.61	.51	.42	.36	.81	1.18	1.19	1.30	.52	.45	.34
AC-FT	3,259M	2,763M	2,327M	1,915M	1,659M	3,704M	5,371M	5,439M	5,950M	2,375M	2,037M	1,552M
CAL YR 1973	TOTAL 24,844,800	MEAN 68,070	MAX 207,000	MIN 23,600	CFSM .80	IN 10.80	AC-FT 49,280,000					
WTR YR 1974	TOTAL 19,334,600	MEAN 52,970	MAX 158,000	MIN 18,200	CFSM .62	IN 8.40	AC-FT 38,350,000					

M Expressed in thousands.

WAPSIPINICON RIVER BASIN

05420560 WAPSIPINICON RIVER NEAR ELMA, IOWA

LOCATION.--Lat 43°14'34", long 92°31'48", in NW1/4 NW1/4 sec.8, T.97 N., R.14 W., Howard County, on right bank 10 ft (3 m) downstream from bridge on county highway B17, 0.2 mi (0.3 km) downstream from small left-bank tributary, 4.8 mi (7.7 km) west of Elma, and at mile 217.9 (350.6 km).

DRAINAGE AREA.--95.2 mi² (247 km²).

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,130.05 ft (344.53 m) above mean sea level (revised).

AVERAGE DISCHARGE.--16 years, 62.7 ft³/s (1.78 m³/s), 8.94 in/yr (227 mm/yr), 45,430 acre-ft/yr (56.0 hm³/yr).

EXTREMES.--Maximum discharge, 10,100 ft³/s (286 m³/s) June 4, gage height, 14.94 ft (4.554 m) from high-water mark in well; minimum daily, 9.9 ft³/s (0.28 m³/s) Sept. 22.

Period of record: Maximum discharge, 10,100 ft³/s (286 m³/s) June 4, 1974, gage height, 14.94 ft (4.554 m), from high-water mark in well; minimum daily, 1.9 ft³/s (54 dm³/s) Feb. 4-8, 1959.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	35	59	18	17	22	129	41	73	44	17	13
2	140	34	50	17	16	37	134	39	64	41	17	13
3	107	31	39	17	16	208	270	43	66	39	19	12
4	303	29	28	17	15	550	1,100	40	4,830	36	18	12
5	538	28	25	17	15	530	686	36	792	32	17	12
6	178	27	24	18	15	450	188	34	161	30	15	12
7	136	28	23	18	15	330	139	35	163	28	15	12
8	118	28	21	18	15	244	119	58	153	27	14	12
9	102	32	19	17	16	355	101	56	166	25	14	12
10	95	45	18	17	16	525	96	56	300	31	15	12
11	218	29	17	17	16	210	92	324	474	48	20	12
12	357	27	17	17	17	204	134	307	201	36	18	13
13	216	28	17	16	17	210	192	269	151	31	15	13
14	153	27	17	16	18	186	212	703	131	28	14	12
15	117	40	17	17	18	163	252	501	113	25	13	12
16	94	73	17	18	18	138	156	179	101	23	13	11
17	80	55	17	19	18	119	103	150	94	21	13	11
18	71	47	17	20	20	101	81	142	89	21	13	11
19	64	42	18	21	23	79	76	114	209	21	12	11
20	59	65	17	21	26	64	74	204	278	32	12	11
21	55	480	17	21	30	54	122	196	956	27	13	10
22	52	459	17	21	33	45	156	537	660	31	28	9.9
23	49	161	18	20	32	42	115	530	146	24	22	11
24	47	120	18	20	28	45	79	146	101	26	16	12
25	43	110	19	19	26	48	64	88	83	36	14	11
26	40	98	21	19	25	57	58	64	73	40	14	12
27	37	99	24	19	24	49	57	60	64	28	14	11
28	36	102	24	18	23	48	54	96	58	23	13	11
29	36	84	24	17	-----	48	51	120	53	21	13	13
30	36	71	21	17	-----	74	45	96	49	19	12	13
31	36	-----	19	17	-----	124	-----	82	-----	18	13	-----
TOTAL	3,894	2,534	699	564	568	5,359	5,135	5,346	10,852	912	476	352.9
MEAN	126	84.5	22.5	18.2	20.3	173	171	172	362	29.4	15.4	11.8
MAX	538	480	59	21	33	550	1,100	703	4,830	48	28	13
MIN	36	27	17	16	15	22	45	34	49	18	12	9.9
CFSM	1.32	.89	.24	.19	.21	1.82	1.80	1.81	3.80	.31	.16	.12
IN.	1.52	.99	.27	.22	.22	2.09	2.01	2.09	4.24	.36	.19	.14
AC-FT	7,720	5,030	1,390	1,120	1,130	10,630	10,190	10,600	21,520	1,810	944	700

CAL YR 1973 TOTAL 42,161.0 MEAN 116 MAX 2,330 MIN 11 CFSM 1.22 IN 16.47 AC-FT 83,630
WTR YR 1974 TOTAL 36,691.9 MEAN 101 MAX 4,830 MIN 9.9 CFSM 1.06 IN 14.34 AC-FT 72,780

PEAK DISCHARGE (BASE, 600 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-5	1315	10.67	654	5-14	2230	11.27	841
11-22	0030	10.47	618	5-23	0515	11.76	1,030
3-4	--	--	* 680	6-4	--	14.94	10,100
3-10	0145	10.44	606	6-11	--	--	* 800
4-4	2000	12.66	1,530	6-21	1700	12.20	1,080

* About

05421000 WAPSIPINICON RIVER AT INDEPENDENCE, IOWA

LOCATION.--Lat 42°27'49", long 91°53'42", in SE1/4 sec.4, T.88 N., R.9 W., Buchanan County, on right bank at Sixth Street in Independence, 1,800 ft (549 m) downstream from dam at abandoned hydroelectric plant, 4.9 mi (7.9 km) downstream from Otter Creek, 9.7 mi (15.6 km) upstream from Pine Creek, and at mile 142.5 (229.3 km).

DRAINAGE AREA.--1,048 mi² (2,714 km²).

PERIOD OF RECORD.--July 1933 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 882.85 ft (269.09 m) above mean sea level. Prior to May 24, 1941, nonrecording gage in tailrace of powerplant 1,800 ft (549 m) upstream at datum 80.00 ft (24.38 m) lower.

AVERAGE DISCHARGE.--41 years, 574 ft³/s (16.3 m³/s), 7.44 in/yr (189 mm/yr), 415,900 acre-ft/yr (513 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,020 ft³/s (170 m³/s) June 10, gage height, 9.86 ft (3.005 m); minimum daily, 67 ft³/s (1.90 m³/s) Sept. 27.
 Period of record: Maximum discharge, 26,800 ft³/s (759 m³/s) July 18, 1968, gage height, 21.11 ft (6.434 m); minimum daily, about 7.0 ft³/s (198 dm³/s) many times in period 1933-34.
 Maximum stage since at least 1901, that of July 18, 1968.

REMARKS.--Records excellent.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1508: 1938-39, 1940 (M), 1947.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	674	257	611	280	634	471	1,100	592	1,100	650	204	115
2	652	257	584	260	497	705	1,110	557	972	555	199	115
3	671	248	553	240	410	1,690	1,260	540	820	494	194	108
4	716	241	573	230	328	2,010	2,120	493	700	573	186	104
5	732	234	835	210	278	2,270	2,470	467	630	780	178	99
6	727	228	861	200	247	2,070	2,680	433	582	810	172	100
7	640	230	580	190	227	2,000	2,600	443	670	630	163	106
8	617	225	520	190	211	2,640	2,560	531	880	502	156	102
9	654	220	500	180	197	2,750	2,430	601	2,400	318	150	99
10	699	200	450	180	191	2,670	2,140	673	5,550	339	251	96
11	699	199	411	170	183	2,520	1,850	783	4,620	636	340	96
12	904	199	480	180	196	2,380	1,560	827	3,920	713	233	104
13	948	200	504	190	312	2,270	1,400	922	3,860	577	201	97
14	825	218	418	170	373	2,200	1,660	1,360	5,480	491	180	90
15	754	265	370	150	332	2,080	2,700	1,580	4,790	418	173	90
16	731	259	330	150	305	1,960	2,640	1,860	3,400	362	171	88
17	714	251	300	160	310	1,740	2,450	2,070	2,650	321	170	87
18	634	255	285	160	367	1,490	2,120	2,390	1,760	293	160	81
19	531	238	270	160	422	1,270	1,820	2,790	1,270	270	148	82
20	462	283	240	250	442	1,090	1,560	2,750	1,360	247	138	75
21	418	461	240	770	520	952	1,330	2,540	1,580	237	136	77
22	392	640	230	586	570	884	1,200	2,260	2,780	255	134	70
23	371	733	230	406	506	762	1,110	1,900	2,450	221	122	68
24	346	768	240	326	492	581	1,040	1,650	2,090	228	120	71
25	338	827	280	304	488	629	999	1,480	2,000	238	123	69
26	313	887	360	319	442	689	925	1,450	2,000	254	126	68
27	304	941	400	404	424	632	835	1,430	1,860	229	145	67
28	290	862	400	441	526	622	773	1,330	1,460	226	136	85
29	278	755	370	385	-----	642	729	1,180	1,000	213	138	97
30	271	687	350	387	-----	808	659	1,170	790	204	127	90
31	270	-----	310	692	-----	1,010	-----	1,150	-----	192	122	-----
TOTAL	17,575	12,268	13,085	8,920	10,430	46,487	49,830	40,202	65,424	12,476	5,196	2,696
MEAN	567	409	422	288	373	1,500	1,661	1,297	2,181	402	168	89.9
MAX	948	941	861	770	634	2,750	2,700	2,790	5,550	810	340	115
MIN	270	199	230	150	183	471	659	433	582	192	120	67
CFSM	.54	.39	.40	.27	.36	1.43	1.58	1.24	2.08	.38	.16	.09
IN.	.62	.44	.46	.32	.37	1.65	1.77	1.43	2.32	.44	.18	.10
AC-FT	34,860	24,330	25,950	17,690	20,690	92,210	98,840	79,740	129,800	24,750	10,310	5,350

CAL YR 1973 TOTAL 436,026 MEAN 1,195 MAX 9,530 MIN 115 CFSM 1.14 IN 15.48 AC-FT 864,900
 WTR YR 1974 TOTAL 284,589 MEAN 780 MAX 5,550 MIN 67 CFSM .74 IN 10.10 AC-FT 564,500

PEAK DISCHARGE (BASE, 4,000 FT³/S).--June 10 (1600) 6,020 ft³/s (9.86 ft); June 14 (1600) 5,760 ft³/s (9.66 ft).

WAPSIPINICON RIVER BASIN

05422000 WAPSIPINICON RIVER NEAR DE WITT, IOWA

LOCATION.--Lat 41°46'01", long 90°32'05", in SW1/4 NE1/4 sec.6, T.80 N., R.4 E., Clinton County, on left bank 5 ft (2 m) upstream from bridge on U.S. Highway 61, 0.9 mi (1.4 km) downstream from Silver Creek, 4.0 mi (6.4 km) south of water tower in De Witt, 6.2 mi (10.0 km) upstream from Brophy Creek, and 18.2 mi (29.3 km) upstream from mouth.

DRAINAGE AREA.--2,330 mi² (6,034 km²).

PERIOD OF RECORD.--June 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 598.81 ft (182.52 m) above mean sea level.

AVERAGE DISCHARGE.--40 years, 1,477 ft³/s (41.8 m³/s), 8.61 in/yr (219 mm/yr), 1,070,000 acre-ft/yr (1,320 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 29,900 ft³/s (847 m³/s) May 17, gage height, 13.07 ft (3.984 m); minimum daily, 375 ft³/s (10.6 m³/s) Sept. 26.

Period of record: Maximum discharge, 29,900 ft³/s (847 m³/s) May 17, 1974, gage height, 13.07 ft (3.984 m); minimum daily, 70 ft³/s (1.98 m³/s) Jan. 17-24, 1940.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS)--WSP 1308: 1937 (M). WSP 1438: Drainage area. WSP 1708: 1951.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,210	862	1,440	1,350	4,200	3,240	2,670	3,420	3,880	3,520	881	605
2	1,890	848	1,420	1,400	3,000	2,720	2,610	2,820	3,290	2,950	945	598
3	1,800	812	1,380	1,430	2,500	2,890	2,610	2,530	3,250	2,590	955	589
4	1,920	789	1,420	1,460	4,000	3,360	2,710	2,270	2,930	2,350	914	573
5	1,850	781	2,240	1,500	4,500	5,000	2,960	2,110	2,760	2,140	877	555
6	1,730	769	2,280	1,460	4,000	4,870	3,300	1,980	2,860	1,980	837	534
7	1,620	759	2,020	1,430	3,500	4,800	3,780	1,920	3,280	1,920	805	522
8	1,580	743	1,800	1,400	3,200	4,530	3,940	2,810	4,360	1,930	777	509
9	1,540	724	1,500	1,350	3,000	4,530	3,920	2,780	5,350	1,920	752	500
10	1,480	708	1,300	1,300	2,900	4,320	3,970	2,500	5,790	1,870	844	488
11	1,480	703	1,200	1,250	2,800	4,240	3,970	2,710	6,080	3,760	883	480
12	1,510	704	1,100	1,210	2,900	4,610	3,910	2,990	6,300	5,510	970	484
13	1,490	700	1,300	1,180	3,300	5,100	3,680	2,940	5,630	4,140	1,190	505
14	1,490	696	1,800	1,140	3,000	4,770	3,700	4,810	5,600	2,460	1,380	514
15	1,500	692	3,000	1,100	2,800	4,410	4,400	5,550	5,850	2,180	1,250	480
16	1,550	698	2,900	1,060	2,700	4,140	4,530	5,950	6,080	1,930	975	465
17	1,510	683	2,600	1,030	2,600	3,870	4,330	23,000	6,120	1,740	925	454
18	1,430	677	2,400	1,000	2,800	3,660	4,640	21,400	5,840	1,570	1,590	439
19	1,360	691	2,200	1,200	2,750	3,470	4,800	20,000	6,180	1,440	1,100	429
20	1,300	706	2,000	2,400	2,320	3,210	4,550	12,900	6,500	1,340	930	422
21	1,250	827	1,900	4,000	2,080	2,940	4,110	9,460	7,020	1,240	870	414
22	1,180	949	1,800	4,300	2,890	2,700	3,630	8,150	7,920	1,340	880	409
23	1,130	914	1,800	2,600	2,590	2,460	3,220	7,590	9,860	1,480	1,210	404
24	1,070	1,010	1,900	2,300	2,140	2,230	2,910	7,020	8,450	1,240	1,110	395
25	1,020	1,260	2,200	2,100	1,880	2,100	2,680	6,770	7,770	1,120	896	381
26	994	1,370	2,500	2,300	1,700	1,980	2,530	6,090	7,940	1,050	790	375
27	953	1,390	2,300	4,500	1,840	1,930	2,420	4,860	7,830	1,010	725	376
28	918	1,410	2,000	5,200	2,930	1,900	2,510	4,120	7,710	975	685	378
29	906	1,460	1,700	4,300	-----	1,920	4,750	4,490	5,890	942	671	378
30	888	1,470	1,400	3,800	-----	2,590	4,880	5,430	4,260	910	639	376
31	873	-----	1,300	4,800	-----	2,740	-----	5,510	-----	869	615	-----
TOTAL	43,422	26,805	58,100	66,850	80,820	107,230	108,620	196,880	172,580	61,416	28,871	14,031
MEAN	1,401	894	1,874	2,156	2,886	3,459	3,621	6,351	5,753	1,981	931	468
MAX	2,210	1,470	3,000	5,200	4,500	5,100	4,880	23,000	9,860	5,510	1,590	605
MIN	873	677	1,100	1,000	1,700	1,900	2,420	1,920	2,760	869	615	375
CFSM	.60	.38	.80	.93	1.24	1.48	1.55	2.73	2.47	.85	.40	.20
IN.	.69	.43	.93	1.07	1.29	1.71	1.73	3.14	2.76	.98	.46	.22
AC-FT	86,130	53,170	115,200	132,600	160,300	212,700	215,400	390,500	342,300	121,800	57,270	27,830

CAL YR 1973 TOTAL 1,127,614 MEAN 3,089 MAX 25,400 MIN 478 CFSM 1.33 IN 18.00 AC-FT 2,237,000
 WTR YR 1974 TOTAL 965,625 MEAN 2,646 MAX 23,000 MIN 375 CFSM 1.14 IN 15.42 AC-FT 1,915,000

PEAK DISCHARGE (BASE, 6,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-17	1545	13.07	29,900	6-17	0015	10.52	6,150
6-12	1030	10.61	6,380	6-23	1530	11.62	10,200

05449000 EAST BRANCH IOWA RIVER NEAR KLEMME, IOWA

LOCATION.--Lat 43°00'31", long 93°37'42", in NE1/4 NW1/4 sec.36, T.95 N., R.24 W., Hancock County, on left bank 15 ft (5 m) downstream from bridge on county highway 855, 1.2 mi (1.9 km) west of Chicago, Rock Island and Pacific Railroad crossing in Klemme, 1.5 mi (2.4 km) upstream from Drainage ditch 9, 18.2 mi (29.3 km) upstream from confluence with West Branch Iowa River, and at mile 341.0 (548.7 km).

DRAINAGE AREA.--133 mi² (344 km²).

PERIOD OF RECORD.--April 1948 to current year. Prior to October 1958, published as East Fork Iowa River near Klemme.

GAGE.--Water-stage recorder. Datum of gage is 1,179.33 ft (359.46 m) above mean sea level. Apr. 1, 1948, to Sept. 30, 1955, nonrecording gage at site 0.6 mi (1.0 km) upstream at datum 0.80 ft (0.24 m) higher. Oct. 1, 1955, to Sept. 30, 1969, at present site and datum 0.31 ft (0.09 m) lower.

AVERAGE DISCHARGE.--26 years, 57.5 ft³/s (1.63 m³/s), 5.87 in/yr (149 mm/yr), 41,660 acre-ft/yr (51.4 hm³/yr); median of yearly mean discharges, 44 ft³/s (1.25 m³/s), 4.5 in/yr (114 mm/yr), 31,900 acre-ft/yr (39.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 490 ft³/s (13.9 m³/s) May 11, gage height, 6.67 ft (2.033 m); maximum gage height, 7.20 ft (2.195 m) Mar. 3-4, backwater from ice; minimum daily discharge, 5.4 ft³/s (0.15 m³/s) Feb. 6-7.

Period of record: Maximum discharge, 5,960 ft³/s (169 m³/s) June 19, 1954, gage height, 11.2 ft (3.41 m), from floodmark, site and datum then in use; maximum gage height, 10.67 ft (3.252 m) Sept. 6, 1965, backwater from ice; minimum daily discharge, 0.2 ft³/s (5.7 dm³/s) Feb. 22-26, 1959.

Flood in June 1944 reached a stage of about 10 ft (3 m), from information by local residents, former site and datum.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS.--WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	13	33	11	6.0	96	64	82	84	54	12	9.4
2	20	13	35	11	5.9	140	65	79	77	50	12	11
3	18	12	33	11	5.8	222	100	71	74	46	13	9.0
4	20	12	30	10	5.6	220	264	66	74	41	14	8.8
5	19	11	28	10	5.5	200	235	65	70	37	12	8.8
6	15	11	24	10	5.4	178	190	61	117	35	11	9.8
7	16	12	20	10	5.4	160	161	70	171	33	11	11
8	17	12	11	10	5.5	145	131	98	121	32	18	9.4
9	15	13	17	10	5.5	159	122	103	289	27	18	9.7
10	15	14	16	10	5.5	194	112	107	404	29	34	9.2
11	24	14	15	10	5.6	162	114	402	291	30	27	9.6
12	38	14	15	10	5.7	232	132	427	198	28	19	11
13	34	16	14	10	5.8	201	146	306	159	26	15	9.8
14	25	16	14	10	6.1	161	145	243	133	25	14	8.7
15	22	21	14	10	6.4	134	146	194	113	22	13	8.8
16	20	19	13	10	7.3	111	126	176	101	20	13	7.8
17	17	18	13	10	8.5	109	113	161	94	19	14	8.2
18	18	17	13	10	13	97	107	195	91	19	13	7.6
19	21	16	13	10	15	81	94	254	82	18	12	8.1
20	20	32	13	9.6	17	74	94	219	75	17	10	7.6
21	18	84	13	9.3	18	66	132	184	74	17	14	7.7
22	17	69	13	9.0	14	68	136	165	145	16	13	7.4
23	15	53	13	8.9	12	72	117	143	238	15	12	7.2
24	14	48	12	8.8	11	78	103	124	163	14	11	8.0
25	15	45	12	8.6	11	77	98	112	119	15	10	8.4
26	14	44	12	8.0	13	66	90	106	100	14	10	7.8
27	14	42	12	7.6	27	54	124	103	85	14	13	8.1
28	15	39	12	7.3	57	55	112	100	75	14	11	12
29	14	37	11	6.9	-----	56	98	91	68	12	9.9	8.9
30	14	36	11	6.5	-----	59	89	87	60	11	9.3	7.2
31	14	-----	11	6.2	-----	61	-----	101	-----	12	9.8	-----
TOTAL	580	803	523	289.7	309.5	3,788	3,760	4,695	3,945	762	428.0	266.0
MEAN	18.7	26.8	16.9	9.35	11.1	122	125	151	132	24.6	13.8	8.87
MAX	38	84	35	11	57	232	264	427	404	54	34	12
MIN	14	11	11	6.2	5.4	54	64	61	60	11	9.3	7.2
CFSM	.14	.20	.13	.07	.08	.92	.94	1.14	.99	.19	.10	.07
IN.	.16	.22	.15	.08	.09	1.06	1.05	1.31	1.10	.21	.12	.07
AC-FT	1,150	1,590	1,040	575	614	7,510	7,460	9,310	7,820	1,510	849	528
CAL YR 1973	TOTAL 44,818.7	MEAN 123	MAX 938	MIN 6.5	CFSM .92	IN 12.54	AC-FT 88,900					
WTR YR 1974	TOTAL 20,149.2	MEAN 55.2	MAX 427	MIN 5.4	CFSM .42	IN 5.64	AC-FT 39,970					

PEAK DISCHARGE (BASE, 700 FT³/S).--No peak above base.

IOWA RIVER BASIN

0544950C IOWA RIVER NEAR ROWAN, IOWA

LOCATION.--Lat 42°45'36", long 93°37'23", in NW1/4 NE1/4 sec.25, T.92 N., R.24 W., Wright County, on left bank 10 ft (3 m) downstream from bridge on county highway C38, 0.9 mi (1.4 km) downstream from Drainage ditch 123, 3.8 mi (6.1 km) northwest of Rowan, 10.7 mi (17.2 km) downstream from confluence of East and West Branches, and at mile 316.4 (509.1 km).

DRAINAGE AREA.--429 mi² (1,111 km²).

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,143.35 ft (348.49 m) above mean sea level. Prior to Oct. 14, 1948, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--34 years, 193 ft³/s (5.47 m³/s), 6.11 in/yr (155 mm/yr), 139,800 acre-ft/yr (172 hm³/yr); median of yearly mean discharges, 190 ft³/s (5.38 m³/s), 6.0 in/yr (152 mm/yr), 138,000 acre-ft/yr (170 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,400 ft³/s (39.6 m³/s) June 10, gage height, 9.04 ft (2.755 m); minimum daily, 28 ft³/s (0.793 m³/s) Sept. 20-25, 27, 30.
Period of record: Maximum discharge, 8,460 ft³/s (240 m³/s) June 21, 1954, gage height, 14.88 ft (4.535 m); minimum daily, 2.9 ft³/s (82 dm³/s) Jan. 21-23, 1959.

REMARKS.--Records good except those for winter period, which are poor. Records of periodic chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1308: 1942-43 (M). WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242	94	166	64	46	160	228	280	303	239	57	36
2	188	103	150	64	46	210	230	266	284	218	55	38
3	151	112	130	62	45	250	257	278	267	200	54	36
4	127	96	110	61	45	310	469	250	472	185	57	35
5	151	78	90	61	44	370	709	232	579	170	55	35
6	153	72	78	61	44	400	699	225	489	159	51	35
7	136	66	74	61	43	435	603	224	715	148	49	35
8	132	61	70	61	43	470	488	264	590	139	53	36
9	129	57	67	61	43	543	418	319	801	130	56	35
10	120	58	66	61	43	576	384	332	1,350	131	73	32
11	206	70	66	61	43	609	361	600	1,330	137	73	33
12	357	77	66	62	43	620	386	1,050	1,080	129	70	35
13	344	73	66	61	46	728	477	1,160	759	121	58	35
14	264	72	66	60	50	670	530	979	556	113	53	35
15	205	76	64	61	54	568	517	771	452	104	50	33
16	173	85	62	63	60	484	491	627	391	97	48	31
17	153	110	62	63	68	389	430	566	353	92	49	31
18	138	106	61	63	88	383	387	605	331	89	52	30
19	126	100	61	63	150	346	350	743	320	85	49	29
20	120	111	61	63	190	301	322	762	290	81	45	28
21	115	239	61	63	212	278	417	687	268	78	47	28
22	107	429	61	64	218	240	518	624	535	74	48	28
23	103	383	62	64	200	210	479	587	950	71	45	28
24	99	298	62	62	176	230	408	505	1,080	67	42	28
25	93	255	66	58	150	268	366	433	829	66	40	28
26	92	232	66	54	134	254	342	392	559	66	39	29
27	91	217	66	48	126	232	323	367	424	63	44	28
28	99	206	67	47	130	213	363	354	354	62	42	32
29	99	191	66	47	-----	219	335	344	307	59	39	30
30	96	178	66	47	-----	227	299	317	270	56	38	28
31	94	-----	64	46	-----	226	-----	298	-----	54	37	-----
TOTAL	4,703	4,305	2,343	1,837	2,580	11,419	12,586	15,441	17,288	3,483	1,568	960
MEAN	152	144	75.6	59.3	92.1	368	420	498	576	112	50.6	32.0
MAX	357	429	166	64	218	728	709	1,160	1,350	239	73	38
MIN	91	57	61	46	43	160	228	224	267	54	37	28
CFSM	.35	.34	.18	.14	.21	.86	.98	1.16	1.34	.26	.12	.07
IN.	.41	.37	.20	.16	.22	.99	1.09	1.34	1.50	.30	.14	.08
AC-FT	9,330	8,540	4,650	3,640	5,120	22,650	24,960	30,630	34,290	6,910	3,110	1,900

CAL YR 1973 TOTAL 150,468 MEAN 412 MAX 2,600 MIN 37 CFSM .96 IN 13.05 AC-FT 298,500
WTR YR 1974 TOTAL 78,513 MEAN 215 MAX 1,350 MIN 28 CFSM .50 IN 6.81 AC-FT 155,700

PEAK DISCHARGE (BASE, 1,200 FT³/S).--June 10 (1730) 1,400 ft³/s (9.04 ft).

05451500 IOWA RIVER AT MARSHALLTOWN, IOWA

LOCATION.--Lat 42°03'57", long 92°54'27", in SE1/4 SE1/4 sec.23, T.84N., R.18 W., Marshall County, on right bank 10 ft (3 m) downstream from State Highway 14 bridge, 1,500 ft (457 m) upstream from Burnett Creek, 2.2 mi (3.5 km) upstream from Linn Creek, and at mile 222.8 (358.5 km).

DRAINAGE AREA.--1,564 mi² (4,050 km²), including that of Burnett Creek.

PERIOD OF RECORD.--October 1902 to September 1903, October 1914 to September 1927, October 1932 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 853.10 ft (260.02 m) above mean sea level. See WSP 1728 for history of changes prior to Sept. 21, 1934.

AVERAGE DISCHARGE.--56 years (1902-3, 1914-27, 1932-74), 773 ft³/s (21.9 m³/s), 6.71 in/yr (170 mm/yr), 560,000 acre-ft/yr (690 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 15,600 ft³/s (442 m³/s) June 23, gage height, 19.38 ft (5.907 m); minimum daily, 211 ft³/s (5.98 m³/s) Sept. 27.

Period of record: Maximum discharge, 42,000 ft³/s (1,190 m³/s) June 4, 1918, gage height, 17.74 ft (5.407 m), from floodmark, from rating curve extended above 19,000 ft³/s (538 m³/s) on basis of velocity-area study; maximum gage height, 19.37 ft (5.904 m) July 9, 1969; minimum daily discharge, 9 ft³/s (255 dm³/s) Jan. 9, 10, 1949.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS)--WSP 1438: Drainage area. WSP 1558: 1915-18, 1919 (M), 1920, 1921-23 (M), 1924-27, 1933, 1934 (M), 1936, 1938, 1947 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,750	906	1,060	460	1,500	4,500	770	1,340	1,800	1,880	809	397
2	2,300	884	1,020	490	1,000	4,800	750	1,260	1,680	1,670	1,020	394
3	1,860	843	1,000	480	900	4,600	780	1,210	1,670	1,510	855	381
4	1,550	810	1,090	470	750	4,500	1,330	1,120	1,560	2,060	754	361
5	1,310	1,190	1,340	460	700	4,300	1,930	1,100	1,450	2,010	656	346
6	1,160	780	1,140	450	740	3,560	1,880	1,080	1,560	1,620	582	339
7	1,100	750	881	440	720	3,300	1,770	1,060	1,770	1,390	539	340
8	1,070	570	820	430	700	3,100	1,660	1,240	1,690	1,250	505	336
9	1,040	538	780	420	680	2,910	1,490	1,220	7,010	1,150	1,040	322
10	1,080	423	900	420	670	2,570	1,290	1,230	12,300	1,070	3,780	310
11	2,730	586	1,200	410	660	2,210	1,140	1,340	7,460	1,270	2,980	306
12	4,760	605	1,000	410	800	2,170	1,150	1,430	4,780	1,160	4,630	334
13	4,370	522	800	400	2,100	2,320	1,210	1,810	4,090	1,100	3,530	361
14	3,610	346	720	400	1,900	2,250	1,270	2,920	3,680	1,050	2,080	328
15	2,980	610	900	400	1,300	2,120	1,310	2,970	3,380	945	1,500	314
16	2,400	640	850	400	1,100	2,020	1,310	4,180	2,860	850	1,420	303
17	2,000	570	800	460	1,200	1,830	1,650	4,100	2,440	770	1,510	292
18	1,750	546	750	460	2,100	1,650	1,570	4,290	2,140	745	1,260	280
19	1,570	610	650	470	2,400	1,460	1,460	5,050	2,720	701	1,120	269
20	1,430	695	500	600	2,300	1,300	1,330	3,960	2,390	864	981	257
21	1,310	1,220	550	900	2,200	1,170	1,530	3,370	1,980	913	848	248
22	1,240	1,500	620	740	2,100	1,120	2,350	4,080	6,110	965	760	236
23	1,180	1,390	700	660	2,000	1,010	2,470	4,020	13,300	811	683	230
24	1,130	1,430	750	620	1,900	830	2,180	3,350	8,100	749	627	227
25	1,090	1,450	870	620	1,900	685	1,960	2,810	5,030	682	579	231
26	1,040	1,360	1,000	660	2,000	795	1,750	2,550	4,100	622	555	219
27	990	1,260	900	840	2,200	760	1,590	2,260	3,500	574	519	211
28	959	1,210	800	780	3,000	765	1,550	3,180	3,090	839	480	238
29	947	1,180	700	740	-----	755	1,510	2,720	2,580	942	447	233
30	929	1,130	580	1,200	-----	785	1,400	2,300	2,190	723	431	217
31	923	-----	450	2,700	-----	770	-----	2,060	-----	586	423	-----
TOTAL	54,558	26,554	26,121	19,390	41,520	66,915	45,340	76,610	118,410	33,471	37,903	8,860
MEAN	1,760	885	843	625	1,483	2,159	1,511	2,471	3,947	1,080	1,223	295
MAX	4,760	1,500	1,340	2,700	3,000	4,800	2,470	5,050	13,300	2,060	4,630	397
MIN	923	346	450	400	660	685	750	1,060	1,450	574	423	211
CFSM	1.13	.57	.54	.40	.95	1.38	.97	1.58	2.52	.69	.78	.19
IN.	1.30	.63	.62	.46	.99	1.59	1.08	1.82	2.82	.80	.90	.21
AC-FT	108,200	52,670	51,810	38,460	82,350	132,700	89,930	152,000	234,900	66,390	75,180	17,570
CAL YR 1973	TOTAL 703,291	MEAN 1,927	MAX 8,230	MIN 228	CFSM 1.23	IN 16.73	AC-FT 1,395,000					
WTR YR 1974	TOTAL 555,652	MEAN 1,522	MAX 13,300	MIN 211	CFSM .97	IN 13.22	AC-FT 1,102,000					

PEAK DISCHARGE (BASE, 5,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-19	0400	15.52	5,430	6-23	0900	19.38	15,600
6-10	1030	19.07	13,800	8-12	1530	15.98	6,120

IOWA RIVER BASIN

05451700 TIMBER CREEK NEAR MARSHALLTOWN, IOWA

LOCATION.--Lat 42°00'25", long 92°51'15", in SE1/4 SW1/4 sec.8, T.83 N., R.17 W., Marshall County, on left bank 20 ft (6 m) downstream from bridge on U.S. Highway 30, 3.5 mi (5.6 km) upstream from mouth, and 4.1 mi (6.6 km) southeast of court house in Marshalltown.

DRAINAGE AREA.--118 mi² (306 km²).

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 849.44 ft (258.91 m) above mean sea level.

AVERAGE DISCHARGE.--25 years, 65.9 ft³/s (1.87 m³/s), 7.58 in/yr (193 mm/yr), 47,740 acre-ft/yr (58.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 8,090 ft³/s (229 m³/s) June 9, gage height, 17.57 ft (5.355 m), from rating curve extended above 5,200 ft³/s on basis of contracted-opening measurement of peak flow; minimum daily, 24 ft³/s (0.680 m³/s) Sept. 25.

Period of record: Maximum discharge, 8,090 ft³/s (229 m³/s) June 9, 1974, gage height, 17.57 ft (5.355 m), from rating curve extended above 5,200 ft³/s on basis of contracted-opening measurement of peak flow; no flow July 24-26, Oct. 4-12, 1956.

Flood in June 1947 reached a stage of 16.8 ft (5.12 m), discharge, 5,700 ft³/s (161 m³/s).

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--One discharge measurement furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1708: 1950-55, 1957-59.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	38	37	52	161	249	83	85	279	157	94	40
2	53	36	38	50	120	285	79	83	258	148	88	44
3	49	35	38	48	90	307	99	80	243	140	75	41
4	50	35	93	46	70	282	120	76	225	208	72	39
5	43	35	123	45	76	288	108	74	211	161	68	37
6	44	33	97	43	68	259	103	72	203	143	64	37
7	43	33	100	42	60	226	101	86	198	133	62	37
8	42	32	84	41	54	205	94	98	192	128	61	36
9	39	30	68	40	52	203	92	86	4,010	121	579	35
10	53	32	50	39	52	194	89	84	925	132	425	32
11	144	33	70	37	48	185	96	92	492	165	193	32
12	110	31	60	32	90	178	102	84	386	127	156	41
13	88	31	56	35	130	159	92	416	338	115	119	42
14	74	31	48	40	60	127	94	590	332	108	104	33
15	67	31	50	43	50	122	89	243	317	104	92	31
16	61	29	42	47	56	112	84	652	274	97	86	31
17	56	28	43	50	66	106	82	677	254	95	83	29
18	55	29	44	54	80	109	82	2,130	237	91	80	28
19	52	28	39	70	64	101	81	1,790	244	88	72	28
20	48	39	35	562	60	97	82	551	231	90	65	26
21	47	58	41	715	110	92	101	413	216	87	62	28
22	46	40	45	290	120	84	88	467	747	88	60	26
23	44	36	50	220	74	70	81	304	394	81	55	27
24	43	50	56	186	84	80	76	266	344	78	54	25
25	42	47	130	164	78	89	76	242	251	77	51	24
26	40	43	150	228	80	85	74	350	216	75	51	25
27	41	43	90	362	92	81	73	313	200	74	46	25
28	40	41	70	124	309	82	72	2,220	188	77	44	33
29	42	39	54	180	-----	84	106	538	178	70	43	37
30	40	39	45	501	-----	93	91	375	168	67	43	27
31	39	-----	50	542	-----	84	-----	322	-----	65	42	-----
TOTAL	1,696	1,085	1,996	4,928	2,454	4,718	2,690	13,859	12,751	3,390	3,189	976
MEAN	54.7	36.2	64.4	159	87.6	152	89.7	447	425	109	103	32.5
MAX	144	58	150	715	309	307	120	2,220	4,010	208	579	44
MIN	39	28	35	32	48	70	72	72	168	65	42	24
CFSM	.46	.31	.55	1.35	.74	1.29	.76	3.79	3.60	.92	.87	.28
IN.	.53	.34	.63	1.55	.77	1.49	.85	4.37	4.02	1.07	1.01	.31
AC-FT	3,360	2,150	3,960	9,770	4,870	9,360	5,340	27,490	25,290	6,720	6,330	1,940

CAL YR 1973 TOTAL 50,297 MEAN 138 MAX 1,900 MIN 17 CFSM 1.17 IN 15.86 AC-FT 99,760
WTR YR 1974 TOTAL 53,732 MEAN 147 MAX 4,010 MIN 24 CFSM 1.25 IN 16.94 AC-FT 106,600

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-21	0315	10.70	1,160	6-9	1045	17.57	8,090
5-18	1230	15.10	3,880	6-22	1400	11.62	1,470
5-28	1130	16.03	5,110	8-9	2215	10.89	1,210

05451900 RICHLAND CREEK NEAR HAVEN, IOWA

LOCATION.--Lat 41°53'58", long 92°28'27", in SE1/4 NE1/4 sec.21, T.82 N., R.14 W., Tama County, on right bank 5 ft (1 m) upstream from bridge on county highway, 0.6 mi (1.0 km) northeast of Haven, and 2.8 mi (4.5 km) upstream from mouth.

DRAINAGE AREA.--56.1 mi² (145 km²).

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 788.69 ft (240.39 m) above mean sea level. Prior to Oct. 1, 1971, at datum 10 ft (3.05 m) higher.

AVERAGE DISCHARGE.--25 years, 33.0 ft³/s (0.93 m³/s), 7.99 in/yr (203 mm/yr), 23,910 acre-ft/yr (29.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,000 ft³/s (198 m³/s) May 28, gage height, 24.00 ft (7.315 m); minimum daily, 9.6 ft³/s (0.272 m³/s) Nov. 18, 19.

Period of record: Maximum discharge, 7,000 ft³/s (198 m³/s) May 28, 1974, gage height, 24.00 ft (7.315 m); minimum daily, 0.1 ft³/s (2.8 dm³/s) on several days in 1949, 1953-54, 1956.

Flood in June 1918 reached a stage of 24.3 ft (7.41 m), discharge not determined.

REMARKS.--Records good except those for winter period, which are fair.

COOPERATION.--Three discharge measurement furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1708: 1950-55, 1956 (H), 1957, 1958 (H), 1959.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	13	13	25	40	73	36	54	154	59	28	22
2	19	13	14	25	30	98	35	53	124	54	25	22
3	18	12	14	24	25	85	42	50	106	53	22	22
4	16	12	54	23	23	174	64	47	94	61	21	21
5	14	12	57	22	28	122	58	43	86	54	21	20
6	14	12	41	21	25	65	56	39	83	48	22	20
7	14	12	35	20	22	59	52	46	94	45	21	20
8	13	12	30	19	20	137	44	55	95	42	21	19
9	12	14	26	18	19	99	43	49	1,440	40	544	18
10	15	14	26	17	19	76	41	48	252	37	1,180	18
11	52	12	27	15	20	77	44	52	177	50	173	18
12	35	11	27	14	40	77	47	47	148	49	315	24
13	25	11	25	14	45	73	43	326	131	42	92	22
14	21	10	21	15	21	63	49	611	235	38	63	18
15	20	11	20	15	18	61	47	156	372	35	52	17
16	17	9.7	18	16	22	54	45	1,540	109	33	47	16
17	18	9.8	17	16	29	50	44	432	90	31	44	15
18	17	9.6	19	17	30	50	42	2,140	81	29	40	15
19	15	9.6	16	22	24	47	40	521	76	28	39	15
20	16	18	14	300	22	45	40	281	70	28	38	14
21	15	23	15	150	100	40	48	215	65	27	39	14
22	15	14	17	50	50	37	42	210	468	26	40	14
23	15	13	18	32	35	33	41	144	148	26	35	14
24	15	23	20	30	28	37	40	123	111	24	29	14
25	15	18	70	35	25	40	40	113	98	24	29	14
26	14	17	90	200	26	36	40	172	89	23	29	14
27	13	16	35	447	120	35	40	154	83	23	26	14
28	13	15	26	63	218	35	39	1,840	76	24	25	16
29	14	14	25	141	-----	37	71	352	70	22	25	18
30	13	14	35	388	-----	41	65	266	64	21	24	16
31	14	-----	27	170	-----	37	-----	266	-----	20	23	-----
TOTAL	549	404.7	.892	2,364	1,124	1,993	1,378	10,445	5,289	1,116	3,132	524
MEAN	17.7	13.5	28.8	76.3	40.1	64.3	45.9	337	176	36.0	101	17.5
MAX	52	23	90	447	218	174	71	2,140	1,440	61	1,180	24
MIN	12	9.6	13	14	18	33	35	39	64	20	21	14
CFSM	.32	.24	.51	1.36	.71	1.15	.82	6.01	3.14	.64	1.80	.31
IN.	.36	.27	.59	1.57	.75	1.32	.91	6.93	3.51	.74	2.08	.35
AC-FT	1,090	803	1,770	4,690	2,230	3,950	2,730	20,720	10,490	2,210	6,210	1,040

CAL YR 1973 TOTAL 22,001.6 MEAN 60.3 MAX 1,100 MIN 1.6 CFSM 1.07 IN 14.59 AC-FT 43,640
WTR YR 1974 TOTAL 29,210.7 MEAN 80.0 MAX 2,140 MIN 9.6 CFSM 1.43 IN 19.37 AC-FT 57,940

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-27	0245	17.26	1,180	5-28	0900	24.00	7,000
5-14	0715	17.50	1,270	6-9	1245	20.32	2,470
5-16	1315	22.56	4,680	6-15	0215	17.41	1,240
5-18	1200	21.32	3,360	8-10	1500	19.65	2,320

IOWA RIVER BASIN

05452000 SALT CREEK NEAR ELBERON, IOWA

LOCATION.--Lat 41°57'51" N, long 92°18'47" W, in NW1/4 NW1/4 sec.36, T.83 N., R.13 W., Tama County, near center of span on downstream side of bridge on U.S. Highway 30, 2.0 mi (3.2 km) upstream from Hog Run, 3.0 mi (4.8 km) south of Elberon, and 9.0 mi (14.5 km) upstream from mouth.

DRAINAGE AREA.--201 mi² (521 km²).

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 781.58 ft (238.23 m) above mean sea level (Iowa Highway Commission bench mark). Prior to Oct. 15, 1945, and June 14, 1947, to Feb. 10, 1949, nonrecording gage on upstream side of bridge at present datum.

AVERAGE DISCHARGE.--29 years, 124 ft³/s (3.51 m³/s), 8.38 in/yr (213 mm/yr), 89,840 acre-ft/yr (111 hm³/yr); median of yearly mean discharges, 110 ft³/s (3.12 m³/s), 7.4 in/yr (188 mm/yr), 79,700 acre-ft/yr (98.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,610 ft³/s (131 m³/s) May 16, gage height, 16.23 ft (4.947 m); minimum daily, 27 ft³/s (0.76 m³/s) Nov. 17-19.

Period of record: Maximum discharge observed, 35,000 ft³/s (991 m³/s) June 13, 1947, gage height, 17.6 ft (5.36 m) from rating curve extended above 17,000 ft³/s (481 m³/s); maximum gage height, 17.78 ft (5.419 m) July 18, 1969; minimum daily discharge, 2.4 ft³/s (68 dm³/s) Jan. 16-29, 1954.

Flood of June 16, 1944, reached a stage of 19.9 ft (6.07 m), from floodmark at downstream side of bridge, discharge, about 30,000 ft³/s (850 m³/s).

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--One discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1558: 1946.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	36	49	56	1,000	227	131	108	330	181	98	78
2	62	36	48	58	500	357	129	104	305	171	88	84
3	54	35	48	66	270	426	127	99	285	158	72	76
4	65	34	141	68	180	617	144	90	264	260	67	70
5	64	33	287	70	190	458	157	88	249	197	56	66
6	52	33	160	70	200	240	158	83	238	169	53	64
7	51	32	150	68	200	203	157	105	271	155	50	67
8	47	32	220	62	200	214	150	163	248	147	47	61
9	51	29	210	66	190	269	142	134	2,620	145	86	57
10	45	37	130	70	170	262	139	126	2,110	162	775	55
11	166	36	140	72	150	250	135	158	551	570	606	55
12	128	33	120	68	300	243	135	158	447	260	1,940	72
13	91	32	100	64	600	234	134	426	417	182	1,670	77
14	74	30	80	66	190	222	134	1,040	387	156	335	58
15	66	29	70	68	120	205	145	386	350	148	242	54
16	57	28	64	67	140	186	149	2,240	316	136	202	51
17	54	27	62	65	200	162	148	2,040	296	114	251	49
18	52	27	66	60	260	150	146	1,790	277	105	185	47
19	50	27	60	80	110	147	144	1,640	265	96	155	45
20	45	28	50	500	95	118	140	680	256	94	136	43
21	44	179	56	1,000	540	96	140	515	245	88	136	43
22	43	90	60	400	450	112	141	990	803	100	234	41
23	42	64	64	170	110	74	139	447	409	79	133	42
24	41	63	66	120	80	100	127	406	313	92	120	43
25	40	67	130	96	100	95	111	372	279	74	113	42
26	38	68	210	350	118	90	106	397	255	70	111	41
27	37	66	140	1,100	396	81	101	361	237	65	99	40
28	36	59	110	320	1,060	81	102	926	223	66	90	55
29	36	55	85	280	-----	83	145	540	210	59	85	94
30	36	54	68	800	-----	102	122	423	196	54	80	51
31	36	-----	64	1,600	-----	124	-----	423	-----	51	98	-----
TOTAL	1,777	1,399	3,308	8,000	8,119	6,228	4,078	17,458	13,652	4,404	8,413	1,721
MEAN	57.3	46.6	107	258	290	201	136	563	455	142	271	57.4
MAX	166	179	287	1,600	1,060	617	158	2,240	2,620	570	1,940	94
MIN	36	27	48	56	80	74	101	83	196	51	47	40
CFSM	.29	.23	.53	1.28	1.44	1.00	.68	2.80	2.26	.71	1.35	.29
IN.	.33	.26	.61	1.48	1.50	1.15	.75	3.23	2.53	.82	1.56	.32
AC-FT	3,520	2,770	6,560	15,870	16,100	12,350	8,090	34,630	27,080	8,740	16,690	3,410
CAL YR 1973	TOTAL 76,851	MEAN 211	MAX 2,580	MIN 22	CFSM 1.05	IN 14.22	AC-FT 152,400					
WTR YR 1974	TOTAL 78,557	MEAN 215	MAX 2,620	MIN 27	CFSM 1.07	IN 14.54	AC-FT 155,800					

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-31	--	--	* 1,800	5-22	1030	13.55	1,540
2-28	0645	13.43	1,840	6-9	2200	15.74	3,730
5-14	0600	13.67	1,600	8-12	2015	15.10	2,850
5-16	1800	16.23	4,610				

* About

IOWA RIVER BASIN

05453000 BIG BEAR CREEK AT LADORA, IOWA

LOCATION.--Lat 41°44'58", long 92°10'55", in SW1/4 SW1/4 sec.7, T.80 N., R.11 W., Iowa County, on left bank 10 ft (3 m) downstream from bridge on county highway V52, 0.4 mi (0.6 km) south of Ladora, 1.2 mi (1.9 km) downstream from Coats Creek, 2.8 mi (4.5 km) upstream from Little Bear Creek, and 8.1 mi (13.0 km) upstream from mouth.

DRAINAGE AREA.--189 mi² (490 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1966, published as Bear Creek at Ladora.

GAGE.--Water-stage recorder. Datum of gage is 754.94 ft (230.11 m) above mean sea level. Prior to June 26, 1946, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--29 years, 118 ft³/s (3.34 m³/s), 8.48 in/yr (215 mm/yr), 85,490 acre-ft/yr (105 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 8,400 ft³/s (238 m³/s) May 28, gage height, 14.10 ft (4.300 m); minimum daily, 18 ft³/s (0.510 m³/s) Nov. 9, 16-19.
Period of record: Maximum discharge, 10,500 ft³/s (297 m³/s) Mar. 30, 1960, gage height, 14.60 ft (4.450 m); no flow Jan. 22 to Feb. 8, 1956.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Three discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSF 1308: 1947 (M). WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	23	35	80	300	222	130	476	671	190	52	53
2	39	22	36	86	360	173	122	395	574	178	59	56
3	33	21	34	89	260	214	131	328	478	170	49	53
4	30	21	146	90	150	335	750	300	416	225	49	48
5	28	20	260	88	160	455	453	285	383	188	43	45
6	27	20	135	84	130	248	342	252	359	160	40	44
7	27	21	130	80	110	208	295	270	442	150	37	48
8	25	21	150	77	100	262	245	324	390	132	36	42
9	24	18	140	73	98	376	221	269	3,930	122	136	39
10	33	23	83	68	96	262	207	247	1,030	135	2,100	38
11	92	23	90	64	94	239	202	255	614	177	451	38
12	92	22	80	60	160	253	220	235	491	136	516	85
13	56	20	70	62	240	227	191	1,060	430	118	260	88
14	45	19	60	66	120	202	284	3,680	393	104	201	47
15	37	19	56	70	84	188	257	749	486	95	166	40
16	34	18	54	78	90	169	224	3,740	328	90	156	36
17	31	18	52	88	100	154	203	2,160	301	86	146	34
18	30	18	49	100	120	153	190	4,720	293	75	133	32
19	29	18	48	220	90	145	177	2,150	413	75	118	30
20	27	29	47	1,100	80	135	171	912	266	79	103	29
21	26	73	46	700	100	126	207	701	266	78	97	29
22	26	40	45	250	210	120	192	844	1,580	74	105	29
23	25	31	54	120	88	105	160	900	591	67	89	29
24	24	90	64	110	70	102	151	748	384	64	81	28
25	23	61	200	100	90	100	148	644	322	59	76	28
26	23	49	300	650	120	105	144	647	280	54	75	28
27	23	46	180	1,600	341	107	140	828	258	58	68	26
28	23	43	150	230	605	109	519	4,050	232	80	61	28
29	23	39	130	293	-----	113	2,830	2,230	218	54	59	36
30	23	38	110	1,200	-----	157	694	931	205	46	57	29
31	24	-----	90	915	-----	136	-----	1,420	-----	43	56	-----
TOTAL	1,048	924	3,124	8,891	4,566	5,900	10,200	36,750	17,024	3,362	5,675	1,215
MEAN	33.8	30.8	101	287	163	190	340	1,185	567	108	183	40.5
MAX	92	90	300	1,600	605	455	2,830	4,720	3,930	225	2,100	88
MIN	23	18	34	60	70	100	122	235	205	43	36	26
CFSM	.18	.16	.53	1.52	.86	1.01	1.80	6.27	3.00	.57	.97	.21
IN.	.21	.18	.61	1.75	.90	1.16	2.01	7.23	3.35	.66	1.12	.24
AC-FT	2,080	1,830	6,200	17,640	9,060	11,700	20,230	72,890	33,770	6,670	11,260	2,410

CAL YR 1973 TOTAL 78,058 MEAN 214 MAX 3,000 MIN 14 CFSM 1.13 IN 15.36 AC-FT 154,800
WTR YR 1974 TOTAL 98,679 MEAN 270 MAX 4,720 MIN 18 CFSM 1.43 IN 19.42 AC-FT 195,700

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-27	--	--	* 2,500	5-16	2030	13.22	5,640	6-9	1915	13.14	5,510
1-30	2230	9.17	2,480	5-18	2115	13.51	6,330	6-22	1400	9.72	2,730
4-29	0600	12.60	4,850	5-28	1400	14.10	8,400	8-10	1000	11.83	4,160
5-14	1000	13.35	5,900								

* About

05453100 IOWA RIVER AT MARENGO, IOWA

LOCATION.--Lat 41°48'41" N, long 92°03'42" W, in SW1/4 NE1/4 sec.24, T.81 N., R.11 W., Iowa County, on right bank 10 ft (3 m) downstream from abandoned highway bridge, 0.7 mi (1.1 km) downstream from Big Bear Creek, 0.8 mi (1.3 km) north of Marengo, 4.9 mi (7.9 km) upstream from Hilton Creek, and at mile 139.4 (224.3 km).

DRAINAGE AREA.--2,794 mi² (7,236 km²).

PERIOD OF RECORD.--October 1956 to current year. Monthly discharge only for some periods, published in WSP 1728.

GAGE.--Water-stage recorder. Datum of gage is 720.52 ft (219.61 m) above mean sea level.

AVERAGE DISCHARGE.--18 years, 1,730 ft³/s (49.0 m³/s), 8.41 in/yr (214 mm/yr), 1,253,000 acre-ft/yr (1,540 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 21,200 ft³/s (600 m³/s) May 19, gage height, 18.82 ft (5.736 m); minimum daily, 588 ft³/s (16.7 m³/s) Sept. 28.

Period of record: Maximum discharge, 30,800 ft³/s (872 m³/s) Mar. 31, 1960, gage height, 19.21 ft (5.855 m); maximum gage height, 19.79 ft (6.032 m) July 12, 1969; minimum daily discharge, 54 ft³/s (1.53 m³/s), estimated, Oct. 11, 12, 1956.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Nine discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1558: 1957.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,620	1,120	1,560	1,000	5,600	4,420	1,940	3,170	9,160	5,210	1,070	1,040
2	2,640	1,090	1,500	900	5,000	3,700	1,860	2,770	6,650	3,800	1,170	1,010
3	2,460	1,070	1,450	900	4,000	4,140	1,840	2,510	5,230	3,260	1,400	981
4	2,100	1,050	1,620	940	3,000	4,760	3,380	2,320	4,380	3,240	1,390	945
5	1,830	1,020	2,460	960	2,500	5,570	3,250	2,190	3,930	3,900	1,230	909
6	1,610	991	2,380	970	2,300	5,680	3,310	2,050	3,620	3,910	1,090	873
7	1,430	985	2,010	960	2,100	5,690	3,400	2,040	3,810	3,230	990	862
8	1,330	978	1,940	940	2,000	5,670	3,260	2,340	3,870	2,730	913	830
9	1,260	960	1,830	930	1,800	6,010	3,080	2,310	7,340	2,400	1,280	797
10	1,250	925	1,710	920	1,700	5,960	2,950	2,280	10,600	2,200	5,800	769
11	1,380	926	1,500	900	1,600	5,400	2,790	2,270	10,700	2,740	6,670	749
12	1,950	924	1,300	880	1,600	4,680	2,720	2,310	12,000	3,100	9,730	816
13	2,970	918	1,200	870	1,700	4,060	2,640	3,130	14,500	2,420	11,900	928
14	3,430	905	1,150	860	1,900	3,770	2,860	10,300	13,200	2,100	11,600	864
15	3,620	900	1,100	850	2,200	3,600	2,970	8,370	10,900	1,870	11,400	816
16	3,740	903	1,050	830	2,100	3,370	2,910	11,400	9,060	1,710	9,300	756
17	3,290	907	1,050	820	2,000	3,140	2,840	15,600	7,770	1,570	6,440	720
18	2,610	904	1,000	800	2,000	2,970	2,760	19,000	6,760	1,460	3,970	697
19	2,240	870	980	860	2,200	2,790	2,640	18,800	6,050	1,370	3,180	676
20	1,980	892	960	1,200	2,600	2,570	2,500	16,000	4,790	1,300	2,710	666
21	1,800	1,130	930	2,900	2,800	2,370	2,450	13,600	4,720	1,260	2,340	655
22	1,670	1,250	900	3,200	4,000	2,230	2,450	13,100	6,040	1,390	2,270	644
23	1,560	1,520	900	2,800	5,800	2,080	2,670	11,600	6,980	1,510	2,080	630
24	1,470	1,810	940	1,900	5,200	1,890	3,010	9,870	6,130	1,390	1,760	622
25	1,400	1,790	1,100	1,400	4,700	1,780	2,960	8,740	5,850	1,220	1,590	612
26	1,340	1,810	1,500	1,500	4,500	1,770	2,760	7,870	9,150	1,130	1,480	594
27	1,280	1,800	1,700	4,500	5,400	1,750	2,580	7,780	11,600	1,050	1,370	589
28	1,220	1,720	1,600	6,000	5,000	1,750	2,720	12,700	9,670	1,030	1,270	588
29	1,180	1,640	1,500	5,000	-----	1,740	7,080	17,100	7,920	977	1,200	637
30	1,150	1,600	1,300	5,200	-----	1,900	4,130	10,800	6,660	1,110	1,130	729
31	1,140	-----	1,150	6,600	-----	1,990	-----	10,500	-----	1,150	1,080	-----
TOTAL	60,950	35,308	43,270	59,290	87,300	109,200	88,710	254,820	229,040	66,737	110,803	23,004
MEAN	1,966	1,177	1,396	1,913	3,118	3,523	2,957	8,220	7,635	2,153	3,574	767
MAX	3,740	1,810	2,460	6,600	5,800	6,010	7,080	19,000	14,500	5,210	11,900	1,040
MIN	1,140	870	900	800	1,600	1,740	1,840	2,040	3,620	977	913	588
CFSM	.70	.42	.50	.68	1.12	1.26	1.06	2.94	2.73	.77	1.28	.27
IN.	.81	.47	.58	.79	1.16	1.45	1.18	3.39	3.05	.89	1.48	.31
AC-FT	120,900	70,030	85,830	117,600	173,200	216,600	176,000	505,400	454,300	132,400	219,800	45,630
CAL YR 1973	TOTAL 1,265,897	MEAN 3,468	MAX 15,900	MIN 453	CFSM 1.24	IN 16.85	AC-FT 2,511,000					
WTR YR 1974	TOTAL 1,168,432	MEAN 3,201	MAX 19,000	MIN 588	CFSM 1.15	IN 15.56	AC-FT 2,318,000					

PEAK DISCHARGE (BASE, 6,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-28	--	--	* 6,300	5-14	1715	16.92	12,600	6-23	2200	15.19	7,470
1-31	--	--	* 7,000	5-19	0500	18.82	21,200	6-27	0130	16.79	12,000
2-23	--	--	* 6,100	5-29	0400	18.73	20,800	8-13	1145	16.66	12,200
4-29	1545	15.30	7,980	6-13	1445	17.48	14,800				

* About

IOWA RIVER BASIN

05453510 CORALVILLE LAKE NEAR CORALVILLE, IOWA

LOCATION.--Lat 41°43'29", long 91°31'40", in SW1/4 NE1/4 sec.22, T.80 N., R.6 W., Johnson County, at outlet works at left end of Coralville Dam on Iowa River, 2.3 mi (3.7 km) upstream from Rapid Creek, 4.3 mi (6.9 km) northeast of Coralville Post Office and at mile 83.3 (134.0 km).

DRAINAGE AREA.--3,115 mi² (8,067 km²).

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 408,000 acre-ft (503 hm³) May 31, elevation, 709.06 ft (216.121 m); minimum, 7,990 acre-ft (9.85 hm³) Apr. 18, elevation, 669.99 ft (204.213 m).

Period of record: Maximum contents, 472,000 acre-ft (582 hm³) July 21, 1969, elevation, 711.85 ft (216.972 m); minimum, 3,800 acre-ft (4.69 hm³) Mar. 10, 1959, elevation, 658.77 ft (200.793 m).

REMARKS.--Reservoir is formed by earthfill dam completed in 1957. Storage began in September 1958. Releases controlled by three gates, 8.33 ft (2.539 m) wide and 20 ft (6 m) high, into forechamber of 23-ft (7 m) diameter concrete conduit through dam. Inlet invert elevation at 650 ft (198 m). No dead storage. Maximum design discharge through gates is 20,000 ft³/s (566 m³/s). Ungated spillway is concrete overflow section 500 ft (152 m) in length at elevation 712 ft (217 m) above mean sea level, contents, 476,000 acre-ft (587 hm³). Reservoir is used for flood control, low-flow augmentation, conservation and recreation. Normal operation will maintain an elevation of 670 ft (204 m) Feb. 15 to June 15, 680 ft (207 m) June 15 to Sept. 25, 683 ft (208 m) Sept. 25 to Dec. 15, and 680 ft (207 m) December 15 to Feb. 1 with a minimum release of 150 ft³/s (4.25 m³/s) and maximum release of 10,000 ft³/s (283 m³/s) Dec. 15 to May 1 and 6,000 ft³/s (170 m³/s) May 1 to Dec. 15.

COOPERATION.--Records furnished by Corps of Engineers.

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

670	7,990	685	67,800	700	232,000
675	18,600	690	108,000	705	321,000
680	38,700	695	162,000	710	428,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55,900	56,900	56,500	37,300	43,700	11,200	9,380	43,800	407,000	301,000	54,700	93,400
2	55,900	57,000	56,300	35,200	38,000	16,300	8,550	48,200	405,000	292,000	53,500	87,500
3	56,500	57,300	56,400	34,300	32,500	20,400	8,610	46,200	399,000	279,000	51,600	81,200
4	56,400	57,700	58,300	34,200	27,200	20,300	9,420	42,800	389,000	265,000	49,200	76,400
5	56,400	57,800	59,600	34,600	21,300	19,600	10,500	38,400	378,000	252,000	46,500	71,500
6	55,900	57,700	59,700	35,200	14,800	19,200	10,600	32,200	367,000	240,000	44,400	68,500
7	55,700	58,000	58,900	35,900	11,200	18,800	10,600	26,700	361,000	227,000	42,700	66,400
8	55,300	58,000	57,500	36,900	9,180	18,600	10,500	23,300	349,000	216,000	41,900	64,300
9	55,600	58,000	56,600	37,700	9,760	18,400	10,000	20,400	346,000	205,000	42,700	62,400
10	56,800	58,000	54,000	38,400	11,300	18,100	9,180	17,500	342,000	194,000	51,100	60,100
11	57,900	58,100	51,700	38,900	11,300	16,300	8,310	14,700	343,000	183,000	60,400	58,000
12	57,400	58,200	49,200	39,200	10,600	18,300	9,580	11,700	345,000	176,000	75,600	59,200
13	55,700	58,500	47,400	39,500	10,000	16,600	10,600	12,700	350,000	167,000	95,800	59,600
14	54,300	56,300	45,300	39,600	9,720	13,800	12,300	27,300	362,000	159,000	112,000	60,400
15	53,500	58,700	43,000	39,800	9,000	13,200	11,700	47,800	365,000	150,000	129,000	60,900
16	53,000	58,500	40,500	40,100	9,760	12,900	9,840	88,800	365,000	142,000	145,000	61,300
17	52,700	58,600	40,500	40,300	10,200	11,300	8,350	127,000	363,000	133,000	157,000	61,700
18	52,800	58,800	41,500	40,300	10,200	9,260	8,960	166,000	358,000	123,000	163,000	61,500
19	54,000	58,800	42,200	40,500	9,940	8,670	10,200	214,000	355,000	113,000	162,000	61,500
20	55,200	59,700	42,700	41,200	10,200	9,620	11,100	251,000	346,000	103,000	160,000	61,100
21	56,100	59,600	42,800	42,600	10,900	9,560	11,100	282,000	338,000	97,100	157,000	60,800
22	56,700	59,600	42,600	44,000	10,800	9,220	10,500	302,000	335,000	92,600	154,000	60,000
23	56,900	59,500	42,000	44,200	10,000	8,650	9,640	316,000	330,000	86,400	150,000	59,300
24	57,100	60,900	42,000	44,200	9,400	8,940	8,730	331,000	325,000	78,800	145,000	59,000
25	57,300	61,500	43,600	41,500	8,890	9,860	8,900	341,000	318,000	71,100	139,000	58,500
26	57,200	61,700	44,300	39,000	8,310	8,710	8,590	351,000	311,000	66,000	133,000	58,300
27	57,100	61,700	45,000	39,300	9,020	8,730	8,530	359,000	309,000	63,200	127,000	58,500
28	56,800	60,600	45,200	40,000	9,900	9,280	10,300	371,000	312,000	61,600	120,000	59,000
29	56,400	59,800	44,700	41,700	-----	11,000	16,400	397,000	311,000	59,600	113,000	59,100
30	56,400	58,200	43,000	46,000	-----	11,800	26,700	407,000	307,000	57,400	106,000	58,700
31	56,800	-----	40,200	47,200	-----	10,700	-----	407,000	-----	55,700	100,000	-----
MAX	57,900	61,700	59,700	47,200	43,700	20,400	26,700	407,000	407,000	301,000	163,000	93,400
MIN	52,700	56,900	40,200	34,200	8,310	8,650	8,310	11,700	307,000	55,700	41,900	58,000
+	683.11	683.34	680.26	681.45	671.12	671.60	677.82	709.01	704.20	682.93	689.00	683.43
*	+300	+1,400	-18,000	+7,000	-37,300	+800	+16,000	+380,300	-100,000	-251,300	+44,300	-41,300

CAL YR 1973.....-16,400
WTR YR 1974.....*+2,200

+ Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

05454000 RAPID CREEK NEAR IOWA CITY, IOWA

LOCATION.--Lat 41°41'19", long 91°29'15", in NE1/4 NE1/4 sec.36, T.80 N., R.6 W., Johnson County, on left bank 80 ft (24 m) upstream from bridge on State Highway 1, 3.5 mi (5.6 km) northeast of Iowa City, and 4.7 mi (7.6 km) upstream from mouth.

DRAINAGE AREA.--25.3 mi² (65.5 km²).

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder and concrete control with sharp-crested weir. Datum of gage is 673.72 ft (205.35 m) above mean sea level.

AVERAGE DISCHARGE.--37 years, 15.8 ft³/s (0.447 m³/s), 8.48 in/yr (215 mm/yr), 11,450 acre-ft/yr (14.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,220 ft³/s (62.9 m³/s) May 29, gage height, 12.00 ft (3.658 m); minimum daily, 2.7 ft³/s (0.076 m³/s) Sept. 30.

Period of record: Maximum discharge, 6,100 ft³/s (173 m³/s) May 23, 1965, gage height, 14.10 ft (4.298 m); from rating curve extended above 3,600 ft³/s (102 m³/s) on basis of contracted-opening measurement of peak flow; maximum gage height, 14.93 ft (4.551 m) July 17, 1972; no flow at times most years.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1558: 1941 (M), 1943 (P), 1944 (M); 1946. WSP 1708: 1951 (P), 1952, WRD IOWA 1967: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	4.6	5.2	12	50	36	35	67	62	18	6.2	7.4
2	6.9	4.2	5.4	13	40	38	30	60	57	17	6.8	7.8
3	6.9	3.9	5.5	11	27	51	58	53	53	15	6.0	7.6
4	6.8	3.8	22	6.0	29	91	111	47	51	16	6.2	7.4
5	6.8	3.7	37	6.2	24	70	65	44	44	15	5.0	7.0
6	6.7	3.7	24	7.6	20	55	52	41	39	14	4.9	6.6
7	6.6	4.0	20	8.0	18	46	45	45	252	13	4.9	6.2
8	6.6	4.0	17	6.2	16	46	38	58	79	13	4.4	5.6
9	6.5	3.5	14	5.2	15	42	35	41	260	11	10	5.2
10	6.4	3.3	12	5.4	13	36	33	37	72	23	16	5.0
11	6.4	3.7	11	5.6	12	36	34	45	55	39	8.5	5.0
12	6.3	3.8	10	5.8	32	49	32	40	48	15	88	16
13	6.2	3.9	9.2	6.0	35	42	33	148	43	13	46	8.0
14	6.2	3.8	8.5	6.2	17	38	167	293	40	11	13	5.8
15	6.1	4.6	8.0	6.4	14	36	75	76	37	10	9.8	5.4
16	6.0	3.6	7.7	6.7	21	32	56	895	34	9.2	78	4.6
17	6.0	3.5	7.4	7.0	36	28	47	820	31	9.0	22	4.4
18	6.1	3.5	7.2	7.6	43	28	42	565	29	8.5	15	4.2
19	5.4	3.5	7.0	8.5	31	24	37	134	33	7.8	11	4.0
20	5.6	5.8	7.2	60	25	24	35	95	28	7.8	32	3.7
21	5.4	7.2	7.8	40	32	21	41	76	29	7.0	33	3.6
22	5.2	4.6	13	25	45	21	32	70	243	17	51	3.3
23	5.2	4.2	11	18	26	19	28	58	46	8.2	21	3.3
24	5.0	12	12	16	23	19	26	52	36	7.6	16	3.3
25	4.8	8.2	15	18	18	26	24	50	32	7.0	13	3.1
26	4.5	7.0	21	50	20	17	23	49	28	7.0	12	3.1
27	4.5	6.6	26	110	45	16	22	50	26	6.6	10	3.1
28	4.5	6.6	23	54	55	16	258	149	23	6.4	9.5	3.2
29	4.6	5.6	17	43	-----	27	309	831	22	5.6	9.0	3.7
30	4.5	5.6	14	92	-----	51	92	103	20	5.0	8.3	2.7
31	5.0	-----	13	93	-----	38	-----	75	-----	4.8	7.6	-----
TOTAL	181.1	146.0	418.1	759.4	782	1,119	1,915	5,167	1,852	367.5	584.1	159.3
MEAN	5.84	4.87	13.5	24.5	27.9	36.1	63.8	167	61.7	11.9	18.8	5.31
MAX	7.0	12	37	110	55	91	309	895	260	39	88	16
MIN	4.5	3.3	5.2	5.2	12	16	22	37	20	4.8	4.4	2.7
CFSM	.23	.19	.53	.97	1.10	1.43	2.52	6.60	2.44	.47	.74	.21
IN.	.27	.21	.61	1.12	1.15	1.65	2.82	7.60	2.72	.54	.86	.23
AC-FT	359	290	829	1,510	1,550	2,220	3,800	10,250	3,670	729	1,160	316

CAL YR 1973 TOTAL 10,747.12 MEAN 29.4 MAX 451 MIN .56 CFMS 1.16 IN 15.80 AC-FT 21,320
WTR YR 1974 TOTAL 13,450.50 MEAN 36.9 MAX 895 MIN 2.7 CFMS 1.46 IN 19.78 AC-FT 26,680

PEAK DISCHARGE (BASE, 600 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-28	--	11.60	1,670	5-17	0620	11.72	1,980	6-7	0815	9.92	855
5-14	0005	9.97	921	5-18	0620	11.46	1,780	6-9	0545	9.43	725
5-16	0825	11.66	1,930	5-29	0740	12.00	2,220	6-22	1050	9.69	790

IOWA RIVER BASIN

05454300 CLEAR CREEK NEAR CORALVILLE, IOWA

LOCATION.--Lat 41°40'36", long 91°35'55", in NE1/4 SE1/4 sec.1, T.79 N., R.7 W., Johnson County, on left bank about 50 ft (15 m) upstream from bridge on county highway, 1.1 mi (1.8 km) west of post office in Coralville, 1.5 mi (2.4 km) downstream from Deer Creek and 2.7 mi (4.3 km) upstream from mouth.

DRAINAGE AREA.--98.1 mi² (254 km²).

PERIOD OF RECORD.--October 1952 to current year. Monthly discharge only for some periods, published in WSP 1728.

GAGE.--Water-stage recorder. Datum of gage is 647.48 (revised) ft (197.35 m) above mean sea level (levels by Corps of Engineers). Prior to Jan. 7, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years, 65.3 ft³/s (1.85 m³/s), 9.04 in/yr (230 mm/yr), 47,310 acre-ft/yr (58.3 hm³/yr); median of yearly mean discharges, 48 ft³/s (1.36 m³/s), 6.6 in/yr (168 mm/yr), 34,800 acre-ft/yr (42.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,630 ft³/s (188 m³/s) May 17, gage height, 13.93 ft (4.246 m); minimum daily, 19 ft³/s (0.538 m³/s) Nov. 17-19.
Period of record: Maximum discharge, 6,630 ft³/s (188 m³/s) May 17, 1974, gage height, 13.93 ft (4.246 m); minimum daily, 0.1 ft³/s (2.8 dm³/s) July 1, 1956.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	27	41	66	140	102	142	229	234	92	33	43
2	83	26	40	67	120	89	121	199	207	83	41	44
3	68	24	40	68	110	112	120	181	182	80	48	45
4	59	23	110	69	130	228	168	179	158	79	34	56
5	49	23	266	70	140	229	159	174	142	79	29	52
6	45	22	140	69	120	141	147	169	129	68	27	38
7	44	23	110	68	110	120	136	165	540	62	26	41
8	42	23	90	64	105	114	106	220	335	59	25	36
9	38	21	80	65	100	121	96	179	795	55	178	33
10	37	21	120	66	98	104	96	177	343	60	465	32
11	166	23	150	67	96	98	100	175	201	214	383	31
12	125	22	130	68	160	116	110	174	165	112	915	105
13	83	22	110	70	320	100	104	403	139	75	1,330	93
14	66	21	90	71	140	91	386	1,500	123	64	531	47
15	53	21	80	73	120	88	240	637	110	59	178	39
16	47	20	72	74	130	82	187	1,450	100	54	469	36
17	46	19	70	75	170	73	178	3,450	94	50	286	33
18	45	19	72	76	140	71	171	2,350	90	47	175	31
19	43	19	76	90	120	67	159	1,070	184	45	144	30
20	37	40	73	320	110	62	148	401	118	43	157	29
21	35	63	70	620	100	57	145	319	234	43	130	28
22	33	35	74	340	210	63	147	308	753	220	228	27
23	32	28	77	230	130	55	133	233	733	177	103	28
24	31	95	80	200	110	78	122	198	201	128	85	27
25	29	67	150	190	100	46	116	173	160	44	77	26
26	27	51	170	310	91	56	112	210	138	38	75	25
27	28	49	110	800	191	54	108	214	125	36	65	25
28	27	55	100	230	213	52	270	614	113	36	58	25
29	27	48	88	120	-----	76	781	1,510	108	47	54	27
30	27	45	60	250	-----	285	305	702	105	30	50	26
31	27	-----	64	420	-----	187	-----	293	-----	28	46	-----
TOTAL	1,606	995	3,003	5,366	3,824	3,217	5,313	18,256	7,059	2,307	6,445	1,158
MEAN	51.8	33.2	96.9	173	137	104	177	589	235	74.4	208	38.6
MAX	166	95	266	800	320	285	781	3,450	795	220	1,330	105
MIN	27	19	40	64	91	46	96	165	90	28	25	25
CFSM	.53	.34	.99	1.76	1.40	1.06	1.80	6.00	2.40	.76	2.12	.39
IN.	.61	.38	1.14	2.03	1.45	1.22	2.01	6.92	2.68	.87	2.44	.44
AC-FT	3,190	1,970	5,960	10,640	7,580	6,380	10,540	36,210	14,000	4,580	12,780	2,300
CAL YR 1973	TOTAL 53,132	MEAN 146	MAX 2,140	MIN 11	CFSM 1.49	IN 20.15	AC-FT 105,400					
WTR YR 1974	TOTAL 58,549	MEAN 160	MAX 3,450	MIN 19	CFSM 1.63	IN 22.20	AC-FT 116,100					

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-29	0200	9.66	1,230	6-9	1145	9.49	1,150
5-14	2300	12.00	2,270	6-23	0715	10.02	1,320
5-17	0100	13.93	6,630	8-13	2330	11.02	1,700
5-29	1515	11.19	1,770				

05454500 IOWA RIVER AT IOWA CITY, IOWA

LOCATION.--Lat 41°39'24", long 91°32'27", in SE1/4 SE1/4 sec.9, T.79 N., R.6 W., Johnson County, on right bank 25 ft (8 m) downstream from Hydraulics Laboratory of University of Iowa in Iowa City, 175 ft (53 m) downstream from University Dam, 0.8 mi (1.3 km) upstream from Ralston Creek, 3.6 mi (5.8 km) downstream from Clear Creek, and at mile 74.2 (119.4 km).

DRAINAGE AREA.--3,271 mi² (8,472 km²).

PERIOD OF RECORD.--June 1903 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 29.00 ft (8.84 m) above Iowa City datum, and 617.27 ft (188.14 m) above mean sea level. Oct. 1, 1934, to Sept. 30, 1972, at datum 10.00 ft (3.05 m) higher. See WSP 1708 for history of changes prior to Oct. 1, 1934.

AVERAGE DISCHARGE.--71 years, 1,638 ft³/s (46.4 m³/s), 6.80 in/yr (173 mm/yr), 1,187,000 acre-ft/yr (1,460 hm³/yr); median of yearly mean discharges, 1,450 ft³/s (41 m³/s), 6.0 in/yr (152 mm/yr), 1,050,000 acre-ft/yr (1,290 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 11,900 ft³/s (337 m³/s) June 9, gage height, 22.44 ft (6.840 m); minimum daily, 656 ft³/s (18.6 m³/s) Sept. 30.

Period of record: Maximum discharge, 42,500 ft³/s (1,204 m³/s) June 8, 1918, gage height, 19.6 ft (5.974 m), from graph based on gage readings, site and datum then in use; minimum daily, 29 ft³/s (0.82 m³/s) Oct. 21, 22, 1916, regulated.

Flood of July 17, 1881, reached a stage of 21.1 ft (6.43 m), from floodmarks at site and datum in use 1913-21, from information by local resident, discharge, 51,000 ft³/s (1,440 m³/s). Maximum stage known since at least 1850, about 3 ft (1 m) higher than that of July 17, 1881, occurred in June 1851, discharge 70,000 ft³/s (1,980 m³/s), estimated.

REMARKS.--Records excellent. Diurnal fluctuation at low stages caused by powerplant above station. Flow regulated by Coralville Lake since Sept. 17, 1958 (see sta. 05453510). Records of chemical analyses, water temperature, and suspended-sediment discharge for the current year are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,500	1,170	2,480	2,930	5,840	3,640	3,390	1,440	10,200	9,860	2,240	4,410
2	3,080	1,080	2,090	2,540	6,320	3,790	2,960	2,320	10,200	9,790	2,230	4,370
3	2,800	1,080	1,680	1,640	6,190	4,130	2,640	4,140	10,200	9,800	2,420	3,830
4	2,720	1,080	1,830	1,160	6,100	5,380	3,120	4,320	10,100	9,920	2,750	3,210
5	2,320	1,080	2,340	914	5,850	6,380	3,950	4,260	10,000	9,780	2,720	3,170
6	2,320	1,080	2,730	896	5,080	6,100	4,080	4,250	9,980	9,660	2,470	2,700
7	2,080	1,080	2,850	900	3,740	6,200	4,050	4,540	10,900	9,420	1,970	2,140
8	1,790	1,080	2,490	900	2,900	6,350	4,010	4,570	10,500	8,790	1,640	2,110
9	1,530	1,040	2,470	900	1,760	6,450	3,960	4,380	11,200	7,940	1,550	2,080
10	1,260	952	2,420	900	1,000	6,320	3,910	4,260	10,400	7,920	2,040	2,070
11	1,500	952	2,410	900	1,320	6,330	3,860	4,230	10,000	8,130	1,420	1,870
12	1,980	952	2,420	900	1,870	6,470	3,170	4,040	9,930	7,590	2,810	1,290
13	3,120	942	2,390	900	2,240	6,410	2,820	4,390	9,890	6,860	3,650	857
14	3,820	946	2,370	900	2,010	6,120	4,560	5,050	9,900	6,280	4,050	777
15	4,000	946	2,350	900	2,200	5,050	5,050	2,090	9,930	6,210	4,540	764
16	3,980	946	2,320	900	2,190	4,260	4,800	4,720	9,930	6,140	5,120	794
17	3,920	940	1,700	911	2,320	4,630	4,330	7,610	9,920	6,080	5,150	756
18	3,500	940	1,090	948	2,640	4,490	3,540	5,090	9,890	6,020	4,790	841
19	2,510	934	1,080	1,070	2,550	3,790	2,830	2,770	10,100	5,940	4,730	930
20	1,900	970	1,070	1,750	2,510	2,960	2,860	1,730	9,920	5,880	4,830	925
21	1,740	1,170	1,100	2,610	2,700	2,950	3,170	1,960	10,000	5,570	4,760	917
22	1,740	1,310	1,180	3,000	3,430	2,960	3,280	3,690	11,100	5,630	5,080	914
23	1,740	1,370	1,270	3,360	3,490	2,650	3,280	4,380	10,800	5,050	4,680	911
24	1,740	1,670	1,280	3,530	3,400	2,300	3,390	4,540	9,950	4,950	4,610	912
25	1,740	1,880	1,420	3,530	3,330	2,230	3,360	4,540	9,820	4,860	4,560	909
26	1,670	1,980	1,840	3,670	3,060	2,230	3,450	4,630	9,830	4,170	4,520	793
27	1,530	2,220	2,300	4,850	3,030	2,100	3,320	4,640	9,920	3,050	4,470	659
28	1,520	2,380	2,590	4,260	3,430	1,830	3,310	5,480	9,900	2,310	4,520	669
29	1,470	2,490	2,720	3,980	-----	1,930	4,570	9,060	9,910	2,270	4,580	664
30	1,390	2,490	2,710	4,470	-----	2,990	1,980	10,400	9,890	2,240	4,530	656
31	1,280	-----	2,880	5,970	-----	3,520	-----	10,400	-----	2,220	4,470	-----
TOTAL	71,190	39,150	63,870	66,989	92,500	132,940	107,000	143,920	304,210	200,330	113,900	47,898
MEAN	2,296	1,305	2,060	2,161	3,304	4,288	3,567	4,643	10,140	6,462	3,674	1,597
MAX	4,000	2,490	2,880	5,970	6,320	6,470	5,050	10,400	11,200	9,920	5,150	4,410
MIN	1,260	934	1,070	896	1,000	1,830	1,980	1,440	9,820	2,220	1,420	656
AC-FT	141,200	77,650	126,700	132,900	183,500	263,700	212,200	285,500	603,400	397,400	225,900	95,010
CAL YR 1973	TOTAL 1,511,889	MEAN 4,142	MAX 10,800	MIN 181	AC-FT 2,999,000							
WTR YR 1974	TOTAL 1,383,897	MEAN 3,791	MAX 11,200	MIN 656	AC-FT 2,745,000							

0545500 BALSTON CREEK AT IOWA CITY, IOWA

LOCATION.--Lat 41°39'50", long 91°30'48", in SE1/4 NW1/4 sec.11, T.79 N., R.6 W., Johnson County, on left bank 10 ft (3 m) upstream from bridge on Rochester Avenue, 1.0 mi (1.6 km) northeast of post office in Iowa City and 2.2 mi (3.5 km) upstream from mouth.

DRAINAGE AREA.--3.01 mi² (7.80 km²).

PERIOD OF RECORD.--September 1924 to current year.

GAGE.--Water -stage recorder and V-notch sharp-crested weir. Datum of gage is 662.53 ft (201.94 m) above mean sea level (University of Iowa bench mark).

AVERAGE DISCHARGE.--50 years, 1.70 ft³/s (0.048 m³/s), 7.67 in/yr (195 mm/yr), 1,230 acre-ft/yr (1.52 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 373 ft³/s (10.6 m³/s) Apr. 28, gage height, 5.12 ft (1.561 m); minimum daily, 0.44 ft³/s (0.012 m³/s) Oct. 20.
Period of record: Maximum discharge, 1,940 ft³/s (54.9 m³/s) Sept. 21, 1965, gage height, 6.90 ft (2.103 m); maximum gage height, 9.06 ft (2.761 m) July 18, 1956; no flow at times during most years.

REMARKS.--Records good except those for winter period, which are poor. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1508: 1933, 1935-37, 1940-41 (M); 1942, 1943 (M), 1948-51, 1952 (P), 1953, 1954 (M), 1955. WRD Iowa. 1967: 1965-66.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	.66	1.1	1.1	4.5	3.0	3.5	6.8	4.9	1.5	1.4	.89
2	2.0	.56	1.3	1.1	2.3	3.5	3.1	5.9	4.4	1.5	1.5	1.1
3	1.6	.55	1.3	1.2	1.7	5.1	17	4.5	3.7	1.4	1.3	1.1
4	1.2	.57	6.6	1.3	1.4	8.1	19	3.7	3.1	1.7	1.2	.96
5	1.0	.54	3.4	1.3	1.3	6.9	7.0	3.5	2.7	1.3	.96	.89
6	1.0	.58	1.9	1.4	1.2	5.1	5.1	3.4	2.6	1.2	1.0	.89
7	1.0	.63	1.5	1.4	1.1	4.0	4.5	8.1	38	1.4	.89	.96
8	.97	.66	1.4	1.5	1.0	3.9	3.5	7.5	7.0	1.4	.95	.79
9	.92	.64	1.3	1.5	.94	3.6	3.4	4.8	17	1.3	4.6	.89
10	.99	.65	1.2	1.1	1.0	3.0	3.0	3.7	6.1	2.7	7.8	.99
11	1.1	.79	1.2	.90	1.5	3.2	4.2	6.3	4.0	3.5	1.4	.96
12	.92	.87	1.2	.80	5.0	5.4	3.4	4.3	3.2	1.7	36	4.0
13	.79	.94	1.3	1.1	4.0	4.0	4.2	16	3.2	1.4	8.0	1.3
14	.86	.96	1.2	1.1	1.8	3.5	26	24	3.1	1.3	2.7	.92
15	1.1	.99	1.1	1.0	1.6	3.3	6.6	7.7	2.6	1.6	1.9	.85
16	.54	.85	1.0	.94	3.0	2.9	4.9	80	2.3	1.5	14	.82
17	.46	.91	.94	.90	4.2	2.5	4.2	85	2.2	.96	4.0	.92
18	.47	.91	.90	1.2	4.6	2.6	3.8	75	3.3	.96	2.6	.96
19	.46	.86	.88	1.8	3.4	2.2	3.4	19	5.2	.92	1.9	.96
20	.44	1.3	.86	20	2.7	2.0	3.3	13	2.6	1.2	3.6	.82
21	.45	1.0	.84	6.0	4.2	2.0	5.6	10	2.2	.85	8.4	.82
22	.46	.73	.88	4.0	6.5	2.0	3.2	11	16	7.4	7.5	.79
23	.48	.69	.94	3.0	2.5	1.5	2.7	7.1	4.2	1.5	3.2	.82
24	.51	1.4	1.0	2.8	2.0	1.4	2.4	5.9	3.2	1.1	2.3	.79
25	.55	.83	1.8	3.6	1.8	1.7	2.3	5.3	2.7	.89	1.9	.76
26	.56	.82	2.4	22	2.3	1.7	2.3	7.7	2.4	1.1	1.8	.77
27	.56	.91	2.7	16	9.7	1.6	2.3	6.5	2.2	1.1	1.4	.77
28	.52	1.1	2.5	6.1	5.3	1.5	48	22	2.1	.92	1.3	.96
29	.58	1.0	1.8	4.8	-----	4.5	34	50	2.0	.85	1.2	1.0
30	.60	1.1	1.5	20	-----	6.3	9.9	9.5	1.8	.82	1.1	.96
31	.74	-----	1.3	8.1	-----	3.8	-----	5.9	-----	.86	1.1	-----
TOTAL	26.63	25.00	49.24	139.04	82.54	105.8	245.8	523.1	160.0	47.53	128.90	30.41
MEAN	.86	.83	1.59	4.49	2.95	3.41	8.19	16.9	5.33	1.53	4.16	1.01
MAX	2.8	1.4	6.6	22	9.7	8.1	48	85	38	7.4	36	4.0
MIN	.44	.54	.84	.80	.94	1.4	2.3	3.4	1.8	.82	.89	.76
CFSM	.29	.28	.53	1.49	.98	1.13	2.72	5.61	1.77	.51	1.38	.34
IN.	.33	.31	.61	1.72	1.02	1.31	3.04	6.46	1.98	.59	1.59	.38
AC-FT	53	50	98	276	164	210	488	1,040	317	94	256	60

CAL YR 1973 TOTAL 1,335.47 MEAN 3.66 MAX 55 MIN .35 CFSM 1.22 IN 16.50 AC-FT 2,650
WTR YR 1974 TOTAL 1,563.99 MEAN 4.28 MAX 85 MIN .44 CFSM 1.42 IN 19.33 AC-FT 3,100

PEAK DISCHARGE (BASE, 200 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-28	2150	5.12	373	6-7	0810	4.12	223
5-16	0735	5.04	361	8-12	0730	4.12	223
5-18	0530	5.05	362				

05455010 SOUTH BRANCH RALSTON CREEK AT IOWA CITY, IOWA

LOCATION.--Lat 41°39'05" N, long 91°30'27" W, in SW1/4 NE1/4 sec.14, T.79 N., R.6 W., Johnson County, on right bank 60 ft (18 m) downstream from bridge on Muscatine Avenue in Iowa City, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--2.94 mi² (7.61 km²).

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

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 678.03 ft (206.66 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 2.79 ft³/s (0.079 m³/s), 12.89 in/yr (327 mm/yr), 2,020 acre-ft/yr (2.49 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 548 ft³/s (15.5 m³/s) Apr. 28, gage height, 7.58 ft (2.310 m); minimum daily, 0.23 ft³/s (0.007 m³/s) Dec. 23.

Period of record: Maximum discharge, 1,070 ft³/s (30.3 m³/s) July 17, 1972, gage height, 9.47 ft (2.886 m); no flow at times most years.

Flood of July 14, 1962 reached a stage of 10.5 ft (3.20 m), from flood profile, discharge not determined.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS.--WRD Iowa 1966: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	1.9	.75	2.9	10	4.1	14	6.7	3.8	1.6	4.1	.61
2	2.3	1.8	.75	2.2	8.4	2.8	12	4.1	3.8	1.6	2.4	.75
3	2.0	1.7	.74	1.3	7.0	3.2	56	2.8	3.5	1.9	1.8	.58
4	1.7	1.8	9.4	.80	6.0	14	40	2.8	3.2	2.5	1.2	.54
5	1.4	1.8	2.8	.50	4.7	5.6	21	6.7	2.1	1.4	.98	.62
6	1.5	1.8	1.8	.90	4.2	4.4	12	9.3	2.8	1.3	1.4	.64
7	1.2	1.7	1.6	1.5	3.8	4.1	6.4	14	45	1.2	1.6	.70
8	1.2	1.6	1.2	1.0	3.4	4.2	4.8	7.4	7.4	1.1	.89	.63
9	1.1	1.5	1.1	.80	3.1	3.4	3.3	5.4	25	1.1	7.6	.62
10	2.2	1.6	1.2	.40	2.8	2.8	2.9	4.8	6.4	7.0	9.3	.62
11	1.3	1.6	1.1	.32	2.6	2.6	4.1	10	6.4	8.2	2.0	.62
12	1.2	1.5	1.0	.30	9.0	3.5	3.7	6.4	6.7	2.6	44	9.5
13	1.1	1.7	1.0	.60	3.5	3.5	2.8	34	7.0	1.9	10	.93
14	.93	1.6	1.0	1.5	1.8	3.5	19	22	6.7	1.6	2.2	.77
15	.94	1.6	.88	4.5	2.5	3.5	6.1	11	6.1	1.4	1.3	.74
16	.89	1.3	.79	2.5	4.1	3.5	4.7	81	5.7	1.2	20	.61
17	.77	.87	.74	.90	5.4	3.2	3.5	68	5.4	1.1	2.6	.50
18	.75	.87	.68	5.1	5.1	2.6	3.0	65	4.8	1.1	1.5	.45
19	.65	.87	.64	5.4	2.8	2.1	2.3	14	10	1.0	1.1	.44
20	.83	3.1	.60	22	2.1	1.2	1.9	11	4.1	1.0	4.0	.42
21	1.4	1.2	.50	9.3	5.4	1.0	4.4	6.1	5.1	1.0	23	.39
22	1.4	.86	.35	5.4	8.0	1.0	1.8	8.0	32	35	7.1	.37
23	1.6	.67	.23	4.1	3.5	.79	1.4	4.1	6.1	4.2	1.9	.37
24	1.6	2.5	6.0	4.8	3.0	.75	1.2	3.8	5.4	3.2	1.2	.34
25	2.2	.86	12	5.7	3.5	1.1	1.8	3.5	4.1	2.8	1.0	.36
26	2.0	.91	4.0	26	4.5	1.2	3.6	7.0	3.6	1.9	1.0	.33
27	.97	1.3	1.6	20	7.0	.84	2.8	4.8	3.2	1.4	.93	.31
28	.89	.87	1.3	12	8.7	.84	77	27	3.1	1.9	.81	.71
29	1.1	.79	2.0	9.7	-----	5.7	37	43	2.7	1.2	.72	.40
30	1.6	.77	3.0	23	-----	20	10	6.7	2.4	1.1	.68	.58
31	2.7	-----	2.7	16	-----	16	-----	4.8	-----	1.1	.65	-----
TOTAL	45.52	42.94	63.45	191.42	135.9	127.02	364.5	505.2	233.6	96.6	158.96	25.45
MEAN	1.47	1.43	2.05	6.17	4.85	4.10	12.2	16.3	7.79	3.12	5.13	.85
MAX	4.1	3.1	12	26	10	20	77	81	45	35	44	9.5
MIN	.65	.67	.23	.30	1.8	.75	1.2	2.8	2.1	1.0	.65	.31
CFSM	.50	.49	.70	2.10	1.65	1.39	4.15	5.54	2.65	1.06	1.74	.29
IN.	.58	.54	.80	2.42	1.72	1.61	4.61	6.39	2.96	1.22	2.01	.32
AC-FT	90	85	126	380	270	252	723	1,000	463	192	315	50

CAL YR 1973 TOTAL 1,822.62 MEAN 4.99 MAX 75 MIN .23 CFSM 1.70 IN 23.06 AC-FT 3,620
WTR YR 1974 TOTAL 1,990.56 MEAN 5.45 MAX 81 MIN .23 CFSM 1.85 IN 25.19 AC-FT 3,950

PEAK DISCHARGE (BASE, 200 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-28	1800	7.58	548	6-7	0630	6.33	335	8-16	1105	5.79	286
5-13	2320	5.83	298	6-22	0530	6.18	336	8-21	2010	5.66	270
5-16	0605	6.29	373	7-22	0250	6.91	442				
5-29	0600	5.95	306	8-12	0635	6.40	368				

IOWA RIVER BASIN

05455500 ENGLISH RIVER AT KALONA, IOWA

LOCATION.--Lat 41°27'59", long 91°42'56", in SW1/4 SE1/4 sec.13, T.77 N., R.8 W., Washington County, on right bank 30 ft (9 m) upstream from bridge on State Highway 1, 0.8 mi (1.3 km) south of Kalona, 1.1 mi (1.8 km) upstream from Camp Creek, 4.5 mi (7.2 km) downstream from Smith Creek, and 14.5 mi (23.3 km) upstream from mouth.

DRAINAGE AREA.--573 mi² (1,484 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 633.45 ft (193.08 m) above mean sea level (levels by Corps of Engineers). Prior to Dec. 27, 1939, nonrecording gage 30 ft (9 m) downstream at same datum.

AVERAGE DISCHARGE.--35 years, 372 ft³/s (10.5 m³/s), 8.52 in/yr (216 mm/yr), 269,500 acre-ft/yr (332 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 18,400 ft³/s (521 m³/s) May 18, gage height, 20.17 ft (6.148 m); minimum daily, 60 ft³/s (1.70 m³/s) Nov. 11.

Period of record: Maximum discharge, 20,000 ft³/s (566 m³/s) Sept. 21, 1965, gage height, 21.45 ft (6.538 m); minimum daily, 1.1 ft³/s (31 dm³/s) Jan. 20-27, 1956.

Flood in June 1930 reached a stage of 19.9 ft (6.07 m) from floodmark, from information by local residents, discharge, 18,500 ft³/s (524 m³/s).

REMARKS.--Records good except those for winter period, which are fair.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1558: 1940 (M), 1941, WSP 1708: 1956, 1957 (P), 1958 (P).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	312	87	191	300	2,800	636	693	7,160	1,980	488	97	120
2	222	83	172	290	1,140	414	559	2,460	1,300	438	136	118
3	181	79	171	280	700	501	526	1,350	1,160	398	183	126
4	144	74	394	270	750	1,020	888	1,040	1,060	1,910	130	136
5	120	72	1,990	260	720	1,710	1,310	885	903	1,980	112	127
6	107	69	1,230	250	660	1,120	882	777	826	797	100	121
7	105	68	657	240	580	828	733	725	2,170	563	92	115
8	101	71	500	230	520	728	616	1,330	3,300	477	88	133
9	96	68	400	220	460	805	527	1,100	2,500	414	400	141
10	96	62	320	220	420	784	489	878	3,840	372	1,000	111
11	322	60	500	210	380	673	481	970	2,840	2,800	500	103
12	713	66	650	210	450	910	512	871	1,390	1,800	450	134
13	415	71	780	200	700	1,020	484	930	1,080	790	800	407
14	259	71	620	210	620	753	1,720	3,320	962	493	600	296
15	198	69	560	210	430	652	1,730	4,020	909	428	500	160
16	165	67	520	220	360	599	983	4,360	800	350	450	119
17	139	63	480	230	370	510	778	5,290	693	306	650	103
18	124	63	460	240	460	471	672	13,900	633	275	550	95
19	117	63	440	260	450	450	591	14,100	2,410	248	361	88
20	110	74	420	1,100	383	402	538	8,510	2,020	240	317	83
21	103	259	400	2,300	352	364	570	3,920	3,500	221	270	77
22	102	423	400	2,400	884	346	923	2,150	3,170	209	378	71
23	100	214	390	1,400	743	325	608	1,550	4,260	188	264	69
24	98	184	380	850	350	257	496	1,190	3,420	171	209	67
25	93	379	550	700	250	275	452	1,040	1,270	155	191	67
26	89	249	1,600	1,200	300	362	425	1,190	924	145	186	65
27	86	220	1,200	3,420	835	312	399	2,150	784	135	176	63
28	84	249	680	4,350	968	290	595	3,650	685	149	155	62
29	83	256	520	3,200	-----	350	5,690	6,790	613	137	143	66
30	83	212	400	2,860	-----	1,480	13,300	7,430	549	118	136	63
31	86	-----	320	4,190	-----	1,010	-----	4,370	-----	104	128	-----
TOTAL	5,053	4,065	18,295	32,520	18,035	20,357	39,170	109,406	51,951	17,299	9,752	3,506
MEAN	163	136	590	1,049	644	657	1,306	3,529	1,732	558	315	117
MAX	713	423	1,990	4,350	2,800	1,710	13,300	14,100	4,260	2,800	1,000	407
MIN	83	60	171	200	250	257	399	725	549	104	88	62
CFSM	.28	.24	1.03	1.83	1.12	1.15	2.28	6.16	3.02	.97	.55	.20
IN.	.33	.26	1.19	2.11	1.17	1.32	2.54	7.10	3.37	1.12	.63	.23
AC-FT	10,020	8,060	36,290	64,500	35,770	40,380	77,690	217,000	103,000	34,310	19,340	6,950
CAL YR 1973	TOTAL 312,736	MEAN 857	MAX 8,170	MIN 17	CFSM 1.50	IN 20.30	AC-FT 620,300					
WTR YR 1974	TOTAL 329,409	MEAN 902	MAX 14,100	MIN 60	CFSM 1.57	IN 21.39	AC-FT 653,400					

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-28	1045	13.71	4,680	5-18	1230	20.17	18,400	6-21	1145	14.13	4,340
1-31	0400	13.58	4,570	5-29	2245	17.80	8,600	6-23	0300	14.42	4,540
4-30	1600	19.97	17,000	6-7	0400	13.73	4,060	7-11	1500	14.23	4,410

05455700 IOWA RIVER NEAR LONE TREE, IOWA

LOCATION.--Lat 41°25'15", long 91°28'25", in NW1/4 NE1/4 sec.6, T.76 N., R.5 W., Louisa County, on left bank 10 ft (3 m) downstream from bridge on county highway W66, 5 mi (8.0 km) southwest of Lone Tree, 6.2 mi (10.0 km) downstream from English River, and at mile 47.2 (75.9 km).

DRAINAGE AREA.--4,293 mi² (11,118 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 588.16 ft (179.27 m) above mean sea level. Prior to Dec. 28, 1956, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--18 years, 2,842 ft³/s (80.5 m³/s), 8.99 in/yr (228 mm/yr), 2,059,000 acre-ft/yr (2,540 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 35,700 ft³/s (1,010 m³/s) May 19, gage height, 18.97 ft (5.782 m); minimum daily, 828 ft³/s (23.4 m³/s) Sept. 30.

Period of record: Maximum discharge, 35,700 ft³/s (110 m³/s) May 19, 1974, gage height, 18.97 ft (5.782 m); maximum gage height, 20.27 ft (6.178 m) Sept. 22, 1965; minimum daily discharge, 75 ft³/s (2.12 m³/s) Dec. 8, 1956.

Flood of May 25, 1944, reached a stage of 19.94 ft (6.078 m), discharge not determined, from information by Corps of Engineers.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Coralville Reservoir beginning Sept. 17, 1958 (see Sta. 05453510).

COOPERATION.--Eight discharge measurements furnished by Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,210	1,450	2,720	4,000	11,500	4,870	5,100	16,500	16,600	11,000	2,730	4,810
2	3,790	1,310	2,660	3,800	8,860	4,540	4,630	10,000	13,200	10,800	2,790	4,760
3	3,300	1,250	2,070	3,000	7,330	4,900	3,900	6,250	12,300	10,700	2,890	4,710
4	3,170	1,240	2,140	2,200	6,720	6,170	4,500	6,090	12,000	11,000	3,160	3,910
5	2,830	1,220	3,920	1,600	6,600	9,160	5,700	5,820	11,600	12,800	3,170	3,570
6	2,640	1,220	4,530	1,400	6,400	8,350	5,750	5,610	11,400	12,000	3,110	3,490
7	2,610	1,220	3,780	1,400	6,200	7,630	5,450	5,710	12,200	10,900	2,620	2,820
8	2,200	1,210	3,240	1,300	5,000	7,520	5,230	6,870	15,300	10,400	2,440	2,570
9	2,100	1,210	3,140	1,300	3,300	7,710	5,070	6,680	15,700	9,580	3,900	2,530
10	1,680	1,130	2,960	1,300	2,000	7,660	4,950	6,050	15,600	8,760	6,540	2,490
11	1,660	1,060	2,880	1,300	2,500	7,450	4,890	6,190	15,400	9,790	6,380	2,460
12	2,490	1,060	2,800	1,300	3,000	7,980	4,790	5,990	13,600	12,400	7,460	2,170
13	3,230	1,080	2,950	1,300	3,300	8,260	3,820	5,700	12,000	9,680	9,640	1,950
14	3,910	1,080	2,880	1,300	2,900	7,720	5,220	10,000	11,500	7,550	9,660	1,710
15	4,240	1,060	2,790	1,300	2,930	6,930	8,240	10,600	11,300	7,040	7,730	1,360
16	4,210	1,050	2,760	1,300	3,070	5,680	6,780	9,910	11,200	6,830	6,100	1,210
17	4,160	1,030	2,780	1,300	2,890	5,520	6,100	15,300	11,000	6,670	6,550	1,180
18	4,030	1,020	1,890	1,400	3,510	5,520	5,350	25,500	10,900	6,550	5,810	1,130
19	3,250	1,000	1,500	1,700	3,620	5,290	4,320	30,600	11,800	6,430	5,550	1,180
20	2,490	1,030	1,500	3,000	3,400	4,070	4,050	21,000	13,400	6,350	5,530	1,210
21	2,090	1,150	1,600	5,400	3,340	3,820	4,110	13,300	13,300	6,230	5,520	1,180
22	2,030	1,700	2,500	6,400	4,500	3,770	4,680	7,700	15,700	6,300	7,510	1,160
23	2,030	1,650	3,500	6,000	5,050	3,670	4,530	7,040	17,900	5,750	5,860	1,140
24	2,020	1,690	4,000	5,200	4,280	3,130	4,390	6,540	17,600	5,430	5,350	1,120
25	2,010	2,220	4,200	5,000	3,980	2,940	4,310	6,240	14,900	5,290	5,170	1,120
26	1,990	2,280	4,100	6,000	3,910	3,050	4,270	6,240	12,100	5,110	5,080	1,110
27	1,860	2,360	3,800	8,000	4,110	3,030	4,390	7,300	11,500	4,000	4,990	906
28	1,770	2,540	3,500	9,000	5,270	2,760	3,950	8,760	11,300	3,110	4,900	842
29	1,760	2,740	3,460	10,000	-----	2,710	9,420	12,100	11,200	2,910	4,960	847
30	1,660	2,740	3,410	11,000	-----	4,460	12,000	18,700	11,100	2,800	4,920	828
31	1,570	-----	3,410	11,400	-----	6,070	-----	20,100	-----	2,740	4,860	-----
TOTAL	82,990	44,000	93,370	119,900	129,470	172,340	159,890	330,390	394,600	236,900	162,880	61,473
MEAN	2,677	1,467	3,012	3,868	4,624	5,559	5,330	10,660	13,150	7,642	5,254	2,049
MAX	4,240	2,740	4,530	11,400	11,500	9,160	12,000	30,600	17,900	12,800	9,660	4,810
MIN	1,570	1,000	1,500	1,300	2,000	2,710	3,820	5,610	10,900	2,740	2,440	828
AC-FT	164,600	87,270	185,200	237,800	256,800	341,800	317,100	655,300	782,700	469,900	323,100	121,900
CAL YR 1973	TOTAL	2,071,134	MEAN	5,674	MAX	19,300	MIN	307	AC-FT	4,108,000		
WTR YR 1974	TOTAL	1,988,203	MEAN	5,447	MAX	30,600	MIN	828	AC-FT	3,944,000		

IOWA RIVER BASIN

05457700 CEDAR RIVER AT CHARLES CITY, IOWA

LOCATION.--Lat 43°03'45", long 92°40'23", in SE1/4 NE1/4, sec.12, T.95 N., R.16 W., Floyd County, on right bank 800 ft (244 m) downstream from bridge on U.S. Highway 18 (Brantingham Street) in Charles City, 10.6 mi (17.1 km) upstream from Gizzard Creek, and at mile 252.9 (406.9 km) upstream from mouth of Iowa River.

DRAINAGE AREA.--1,054 mi² (2,729 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 973.02 ft (296.58 m) above mean sea level.

AVERAGE DISCHARGE.--10 years, 715 ft³/s (20.2 m³/s), 9.21 in./yr (234 mm/yr), 518,000 acre-ft/yr (639 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 8,220 ft³/s (233 m³/s) Apr. 5, gage height, 11.34 ft (3.456 m); minimum daily, 204 ft³/s (5.78 m³/s) Sept. 23, 24.
Period of record: Maximum discharge, 21,000 ft³/s (595 m³/s) Apr. 7, 1965, gage height, 19.14 ft (5.834 m); maximum gage height, 21.64 ft (6.596 m) Mar. 2, 1965, backwater from ice; minimum daily discharge, 86 ft³/s (2.44 m³/s) Dec. 1, 1966.
Flood of Mar. 27, 1961, reached a stage of 21.6 ft (6.58 m), from floodmarks, discharge, 29,200 ft³/s (827 m³/s).

REMARKS.--Records good except those for winter period, which are poor. Occasional minor regulation by dam 0.2 mi (0.3 km) above gage. Daily wire-weight gage readings available in district office for period Sept. 13, 1945, to June 30, 1954, at same site and datum. Discharge not published for this period because of extreme regulation of streamflow by power dam 0.2 mi (0.3 km) upstream. Records of periodic chemical analyses for the current year are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,000	500	1,150	540	350	361	1,520	681	947	586	307	252
2	3,490	480	1,070	510	365	583	1,980	648	875	550	305	251
3	2,030	475	980	485	380	1,410	2,850	639	831	527	319	246
4	1,930	470	880	460	395	3,210	4,810	650	1,210	504	345	240
5	4,060	470	780	440	390	5,200	7,780	640	1,180	479	341	233
6	4,580	465	690	415	375	4,500	4,310	607	1,400	458	333	232
7	2,250	468	630	400	355	4,000	2,540	637	1,240	443	316	234
8	1,610	458	600	385	340	3,550	2,030	753	1,060	426	307	234
9	1,380	448	650	375	325	3,100	1,760	815	4,230	411	298	232
10	1,390	426	680	355	315	3,880	1,530	868	3,550	430	319	228
11	1,600	426	650	345	305	3,050	1,430	1,650	4,020	470	319	230
12	3,180	437	620	335	300	2,550	1,420	1,910	3,230	498	366	239
13	4,980	439	650	320	285	2,740	1,770	1,910	1,930	468	468	240
14	3,360	445	680	310	291	2,600	2,460	2,960	1,490	455	386	246
15	1,910	485	640	300	280	2,060	2,490	2,860	1,270	423	340	240
16	1,440	801	620	295	275	1,630	2,020	2,390	1,120	395	317	230
17	1,250	1,600	610	290	290	1,370	1,550	1,790	1,020	378	299	226
18	1,130	1,480	590	290	325	1,220	1,310	1,580	1,010	370	291	217
19	1,030	1,140	570	285	350	1,130	1,170	1,550	980	359	279	215
20	920	1,050	560	285	380	1,020	1,080	1,420	963	401	264	211
21	800	1,560	550	285	425	973	1,110	1,440	1,500	455	269	208
22	720	3,460	540	285	458	840	1,220	3,810	1,980	435	354	206
23	670	3,440	530	290	536	720	1,170	2,010	1,860	370	362	204
24	620	2,060	520	295	475	570	1,040	1,520	1,270	375	366	204
25	590	1,600	530	300	440	690	939	1,240	1,020	407	321	208
26	570	1,470	540	310	410	750	868	1,120	887	394	294	210
27	550	1,390	560	315	392	768	819	1,040	797	403	296	209
28	540	1,320	580	325	382	711	805	1,370	728	375	276	218
29	530	1,280	590	330	-----	726	779	1,490	673	344	268	223
30	520	1,220	600	335	-----	914	729	1,140	635	325	258	212
31	510	-----	580	345	-----	1,190	-----	1,030	-----	312	254	-----
TOTAL	54,140	31,763	20,420	10,835	10,189	58,016	57,289	44,168	44,906	13,226	9,837	6,778
MEAN	1,746	1,059	659	350	364	1,871	1,910	1,425	1,497	427	317	226
MAX	4,980	3,460	1,150	540	536	5,200	7,780	3,810	4,230	586	468	252
MIN	510	426	520	285	275	361	729	607	635	312	254	204
CFSM	1.66	1.00	.63	.33	.35	1.78	1.81	1.35	1.42	.41	.30	.21
IN.	1.91	1.12	.72	.38	.36	2.05	2.02	1.56	1.58	.47	.35	.24
AC-FT	107,400	63,000	40,500	21,490	20,210	115,100	113,600	87,610	89,070	26,230	19,510	13,440

CAL YR 1973 TOTAL 454,097 MEAN 1,244 MAX 11,900 MIN 235 CFSM 1.18 IN 16.03 AC-FT 900,700
WTR YR 1974 TOTAL 361,567 MEAN 991 MAX 7,780 MIN 204 CFSM .94 IN 12.76 AC-FT 717,200

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-1	2145	7.49	4,480	3-4	2400	8.79	5,530	4-14	2045	5.54	2,600
10-6	0415	8.47	5,460	3-10	1100	7.35	4,120	5-14	1330	6.26	3,170
10-13	1345	8.40	5,240	3-13	1630	5.80	2,790	5-22	1000	8.17	4,940
11-22	2315	7.27	4,070	4-5	1045	11.34	8,220	6-9	1215	9.24	6,020

05458000 LITTLE CEDAR RIVER NEAR IONIA, IOWA

LOCATION.--Lat 43°02'05", long 92°30'05", in SW1/4 NE1/4 sec.21, T.95 N., R.14 W., Chickasaw County, on left bank 12 ft (4 m) downstream from bridge on county highway B57, 2.4 mi (3.9 km) west of Ionia, 6.4 mi (10.3 km) upstream from mouth, and 7.6 mi (12.2 km) downstream from Beaver Creek.

DRAINAGE AREA.--306 mi² (793 km²).

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 973.35 ft (296.68 m) above mean sea level.

AVERAGE DISCHARGE.--20 years, 160 ft³/s (4.53 m³/s), 7.10 in/yr (180 mm/yr), 115,900 acre-ft/yr (143 hm³/yr); median of yearly mean discharges, 140 ft³/s (3.96 m³/s), 6.2 in/yr (157 mm/yr), 101,000 acre-ft/yr (125 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 9,520 ft³/s (270 m³/s) June 5, gage height, 15.04 ft (4.584 m); minimum daily, 33 ft³/s (0.93 m³/s) Sept. 22.

Period of record: Maximum discharge, 10,800 ft³/s (306 m³/s) Mar. 27, 1961, gage height, 15.58 ft (4.749 m); minimum daily, 3.0 ft³/s (85 dm³/s) Feb. 4-9, 1959.

Flood of June 22, 1954, reached a stage of 11.37 ft (3.466 m), discharge, 4,600 ft³/s (130 m³/s).

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1708: 1959.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	784	120	204	83	70	97	348	176	279	136	75	44
2	519	116	190	77	67	200	346	167	248	128	74	44
3	360	111	184	74	63	400	697	163	230	122	74	42
4	495	106	170	72	62	1,300	1,690	162	1,400	117	73	41
5	1,080	102	110	70	59	1,980	2,220	154	5,700	113	72	40
6	757	99	70	68	58	1,610	1,010	147	959	110	70	40
7	443	98	79	67	57	1,360	607	155	617	106	67	39
8	356	94	132	65	56	1,200	488	195	483	102	65	39
9	302	79	144	64	55	940	415	205	3,240	98	64	38
10	288	78	127	62	55	1,500	370	209	5,800	103	66	38
11	564	102	122	62	54	1,020	351	736	2,900	115	72	38
12	1,110	96	118	62	53	900	393	900	1,090	120	71	39
13	1,040	95	112	61	57	878	569	708	575	114	65	40
14	581	94	106	60	58	678	772	1,590	426	105	62	40
15	391	100	102	59	60	502	900	1,600	348	98	59	39
16	305	130	98	59	61	392	750	850	287	93	58	37
17	258	157	96	60	63	316	485	593	255	91	56	36
18	229	155	94	61	120	280	380	581	236	88	55	35
19	207	139	91	62	130	263	322	584	214	85	53	35
20	188	147	90	65	170	244	288	493	277	84	51	35
21	175	462	91	68	180	220	347	515	636	101	52	34
22	165	874	92	70	140	200	419	1,060	781	131	58	33
23	157	658	92	72	120	140	379	2,580	565	105	72	34
24	152	402	91	73	110	110	301	968	319	100	65	34
25	149	330	97	73	104	170	262	511	247	110	56	34
26	142	295	106	73	98	209	240	397	214	104	52	35
27	134	281	113	73	96	184	222	341	190	96	53	35
28	130	281	114	73	97	175	209	497	170	82	51	37
29	126	264	104	73	-----	174	201	796	154	86	48	38
30	125	230	96	73	-----	209	186	415	146	80	46	39
31	123	-----	88	73	-----	288	-----	320	-----	78	45	-----
TOTAL	11,835	6,295	3,523	2,107	2,373	18,139	16,167	18,768	28,986	3,201	1,900	1,132
MEAN	382	210	114	68.0	84.8	585	539	605	966	103	61.3	37.7
MAX	1,110	874	204	83	180	1,980	2,220	2,580	5,800	136	75	44
MIN	123	78	70	59	53	97	186	147	146	78	45	33
CFSM	1.25	.69	.37	.22	.28	1.91	1.76	1.98	3.16	.34	.20	.12
IN.	1.44	.77	.43	.26	.29	2.21	1.97	2.28	3.52	.39	.23	.14
AC-FT	23,470	12,490	6,990	4,180	4,710	35,980	32,070	37,230	57,490	6,350	3,770	2,250
CAL YR 1973	TOTAL 122,872	MEAN 337	MAX 4,820	MIN 49	CFSM 1.10	IN 14.94	AC-FT 243,700					
WTR YR 1974	TOTAL 114,426	MEAN 313	MAX 5,800	MIN 33	CFSM 1.02	IN 13.91	AC-FT 227,000					

PEAK DISCHARGE (BASE, 1,200 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-5	1445	6.61	1,220	5-15	0800	7.65	1,830
10-12	2100	6.75	1,270	5-23	1130	9.45	3,140
3-5	0415	8.11	2,100	6-5	0245	15.04	9,520
3-10	1900	7.55	1,730	6-10	0845	13.30	7,070
4-5	1045	8.44	2,370				

05458900 WEST FORK CEDAR RIVER AT FINCHFORD, IOWA

LOCATION.--Lat 42°37'50", long 92°32'24", in SW1/4 SE1/4 sec.6, T.90 N., R.14 W., Black Hawk County, on left bank 100 ft (30 m) downstream from bridge on county highway C55 at Finchford, 3.2 mi (5.1 km) upstream from Shell Rock River, and 5.0 mi (8.0 km) upstream from mouth.

DRAINAGE AREA.--846 mi² (2,191 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1955, published as West Fork Shell Rock River at Finchford.

GAGE.--Water-stage recorder. Datum of gage is 867.54 ft (264.43 m) above mean sea level (revised). Prior to June 10, 1955, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--29 years, 453 ft³/s (12.8 m³/s), 7.27 in/yr (185 mm/yr), 328,200 acre-ft/yr (405 hm³/yr); median of yearly mean discharges, 350 ft³/s (9.91 m³/s), 5.6 in/yr (142 mm/yr), 254,000 acre-ft/yr (313 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 10,200 ft³/s (289 m³/s) June 11, gage height, 14.05 ft (4.282 m); minimum daily, 92 ft³/s (2.61 m³/s) Sept. 27.
 Period of record: Maximum discharge, 31,900 ft³/s (903 m³/s) June 27, 1951, gage height, 17.28 ft (5.267 m), from floodmarks; minimum daily, 5.9 ft³/s (167 dm³/s) Feb. 26, 27, 1959.
 Flood in March 1929 reached a stage of about 14 ft (4 m), from information by local resident, discharge, about 12,800 ft³/s (362 m³/s).

REMARKS.--Records good except those for winter period, which are poor. An authorized diversion is made into Big Marsh, 16 mi (25.7 km) upstream from gage, of 2,100 acre-ft each year between September 1 and November 15. Net effect on daily flows at gage is unknown.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1558: 1946 (H), 1947.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,310	486	779	260	210	700	811	809	1,050	966	266	145
2	2,510	447	737	240	200	800	816	776	950	876	263	140
3	1,960	435	685	230	200	1,300	865	759	885	810	260	137
4	1,380	420	664	220	190	2,240	1,320	758	1,110	809	249	134
5	1,200	408	673	220	190	3,550	1,730	741	1,720	726	240	132
6	1,080	399	587	210	190	3,740	2,180	708	3,770	654	231	127
7	962	393	510	210	180	3,340	2,100	700	4,620	596	222	124
8	896	390	500	210	180	2,530	1,680	750	2,880	544	218	124
9	844	378	520	210	180	2,010	1,400	816	4,490	499	217	124
10	822	363	500	200	180	1,800	1,220	867	7,580	482	246	118
11	959	363	460	200	180	1,690	1,130	900	9,840	557	407	114
12	1,280	378	450	200	200	1,660	1,120	1,050	7,150	811	614	116
13	1,880	381	480	190	270	1,580	1,180	1,360	5,060	798	496	113
14	2,720	381	460	190	370	1,570	1,290	1,620	3,670	671	407	113
15	2,450	387	470	190	450	1,490	1,300	1,750	2,600	581	354	111
16	1,590	389	450	190	420	1,330	1,270	2,160	2,040	516	346	109
17	1,330	388	440	190	400	1,180	1,210	2,180	1,710	468	374	108
18	1,150	384	440	200	560	1,060	1,100	1,820	1,500	432	335	106
19	1,030	379	450	200	800	1,010	1,000	1,710	1,720	408	322	105
20	931	394	600	210	1,200	932	932	1,830	2,260	387	298	103
21	834	540	700	210	1,500	871	951	2,060	2,150	373	277	102
22	774	758	660	220	1,600	840	1,080	2,100	1,820	386	258	100
23	735	887	620	230	1,400	788	1,360	1,930	2,690	461	245	100
24	666	810	580	240	1,100	753	1,410	2,020	3,100	484	234	98
25	636	748	560	250	840	753	1,220	1,990	3,180	421	226	99
26	582	726	600	260	780	757	1,080	1,530	2,160	376	219	96
27	555	698	620	260	740	773	992	1,260	1,650	347	214	92
28	543	682	640	260	720	704	929	1,170	1,380	330	213	96
29	531	763	540	260	-----	685	887	2,150	1,200	311	210	94
30	507	746	400	250	-----	730	853	1,650	1,070	289	199	93
31	495	-----	310	230	-----	775	-----	1,200	-----	271	161	-----
TOTAL	36,142	15,301	17,085	6,840	15,430	43,941	36,416	43,124	87,005	16,640	8,821	3,373
MEAN	1,166	510	551	221	551	1,417	1,214	1,391	2,900	537	285	112
MAX	2,720	887	779	260	1,600	3,740	2,180	2,180	9,840	966	614	145
MIN	495	363	310	190	180	685	811	700	885	271	161	92
CFSM	1.38	.60	.65	.26	.65	1.67	1.44	1.64	3.43	.63	.34	.13
IN.	1.59	.67	.75	.30	.68	1.93	1.60	1.90	3.83	.73	.39	.15
AC-FT	71,690	30,350	33,890	13,570	30,610	87,160	72,230	85,540	172,600	33,010	17,500	6,690

CAL YR 1973 TOTAL 388,548 MEAN 1,065 MAX 5,770 MIN 120 CFSM 1.26 IN 17.09 AC-FT 770,700
 WTR YR 1974 TOTAL 330,118 MEAN 904 MAX 9,840 MIN 92 CFSM 1.07 IN 14.52 AC-FT 654,800

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-2	0745	10.18	2,590	6-11	0030	14.05	10,200
10-14	2000	10.52	2,880	6-25	0130	11.09	3,420
3-5	1900	11.41	3,860				

IOWA RIVER BASIN

05459000 SHELL ROCK RIVER NEAR NORTHWOOD, IOWA

LOCATION.--Lat 43°24'51", long 93°13'14", in NW1/4 NW1/4 sec.9, T.99 N., R.20 W., Worth County, on right bank 50 ft (15 m) downstream from bridge on county highway A27, 1.3 mi (2.1 km) downstream from Drainage ditch 2, 2.0 mi (3.2 km) south of Northwood, 3.7 mi (6.0 km) upstream from Elk Creek, and 84.5 mi (136.0 km) upstream from mouth.

DRAINAGE AREA.--300 mi² (777 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to April 1948 monthly discharge only, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 1,176.48 ft (358.59 m) above mean sea level. Prior to May 17, 1956, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--29 years, 144 ft³/s (4.08 m³/s), 6.52 in/yr (166 mm/yr), 104,300 acre-ft/yr (129 hm³/yr); median of yearly mean discharges, 130 ft³/s (3.68 m³/s), 5.9 in/yr (150 mm/yr), 94,200 acre-ft/yr (116 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,650 ft³/s (46.7 m³/s) occurred about June 10, gage height, 8.58 ft (2.615 m), from high-water mark in well; minimum daily, 31 ft³/s (0.88 m³/s) Sept. 27, 30.

Period of record: Maximum discharge, 3,400 ft³/s (96.3 m³/s) Apr. 8, 1965, gage height, 12.07 ft (3.679 m), backwater from ice; minimum daily, 0.3 ft³/s (8.5 dm³/s) Feb. 17-26, 1959.

REMARKS.--Records good except those for winter period, which are poor.

REVISION (WATER YEARS)--WSP 1308: 1948 (M). WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	622	163	436	116	82	84	339	224	375	199	52	48
2	593	153	395	116	77	95	382	199	365	174	60	46
3	601	148	365	116	73	220	492	206	345	162	73	45
4	834	141	320	114	70	410	814	211	360	156	76	42
5	912	133	250	114	68	430	818	197	325	147	65	40
6	843	128	220	114	66	440	769	194	375	134	58	39
7	766	125	200	114	65	540	735	199	510	115	56	40
8	701	105	186	114	64	742	709	350	470	107	56	39
9	637	140	176	114	64	867	672	358	700	97	54	38
10	584	180	166	114	64	965	629	370	960	117	65	38
11	624	124	158	114	64	880	590	680	840	149	73	37
12	686	109	150	112	64	891	573	640	700	136	65	43
13	650	104	140	112	65	864	579	610	650	130	60	46
14	585	102	136	110	66	785	575	650	584	123	59	43
15	527	214	140	110	66	719	556	620	520	117	55	39
16	469	336	138	110	66	653	508	580	472	105	54	38
17	420	292	136	110	66	588	460	550	416	93	54	37
18	367	265	130	110	68	542	420	550	366	88	53	36
19	324	276	126	110	72	493	387	580	357	88	49	35
20	298	338	124	108	77	460	366	540	343	84	47	35
21	269	628	120	108	83	420	367	520	408	80	92	34
22	243	678	120	108	90	392	368	540	425	75	88	34
23	229	643	118	106	92	300	366	520	396	76	75	35
24	221	626	118	106	90	326	352	490	368	77	67	34
25	202	619	120	106	87	347	283	465	335	78	61	32
26	202	599	126	104	86	315	265	425	306	73	57	33
27	190	580	128	104	85	283	260	400	272	72	58	31
28	193	546	126	104	85	278	255	380	250	68	56	32
29	193	507	122	100	-----	277	245	385	228	64	52	32
30	174	469	120	95	-----	313	235	360	208	62	51	31
31	166	-----	118	90	-----	318	-----	380	-----	55	50	-----
TOTAL	14,325	9,471	5,428	3,383	2,065	15,237	14,369	13,373	13,229	3,301	1,891	1,132
MEAN	462	316	175	109	73.8	492	479	431	441	106	61.0	37.7
MAX	912	678	436	116	92	965	818	680	960	199	92	48
MIN	166	102	118	90	64	84	235	194	208	55	47	31
CFSM	1.54	1.05	.58	.36	.25	1.64	1.60	1.44	1.47	.35	.20	.13
IN.	1.78	1.17	.67	.42	.26	1.89	1.78	1.66	1.64	.41	.23	.14
AC-FT	28,410	18,790	10,770	6,710	4,100	30,220	28,500	26,530	26,240	6,550	3,750	2,250

CAL YR 1973 TOTAL 121,927 MEAN 334 MAX 1,690 MIN 35 CFSM 1.11 IN 15.12 AC-FT 241,800
WTR YR 1974 TOTAL 97,204 MEAN 266 MAX 965 MIN 31 CFSM .89 IN 12.05 AC-FT 192,800

PEAK DISCHARGE (BASE, 700 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-5	0230	7.18	921	4-4	2215	6.85	845
3-9	2215	7.18	1,000	6-10	--	8.58	* 1,650

* About

05459500 WINNEBAGO RIVER AT MASON CITY, IOWA

LOCATION.--Lat 43°09'54", long 93°11'33", in NE1/4 NW1/4 sec.3, T.96 N., R.20 W., Cerro Gordo County, on right bank 650 ft (198 m) upstream from Thirteenth Street Bridge in Mason City, 0.1 mi (0.2 km) downstream from Calvus Creek, and 1.0 mi (1.6 km) upstream from Willow Creek.

DRAINAGE AREA.--526 mi² (1,362 km²).

PERIOD OF RECORD.--October 1932 to current year. Prior to December 1932, monthly discharge only, published in WSP 1308. Prior to October 1959, published as Lime Creek at Mason City.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,069.59 ft (326.01 m) above mean sea level. Prior to Oct. 15, 1934, nonrecording gage at datum 6.47 ft (1.97 m) lower. Oct. 15 to Nov. 6, 1934, nonrecording gage at different datum, and Nov. 7, 1934, to Mar. 22, 1935, nonrecording gage at present datum.

AVERAGE DISCHARGE.--42 years, 240 ft³/s (6.80 m³/s), 6.20 in/yr (157 mm/yr), 173,900 acre-ft/yr (214 hm³/yr); median of yearly mean discharges, 210 ft³/s (5.95 m³/s), 5.4 in/yr (137 mm/yr), 152,000 acre-ft/yr (187 hm³/yr).

EXTREMES.--Current year: Maximum discharge, about 2,100 ft³/s (59.5 m³/s) Mar. 3, gage height, 7.26 ft (2.213 m), backwater from ice; minimum daily, 57 ft³/s (1.61 m³/s) Sept. 27, 30.

Period of record: Maximum discharge, 10,800 ft³/s (306 m³/s) Mar. 30, 1933, gage height, 15.7 ft (4.79 m), present datum; minimum daily, 2.5 ft³/s (71 dm³/s) Dec. 29-31, 1933, Aug. 5, 1934.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 825: 1935-36, WSP 1438: Drainage area. WSP 1558: 1933-37, 1943 (H), 1945, 1948.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	608	221	626	210	146	240	440	320	539	253	80	78
2	529	213	598	200	138	320	455	310	515	237	80	77
3	475	201	571	190	130	1,560	560	297	488	225	83	75
4	694	193	470	182	122	1,650	1,300	283	509	217	92	84
5	676	185	360	170	114	1,500	1,080	283	468	205	98	67
6	610	181	252	162	108	1,470	1,000	276	508	189	98	80
7	593	185	250	156	100	1,200	888	311	739	177	89	79
8	571	181	345	148	96	992	766	498	674	162	83	77
9	538	147	390	144	92	1,040	742	507	1,020	155	86	73
10	527	147	325	140	89	1,050	718	519	1,370	162	147	70
11	714	182	350	136	87	952	670	1,030	1,200	170	171	69
12	881	184	355	132	92	1,190	665	979	1,000	185	160	72
13	748	180	365	130	100	1,130	670	862	883	205	145	92
14	664	140	305	128	106	1,040	670	940	805	189	127	75
15	604	140	286	126	110	966	682	871	735	174	111	67
16	538	426	270	126	114	874	706	819	672	158	105	78
17	500	439	256	126	120	748	682	777	619	144	99	71
18	460	427	252	128	160	694	593	786	571	130	91	67
19	425	400	250	128	260	632	560	832	601	126	88	59
20	390	501	250	132	400	588	550	777	498	119	81	63
21	365	1,150	248	136	470	532	560	741	461	109	129	62
22	342	1,050	248	142	420	475	571	771	526	103	131	60
23	324	959	250	146	385	400	538	745	766	100	126	64
24	306	900	250	148	350	290	465	699	620	100	121	62
25	283	830	292	150	315	320	425	648	485	112	102	61
26	265	772	314	152	294	470	415	601	420	116	98	58
27	253	881	324	154	270	430	400	562	370	103	107	57
28	249	842	290	156	250	415	390	545	328	95	102	62
29	245	803	256	160	-----	405	375	550	310	86	89	61
30	237	676	240	160	-----	445	347	500	278	83	85	57
31	237	-----	224	156	-----	435	-----	544	-----	80	82	-----
TOTAL	14,851	13,736	10,062	4,654	5,438	24,453	18,883	19,183	18,978	4,669	3,286	2,077
MEAN	479	458	325	150	194	789	629	619	633	151	106	69.2
MAX	881	1,150	626	210	470	1,650	1,300	1,030	1,370	253	171	92
MIN	237	140	224	126	87	240	347	276	278	80	80	57
CFSM	.91	.87	.62	.29	.37	1.50	1.20	1.18	1.20	.29	.20	.13
IN.	1.05	.97	.71	.33	.38	1.73	1.34	1.36	1.34	.33	.23	.15
AC-FT	29,460	27,250	19,960	9,230	10,790	48,500	37,450	38,050	37,640	9,260	6,520	4,120

CAL YR 1973 TOTAL 191,028 MEAN 523 MAX 3,200 MIN 52 CFSM .99 IN 13.51 AC-FT 378,900
WTR YR 1974 TOTAL 140,270 MEAN 384 MAX 1,650 MIN 57 CFSM .73 IN 9.92 AC-FT 278,200

PEAK DISCHARGE (BASE, 2,000 FT³/S).--Mar. 3 (time unknown), about 2,100 ft³/s.

IOWA RIVER BASIN

05460000 CLEAR LAKE AT CLEAR LAKE, IOWA

LOCATION.--Lat 43°08'01", long 93°22'57", in SE1/4 NE1/4 sec.13, T.96 N., R.22 W., Cerro Gordo County, at the public bathing beach in the town of Clear Lake near dam across Clear Creek.

DRAINAGE AREA.--22.6 mi² (58.5 km²).

PERIOD OF RECORD.--May 1933 to current year. No winter records 1933-52. Record fragmentary Nov. 1952 to June 1959.

GAGE.--Water-stage recorder. Datum of gage is 1,222.24 ft (372.54 m) above mean sea level, and 4.60 ft (1.40 m) below crest of spillway of dam at outlet. See WSP 1708 for history of changes prior to June 25, 1959.

EXTREMES.--Current year: Maximum gage height, 5.16 ft (1.573 m) Apr. 12; minimum, 3.90 ft (1.189 m) Sept. 30. Period of record: Maximum gage height observed, 5.94 ft (1.811 m) July 3, 1951; minimum observed, 1.16 ft (0.354 m) Dec. 20, 22-24, 1958.

REMARKS.--Lake is formed by concrete dam on Clear Creek with ungated overflow spillway 50 ft (15 m) long at elevation 1,226.84 ft (373.941 m) above mean sea level. Dam constructed in 1903. A previous outlet works had been constructed in 1887. Lake is used for conservation and recreation. Area of lake is approximately 3,600 acres (1,460 ha²).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.48	4.37	4.41	4.62	4.68	4.78	4.94	4.85	4.89	4.65	4.21	4.18
2	4.48	4.36	4.45	4.63	4.68	4.80	4.94	4.85	4.87	4.64	4.22	4.17
3	4.48	4.33	4.45	4.64	4.68	4.84	4.98	4.79	4.87	4.61	4.18	4.16
4	4.48	4.32	4.44	4.64	4.67	4.87	5.06	4.75	4.86	4.58	4.17	4.13
5	4.47	4.32	4.55	4.64	4.67	4.89	5.05	4.76	4.82	4.56	4.16	4.11
6	4.44	4.30	4.54	4.65	4.68	4.91	5.05	4.70	4.86	4.55	4.15	4.11
7	4.45	4.30	4.53	4.65	4.68	4.95	4.99	4.74	4.88	4.52	4.13	4.11
8	4.45	4.31	4.53	4.65	4.68	5.01	5.02	4.80	4.85	4.50	4.16	4.11
9	4.46	4.28	4.53	4.65	4.68	5.02	5.01	4.80	4.92	4.49	4.17	4.11
10	4.48	4.28	4.53	4.65	4.68	4.99	4.99	4.80	4.99	4.48	4.30	4.11
11	4.56	4.27	4.52	4.66	4.67	5.02	4.99	5.02	4.94	4.49	4.34	4.09
12	4.57	4.27	4.51	4.66	4.67	5.03	5.06	4.97	4.92	4.49	4.31	4.11
13	4.54	4.27	4.52	4.65	4.67	5.03	5.03	4.91	4.90	4.50	4.29	4.10
14	4.52	4.24	4.52	4.65	4.68	5.03	5.03	4.99	4.90	4.46	4.28	4.11
15	4.50	4.31	4.54	4.65	4.68	5.03	5.00	4.95	4.87	4.45	4.27	4.06
16	4.48	4.30	4.54	4.65	4.68	5.03	4.99	4.96	4.84	4.44	4.27	4.06
17	4.48	4.29	4.54	4.65	4.69	5.01	4.98	4.97	4.81	4.42	4.30	4.05
18	4.45	4.30	4.54	4.65	4.70	5.00	4.94	4.99	4.80	4.38	4.26	4.04
19	4.46	4.27	4.54	4.65	4.70	5.00	4.91	5.01	4.80	4.37	4.25	4.04
20	4.43	4.33	4.54	4.66	4.70	4.99	4.94	5.02	4.80	4.35	4.23	4.03
21	4.43	4.45	4.54	4.67	4.72	4.99	5.02	5.06	4.76	4.36	4.32	4.01
22	4.42	4.42	4.54	4.67	4.78	4.98	4.99	5.06	4.80	4.34	4.33	3.99
23	4.42	4.41	4.54	4.67	4.78	4.97	4.93	5.04	4.81	4.31	4.30	4.00
24	4.44	4.43	4.55	4.68	4.78	4.97	4.92	4.97	4.77	4.30	4.29	4.00
25	4.42	4.43	4.61	4.68	4.78	4.97	4.90	4.95	4.77	4.30	4.27	3.95
26	4.40	4.44	4.62	4.68	4.78	4.99	4.90	4.93	4.75	4.33	4.27	3.95
27	4.38	4.46	4.63	4.68	4.78	4.97	4.92	4.93	4.73	4.31	4.28	3.95
28	4.37	4.47	4.62	4.68	4.78	4.93	4.91	4.91	4.70	4.31	4.27	3.95
29	4.37	4.46	4.62	4.68	-----	4.94	4.90	4.92	4.68	4.29	4.26	3.97
30	4.38	4.44	4.62	4.68	-----	4.95	4.90	4.91	4.67	4.25	4.25	3.92
31	4.38	-----	4.62	4.69	-----	4.94	-----	4.90	-----	4.22	4.21	-----
MEAN	4.45	4.35	4.54	4.66	4.71	4.96	4.97	4.91	4.83	4.43	4.25	4.06
MAX	4.57	4.47	4.63	4.69	4.78	5.03	5.06	5.06	4.99	4.65	4.34	4.18
MIN	4.37	4.24	4.41	4.62	4.67	4.78	4.90	4.70	4.67	4.22	4.13	3.92
WTR YR 1974	MEAN	4.59	MAX	5.06	MIN	3.92						

05462000 SHELL ROCK RIVER AT SHELL ROCK, IOWA

LOCATION.--Lat 42°39'10", long 92°35'46", in NE1/4 NW1/4 sec.11, T.91 N., R.15 W., Butler County, on right bank 400 ft (122 m) upstream from bridge on county highway C45 in Shell Rock, 2.2 mi (3.5 km) downstream from Curry Creek, and 10.4 mi (16.7 km) upstream from mouth.

DRAINAGE AREA.--1,746 mi² (4,522 km²).

PERIOD OF RECORD.--June 1953 to current year. Prior to July 1953, monthly discharge only, published in WSP 1728.

GAGE.--Water-stage recorder. Rockfill dam since Oct. 19, 1957. Datum of gage is 885.34 ft (269.85 m) above mean sea level.

AVERAGE DISCHARGE.--21 years, 876 ft³/s (24.8 m³/s), 6.81 in/yr (173 mm/yr), 634,700 acre-ft/yr (783 hm³/yr); median of yearly mean discharges, 695 ft³/s (19.7 m³/s), 5.4 in/yr (137 mm/yr), 504,000 acre-ft/yr (621 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 13,600 ft³/s (385 m³/s) June 10, gage height, 12.92 ft (3.938 m); minimum daily, 277 ft³/s (7.84 m³/s) Sept. 23.

Period of record: Maximum discharge, 33,500 ft³/s (949 m³/s) Mar. 28, 1961, gage height, 16.26 ft (4.956 m); minimum daily, 39 ft³/s (1.10 m³/s) Feb. 4-9, 1959.

Flood in 1856 reached a stage of 17.7 ft (5.39 m) at bridge 400 ft (122 m) downstream, from information furnished by Corps of Engineers, discharge, about 45,000 ft³/s (1,270 m³/s).

REMARKS.--Records good except those for winter period, which are poor. Diurnal fluctuation at low stages caused by powerplant at Greene.

REVISIONS.--WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,490	852	1,930	520	480	800	1,400	1,280	2,650	1,210	521	394
2	2,120	832	1,770	500	430	1,000	1,420	1,190	2,430	1,140	503	387
3	1,920	789	1,680	540	370	3,000	1,690	1,140	2,160	1,080	496	373
4	1,870	748	1,650	580	330	5,700	3,630	1,070	5,030	1,060	495	359
5	2,210	715	1,400	600	320	5,630	5,440	1,060	3,010	985	502	351
6	2,340	697	880	580	310	4,460	4,560	1,020	2,330	938	517	356
7	2,200	692	560	550	310	4,710	3,870	1,030	2,280	908	502	343
8	2,080	687	700	530	320	4,130	3,410	1,300	2,540	860	495	355
9	1,970	658	1,000	510	350	3,160	3,060	1,740	7,940	820	489	346
10	1,870	568	900	490	400	3,800	2,840	1,790	11,500	826	539	336
11	2,030	563	850	480	450	3,810	2,680	2,530	5,830	971	633	333
12	3,340	684	920	470	490	3,710	2,640	5,210	4,050	1,000	680	341
13	3,350	679	1,000	460	530	4,150	2,850	4,390	3,370	951	638	344
14	2,740	661	900	450	500	3,730	3,010	5,010	2,980	918	597	344
15	2,380	665	800	440	450	3,290	3,120	5,660	2,700	885	563	360
16	2,110	751	740	440	440	2,970	3,010	4,490	2,400	832	550	336
17	1,900	1,110	720	450	440	2,650	2,680	3,950	2,210	801	506	316
18	1,750	1,180	740	460	1,000	2,330	2,410	3,640	2,040	758	484	316
19	1,580	1,150	740	470	1,100	2,260	2,200	5,140	2,590	727	459	309
20	1,440	1,140	600	480	1,200	1,980	1,970	4,450	2,540	700	431	299
21	1,320	1,600	620	500	1,300	1,810	2,020	3,710	2,090	677	427	283
22	1,220	2,780	640	500	1,400	1,660	2,400	4,860	2,450	659	462	280
23	1,160	2,790	660	500	1,000	1,450	2,290	4,760	2,540	635	618	277
24	1,100	2,630	680	490	940	1,190	2,070	3,700	2,250	620	550	281
25	1,070	2,560	700	490	900	1,170	1,840	3,000	2,000	636	509	288
26	1,000	2,470	720	490	860	1,200	1,670	2,660	1,750	628	480	282
27	963	2,410	740	500	840	1,270	1,560	2,420	1,600	654	510	283
28	932	2,390	760	490	820	1,130	1,530	2,300	1,460	629	478	308
29	910	2,250	720	490	-----	1,160	1,500	6,270	1,370	587	456	324
30	902	2,130	620	500	-----	1,270	1,390	4,060	1,300	549	425	327
31	883	-----	560	540	-----	1,380	-----	2,910	-----	525	417	-----
TOTAL	55,150	39,831	27,900	15,490	18,280	81,960	76,160	97,740	91,390	25,169	15,932	9,831
MEAN	1,779	1,328	900	500	653	2,644	2,539	3,153	3,046	812	514	328
MAX	3,350	2,790	1,930	600	1,400	5,700	5,440	6,270	11,500	1,210	680	394
MIN	883	563	560	440	310	800	1,390	1,020	1,300	525	417	277
CFSM	1.02	.76	.52	.29	.37	1.51	1.45	1.81	1.74	.47	.29	.19
IN.	1.18	.85	.59	.33	.39	1.75	1.62	2.08	1.95	.54	.34	.21
AC-FT	109,400	79,000	55,340	30,720	36,260	162,600	151,100	193,900	181,300	49,920	31,600	19,500
CAL YR 1973	TOTAL 633,821	MEAN 1,736	MAX 9,780	MIN 336	CFSM .99	IN 13.50	AC-FT 1,257,000					
WTR YR 1974	TOTAL 554,833	MEAN 1,520	MAX 11,500	MIN 277	CFSM .87	IN 11.82	AC-FT 1,101,000					

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-5	0145	11.08	6,170	5-29	1315	11.46	7,930
4-5	0545	10.61	5,600	6-10	0315	12.92	13,600
5-14	2300	10.85	6,220				

IOWA RIVER BASIN

05463000 BEAVER CREEK AT NEW HARTFORD, IOWA

LOCATION.--Lat 42°30'50", long 92°37'55", in SE1/4 SE1/4 sec.28, T.90 N., R.15 W., Butler County, on downstream side of center bridge pier of bridge on county highway T55, 0.2 mi (0.3 km) north of New Hartford, and 8 mi (12.9 km) upstream from mouth.

DRAINAGE AREA.--347 mi² (899 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to April 1948, monthly discharge only, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 882.44 ft (268.97 m) above mean sea level. Prior to July 14, 1959, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--29 years, 189 ft³/s (5.35 m³/s), 7.40 in/yr (188 mm/yr), 136,900 acre-ft/yr (169 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 10,500 ft³/s (297 m³/s) June 10, gage height, 12.49 ft (3.807 m); minimum daily, 46 ft³/s (1.30 m³/s) Sept. 26, 30.
Period of record: Maximum discharge, 18,000 ft³/s (510 m³/s) June 13, 1947, gage height, 13.5 ft (4.11 m), from graph based on gage readings, from rating curve extended above 14,000 ft³/s (396 m³/s); minimum daily, 2.3 ft³/s (65 dm³/s) Jan. 20-24, 1956.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1558: 1948-49. WSP 1708: 1947 (H).

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	714	193	235	150	600	270	279	262	329	314	119	73
2	468	189	231	140	520	500	274	256	310	290	116	73
3	371	183	230	130	450	1,570	334	262	299	269	113	71
4	317	176	251	130	400	1,790	767	247	396	647	110	69
5	271	172	300	125	350	1,170	786	238	347	545	108	66
6	242	169	280	125	320	767	572	231	315	345	106	65
7	238	169	260	125	300	609	482	240	312	290	104	65
8	228	167	240	120	280	521	413	326	294	259	102	64
9	219	154	220	120	270	494	373	333	2,750	234	100	62
10	231	155	210	120	260	515	352	324	7,540	222	120	61
11	500	162	220	115	250	466	342	345	2,870	360	287	60
12	941	158	230	110	280	495	404	358	1,130	309	221	60
13	982	156	210	112	350	469	429	352	766	250	167	62
14	614	155	200	114	540	418	448	461	634	220	138	59
15	468	174	180	116	450	382	464	443	546	199	120	57
16	398	182	170	118	300	351	409	407	475	182	119	56
17	359	173	160	120	220	312	368	411	429	170	225	54
18	330	171	150	125	450	306	338	435	395	159	167	53
19	305	162	150	140	660	285	314	534	1,290	150	144	52
20	283	174	140	170	520	274	302	508	1,530	144	131	51
21	266	469	140	260	350	249	390	466	623	140	123	50
22	256	493	140	300	250	262	515	717	1,180	173	111	49
23	245	360	150	270	210	236	433	833	2,990	164	103	49
24	239	328	170	240	190	247	371	535	1,200	142	98	48
25	232	321	200	200	200	328	344	449	705	141	93	48
26	218	298	300	220	240	267	326	406	568	137	89	47
27	209	285	290	240	230	215	311	379	488	134	88	46
28	205	274	270	250	220	211	296	477	430	131	85	47
29	204	262	240	250	-----	217	288	455	385	128	81	47
30	200	251	200	350	-----	278	278	392	350	125	78	46
31	197	-----	170	560	-----	291	-----	361	-----	122	76	-----
TOTAL	10,950	6,735	6,537	5,665	9,660	14,715	12,002	12,443	31,876	7,095	3,842	1,710
MEAN	353	225	211	183	345	475	400	401	1,063	229	124	57.0
MAX	982	493	300	560	660	1,790	786	833	7,540	647	287	73
MIN	197	154	140	110	190	211	274	231	294	122	76	46
CFSM	1.02	.65	.61	.53	.99	1.37	1.15	1.16	3.06	.66	.36	.16
IN.	1.17	.72	.70	.61	1.04	1.58	1.29	1.33	3.42	.76	.41	.18
AC-FT	21,720	13,360	12,970	11,240	19,160	29,190	23,810	24,680	63,230	14,070	7,620	3,390

CAL YR 1973 TOTAL 155,481 MEAN 426 MAX 4,250 MIN 55 CFSM 1.23 IN 16.67 AC-FT 308,400
WTR YR 1974 TOTAL 123,230 MEAN 338 MAX 7,540 MIN 46 CFSM .97 IN 13.21 AC-FT 244,400

PEAK DISCHARGE (BASE, 1,400 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-4	0715	8.84	2,110	6-19	2315	9.10	2,450
6-10	0415	12.49	10,500	6-23	0445	9.97	3,790

05463500 BLACK HAWK CREEK AT HUDSON, IOWA

LOCATION.--Lat 42°24'28", long 92°27'47", in SW1/4 NE1/4 sec.27, T.88 N., R.14 W., Black Hawk County, on left bank 35 ft (11 m) downstream from bridge on State Highway 58, 0.2 mi (0.3 km) northwest of Chicago Great Western Railway tracks at the west edge of Hudson, 4.5 mi (7.2 km) upstream from Prescotts Creek, and 9.6 mi (15.4 km) upstream from mouth.

DRAINAGE AREA.--303 mi² (785 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 865.03 ft (263.66 m) above mean sea level.

AVERAGE DISCHARGE.--22 years, 161 ft³/s (4.56 m³/s), 7.22 in/yr (183 mm/yr), 116,600 acre-ft/yr (144 hm³/yr); median of yearly mean discharges, 130 ft³/s (3.68 m³/s), 5.8 in/yr (147 mm/yr), 94,200 acre-ft/yr (116 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 10,500 ft³/s (297 m³/s) June 22, gage height, 16.84 ft (5.133 m); minimum daily, 37 ft³/s (1.05 m³/s) Sept. 20-23, 25-27.
Period of record: Maximum discharge, 19,300 ft³/s (547 m³/s) July 9, 1969, gage height, 18.23 ft (5.557 m); minimum daily, 1.9 ft³/s (54 dm³/s) Jan. 21-23, July 30, 1956.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS.--WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	355	105	159	110	520	130	226	178	339	388	95	48
2	286	104	151	106	280	200	212	167	313	359	105	50
3	240	102	146	104	240	1,000	234	155	294	327	94	50
4	211	99	160	102	210	1,200	409	146	278	533	91	47
5	185	96	400	100	190	700	449	142	262	480	86	46
6	163	95	350	99	180	552	376	138	249	361	82	45
7	154	95	330	98	160	462	331	139	241	318	79	45
8	145	94	310	96	150	417	290	189	236	288	76	44
9	139	91	230	94	140	403	258	208	767	259	75	42
10	135	87	180	90	135	377	241	203	3,130	242	109	41
11	285	89	190	84	130	349	227	210	1,480	323	163	41
12	467	89	210	80	140	368	246	210	796	267	136	45
13	332	87	180	82	330	362	261	204	681	233	162	50
14	270	87	160	83	340	327	269	346	605	211	114	43
15	231	99	150	84	180	298	321	410	552	195	97	41
16	205	99	140	85	170	275	311	359	492	181	90	40
17	160	97	130	86	190	242	268	407	450	170	89	40
18	158	96	125	88	350	239	239	438	415	160	87	39
19	150	91	120	90	370	220	226	643	452	149	80	38
20	142	102	118	130	270	212	214	587	496	143	73	37
21	134	297	114	500	160	184	221	504	398	136	68	37
22	129	363	116	460	140	205	282	464	4,490	140	64	37
23	126	274	120	280	130	143	282	460	5,110	130	61	37
24	124	233	130	210	120	140	253	412	2,060	123	60	38
25	121	220	150	190	130	170	231	373	815	116	58	37
26	116	209	250	190	140	193	218	346	653	112	57	37
27	111	197	240	220	137	157	208	328	575	106	56	37
28	108	186	210	250	133	155	198	326	516	103	53	45
29	107	177	160	210	-----	160	192	425	470	97	51	60
30	106	169	140	280	-----	209	186	401	428	91	51	46
31	105	-----	120	560	-----	235	-----	373	-----	86	50	-----
TOTAL	5,700	4,229	5,689	5,241	5,765	10,284	7,879	9,891	28,043	6,827	2,612	1,283
MEAN	184	141	184	169	206	332	263	319	935	220	84.3	42.8
MAX	467	363	400	560	520	1,200	449	643	5,110	533	163	60
MIN	105	87	114	80	120	130	186	138	236	86	50	37
CFSM	.61	.47	.61	.56	.68	1.10	.87	1.05	3.09	.73	.28	.14
IN.	.70	.52	.70	.64	.71	1.26	.97	1.21	3.44	.84	.32	.16
AC-FT	11,310	8,390	11,280	10,400	11,430	20,400	15,630	19,620	55,620	13,540	5,180	2,540

CAL YR 1973 TOTAL 130,694 MEAN 358 MAX 3,900 MIN 53 CFSM 1.18 IN 16.05 AC-FT 259,200
WTR YR 1974 TOTAL 93,443 MEAN 256 MAX 5,110 MIN 37 CFSM .84 IN 11.47 AC-FT 185,300

PEAK DISCHARGE (BASE, 1,200 FT³/S).--June 10 (1500) 4,100 ft³/s (15.50 ft); June 22 (2045) 10,500 ft³/s (16.84).

IOWA RIVER BASIN

05464000 CEDAR RIVER AT WATERLCO, IOWA

LOCATION.--Lat 42°29'44", long 92°20'03", in NW1/4 NW1/4 sec.25, T.89 N., R.13 W., Black Hawk County, on left bank at foot of East Seventh Street, 0.3 mi (0.5 km) upstream from Eleventh Avenue Bridge in Waterloo, 1.1 mi (1.8 km) downstream from Black Hawk Creek, and at mile 187.9 (302.3 km) above mouth of Iowa River.

DRAINAGE AREA.--5,146 mi² (13,328 km²).

PERIOD OF RECORD.--October 1940 to current year. Prior to April 1941, monthly discharge only, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 824.14 ft (251.20 m) above mean sea level.

AVERAGE DISCHARGE.--34 years, 2,787 ft³/s (78.9 m³/s), 7.35 in/yr (187 mm/yr), 2,019,000 acre-ft/yr (2,490 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 35,500 ft³/s (1,010 m³/s) June 11, gage height, 15.78 ft (4.810 m); minimum daily, 1,020 ft³/s (28.9 m³/s) Sept. 25.
 Period of record: Maximum discharge, 76,700 ft³/s (2,170 m³/s) Mar. 29, 1961, gage height, 21.86 ft (6.663 m); minimum daily, 152 ft³/s (4.30 m³/s) Jan. 28, 1959.
 Flood of Mar. 16, 1929, reached a stage of about 20 ft (6 m), determined by Corps of Engineers, from information by City of Waterloo, discharge, 65,000 ft³/s (1,840 m³/s). Flood of Apr. 2, 1933, reached a stage about 0.5 ft (0.15 m) lower than Mar. 16, 1929, from information by City of Waterloo, discharge, 61,000 ft³/s (1,730 m³/s).

REMARKS.--Records good except those for winter period, which are fair. Slight diurnal fluctuation during low flow caused by powerplant above station.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1558: 1950.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9,340	2,850	5,440	2,700	2,900	3,090	4,810	4,120	6,730	4,740	1,950	1,330
2	9,100	2,880	5,080	2,600	2,400	4,120	5,090	3,900	6,100	4,360	1,900	1,310
3	9,260	2,770	4,650	2,500	2,000	7,200	5,800	3,770	5,640	3,780	1,840	1,280
4	8,210	2,640	4,880	2,300	1,800	11,500	7,770	3,600	5,810	4,290	1,730	1,250
5	6,640	2,550	5,230	2,200	1,700	13,100	10,900	3,470	7,570	4,720	1,740	1,230
6	6,880	2,470	4,200	2,000	1,650	13,700	13,500	3,380	8,870	3,870	1,740	1,220
7	8,440	2,420	2,900	1,900	1,600	14,900	15,300	3,390	11,200	3,520	1,720	1,230
8	8,490	2,380	2,800	1,800	1,580	14,800	12,100	3,640	9,280	3,220	1,690	1,200
9	6,680	2,330	3,300	1,750	1,550	13,400	9,210	4,250	11,400	3,130	1,690	1,200
10	5,840	2,190	2,900	1,700	1,520	11,700	8,030	4,390	20,600	3,160	1,950	1,180
11	5,900	2,170	2,600	1,650	1,500	11,300	7,430	4,780	34,300	3,600	2,050	1,180
12	6,890	2,220	3,000	1,600	1,770	11,800	7,130	6,480	26,700	3,740	2,460	1,200
13	8,710	2,300	3,300	1,600	2,350	11,000	7,130	8,670	18,800	3,500	2,360	1,180
14	10,100	2,340	3,100	1,650	2,880	10,500	7,600	8,730	14,100	3,310	2,170	1,180
15	11,100	2,330	2,900	1,650	2,550	10,000	8,340	10,300	10,900	3,090	2,090	1,150
16	9,430	2,390	2,800	1,650	2,250	9,140	8,790	11,500	9,060	2,900	2,060	1,170
17	7,040	2,630	2,600	1,650	2,170	8,080	8,510	11,100	7,940	2,720	2,080	1,190
18	6,080	3,280	2,600	1,700	2,900	7,100	7,510	10,100	7,150	2,590	1,980	1,130
19	5,510	3,980	2,700	1,780	3,930	6,380	6,520	9,570	6,900	2,440	1,880	1,130
20	4,850	4,000	2,400	2,120	4,200	5,970	5,970	10,100	8,970	2,370	1,820	1,110
21	4,560	4,290	2,200	2,650	4,830	5,720	5,810	9,370	8,390	2,370	1,740	1,090
22	4,140	5,510	2,400	2,730	4,800	5,050	6,130	8,950	9,030	2,420	1,700	1,060
23	3,990	6,900	2,610	2,390	4,000	4,830	6,520	10,200	14,700	2,500	1,740	1,070
24	3,760	8,100	2,740	2,220	3,000	3,970	6,440	11,200	14,100	2,500	1,780	1,110
25	3,440	8,100	3,020	2,180	2,800	3,540	5,890	10,400	10,900	2,300	1,720	1,020
26	3,270	6,940	3,250	2,210	3,100	4,030	5,300	8,240	8,410	2,240	1,700	1,060
27	3,250	6,260	3,420	2,320	3,620	4,340	5,000	6,850	6,840	2,220	1,680	1,060
28	3,130	5,830	3,340	2,350	3,270	4,170	4,730	6,440	5,980	2,170	1,630	1,190
29	3,050	5,840	3,100	2,800	-----	4,020	4,560	8,930	5,420	2,080	1,550	1,140
30	2,980	5,710	2,900	2,630	-----	4,200	4,310	10,600	5,020	1,990	1,500	1,090
31	2,920	-----	2,800	3,200	-----	4,520	-----	8,140	-----	1,890	1,430	-----
TOTAL	192,980	116,600	101,160	65,660	74,620	247,170	222,130	228,560	326,810	93,730	57,070	34,940
MEAN	6,225	3,887	3,263	2,118	2,665	7,973	7,404	7,373	10,890	3,024	1,841	1,165
MAX	11,100	8,100	5,440	3,200	4,830	14,900	15,300	11,500	34,300	4,740	2,460	1,330
MIN	2,920	2,170	2,200	1,600	1,500	3,090	4,310	3,380	5,020	1,890	1,430	1,020
CFSM	1.21	.76	.63	.41	.52	1.55	1.44	1.43	2.12	.59	.36	.23
IN.	1.40	.84	.73	.47	.54	1.79	1.61	1.65	2.36	.68	.41	.25
AC-FT	382,800	231,300	200,700	130,200	148,000	490,300	440,600	453,300	648,200	185,900	113,200	69,300
CAL YR 1973	TOTAL 2,226,760	MEAN 6,101	MAX 36,300	MIN 1,260	CFSM 1.19	IN 16.10	AC-FT 4,417,000					
WTR YR 1974	TOTAL 1,761,430	MEAN 4,826	MAX 34,300	MIN 1,020	CFSM .94	IN 12.73	AC-FT 3,494,000					

PEAK DISCHARGE (BASE, 13,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-7	2100	9.92	15,300	6-11	1030	15.78	35,500
4-7	1130	10.05	15,600	6-23	1245	10.19	16,100

05464130 FOURMILE CREEK NEAR LINCOLN, IOWA

LOCATION.--Lat 42°13'32", long 92°36'39", in SW1/4 SW1/4 sec.28, T.86 N., R.15 W., Tama County, on left bank 10 ft (3 m) downstream from bridge on county highway, 1.0 mi (1.6 km) upstream from Half Mile Creek and 4.7 mi (7.6 km) southeast of Lincoln.

DRAINAGE AREA.--13.78 mi² (35.7 km²).

PERIOD OF RECORD.--October 1962 to September 1967, October 1969 to September 1974 (discontinued).

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir. Datum of gage is 931.26 ft (283.85 m) above mean sea level.

AVERAGE DISCHARGE.--10 years (1963-67, 1970-74), 9.48 ft³/s (0.268 m³/s), 9.34 in/yr (237 mm/yr), 6,870 acre-ft/yr (8.47 hm³/yr); mean of yearly mean discharges, 7.2 ft³/s (0.204 m³/s), 7.1 in/yr (180 mm/yr), 5,220 acre-ft/yr (6.44 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,450 ft³/s (41.1 m³/s) June 22, gage height, 13.98 ft (4.261 m); minimum daily, 1.6 ft³/s (0.045 m³/s) Sept. 10, 11, 14-16.
Period of record: Maximum discharge, 1,450 ft³/s (41.1 m³/s) June 22, 1974, gage height, 13.98 ft (4.261 m); minimum daily, 0.11 ft³/s (0.003 m³/s) July 29, 1964.

REMARKS.--Records good except those for winter period, which are poor. Records of chemical analyses, water temperatures, and suspended-sediment discharges for the current year are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	4.7	5.7	7.1	13	24	10	7.4	17	18	6.3	2.4
2	7.4	5.0	5.8	6.5	9.0	90	9.5	7.2	16	17	5.7	2.8
3	7.0	4.7	5.3	6.0	7.8	50	17	6.7	15	17	5.5	2.6
4	8.6	4.7	24	5.6	6.6	40	20	6.6	15	87	5.2	2.4
5	7.3	4.8	23	5.5	6.0	24	17	6.4	15	24	4.7	2.2
6	6.7	4.7	17	5.2	5.5	20	15	6.3	14	20	4.5	2.2
7	6.4	4.6	15	5.0	5.0	20	13	9.2	14	18	4.2	2.2
8	6.2	4.5	13	4.9	4.8	20	12	11	14	16	4.1	2.0
9	5.9	4.3	12	4.8	4.6	20	11	9.6	368	15	4.4	1.7
10	6.6	4.2	14	4.7	4.5	19	10	9.6	89	76	19	1.6
11	20	4.3	9.8	4.6	7.2	18	11	11	52	27	11	1.6
12	12	4.3	9.2	4.7	35	17	11	10	42	18	8.7	2.1
13	9.7	4.4	8.8	4.7	15	15	10	16	36	15	6.8	1.8
14	8.1	3.8	8.0	4.7	5.5	14	13	19	33	14	6.6	1.6
15	7.2	3.5	7.6	4.8	4.5	13	12	17	30	12	6.3	1.6
16	6.6	3.3	7.3	4.8	7.0	11	11	55	27	11	6.3	1.6
17	6.2	3.5	7.3	4.9	17	11	11	33	25	11	6.1	1.7
18	6.1	3.4	7.1	5.2	36	10	10	108	23	9.9	5.7	1.7
19	5.7	3.3	5.9	5.0	9.5	9.6	9.6	56	23	9.6	5.1	1.7
20	5.4	7.0	7.6	54	8.0	9.1	9.3	41	22	9.3	4.6	1.7
21	5.3	11	6.7	41	13	9.2	11	33	21	9.1	4.3	1.8
22	5.0	7.1	6.7	15	6.0	8.5	10	29	380	8.4	3.9	1.8
23	4.9	6.2	6.7	10	6.6	8.8	9.9	25	56	7.5	3.4	1.8
24	4.8	8.4	7.6	8.4	7.4	11	9.5	22	39	7.0	3.2	1.8
25	4.7	7.6	17	8.0	7.6	16	9.2	20	33	6.5	3.0	1.8
26	4.7	7.1	15	9.5	7.8	6.9	9.2	20	29	6.2	2.9	1.8
27	4.6	6.7	11	17	9.2	6.9	9.4	19	26	5.9	2.6	1.8
28	4.9	6.4	9.5	11	19	7.0	8.3	29	23	5.9	2.6	2.9
29	4.8	5.9	8.8	17	-----	8.1	8.0	22	21	5.3	2.5	2.3
30	4.8	5.7	8.2	70	-----	12	7.6	20	20	4.9	2.5	1.9
31	4.7	-----	7.6	45	-----	11	-----	18	-----	4.6	2.5	-----
TOTAL	210.5	159.1	318.2	404.6	288.1	560.1	334.5	703.0	1,538	516.1	164.2	58.9
MEAN	6.79	5.30	10.3	13.1	10.3	18.1	11.2	22.7	51.3	16.6	5.30	1.96
MAX	20	11	24	70	36	90	20	108	380	87	19	2.9
MIN	4.6	3.3	5.3	4.6	4.5	6.9	7.6	6.3	14	4.6	2.5	1.6
CFSM	.49	.38	.75	.95	.75	1.31	.81	1.65	3.72	1.20	.38	.14
IN.	.57	.43	.86	1.09	.78	1.51	.90	1.90	4.15	1.39	.44	.16
AC-FT	418	316	631	803	571	1,110	663	1,390	3,050	1,020	326	117

CAL YR 1973 TOTAL 7,575.0 MEAN 20.8 MAX 338 MIN 1.3 CFSM 1.51 IN 20.45 AC-FT 15,030
WTR YR 1974 TOTAL 5,255.3 MEAN 14.4 MAX 380 MIN 1.6 CFSM 1.05 IN 14.19 AC-FT 10,420

PEAK DISCHARGE (BASE, 350 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
6-9	0445	13.59	1,210	7-4	0500	11.77	405
6-22	0600	13.98	1,450	7-10	1945	11.93	456

IOWA RIVER BASIN

05464133 HALF MILE CREEK NEAR GLADBROOK, IOWA

LOCATION.--Lat 42°12'40", long 92°36'39", in SW1/4 SW1/4 sec.33, T.86 N., R.15 W., Tama County, on right bank 10 ft (3 m) downstream from bridge on county highway, 0.8 mi (1.3 km) upstream from mouth, and 5.3 mi (8.5 km) northeast of Gladbrook.

DRAINAGE AREA.--1.33 mi² (3.44 km²).

PERIOD OF RECORD.--October 1962 to September 1967, October 1969 to September 1974 (discontinued).

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 948.16 ft (289.00 m) above mean sea level.

AVERAGE DISCHARGE.--10 years (1963-67, 1970-74), 0.82 ft³/s (0.023 m³/s), 8.37 in/yr (213 mm/yr), 594 acre-ft/yr (0.732 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 99 ft³/s (2.80 m³/s) June 9, gage height, 6.46 ft (1.969 m); minimum daily, 0.09 ft³/s (0.003 m³/s) Sept. 2-4, 8-11, 18-20.

Period of record: Maximum discharge, 307 ft³/s (8.69 m³/s) July 9, 1965, gage height, 9.24 ft (2.816 m); no flow for several days in 1964-67, 1971-72.

REMARKS.--Records fair except those for winter period, which are poor. Records of chemical analyses, water temperatures, and suspended-sediment discharges for the current year are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.73	.37	.47	.34	.96	1.3	.86	.57	1.4	3.0	.92	.10
2	.66	.37	.50	.30	.67	5.2	.88	.56	1.4	3.1	.92	.09
3	.56	.37	.46	.30	.47	2.2	1.1	.53	1.2	3.1	.89	.09
4	.50	.37	2.7	.28	.41	2.8	1.8	.55	1.3	6.0	.89	.09
5	.42	.37	2.0	.28	.39	2.3	2.2	.53	1.2	3.3	.91	.12
6	.37	.35	1.3	.28	.35	1.9	2.1	.52	1.2	3.3	.89	.11
7	.35	.35	.90	.28	.32	1.8	2.0	1.1	1.3	3.3	.89	.10
8	.32	.34	.72	.27	.31	1.9	1.7	.96	1.2	3.2	.87	.09
9	.32	.33	.66	.27	.29	2.2	1.6	.80	23	3.2	.87	.09
10	.47	.32	.60	.27	.28	2.0	1.4	.77	8.8	4.7	1.5	.09
11	1.5	.32	.56	.27	.50	1.7	1.3	.97	6.1	1.9	.77	.09
12	.77	.31	.54	.26	1.5	1.4	1.2	.80	4.9	1.8	.73	.20
13	.63	.32	.51	.26	.80	1.3	1.2	2.6	4.3	1.2	.66	.13
14	.54	.37	.49	.26	.30	1.2	1.4	2.2	3.9	1.1	.60	.11
15	.48	.27	.47	.26	.29	1.1	1.5	1.6	3.7	1.0	.56	.11
16	.46	.21	.46	.25	.60	1.0	1.4	6.8	3.6	1.0	.52	.10
17	.44	.22	.45	.27	.80	.92	1.3	3.0	3.4	1.0	.45	.10
18	.42	.21	.46	.32	.66	.88	1.1	5.8	3.2	1.0	.40	.09
19	.40	.20	.47	.40	.45	.84	1.1	2.8	3.2	1.1	.37	.09
20	.39	1.3	.52	3.5	.40	.78	.97	2.9	3.2	1.0	.32	.09
21	.38	.95	.50	1.5	.60	.76	1.1	2.7	3.2	1.0	.30	.10
22	.37	.57	.49	1.0	.23	.71	1.2	2.2	18	1.0	.24	.10
23	.36	.51	.47	.63	.30	.71	.89	1.8	5.2	1.0	.22	.11
24	.36	.86	.50	.48	.34	.66	.68	1.7	4.3	1.0	.20	.11
25	.34	.70	.56	.49	.37	.64	.65	1.6	3.8	.97	.17	.11
26	.34	.60	.62	.66	.40	.62	.63	1.6	3.2	.97	.15	.11
27	.34	.56	.66	.90	.45	.60	.62	1.5	3.1	.97	.11	.12
28	.35	.52	.70	.80	.80	.59	.67	1.8	3.1	.94	.11	.30
29	.35	.50	.70	1.3	-----	.64	.69	1.7	3.1	.94	.11	.19
30	.35	.48	.60	7.1	-----	.77	.60	1.6	3.1	.94	.11	.16
31	.35	-----	.45	1.6	-----	.82	-----	1.5	-----	.92	.10	-----
TOTAL	14.62	13.52	21.49	25.38	14.24	42.24	35.84	56.06	131.6	58.95	16.75	3.49
MEAN	.47	.45	.69	.82	.51	1.36	1.19	1.81	4.39	1.90	.54	.12
MAX	1.5	1.3	2.7	7.1	1.5	5.2	2.2	6.8	23	6.0	1.5	.30
MIN	.32	.20	.45	.25	.23	.59	.60	.52	1.2	.92	.10	.09
CFSM	.35	.34	.52	.62	.38	1.02	.89	1.36	3.30	1.43	.41	.09
IN.	.41	.38	.60	.71	.40	1.18	1.00	1.57	3.68	1.65	.47	.10
AC-FT	29	27	43	50	28	84	71	111	261	117	33	6.9

CAL YR 1973 TOTAL 485.69 MEAN 1.33 MAX 20 MIN .05 CFMS 1.00 IN 13.58 AC-FT 963
 WTR YR 1974 TOTAL 434.18 MEAN 1.19 MAX 23 MIN .09 CFMS .89 IN 12.14 AC-FT 861

PEAK DISCHARGE (BASE, 90 FT³/S).--June 9 (0055) 99 ft³/s (6.46 ft); June 22 (0345) 98 ft³/s (6.45 ft).

05464137 FOURMILE CREEK NEAR TRAER, IOWA

LOCATION.--Lat 42°12'07", long 92°33'44", near center of sec.2, T.85 N., R.15 W., Tama County, on left bank 10 ft (3 m) downstream from bridge on county highway T69, 2.0 mi (3.2 km) upstream from mouth, and 5.0 mi (8.0 km) northwest of Traer.

DRAINAGE AREA.--19.51 mi² (50.5 km²).

PERIOD OF RECORD.--October 1962 to September 1974 (discontinued).

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 905.87 ft (276.11 m) above mean sea level.

AVERAGE DISCHARGE.--12 years, 15.9 ft³/s (0.450 m³/s) 8.56 in/yr (217 mm/yr), 8,910 acre-ft/yr (11.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,040 ft³/s (29.5 m³/s) June 22, gage height, 12.91 ft (3.935 m); minimum daily, 1.0 ft³/s (0.028 m³/s) Sept. 22, 27.
Period of record: Maximum discharge, 1,040 ft³/s (29.5 m³/s) June 22, 1974, gage height, 12.91 ft (3.935 m); maximum gage height, 13.41 ft (4.087 m) Feb. 19, 1971, backwater from ice; minimum daily discharge, 0.2 ft³/s (0.006 m³/s) Dec. 16, 17, 23, 1963, Nov. 30, 1964, Feb. 1, 1965 and Jan. 10, 1968.

REMARKS.--Records good except those for winter period, which are poor. Records of chemical analyses, water temperatures, and suspended-sediment discharges for the current year are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	5.3	7.8	8.6	15	26	14	11	22	24	10	3.2
2	9.9	5.2	8.1	8.1	11	99	13	11	21	22	7.2	3.5
3	8.9	4.9	7.8	7.6	9.0	54	21	10	20	22	8.3	3.1
4	11	4.9	25	7.1	8.6	48	25	10	19	60	8.1	2.9
5	8.7	4.7	25	6.7	8.2	27	21	10	18	29	7.1	2.7
6	8.1	4.7	18	6.4	7.8	23	19	9.8	18	27	6.8	2.6
7	7.8	4.8	15	6.0	7.5	23	17	14	19	25	6.3	2.6
8	7.4	4.6	14	5.8	7.3	23	15	16	18	23	6.0	2.3
9	7.0	4.5	13	5.8	7.1	23	15	14	235	22	6.6	2.1
10	7.5	4.3	11	5.7	7.0	22	14	14	72	38	22	2.0
11	23	4.6	12	5.4	9.0	21	15	15	45	34	14	2.0
12	17	4.3	11	5.7	42	22	16	14	38	22	11	3.0
13	13	4.3	10	6.0	20	21	14	22	35	20	9.5	2.5
14	11	4.6	9.5	6.3	8.6	19	17	27	34	18	8.9	2.1
15	10	4.6	9.2	6.5	7.0	18	16	22	31	16	8.1	1.8
16	9.0	4.2	8.2	6.7	10	16	15	51	30	15	7.8	1.5
17	8.6	4.0	9.5	6.8	20	15	14	35	29	14	7.8	1.5
18	8.2	4.2	9.0	7.1	40	14	13	82	28	13	7.4	1.4
19	7.7	4.0	7.4	7.8	12	13	13	46	27	13	6.6	1.2
20	7.2	7.4	8.2	62	10	12	13	37	26	12	6.1	1.2
21	7.0	14	8.6	49	16	13	15	35	25	12	5.6	1.2
22	7.3	9.5	8.4	21	6.6	11	14	32	300	12	5.2	1.0
23	6.6	8.5	8.3	14	8.0	10	13	28	48	11	4.8	1.2
24	6.3	12	9.7	12	9.0	10	12	26	37	9.5	4.6	1.2
25	6.1	10	22	11	8.6	10	12	25	33	9.2	4.4	1.2
26	5.9	9.5	19	14	9.0	9.7	12	25	31	9.3	4.2	1.2
27	5.8	9.0	14	28	12	9.6	11	24	29	8.7	3.8	1.0
28	5.8	8.9	12	15	24	9.8	12	30	28	8.7	3.6	2.0
29	5.5	8.6	11	21	-----	11	12	26	26	7.7	3.5	3.1
30	5.4	8.2	9.8	83	-----	16	11	25	24	7.2	3.4	2.0
31	5.4	-----	9.3	49	-----	14	-----	23	-----	6.9	3.3	-----
TOTAL	270.1	192.3	370.8	505.1	360.3	663.1	444	769.8	1,366	571.2	222.0	60.3
MEAN	8.71	6.41	12.0	16.3	12.9	21.4	14.8	24.8	45.5	18.4	7.16	2.01
MAX	23	14	25	83	42	99	25	82	300	60	22	3.5
MIN	5.4	4.0	7.4	5.4	6.6	9.6	11	9.8	18	6.9	3.3	1.0
CFSM	.45	.33	.62	.84	.66	1.10	.76	1.27	2.33	.94	.37	.10
IN.	.52	.37	.71	.96	.69	1.26	.85	1.47	2.60	1.09	.42	.11
AC-FT	536	381	735	1,000	715	1,320	881	1,530	2,710	1,130	440	120

CAL YR 1973 TOTAL 8,409.2 MEAN 23.0 MAX 340 MIN 2.4 CFSM 1.18 IN 16.03 AC-FT 16,680
WTR YR 1974 TOTAL 5,795.0 MEAN 15.9 MAX 300 MIN 1.0 CFSM .82 IN 11.05 AC-FT 11,490

PEAK DISCHARGE (BASE, 400 FT³/S).--June 9 (0715) 678 ft³/s (12.42 ft); June 22 (0800) 1,040 ft³/s (12.91 ft).

IOWA RIVER BASIN

05464500 CEDAR RIVER AT CEDAR RAPIDS, IOWA

LOCATION.--Lat 41°58'14", long 91°40'01", in SE1/4 NW1/4 sec.28, T.83 N., R.7 W., Linn County, on right bank 400 ft (122 m) upstream from bridge on Eighth Avenue in Cedar Rapids, 2.7 mi (4.3 km) upstream from Prairie Creek, and at mile 112.7 (181.3 km) upstream from mouth of Iowa River.

DRAINAGE AREA.--6,510 mi² (16,861 km²).

PERIOD OF RECORD.--October 1902 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 700.47 ft (213.50 m) above mean sea level. Prior to Aug. 20, 1920, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--72 years, 3,260 ft³/s (92.3 m³/s), 6.80 in/yr (173 mm/yr), 2,362,000 acre-ft/yr (2,910 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 38,200 ft³/s (1,080 m³/s) June 14, gage height, 12.56 ft (3.828 m); minimum daily, 1,330 ft³/s (37.7 m³/s) Sept. 27.

Period of record: Maximum discharge, 73,000 ft³/s (2,070 m³/s) Mar. 31, 1961, gage height, 19.66 ft (5.992 m); maximum gage height, 20.0 ft (6.10 m) Mar. 18, 1929; minimum discharge, 53 ft³/s (1.50 m³/s) Jan. 6, 1950, caused by construction operations upstream; minimum daily, 212 ft³/s (6.00 m³/s) Dec. 10, 1949.

Flood in June 1851 reached a stage of about 20 ft (6 m), discharge, 65,000 ft³/s (1,840 m³/s), estimated.

REMARKS.--Records good except those for winter period, which are fair.

REVISIONS (WATER YEARS).--WSP 955: 1924. WSP 1308: 1904, 1906-13, 1915, 1917, 1919-24, 1928, 1930. WSP 1438: Drainage area. WSP 1558: 1915-18 (M), 1920 (M), 1922 (M), 1929, 1933, 1943.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,340	3,250	6,260	4,200	6,150	5,000	5,750	5,520	13,100	7,410	2,970	1,970
2	9,490	3,190	5,960	3,500	4,830	4,400	5,840	5,190	10,600	6,710	3,000	1,930
3	10,200	3,100	5,610	3,700	4,000	5,200	6,190	4,930	8,610	6,090	2,880	1,850
4	10,300	3,010	5,590	4,100	3,600	7,290	7,920	4,720	7,640	5,700	2,810	1,700
5	10,200	2,850	6,440	4,300	3,000	11,500	8,820	4,560	7,010	5,560	2,700	1,770
6	9,040	2,640	7,040	4,000	2,800	14,000	10,200	4,380	8,120	6,350	2,610	1,750
7	7,880	2,670	6,150	4,500	2,900	15,800	12,400	4,400	9,760	5,760	2,580	1,760
8	8,360	2,600	4,300	4,700	3,000	16,500	14,300	4,670	11,800	5,000	2,560	1,740
9	9,360	2,540	3,500	4,200	2,800	17,700	16,200	4,800	14,800	4,680	2,560	1,690
10	9,000	2,460	2,900	4,000	2,700	17,900	15,300	5,030	16,700	4,380	3,850	1,650
11	7,720	2,410	2,600	3,900	2,800	16,700	11,400	5,530	19,500	4,740	4,180	1,640
12	7,240	2,310	2,800	4,400	2,400	15,000	9,420	5,740	21,400	5,510	4,440	1,700
13	7,640	2,300	3,000	4,600	3,200	13,900	8,570	6,710	33,500	5,580	5,010	1,740
14	8,640	2,330	4,000	4,200	3,400	13,800	8,940	10,900	35,900	5,070	3,960	1,710
15	9,760	2,400	3,300	3,970	3,600	13,200	9,700	12,100	28,300	4,630	3,540	1,650
16	10,700	2,430	3,200	3,740	3,500	12,400	9,700	16,500	21,100	4,450	3,350	1,610
17	11,400	2,380	3,700	3,500	3,520	11,700	10,100	20,100	15,800	4,170	3,150	1,570
18	10,200	2,380	3,800	3,300	3,670	10,400	10,300	17,600	12,400	3,910	3,030	1,570
19	7,640	2,670	3,200	3,240	3,750	9,000	9,660	17,500	10,600	3,770	2,890	1,530
20	6,400	3,480	3,700	3,650	4,060	7,900	8,270	15,500	9,370	3,610	2,730	1,480
21	5,560	4,230	3,800	4,460	4,440	7,220	7,450	14,100	9,470	3,500	2,620	1,470
22	5,040	4,670	3,600	5,320	5,000	6,680	6,980	14,100	12,200	3,600	2,580	1,430
23	4,740	5,340	3,330	4,710	5,500	6,090	6,840	13,400	15,800	3,550	2,380	1,390
24	4,470	6,910	3,400	3,700	4,400	5,550	7,090	12,300	20,800	3,440	2,260	1,380
25	4,320	8,060	3,460	3,500	3,500	5,030	7,150	12,300	21,200	3,470	2,250	1,350
26	4,050	8,440	4,090	3,500	3,400	4,640	6,900	13,000	21,300	3,390	2,230	1,390
27	3,830	8,530	4,450	5,220	3,800	4,680	6,360	12,400	16,800	3,250	2,190	1,330
28	3,600	7,470	4,600	4,890	5,500	4,880	6,180	10,400	11,800	3,180	2,190	1,370
29	3,550	6,730	4,600	4,060	-----	5,050	7,630	10,600	9,330	3,100	2,140	1,590
30	3,430	6,350	4,800	4,130	-----	5,430	6,110	11,900	8,030	3,010	2,080	1,590
31	3,360	-----	5,000	6,170	-----	5,750	-----	13,200	-----	2,910	2,030	-----
TOTAL	225,460	120,130	132,180	129,360	105,220	300,290	267,670	314,080	462,740	139,480	89,720	48,300
MEAN	7,273	4,004	4,264	4,173	3,758	9,687	8,922	10,130	15,420	4,499	2,894	1,610
MAX	11,400	8,530	7,040	6,170	6,150	17,900	16,200	20,100	35,900	7,410	5,010	1,970
MIN	3,360	2,300	2,600	3,240	2,400	4,400	5,750	4,380	7,010	2,910	2,030	1,330
CFSM	1.12	.62	.66	.64	.58	1.49	1.37	1.56	2.37	.69	.44	.25
IN.	1.29	.69	.76	.74	.60	1.72	1.53	1.79	2.64	.80	.51	.28
AC-FT	447,200	238,300	262,200	256,600	208,700	595,600	530,900	623,000	917,800	276,700	178,000	95,800

CAL YR 1973	TOTAL	2,883,680	MEAN	7,900	MAX	43,700	MIN	1,910	CFSM	1.21	IN	16.48	AC-FT	5,720,000
WTR YR 1974	TOTAL	2,334,630	MEAN	6,396	MAX	35,900	MIN	1,330	CFSM	.98	IN	13.34	AC-FT	4,631,000

PEAK DISCHARGE (BASE, 12,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-10	0200	8.04	18,000	6-1	0345	7.04	13,400
4-9	2000	7.76	16,600	6-14	0115	12.56	38,200
5-17	0130	9.33	22,600	6-26	0045	9.10	22,300

05464640 PRAIRIE CREEK AT FAIRFAX, IOWA

LOCATION.--Lat 41°55'22", long 91°47'02", in SE1/4 SW1/4 sec.9, T.82 N., R.8 W., Linn County, on right bank 12 ft (4 m) upstream from bridge on State Highway 149 at west side of Fairfax, and 10.7 mi (17.2 km) upstream from mouth.

DRAINAGE AREA.--178 mi² (461 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 737.00 ft (224.64 m) above mean sea level.

AVERAGE DISCHARGE.--8 years, 145 ft³/s (4.11 m³/s), 11.06 in/yr (281 mm/yr), 105,100 acre-ft/yr (130 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,160 ft³/s (174 m³/s) May 16, gage height, 13.66 ft (4.164 m); minimum daily, 24 ft³/s (0.68 m³/s) Aug. 19.

Period of record: Maximum discharge, 6,160 ft³/s (174 m³/s) May 16, 1974, gage height, 13.66 ft (4.164 m); minimum daily, 3.7 ft³/s (105 dm³/s) Dec. 26, 1966, Jan. 19, 1967.

An outstanding flood occurred in June 1944, stage and discharge unknown.

REMARKS.--Records good except those for winter period, which are poor. Records of periodic chemical analyses for the current year are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	35	67	90	200	158	262	381	614	155	54	59
2	96	33	66	92	120	124	213	315	432	145	67	60
3	76	32	66	94	100	216	251	256	367	130	52	58
4	63	37	107	95	70	445	995	208	323	131	52	56
5	52	43	357	94	80	655	570	201	293	121	46	54
6	48	43	238	92	75	328	397	181	272	112	43	52
7	49	57	192	88	70	259	323	188	450	101	40	55
8	47	55	170	84	66	405	257	262	529	97	41	53
9	45	51	140	80	63	533	238	240	1,240	90	67	50
10	46	45	90	77	60	354	225	222	1,260	86	802	48
11	106	46	120	74	75	295	213	218	542	99	550	48
12	116	40	100	70	150	293	215	206	428	98	1,190	56
13	104	41	87	71	350	258	189	613	368	90	2,850	67
14	98	40	76	74	110	226	221	2,500	329	85	610	55
15	84	39	72	78	80	214	243	980	297	80	344	50
16	62	38	68	82	70	195	238	3,280	265	76	76	47
17	54	36	66	90	110	169	225	4,100	248	70	54	47
18	53	37	64	100	150	160	215	2,520	233	64	27	44
19	50	36	62	130	100	143	194	2,180	226	59	24	43
20	47	48	60	350	84	129	190	803	216	58	126	41
21	45	111	62	1,100	80	115	178	596	213	56	115	40
22	44	111	63	600	250	121	164	716	618	58	142	40
23	42	76	64	300	110	88	158	465	453	56	116	41
24	40	103	66	160	75	76	150	378	313	54	100	41
25	38	109	110	100	65	97	148	326	266	52	92	39
26	37	95	200	150	90	124	128	323	239	50	87	39
27	36	88	170	750	246	97	121	322	216	48	78	39
28	35	80	140	600	551	92	227	724	197	46	72	39
29	36	76	125	250	-----	92	1,140	936	185	44	69	41
30	34	73	110	500	-----	252	567	551	172	41	64	38
31	36	-----	100	1,000	-----	330	-----	1,630	-----	41	63	-----
TOTAL	1,851	1,754	3,478	7,515	3,650	7,043	8,855	26,821	11,804	2,493	8,113	1,440
MEAN	59.7	58.5	112	242	130	227	295	865	393	80.4	262	48.0
MAX	132	111	357	1,100	551	655	1,140	4,100	1,260	155	2,850	67
MIN	34	32	60	70	60	76	121	181	172	41	24	38
CFSM	.34	.33	.63	1.36	.73	1.28	1.66	4.86	2.21	.45	1.47	.27
IN.	.39	.37	.73	1.57	.76	1.47	1.85	5.61	2.47	.52	1.70	.30
AC-FT	3,670	3,480	6,900	14,910	7,240	13,970	17,560	53,200	23,410	4,940	16,090	2,860
CAL YR 1973	TOTAL 81,227	MEAN 223	MAX 3,100	MIN 15	CFSM 1.25	IN 16.98	AC-FT 161,100					
WTR YR 1974	TOTAL 84,817	MEAN 232	MAX 4,100	MIN 24	CFSM 1.30	IN 17.73	AC-FT 168,200					

PEAK DISCHARGE (BASE, 1,200 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-21	--	--	* 1,300	5-14	1745	9.89	2,880	5-31	1845	8.44	2,060
1-31	--	--	* 1,400	5-16	2115	13.66	6,160	6-10	0300	8.31	1,990
4-4	1315	7.00	1,240	5-19	0015	10.56	3,420	8-13	0915	10.98	3,790
4-29	0945	7.53	1,450								

* About.

IOWA RIVER BASIN

05465000 CEDAR RIVER NEAR CONESVILLE, IOWA

LOCATION.--Lat 41°24'36", long 91°17'06", in SW1/4 SW1/4 sec.2, T.76 N., R.4 W., Muscatine County, on right bank 10 ft (3 m) downstream from bridge on county highway G28, 3.4 mi (5.5 km) northeast of Conesville, 5.2 mi (8.4 km) downstream from Wapsinoc Creek, 10.7 mi (17.2 km) upstream from mouth, and at mile 39.8 (64.0 km) upstream from mouth of Iowa River.

DRAINAGE AREA.--7,785 mi² (20,163 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 581.95 ft (177.38 m) above mean sea level. Prior to Feb. 2, 1940, and Apr. 11, 1952, to July 1, 1954, nonrecording gage, Feb. 2, 1940, to Apr. 10, 1952, and July 2, 1954, to Sept. 16, 1963, water-stage recorder, at site 150 ft (46 m) downstream on left bank at same datum.

AVERAGE DISCHARGE.--35 years, 4,444 ft³/s (126 m³/s), 7.75 in/yr (197 mm/yr), 3,220,000 acre-ft/yr (3,970 hm³/yr); median of yearly mean discharges, 3,990 ft³/s (113 m³/s), 7.0 in/yr (178 mm/yr), 2,890,000 acre-ft (3,560 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 43,500 ft³/s (1,230 m³/s) May 18, gage height, 15.21 ft (4.636 m); minimum daily, 1,570 ft³/s (44.5 m³/s) Sept. 29.

Period of record: Maximum discharge, 70,800 ft³/s (2,010 m³/s) Apr. 2, 1961, gage height, 16.62 ft (5.066 m); maximum gage height, 16.85 ft (5.136 m) Apr. 12, 1965; minimum daily discharge, 250 ft³/s (7.08 m³/s) Nov. 28, 1955, result of freezeup.

Flood in March 1929 reached a stage of 15.8 ft (4.82 m), from information by local residents to Corps of Engineers.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Five discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1708: 1956.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,240	4,230	6,900	4,000	10,000	7,960	8,330	10,800	15,500	9,890	3,400	2,680
2	7,830	4,120	6,730	3,500	7,000	7,930	8,050	9,090	15,800	8,820	3,480	2,640
3	8,940	4,040	6,590	3,500	5,400	7,260	7,870	8,160	14,000	8,100	3,510	2,620
4	9,710	3,970	6,580	3,600	4,500	8,500	8,610	7,540	11,500	7,670	3,440	2,880
5	9,970	3,930	7,400	3,600	3,800	11,600	10,500	7,070	10,200	7,220	3,240	2,260
6	10,000	3,800	7,750	3,600	3,400	13,000	11,400	6,710	9,420	6,910	3,100	2,160
7	9,420	3,590	7,790	3,500	3,100	14,200	11,700	6,450	11,000	7,180	2,980	2,150
8	8,190	3,510	6,600	3,400	3,100	15,400	12,800	7,040	13,900	7,000	2,920	2,170
9	8,130	3,470	5,700	3,300	3,100	16,600	14,100	7,060	14,400	6,330	3,050	2,130
10	9,080	3,380	4,800	3,300	3,000	17,700	15,500	6,910	17,400	5,940	3,120	2,070
11	9,630	3,310	4,200	3,200	3,000	18,700	16,700	7,280	18,400	6,130	3,530	2,030
12	8,590	3,300	3,900	3,100	3,000	19,100	14,900	8,050	18,200	6,550	5,500	2,050
13	7,810	3,230	3,800	3,200	3,500	18,400	12,000	7,930	18,900	6,400	6,260	2,210
14	7,710	3,180	3,800	3,300	4,100	16,600	11,400	12,000	20,200	6,440	7,830	2,160
15	8,210	3,180	4,000	3,500	4,600	15,700	12,900	15,700	25,600	6,030	6,390	2,100
16	9,150	3,220	3,900	3,700	4,500	15,300	12,600	16,100	29,900	5,560	4,670	2,020
17	10,100	3,240	3,500	3,900	5,200	14,500	12,100	24,500	26,900	5,250	5,020	1,960
18	11,000	3,250	3,500	4,200	5,800	13,700	12,000	40,200	21,800	4,990	4,760	1,910
19	10,700	3,260	3,500	4,500	6,500	12,700	11,900	38,000	17,200	4,730	4,070	1,870
20	8,650	3,400	3,200	5,000	5,200	11,400	11,500	28,600	14,100	4,540	3,890	1,860
21	7,400	4,120	3,200	6,500	5,000	10,100	10,600	24,600	12,200	4,340	3,890	1,790
22	6,750	4,820	5,000	7,400	6,200	9,170	9,670	21,000	13,600	4,700	4,180	1,730
23	6,230	5,120	6,000	8,000	7,430	8,470	8,940	19,200	18,000	4,580	4,260	1,680
24	5,860	5,540	6,400	7,800	7,740	7,810	8,490	17,900	18,100	4,280	4,120	1,650
25	5,470	6,620	7,000	7,000	6,980	7,250	8,540	15,900	17,700	4,100	4,120	1,630
26	5,220	7,520	8,000	6,400	5,680	6,890	8,680	15,100	19,100	4,080	4,110	1,600
27	4,950	8,410	8,800	9,000	4,950	6,390	8,490	15,400	20,200	3,940	4,110	1,620
28	4,700	8,630	8,900	11,000	6,770	6,170	8,360	15,800	20,200	3,770	4,080	1,590
29	4,500	7,880	9,000	10,000	-----	6,400	11,100	16,100	16,500	3,650	3,460	1,570
30	4,390	7,250	6,500	9,200	-----	7,560	13,900	18,600	11,800	3,530	2,930	1,600
31	4,310	-----	4,700	9,000	-----	8,440	-----	15,700	-----	3,430	2,760	-----
TOTAL	238,840	136,520	177,640	164,200	142,550	360,900	333,630	470,490	511,720	176,080	126,180	60,390
MEAN	7,705	4,551	5,730	5,297	5,091	11,640	11,120	15,180	17,060	5,680	4,070	2,013
MAX	11,000	8,630	9,000	11,000	10,000	19,100	16,700	40,200	29,900	9,890	7,830	2,880
MIN	4,310	3,180	3,200	3,100	3,000	6,170	7,870	6,450	9,420	3,430	2,760	1,570
CFSM	.99	.58	.74	.68	.65	1.50	1.43	1.95	2.19	.73	.52	.26
IN.	1.14	.65	.85	.78	.68	1.72	1.59	2.25	2.45	.84	.60	.29
AC-FT	473,700	270,800	352,300	325,700	282,700	715,800	661,800	933,200	1,015M	349,300	250,300	119,800
CAL YR 1973	TOTAL 3,552,330	MEAN 9,732	MAX 51,800	MIN 2,110	CFSM 1.25	IN 16.97	AC-FT 7,046,000					
WTR YR 1974	TOTAL 2,899,140	MEAN 7,943	MAX 40,200	MIN 1,570	CFSM 1.02	IN 13.85	AC-FT 5,750,000					

PEAK DISCHARGE (BASE, 12,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-28	--	--	* 13,000	5-18	2300	15.21	43,500
3-12	0845	12.59	18,800	5-30	0945	12.71	18,900
4-11	1245	12.14	16,800	6-16	0530	14.26	30,300
4-30	1200	11.52	14,400	6-28	0815	13.18	20,600

* About

05465500 IOWA RIVER AT WAPELLO, IOWA

LOCATION.--Lat 41°10'48", long 91°10'57", in NW1/4 SE1/4 sec.27, T.74 N., R.3 W., Louisa County, on right bank 30 ft (9 m) downstream from bridge on State Highway 99 at east edge of Wapello, 13.0 mi (20.9 km) downstream from Cedar River, and at mile 16.0 (25.7 km).

DRAINAGE AREA.--12,499 mi² (32,372 km²).

PERIOD OF RECORD.--October 1914 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 538.98 ft (164.28 m) above mean sea level, adjustment of 1912; Oct. 1, 1914 to Sept. 30, 1972, at datum 10 ft (3.05 m) higher. Prior to Apr. 16, 1934, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--60 years, 6,673 ft³/s (189 m³/s), 7.25 in/yr (184 mm/yr), 4,835,000 acre-ft/yr (5,960 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 82,200 ft³/s (2,330 m³/s) May 19, gage height, 28.12 ft (8.571 m); minimum daily, 2,700 ft³/s (76.5 m³/s) Sept. 30.
Period of record: Maximum discharge, 94,000 ft³/s (2,660 m³/s) June 18, 1947, gage height, 16.14 ft (4.919 m), datum then in use; maximum gage height, 28.63 ft (8.726 m) Apr. 22, 1973; minimum daily discharge, 300 ft³/s (8.50 m³/s) Nov. 28, 1955, result of freezeup.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Coralville Reservoir since Sept. 17, 1958 (see sta. 05453510).

COOPERATION.--Six discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1308: 1917, 1923-30, 1932. WSP 1438: Drainage area. WSP 1558: 1918, 1923-25 (M), 1929. WSP 1708: 1956.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,100	6,290	9,750	6,600	17,000	13,100	13,300	24,200	38,500	23,100	6,300	7,900
2	11,900	5,970	9,530	5,800	16,000	13,100	12,300	24,800	34,100	20,600	6,400	7,800
3	12,100	5,900	9,180	5,800	11,200	12,600	11,500	16,000	30,500	19,300	6,600	7,700
4	12,800	5,860	8,980	6,000	8,600	13,500	12,100	13,100	26,100	18,800	6,800	7,500
5	12,800	5,660	10,400	6,000	7,000	19,300	14,400	12,300	22,900	18,600	7,000	6,900
6	12,400	5,550	12,500	6,000	6,200	22,300	16,700	11,600	21,500	19,300	6,600	6,000
7	12,100	5,300	12,000	6,000	5,400	22,400	16,600	11,200	22,700	18,600	6,300	5,700
8	11,000	5,090	11,200	5,800	5,400	23,200	16,800	12,200	26,800	17,800	5,780	5,200
9	10,100	5,020	9,400	5,600	5,400	24,900	17,600	13,500	30,500	16,700	5,600	4,900
10	10,400	5,010	8,000	5,600	5,200	26,100	18,700	12,700	32,500	15,500	7,200	4,800
11	11,700	4,870	7,000	5,400	5,200	27,000	20,100	13,000	34,700	15,000	9,800	4,700
12	11,200	4,820	6,400	5,200	6,000	29,100	21,100	13,900	36,500	16,200	10,300	4,500
13	10,900	4,770	6,200	5,400	7,000	30,300	17,600	13,200	35,000	17,000	13,000	4,400
14	11,300	4,700	6,200	5,700	8,000	28,500	14,700	16,400	33,800	16,300	16,500	4,200
15	12,000	4,670	6,600	6,000	8,500	25,500	18,500	23,900	34,900	14,100	18,000	3,900
16	12,700	4,680	6,300	6,300	8,920	23,300	20,100	25,400	41,500	13,100	14,500	3,600
17	13,400	4,750	6,000	6,600	9,100	21,200	18,000	27,400	47,300	12,400	11,000	3,400
18	14,000	4,720	5,600	7,000	10,300	20,200	16,700	47,600	43,500	12,000	12,000	3,200
19	14,200	4,700	5,600	7,600	11,200	18,900	15,500	78,900	39,700	11,600	10,600	3,540
20	12,200	4,920	5,400	9,000	10,400	16,700	14,600	69,100	33,400	11,200	9,800	3,200
21	10,200	5,300	7,000	11,000	9,360	15,700	13,900	54,300	29,600	11,000	9,600	3,100
22	9,280	6,210	8,300	13,000	10,400	14,200	13,200	39,900	29,400	10,800	9,500	3,000
23	8,400	6,990	9,200	14,000	12,900	13,500	12,900	29,300	34,000	11,300	12,000	2,950
24	8,130	7,170	10,000	13,500	12,500	12,500	12,200	25,400	39,000	11,600	10,500	2,900
25	7,690	8,020	11,000	13,000	11,700	11,500	11,900	23,100	39,800	10,000	9,700	2,850
26	7,500	9,370	12,500	12,000	10,600	11,000	11,900	21,500	37,000	9,700	9,600	2,900
27	7,290	10,200	14,600	16,000	9,540	10,500	11,900	22,100	35,000	9,300	9,400	3,000
28	6,930	10,900	15,000	19,000	11,200	10,000	11,700	25,100	35,200	8,200	9,200	2,800
29	6,770	10,800	14,000	18,000	-----	9,800	14,200	29,100	35,000	7,100	9,000	2,750
30	6,810	10,200	11,000	16,000	-----	10,100	22,900	31,200	29,500	6,800	8,500	2,700
31	6,690	-----	8,000	15,000	-----	13,400	-----	37,700	-----	6,600	8,100	-----
TOTAL	325,990	188,410	282,840	283,900	260,220	563,400	463,600	819,100	1,009.9M	429,600	295,180	131,990
MEAN	10,520	6,280	9,124	9,158	9,294	18,170	15,450	26,420	33,660	13,860	9,522	4,400
MAX	14,200	10,900	15,000	19,000	17,000	30,300	22,900	78,900	47,300	23,100	18,000	7,900
MIN	6,690	4,670	5,400	5,200	5,200	9,800	11,500	11,200	21,500	6,600	5,600	2,700
AC+1	646,600	373,700	561,000	563,100	516,100	1,118M	919,600	1,625M	2,003M	852,100	585,500	261,800
CAL YR 1973	TOTAL	5,936,270	MEAN	16,260	MAX	84,200	MIN	2,750	AC-FT	11,770,000		
WTR YR 1974	TOTAL	5,054,130	MEAN	13,850	MAX	78,900	MIN	2,700	AC-FT	10,020,000		

05470500 SQUAW CREEK AT AMES, IOWA

LOCATION.--Lat 42°01'21", long 93°37'45", in NE1/4 NW1/4 sec.10, T.83 N., R.24 W., Story County, on left bank 65 ft (20 m) downstream from Lincoln Way Bridge in Ames, 0.1 mi (0.2 km) downstream from College Creek, and 1.8 mi (2.9 km) upstream from mouth.

DRAINAGE AREA.--204 mi² (528 km²).

PERIOD OF RECORD.--May 1919 to April 1927, May 1965 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 881.00 ft (268.53 m) above mean sea level (levels by Iowa State University). Prior to Mar. 11, 1925, nonrecording gage at site 0.6 mi (1.0 km) upstream at different datum. Mar. 11, 1925, to Apr. 30, 1927, nonrecording gage at site 65 ft (20 m) upstream at datum about 4 ft (1 m) higher.

AVERAGE DISCHARGE.--17 years, 117 ft³/s (3.31 m³/s), 7.79 in/yr (198 mm/yr), 84,770 acre-ft/yr (105 hm³/yr); median of yearly mean discharges, 95 ft³/s (2.69 m³/s), 6.3 in/yr (160 mm/yr), 68,800 acre-ft/yr (84.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,900 ft³/s (82.1 m³/s) June 22, gage height, 8.95 ft (2.728 m); minimum daily, 4.6 ft³/s (0.13 m³/s), Sept. 25.

Period of record: Maximum discharge, 4,130 ft³/s (117 m³/s) July 17, 1922, gage height, 10.7 ft (3.26 m), site and datum then in use, from graph based on gage readings; maximum gage height, 10.74 ft (3.274 m) May 13, 1976; no flow at times most years.

Flood of June 4, 1918, reached a stage of 14.5 ft (4.42 m), from flood marks, site and datum used 1919-25, discharge, 6,900 ft³/s (195 m³/s). Flood of Mar. 1, 1965, reached a stage of 10.7 ft (3.26 m), from graph based on gage readings, at present site and datum, discharge, 4,200 ft³/s (119 m³/s).

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1308: Drainage area, 1920-22 (M), 1923, 1924-25 (M), 1926, 1927 (M), WRD Iowa. 1966: 1965, WRD Iowa. 1971: 1970 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	882	143	190	130	300	300	133	209	308	272	90	14
2	657	135	186	220	230	400	126	198	286	249	85	17
3	500	129	181	300	220	820	213	188	268	232	64	14
4	410	124	220	300	200	775	534	173	243	252	63	12
5	348	121	246	274	170	717	443	169	231	206	54	11
6	309	120	226	240	144	516	384	157	222	186	45	11
7	286	120	215	220	123	435	364	186	209	170	39	13
8	264	117	211	194	100	381	263	184	216	152	36	9.7
9	255	108	197	160	91	370	228	174	1,830	145	159	7.6
10	412	103	150	138	81	327	211	161	1,110	142	124	7.0
11	1,980	103	180	112	77	336	227	187	746	152	80	7.4
12	2,400	103	179	101	200	452	235	183	559	132	57	53
13	1,300	103	163	96	360	423	259	411	570	120	51	26
14	847	104	137	90	280	364	229	756	595	108	47	17
15	615	104	130	86	189	316	209	547	508	101	39	13
16	488	98	116	84	148	305	203	1,390	415	94	70	11
17	422	96	129	86	340	234	189	1,250	363	86	58	10
18	375	96	114	86	325	214	179	1,980	406	77	55	11
19	337	94	106	86	300	194	171	1,760	1,940	69	46	9.9
20	301	214	100	100	270	178	199	1,160	1,040	62	38	8.2
21	280	632	120	110	250	160	1,090	963	632	62	32	7.8
22	256	408	140	100	231	150	1,000	1,390	2,100	57	29	7.3
23	240	313	122	82	203	130	611	824	2,020	50	25	6.6
24	228	287	130	84	158	142	457	574	1,100	46	22	5.1
25	212	265	234	86	164	160	396	452	779	40	25	4.6
26	195	247	345	94	166	152	329	534	574	40	24	5.7
27	183	234	300	106	167	149	296	463	456	48	19	4.7
28	174	228	250	124	200	132	268	804	384	50	15	5.3
29	167	221	200	148	-----	133	245	522	334	40	15	5.4
30	163	206	140	260	-----	137	223	426	300	33	14	5.0
31	157	-----	120	370	-----	129	-----	353	-----	30	14	-----
TOTAL	15,643	5,376	5,477	4,667	5,687	9,631	9,914	18,728	20,744	3,503	1,534	340.3
MEAN	505	179	177	151	203	311	330	604	691	113	49.5	11.3
MAX	2,400	632	345	370	360	820	1,090	1,980	2,100	272	159	53
MIN	157	94	100	82	77	129	126	157	209	30	14	4.6
CFSM	2.48	.88	.87	.74	1.00	1.52	1.62	2.96	3.39	.55	.24	.06
IN.	2.85	.98	1.00	.85	1.04	1.76	1.81	3.42	3.78	.64	.28	.06
AC-FT	31,030	10,660	10,860	9,260	11,280	19,100	19,660	37,150	41,150	6,950	3,040	675
CAL YR 1973	TOTAL 125,144.0		MEAN 343	MAX 2,510	MIN 17	CFSM 1.68	IN 22.82	AC-FT 248,200				
WTR YR 1974	TOTAL 101,244.3		MEAN 277	MAX 2,400	MIN 4.6	CFSM 1.36	IN 18.46	AC-FT 200,800				

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-12	0330	8.64	2,750	5-18	1115	8.14	2,450	6-9	0800	7.93	2,400
4-21	2400	5.10	1,390	5-22	1045	5.75	1,620	6-19	0345	8.02	2,440
5-16	1415	7.21	2,080	5-28	0545	4.64	1,220	6-22	2045	8.95	2,900

SKUNK RIVER BASIN

05471000 SOUTH SKUNK RIVER BELOW SQUAW CREEK NEAR AMES, IOWA

LOCATION.--Lat 42°00'31", long 93°35'37", in NE1/4 NW1/4 sec.13, T.83 N., R.24 W., Story County, on right bank 15 ft (5 m) downstream from bridge on county highway, 0.2 mi (0.3 km) downstream from Squaw Creek, 0.2 mi (0.3 km) upstream from bridge on U.S. Highway 30, 2 mi (3.2 km) southeast of Ames, and at mile 222.6 (358.2 km) upstream from mouth of Skunk River.

DRAINAGE AREA.--556 mi² (1,440 km²).

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1966, published as Skunk River below Squaw Creek near Ames.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 857.10 ft (261.24 m) above mean sea level. Prior to Oct. 1, 1973, at datum 10.00 ft higher.

AVERAGE DISCHARGE.--22 years, 289 ft³/s (8.18 m³/s), 7.06 in/yr (179 mm/yr), 209,400 acre-ft/yr (256 hm³/yr); median of yearly mean discharges, 240 ft³/s (6.80 m³/s), 5.9 in/yr (150 mm/yr), 174,000 acre-ft/yr (215 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,800 ft³/s (221 m³/s) June 23, gage height, 23.19 ft (7.068 m); minimum daily, 18 ft³/s (0.51 m³/s) Sept. 25, 27.
 Period of record: Maximum discharge, 9,260 ft³/s (262 m³/s) Mar. 30, 1960, gage height, 13.20 ft (4.023 m), datum then in use; no flow at times most years.
 Flood of May 19, 1944, reached a stage of 13 ft (4 m), from floodmarks, discharge, 10,000 ft³/s (283 m³/s), datum then in use.

REMARKS.--Records good except those for winter period, which are poor. Low flows are affected by pumpage by City of Ames from surficial aquifer and do not represent the natural flow of the stream.

COOPERATION.--Three discharge measurements furnished by Corps of Engineers.

REVISIONS.--WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,670	417	542	310	560	736	384	606	810	736	340	93
2	1,180	399	538	510	330	1,050	381	582	746	655	537	97
3	875	362	521	520	256	2,260	540	558	701	582	393	89
4	679	338	500	490	206	1,960	1,320	516	642	633	322	80
5	539	324	490	420	250	1,900	1,260	498	606	722	282	73
6	453	316	475	370	310	1,390	1,080	480	603	585	238	70
7	399	321	445	340	290	1,170	930	486	588	513	206	72
8	348	312	410	310	280	1,050	774	549	664	465	183	70
9	306	318	380	286	260	962	701	558	3,800	432	492	63
10	472	303	355	270	246	898	656	546	3,150	405	687	56
11	3,760	316	380	256	238	862	659	564	2,060	390	627	52
12	5,650	322	425	246	395	1,090	701	582	1,580	367	489	137
13	3,450	321	405	240	820	1,100	712	883	1,420	327	426	92
14	1,930	318	370	246	640	922	729	2,010	1,240	294	369	76
15	1,430	321	340	250	430	816	722	1,660	1,090	263	328	65
16	1,150	310	325	254	360	718	676	2,760	1,060	241	351	55
17	991	306	305	250	540	624	621	2,470	785	221	348	49
18	894	313	290	240	1,250	597	585	4,020	760	202	360	42
19	833	298	265	236	900	552	543	4,040	5,180	180	350	38
20	729	459	245	246	740	513	576	2,530	2,790	162	283	31
21	659	1,200	290	250	640	440	1,930	1,990	1,640	155	238	29
22	614	963	320	240	520	400	2,440	2,980	5,020	143	208	25
23	578	766	330	210	375	350	1,580	2,210	7,190	127	183	22
24	557	714	350	186	300	330	1,210	1,430	4,410	113	164	20
25	522	665	430	204	282	350	1,050	1,280	2,580	102	156	18
26	499	632	570	238	290	385	926	1,260	1,810	95	141	21
27	481	627	420	270	330	360	834	1,110	1,420	101	130	18
28	455	659	350	240	630	363	764	1,640	1,150	357	117	20
29	456	639	310	280	-----	381	708	1,220	966	564	111	20
30	447	600	282	450	-----	390	639	1,070	824	332	103	19
31	441	-----	260	1,000	-----	387	-----	950	-----	240	99	-----
TOTAL	33,447	14,159	11,918	9,858	12,668	25,306	26,631	44,038	57,285	10,704	9,261	1,612
MEAN	1,079	472	384	318	452	816	888	1,421	1,910	345	299	53.7
MAX	5,650	1,200	570	1,000	1,250	2,260	2,440	4,040	7,190	736	687	137
MIN	306	298	245	186	206	330	381	480	588	95	99	18
CFSM	1.94	.85	.69	.57	.81	1.47	1.60	2.56	3.44	.62	.54	.10
IN.	2.24	.95	.80	.66	.85	1.69	1.78	2.95	3.83	.72	.62	.11
AC-FT	66,340	28,080	23,640	19,550	25,130	50,190	52,820	87,350	113,600	21,230	18,370	3,200
CAL YR 1973	TOTAL 283,591	MEAN 777	MAX 5,650	MIN 21	CFSM 1.40	IN 18.97	AC-FT 562,500					
WTR YR 1974	TOTAL 256,887	MEAN 704	MAX 7,190	MIN 18	CFSM 1.27	IN 17.19	AC-FT 509,500					

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-12	0815	21.69	5,880	5-22	--	18.67	* 3,200
4-22	--	18.15	* 2,900	6-9	--	21.21	5,210
5-16	--	19.83	* 4,000	6-19	--	22.58	* 6,900
5-18	--	21.13	* 5,100	6-23	--	23.19	7,800

* About

05471200 INDIAN CREEK NEAR HINGO, IOWA

LOCATION.--Lat 41°48'17", long 93°18'26", in NW1/4 NW1/4 sec.28, T.81 N., R.21 W., Jasper County, on right bank 30 ft (9 m) downstream from bridge on State Highway 117, 0.7 mi (1.1 km) downstream from Wolf Creek, 2.9 mi (4.7 km) northwest of Hingo, and 3.3 mi (5.3 km) upstream from Clear Creek.

DRAINAGE AREA.--276 mi² (715 km²).

PERIOD OF RECORD.--May 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 810.47 ft (247.03 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 177 ft³/s (5.01 m³/s), 8.71 in/yr (221 mm/yr), 128,200 acre-ft/yr (158 hm³/yr); median of yearly mean discharges, 160 ft³/s (4.53 m³/s), 7.9 in/yr (201 mm/yr), 116,000 acre-ft/yr (143 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 5,600 ft³/s (159 m³/s) June 10, gage height, 14.94 ft (4.554 m); minimum daily, 13 ft³/s (0.37 m³/s) Sept. 27.
 Period of record: Maximum discharge, 7,380 ft³/s (209 m³/s) June 12, 1966, gage height, 16.41 ft (5.002 m); minimum daily, 0.14 ft³/s (4.0 dm³/s) Jan. 11, 12, 1968.
 Flood of May 20, 1944, reached a stage of 21.4 ft (6.52 m), from information by local residents, discharge not determined.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1728: 1958 (M), 1959 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	495	196	193	120	350	373	162	209	586	433	62	32
2	421	181	198	110	240	465	150	198	516	339	115	33
3	378	163	202	130	170	668	190	183	466	258	144	33
4	328	153	284	100	100	683	295	162	425	679	115	30
5	282	149	434	120	130	714	323	160	393	682	89	26
6	256	147	366	110	150	537	307	153	368	473	74	24
7	247	150	311	100	120	451	287	166	346	384	60	24
8	232	144	290	90	110	448	242	201	318	331	58	24
9	215	131	240	80	150	460	218	210	4,100	302	86	23
10	600	125	200	91	130	438	209	208	4,550	443	262	22
11	2,900	134	200	64	140	414	210	236	1,480	547	384	20
12	2,630	135	220	60	100	478	224	219	1,140	346	237	31
13	1,360	132	200	64	180	489	210	931	946	274	230	45
14	977	127	150	70	200	435	227	1,030	802	232	177	32
15	771	128	160	74	110	364	246	674	677	199	139	27
16	642	117	130	80	100	331	246	1,810	569	175	120	24
17	551	116	120	88	110	285	227	1,620	492	156	135	21
18	484	119	130	100	200	273	217	3,880	426	146	147	19
19	437	110	110	150	200	241	195	4,280	2,800	124	130	18
20	389	150	80	350	160	214	192	1,670	3,340	105	105	17
21	360	268	120	1,000	150	200	327	1,220	1,400	80	86	17
22	338	275	230	500	130	192	434	1,150	2,740	88	75	16
23	314	238	220	370	100	165	370	849	3,390	77	67	14
24	299	269	200	330	78	156	314	649	1,430	67	59	14
25	277	265	450	300	80	169	284	530	1,010	60	58	14
26	251	256	520	400	110	174	267	766	819	56	57	14
27	238	248	280	600	206	148	249	702	694	54	49	13
28	230	234	250	230	388	149	246	2,130	607	64	42	15
29	219	220	220	300	-----	156	270	1,240	543	67	38	15
30	212	213	150	500	-----	161	228	877	484	68	37	14
31	210	-----	140	700	-----	159	-----	701	-----	56	35	-----
TOTAL	17,543	5,293	6,998	7,381	4,392	10,590	7,566	29,014	37,857	7,365	3,472	671
MEAN	566	176	226	238	157	342	252	936	1,262	238	112	22.4
MAX	2,900	275	520	1,000	388	714	434	4,280	4,550	682	384	45
MIN	210	110	80	60	78	148	150	153	318	54	35	13
CFSM	2.05	.64	.82	.86	.57	1.24	.91	3.39	4.57	.86	.41	.08
IN.	2.36	.71	.94	.99	.59	1.43	1.02	3.91	5.10	.99	.47	.09
AC-FT	34,800	10,500	13,880	14,640	8,710	21,010	15,010	57,550	75,090	14,610	6,890	1,330

CAL YR 1973 TOTAL 129,386 MEAN 354 MAX 4,450 MIN 24 CFSM 1.28 IN 17.44 AC-FT 256,600
 WTR YR 1974 TOTAL 138,142 MEAN 378 MAX 4,550 MIN 13 CFSM 1.37 IN 18.62 AC-FT 274,000

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	1600	13.17	2,970	5-18	1015	14.50	4,740	6-20	1115	13.70	3,700
5-13	2230	11.85	1,980	5-28	0900	12.74	2,770	6-22	1745	13.56	3,530
5-16	1500	12.97	2,720	6-10	0600	14.94	5,600	7-4	1245	10.69	1,600

SKUNK RIVER BASIN

05471500 SOUTH SKUNK RIVER NEAR OSKALOOSA, IOWA

LOCATION.--Lat 41°21'19", long 92°39'31", in NW1/4 SW1/4 sec.25, T.76 N., R.16 W., Mahaska County, on right bank 400 ft (122 m) upstream from bridge on U.S. Highway 63, 0.3 mi (0.5 km) downstream from Painter Creek, 4.0 mi (6.4 km) north of Oskaloosa, 53.7 mi (86.4 km) upstream from confluence with North Skunk River, and at mile 147.3 (237.0 km) upstream from mouth of Skunk River.

DRAINAGE AREA.--1,635 mi² (4,234 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1966, published as Skunk River near Oskaloosa. Prior to October 1948, monthly discharge only, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 685.50 ft (208.94 m) above mean sea level. Prior to Nov. 21, 1947, nonrecording gage at site 400 ft (122 m) downstream at same datum.

AVERAGE DISCHARGE.--29 years, 876 ft³/s (24.8 m³/s), 7.28 in/yr (185 mm/yr), 634,700 acre-ft/yr (783 hm³/yr); median of yearly mean discharges, 730 ft³/s (20.7 m³/s), 6.1 in/yr (155 mm/yr), 529,000 acre-ft/yr (652 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 12,700 ft³/s (360 m³/s) May 22, gage height, 21.22 ft (6.468 m); minimum daily, 167 ft³/s (4.73 m³/s) Sept. 28.

Period of record: Maximum discharge, 20,000 ft³/s (566 m³/s) June 15, 1947, gage height, 21.26 ft (6.480 m), from floodmarks; maximum gage height, 22.52 ft (6.864 m) Feb. 3, 1973, backwater from ice; minimum daily discharge, 1.8 ft³/s (51 dm³/s) Oct. 11-13, 1956.

Flood in May 1944 reached a stage of 25.8 ft (7.86 m), from floodmarks, discharge, 37,000 ft³/s (1,050 m³/s), from rating curve extended above 18,000 ft³/s (510 m³/s) on basis of velocity-area study.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--One discharge measurement furnished by Corps of Engineers.

REVISIONS.--WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,140	1,020	1,090	1,100	3,000	1,860	942	5,120	7,560	2,510	664	303
2	3,010	973	1,050	1,100	3,600	1,850	941	2,930	5,600	2,260	661	295
3	2,510	925	1,030	1,200	3,800	2,110	994	2,320	4,300	2,120	804	292
4	2,170	885	1,300	1,300	2,500	3,460	1,590	2,010	3,440	2,160	865	278
5	1,760	849	1,850	1,300	2,100	4,320	1,740	1,810	2,990	2,140	734	265
6	1,510	833	1,850	1,250	2,200	3,670	2,070	1,660	2,680	2,160	650	253
7	1,370	821	1,560	1,200	2,300	3,040	1,870	1,570	2,670	2,020	593	250
8	1,280	816	1,400	1,180	2,200	2,690	1,670	1,530	2,580	1,860	547	242
9	1,200	799	1,580	1,140	2,100	2,920	1,470	1,490	6,620	1,690	553	235
10	1,300	764	2,100	1,100	2,100	2,620	1,350	1,450	8,200	1,520	623	229
11	2,200	746	2,300	1,080	2,000	2,360	1,300	1,400	8,730	1,400	1,100	221
12	5,290	746	2,300	1,050	1,800	2,270	1,330	1,380	9,870	1,340	1,170	508
13	6,060	746	2,500	1,030	1,700	2,330	1,360	1,880	10,500	1,260	1,090	468
14	6,600	738	2,300	1,000	2,000	2,430	1,500	6,330	9,520	1,200	883	341
15	6,270	729	2,040	970	2,300	2,240	1,420	7,120	7,870	1,150	813	306
16	4,520	718	1,930	940	2,000	2,010	1,380	6,370	6,250	1,110	805	265
17	3,240	698	1,780	960	1,600	1,780	1,360	7,900	4,480	1,080	711	244
18	2,630	682	1,630	1,000	1,310	1,600	1,300	9,950	3,290	1,050	675	230
19	2,290	678	1,500	1,300	1,680	1,450	1,240	11,400	4,620	1,030	699	220
20	2,050	713	1,400	4,000	1,950	1,320	1,190	12,000	6,000	1,020	675	207
21	1,840	853	1,200	6,000	1,640	1,210	1,320	12,200	6,680	1,000	611	199
22	1,670	1,110	1,100	5,800	2,040	1,140	2,010	12,400	7,340	996	548	193
23	1,540	1,440	1,200	4,200	1,510	1,090	3,200	11,100	8,040	982	494	186
24	1,460	1,410	1,300	3,300	1,210	1,040	2,580	9,870	8,340	968	447	185
25	1,380	1,340	1,900	3,200	1,100	990	2,090	8,690	8,800	932	530	183
26	1,300	1,250	2,400	4,500	1,080	979	1,840	7,800	9,240	898	548	178
27	1,220	1,210	2,300	4,700	1,480	978	1,660	7,870	9,100	870	426	171
28	1,150	1,180	2,200	2,600	2,320	969	2,250	8,020	7,800	845	373	167
29	1,100	1,140	2,000	2,100	-----	952	6,540	8,380	5,560	828	345	210
30	1,070	1,130	1,700	2,300	-----	948	8,350	8,730	3,390	880	323	201
31	1,050	-----	1,300	3,100	-----	948	-----	8,530	-----	783	314	-----
TOTAL	76,180	27,942	53,090	67,000	56,620	59,574	59,857	191,210	192,060	42,062	20,274	7,525
MEAN	2,457	931	1,713	2,161	2,022	1,922	1,995	6,168	6,402	1,357	654	251
MAX	6,600	1,440	2,500	6,000	3,800	4,320	8,350	12,400	10,500	2,510	1,170	508
MIN	1,050	678	1,030	940	1,080	948	941	1,380	2,580	783	314	167
CFSM	1.50	.57	1.05	1.32	1.24	1.18	1.22	3.77	3.92	.83	.40	.15
IN.	1.73	.64	1.21	1.52	1.29	1.36	1.36	4.35	4.37	.96	.46	.17
AC-FT	151,100	55,420	105,300	132,900	112,300	118,200	118,700	379,300	381,000	83,430	40,210	14,930

CAL YR 1973 TOTAL 836,821 MEAN 2,293 MAX 13,000 MIN 175 CFSM 1.40 IN 19.04 AC-FT 1,660,000
 WTR YR 1974 TOTAL 853,394 MEAN 2,338 MAX 12,400 MIN 167 CFSM 1.43 IN 19.42 AC-FT 1,693,000

PEAK DISCHARGE (BASE, 5,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-15	0015	17.32	6,750	5-22	1200	21.22	12,700
1-21	--	--	* 6,200	6-13	1200	20.15	10,600
1-27	--	--	* 6,500	6-26	1900	19.32	9,280
4-30	1145	19.04	8,860				

* About

05472500 NORTH SKUNK RIVER NEAR SIGOURNEY, IOWA

LOCATION.--Lat 41°18'03", long 92°12'16", in NE1/4 SE1/4 sec.14, T.75 N., R.12 W., Keokuk County, on right bank 20 ft (6 m) downstream from bridge on State Highway 149, 1.2 mi (1.9 km) downstream from Cedar Creek, 2.2 mi (3.5 km) south of Sigourney, 4.0 mi (6.4 km) upstream from Bridge Creek, and 16.2 mi (26.1 km) upstream from confluence with South Skunk River.

DRAINAGE AREA.--730 mi² (1,890 km²).

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 651.53 ft (198.59 m) above mean sea level. Prior to June 10, 1953, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--29 years, 437 ft³/s (12.4 m³/s), 8.13 in/yr (207 mm/yr), 316,600 acre-ft/yr (390 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 14,000 ft³/s (396 m³/s) May 19, gage height, 22.51 ft (6.861 m); minimum daily, 65 ft³/s (1.84 m³/s) Sept. 30.
 Period of record: Maximum discharge, 27,500 ft³/s (779 m³/s) Mar. 31, 1960, gage height, 25.33 ft (7.721 m); minimum daily, 0.1 ft³/s (2.8 dm³/s) Oct. 7 to Nov. 15, 1956.
 Flood in May 1944 reached a stage of 22.8 ft (6.95 m), from floodmark, discharge, 14,500 ft³/s (411 m³/s).

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1558: 1946-47 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	642	196	271	390	2,800	1,460	568	9,450	4,900	656	150	102
2	468	197	255	350	2,100	965	507	5,080	3,740	597	150	104
3	438	183	247	380	750	926	486	2,650	2,350	553	166	102
4	399	171	563	370	500	1,240	635	1,280	1,530	769	187	102
5	512	164	1,670	340	450	1,590	1,570	1,030	1,320	1,040	166	101
6	395	159	1,320	310	400	1,620	1,080	900	1,200	729	155	95
7	308	158	697	290	410	1,070	831	843	2,170	595	142	92
8	280	158	549	280	420	926	725	1,190	2,030	517	136	91
9	259	158	500	260	370	1,070	630	1,120	2,380	468	157	92
10	338	154	410	250	350	1,280	576	940	3,020	425	1,260	88
11	1,360	147	380	240	340	1,010	556	980	5,530	460	1,350	83
12	1,330	143	390	230	320	1,080	586	923	7,410	549	568	129
13	1,070	159	400	230	380	1,070	662	952	5,290	423	503	263
14	730	160	410	220	420	907	996	2,020	3,320	367	792	410
15	537	156	350	230	420	819	1,350	2,410	1,590	331	414	182
16	447	150	290	250	360	792	867	4,300	1,300	307	283	126
17	392	147	280	270	370	703	713	6,090	1,130	280	281	107
18	351	146	300	300	432	636	632	7,300	1,010	262	262	96
19	326	134	320	450	497	617	579	13,500	1,090	243	224	91
20	303	211	350	1,300	450	581	538	13,000	1,720	233	197	85
21	280	734	400	2,000	425	531	577	11,300	1,410	224	172	81
22	261	472	390	2,000	887	498	852	6,450	1,070	219	195	76
23	251	344	380	2,000	1,120	481	719	4,650	1,790	211	154	73
24	239	274	370	2,100	571	432	580	3,510	2,150	206	137	72
25	226	418	800	1,600	447	377	519	2,110	2,460	197	138	71
26	217	429	1,400	1,700	408	433	494	1,760	1,490	178	134	69
27	206	346	1,500	3,500	556	491	480	2,490	994	178	140	68
28	197	387	1,000	3,200	838	441	472	3,640	871	169	129	68
29	191	346	750	3,530	-----	481	2,710	5,150	786	185	116	67
30	189	302	600	4,390	-----	790	8,720	5,930	719	221	108	65
31	194	-----	470	4,050	-----	652	-----	6,310	-----	167	102	-----
TOTAL	13,336	7,303	18,012	37,010	17,791	25,969	31,210	129,258	67,770	11,959	9,068	3,251
MEAN	430	243	581	1,194	635	838	1,040	4,170	2,259	386	293	108
MAX	1,360	734	1,670	4,390	2,800	1,620	8,720	13,500	7,410	1,040	1,350	410
MIN	189	134	247	220	320	377	472	843	719	167	102	65
CFSM	.59	.33	.80	1.64	.87	1.15	1.42	5.71	3.09	.53	.40	.15
IN.	.68	.37	.92	1.89	.91	1.32	1.59	6.59	3.45	.61	.46	.17
AC-FT	26,450	14,490	35,730	73,410	35,290	51,510	61,910	256,400	134,400	23,720	17,990	6,450

CAL YR 1973 TOTAL 351,769 MEAN 964 MAX 6,950 MIN 67 CFSM 1.32 IN 17.93 AC-FT 697,700
 WTR YR 1974 TOTAL 371,937 MEAN 1,019 MAX 13,500 MIN 65 CFSM 1.40 IN 18.95 AC-FT 737,700

PEAK DISCHARGE (BASE, 3,800 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-31	0515	17.57	4,460	5-31	0715	19.63	6,380
4-30	2145	22.04	12,100	6-12	0815	20.41	7,640
5-19	0930	22.51	14,000				

SKUNK RIVER BASIN

05473500 BIG CREEK NEAR MOUNT PLEASANT, IOWA

LOCATION.--Lat 41°00'52", long 91°34'49", in NW1/4 NW1/4 sec.29, T.72 N. R.6 W., Henry County, on left bank 12 ft (4 m) downstream from bridge on county highway, 100 ft (30 m) downstream from Lynn Creek, 0.7 mi (1.1 km) downstream from Brandywine Creek, and 3.7 mi (6.0 km) northwest of Court House at Mount Pleasant.

DRAINAGE AREA.--106 mi² (275 km²).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 630.53 ft (192.19 m) above mean sea level.

AVERAGE DISCHARGE.--19 years, 67.8 ft³/s (1.92 m³/s), 8.69 in/yr (221 mm/yr), 49,120 acre-ft/yr (60.6 hm³/yr); median of yearly mean discharges, 42 ft³/s (1.19 m³/s), 5.4 in/yr (137 mm/yr), 30,400 acre-ft/yr (37.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,570 ft³/s (72.8 m³/s) Jan. 27, gage height, 11.61 ft (3.539 m); minimum daily, 0.54 ft³/s (0.015 m³/s) Oct. 15.

Period of record: Maximum discharge, 10,500 ft³/s (297 m³/s) Apr. 22, 1973, gage height, 25.58 ft (7.797 m), on basis of contracted-opening measurement of peak flow made above and below gage; no flow at times most years.

Flood of Aug. 3, 1948, reached a stage of about 27 ft (8.2 m), from floodmarks established by local residents, discharge not determined.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1628: 1958 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	938	42	25	74	234	87	165	47	181	50	5.3	3.7
2	833	37	25	60	152	83	106	45	135	47	6.4	4.4
3	487	33	27	50	90	122	90	44	109	45	7.2	5.3
4	667	30	268	44	100	272	80	39	92	131	6.4	4.3
5	441	30	335	39	60	316	66	37	82	113	4.5	3.0
6	260	29	147	36	44	200	60	36	76	68	3.8	2.2
7	214	30	84	34	42	132	60	37	339	57	3.4	1.8
8	173	31	69	33	40	118	53	85	426	52	3.8	1.6
9	143	28	62	32	35	152	48	70	515	48	67	1.8
10	190	25	53	31	31	160	49	56	284	45	262	1.7
11	413	25	48	29	29	150	61	261	162	213	41	1.7
12	264	27	45	27	33	639	89	176	119	94	21	2.3
13	205	27	42	25	31	338	72	101	97	45	384	5.3
14	152	27	40	25	28	194	68	301	90	36	53	1.8
15	120	26	37	25	25	168	58	236	85	34	25	1.3
16	95	24	35	26	26	171	53	141	68	25	17	1.3
17	81	21	33	28	27	118	49	366	65	21	14	1.2
18	73	21	32	35	26	102	49	538	60	19	12	1.1
19	66	21	31	70	30	83	47	717	60	17	9.4	.58
20	59	58	30	520	27	71	46	498	118	17	7.4	.71
21	54	112	30	360	32	64	46	251	573	18	6.6	.76
22	52	60	29	280	152	60	44	250	350	15	190	1.1
23	50	44	28	220	107	51	39	171	204	13	42	.81
24	49	41	45	180	68	54	37	117	119	11	19	.65
25	49	38	450	250	58	52	38	91	91	9.9	13	.54
26	45	34	280	895	50	50	39	124	76	8.9	11	.94
27	43	33	180	1,850	69	46	39	216	67	8.0	9.1	.95
28	42	33	120	556	110	46	43	736	62	16	6.6	.84
29	41	30	86	397	-----	65	72	776	58	13	5.6	1.0
30	40	28	65	516	-----	445	57	421	55	6.8	4.6	1.1
31	44	-----	80	455	-----	258	-----	267	-----	5.7	4.1	-----
TOTAL	6,383	1,045	2,861	7,202	1,758	4,867	1,823	7,251	4,818	1,302.3	1,265.2	55.78
MEAN	206	34.8	92.3	232	62.8	157	60.8	234	161	42.0	40.8	1.86
MAX	938	112	450	1,850	234	639	165	776	573	213	384	5.3
MIN	40	21	25	25	25	46	37	36	55	5.7	3.4	.54
CFSM	1.94	.33	.87	2.19	.59	1.48	.57	2.21	1.52	.40	.38	.02
IN.	2.24	.37	1.00	2.53	.62	1.71	.64	2.54	1.69	.46	.44	.02
AC-FT	12,660	2,070	5,670	14,290	3,490	9,650	3,620	14,380	9,560	2,580	2,510	111

CAL YR 1973 TOTAL 77,637.90 MEAN 213 MAX 7,680 MIN 3.4 CFSM 2.01 IN 27.25 AC-FT 154,000
WTR YR 1974 TOTAL 40,631.28 MEAN 111 MAX 1,850 MIN .54 CFSM 1.05 IN 14.26 AC-FT 80,590

PEAK DISCHARGE (BASE, 900 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-2	0015	8.34	1,340	5-13	1645	7.06	989
1-27	0445	11.61	2,570	5-28	1815	7.43	1,100

05474000 SKUNK RIVER AT AUGUSTA, IOWA

LOCATION.--Lat 40°45'13", long 91°16'40", in NE1/4 NE1/4 sec.26, T.69 N., R.4 W., Des Moines County, on left bank 300 ft (91 m) upstream from bridge on State Highway 394 at Augusta, 2.0 mi (3.2 km) upstream from Long Creek, and at mile 12.5 (20.1 km).

DRAINAGE AREA.--4,303 mi² (11,144 km²).

PERIOD OF RECORD.--September to November 1913, October 1914 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 521.24 ft (158.87 m) above mean sea level. Prior to Nov. 15, 1913, nonrecording gage at site 400 ft (121 m) upstream at datum about 0.7 ft (0.2 m) higher. May 27, 1915, to Jan. 14, 1935, nonrecording gage at site 400 ft (121 m) upstream at present datum.

AVERAGE DISCHARGE.--60 years (1914-74), 2,348 ft³/s (66.5 m³/s), 7.41 in/yr (188 mm/yr), 1,701,000 acre-ft/yr (2,097 hm³/yr); median of yearly mean discharges, 2,120 ft³/s (60.0 m³/s), 6.7 in/yr (170 mm/yr), 1,540,000 acre-ft/yr (1,900 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 27,300 ft³/s (773 m³/s) May 22, gage height, 18.83 ft (5.739 m); minimum daily, 671 ft³/s (19.0 m³/s) Sept. 23.
Period of record: Maximum discharge, 66,800 ft³/s (1,892 m³/s) Apr. 23, 1973, gage height, 27.05 ft (8.245 m); minimum daily, 7 ft³/s (198 dm³/s) Aug. 27 to Sept. 1, 1934.
Flood of June 1, 1903, reached a stage of about 21 ft (6 m), discharge, about 45,000 ft³/s (1,270 m³/s).

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Five discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS)--WSP 1308: 1915 (M), 1919-27 (M), 1932-34 (M), 1936, 1937-38 (M), 1942 (M). WSP 1438: Drainage area, WRD Iowa 1971: 1966 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	11,700	2,090	2,260	2,700	14,900	3,410	6,050	6,660	21,800	10,200	1,150	790		
2	11,700	2,020	2,150	2,300	12,500	4,200	4,360	7,740	17,800	9,660	1,270	767		
3	9,240	1,950	2,070	2,000	10,000	4,660	3,730	9,550	16,300	8,230	1,310	748		
4	10,700	1,860	3,640	1,700	6,800	4,560	3,490	11,500	14,800	7,930	1,190	733		
5	9,320	1,770	7,020	1,500	4,000	7,090	3,840	12,300	13,300	7,780	1,160	707		
6	6,090	1,670	7,210	1,500	3,300	8,500	4,160	8,180	11,100	6,380	1,280	696		
7	4,840	1,600	5,860	1,600	3,000	7,600	4,680	4,900	11,000	5,360	1,300	692		
8	4,020	1,550	4,400	1,600	4,300	7,730	4,460	4,010	13,700	4,850	1,170	701		
9	3,510	1,510	3,520	1,600	5,200	7,690	4,100	4,800	15,400	4,380	1,410	701		
10	3,450	1,470	2,910	1,550	5,400	7,130	3,770	4,990	14,000	3,780	2,720	701		
11	5,560	1,440	3,500	1,500	5,100	6,900	3,790	5,030	11,100	3,830	6,140	701		
12	9,060	1,410	4,500	1,450	4,800	10,100	3,880	7,730	9,430	4,390	5,950	710		
13	9,330	1,370	4,200	1,400	4,500	11,200	3,600	5,950	9,300	3,470	3,760	736		
14	6,700	1,360	3,600	1,350	2,800	8,660	3,500	5,270	11,100	3,480	3,990	733		
15	5,830	1,370	3,900	1,300	2,100	6,620	3,780	7,090	13,700	3,190	4,130	990		
16	5,490	1,360	4,500	1,250	2,000	6,340	4,330	8,090	14,600	2,640	2,840	1,160		
17	5,560	1,310	5,000	1,200	2,300	6,100	4,300	8,760	13,800	2,330	2,070	877		
18	6,070	1,290	4,500	1,250	2,400	5,160	3,700	13,600	12,700	2,140	1,840	709		
19	6,420	1,260	4,000	1,600	2,500	4,560	3,380	19,600	11,500	1,970	1,720	674		
20	6,370	1,660	3,500	4,500	2,680	4,150	3,170	22,400	10,600	1,840	1,470	683		
21	5,780	1,970	3,200	8,500	2,960	3,730	3,000	25,800	12,200	1,710	1,400	675		
22	4,680	3,230	3,000	11,000	4,890	3,430	2,870	27,200	10,700	1,610	3,570	674		
23	3,670	3,180	3,300	12,000	5,620	3,200	2,890	26,000	10,100	1,510	3,960	671		
24	3,180	2,420	3,600	10,500	5,150	2,960	3,200	24,300	9,840	1,430	1,990	674		
25	2,900	2,500	6,000	9,000	3,810	2,750	3,680	21,800	9,680	1,350	1,400	674		
26	2,690	2,500	9,500	11,000	2,810	2,690	3,940	19,100	9,740	1,270	1,180	674		
27	2,560	2,580	11,000	16,000	2,660	2,640	3,610	17,300	10,300	1,200	1,860	674		
28	2,420	2,530	9,800	15,000	2,850	2,630	3,220	18,300	10,600	1,530	1,470	683		
29	2,290	2,410	7,400	14,000	-----	2,760	3,170	23,500	10,400	1,510	1,130	683		
30	2,180	2,400	5,200	14,000	-----	5,920	4,100	25,600	10,300	1,820	961	683		
31	2,150	-----	3,500	15,600	-----	8,840	-----	25,000	-----	1,240	864	-----		
TOTAL	175,460	57,040	147,740	171,450	131,330	173,910	113,750	432,050	370,890	114,010	67,655	21,974		
MEAN	5,660	1,901	4,766	5,531	4,690	5,610	3,792	13,940	12,360	3,678	2,182	732		
MAX	11,700	3,230	11,000	16,000	14,900	11,200	6,050	27,200	21,800	10,200	6,140	1,160		
MIN	2,150	1,260	2,070	1,200	2,000	2,630	2,870	4,010	9,300	1,200	864	671		
CFSM	1.32	.44	1.11	1.29	1.09	1.30	.88	3.24	2.87	.85	.51	.17		
IN	1.52	.49	1.28	1.48	1.14	1.50	.98	3.74	3.21	.99	.58	.19		
AC-FT	348,000	113,100	293,000	340,100	260,500	345,000	225,600	857,000	735,700	226,100	134,200	43,590		
CAL YR 1973	TOTAL	2,524,279	MEAN	6,916	MAX	62,600	MIN	423	CFSM	1.61	IN	21.82	AC-FT	5,007,000
WTR YR 1974	TOTAL	1,977,259	MEAN	5,417	MAX	27,200	MIN	671	CFSM	1.26	IN	17.09	AC-FT	3,922,000

PEAK DISCHARGE (BASE, 15,000 FT³/S)--Jan. 23 (time unknown) about 18,000 ft³/s; May 22 (1615) 27,300 ft³/s (18.83 ft); May 30 (1900) 26,300 ft³/s (18.55 ft).

MISSISSIPPI RIVER MAIN STEM

05474500 MISSISSIPPI RIVER AT KEOKUK, IOWA

LOCATION.--Lat 40°23'37", long 91°22'27", in SE1/4 SW1/4 sec.30, T.65 N., R.4 W., Lee County, near right bank in tailwater of dam and powerplant of Union Electric Co. at Keokuk, 0.2 mi (0.3 km) upstream from bridge on U.S. Highway 136, 2.7 mi (4.3 km) upstream from Des Moines River, and at mile 364.2 (586.0 km) upstream from Ohio River.

DRAINAGE AREA.--119,000 mi² (308,210 km²), approximately.

PERIOD OF RECORD.--January 1878 to current year.

GAGE.--Water-stage recorder. Datum of gage is 477.41 ft (145.51 m) above mean sea level (levels by Corps of Engineers); 477.83 ft (145.64 m) above mean sea level, adjustment of 1912; 477.34 ft (145.49 m) above mean gulf level; and 484.65 ft (147.72 m) above Memphis datum. Jan. 1, 1878, to May 1913, nonrecording gage at Galland (formerly Nashville), 8 mi (12.9 km) upstream; zero of gage was set to low-water mark of 1864, or 496.94 ft (151.47 m) above mean sea level, adjustment of 1912.

AVERAGE DISCHARGE.--96 years, 62,450 ft³/s (1,770 m³/s), 7.13 in/yr (181 mm/yr), 45,240,000 acre-ft/yr (55,800 hm³/yr).

EXTREMES.--Current year: Maximum daily discharge, 260,000 ft³/s (7,360 m³/s) May 22; maximum gage height, 19.15 ft (5.837 m) May 21-22; minimum daily discharge, 23,500 ft³/s (666 m³/s) Sept. 25.

Period of record: Maximum daily discharge, 344,000 ft³/s (9,740 m³/s) Apr. 24, 1973; maximum gage height, 23.35 ft (7.117 m) Apr. 24, 1973; minimum daily discharge, 5,000 ft³/s (142 m³/s) Dec. 27, 1933.

Flood of June 6, 1851, reached a stage of 21.0 ft (6.40 m), present site and datum, estimated as 13.5 ft (4.11 m) at Galland, discharge, 360,000 ft³/s (10,200 m³/s).

REMARKS.--Discharge computed from records of operation of turbines in powerplant and spillway gates in dam. Minor flow regulation caused by powerplant since 1913 and navigation dams. Records for May 1913 to September 1937 adjusted for change in contents in Keokuk Reservoir, those after September 1937 unadjusted.

COOPERATION.--Records furnished by Union Electric Co., formerly Mississippi River Power Co.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	89,700	73,600	79,100	59,700	128,000	73,200	98,000	155,000	187,000	198,000	49,200	42,000		
2	92,100	71,000	75,600	52,200	122,000	78,700	101,000	159,000	177,000	178,000	45,200	43,600		
3	96,600	72,400	77,500	50,600	118,000	79,500	96,500	162,000	166,000	159,000	43,300	43,100		
4	106,000	66,300	82,000	51,800	95,100	92,300	99,300	158,000	157,000	138,000	44,200	40,000		
5	96,500	65,000	90,000	50,900	86,100	108,000	98,900	150,000	142,000	115,000	46,200	36,600		
6	89,800	63,100	96,000	47,900	76,600	124,000	103,000	137,000	130,000	105,000	43,300	36,100		
7	86,300	63,000	104,000	47,000	65,100	129,000	112,000	127,000	128,000	95,500	46,300	30,400		
8	80,700	60,800	99,700	48,700	61,800	131,000	116,000	122,000	142,000	81,300	46,800	28,700		
9	76,800	58,400	85,800	48,000	60,900	141,000	116,000	118,000	151,000	79,300	46,900	32,600		
10	70,500	56,600	77,500	48,300	59,300	143,000	122,000	118,000	154,000	78,200	56,100	32,800		
11	73,000	57,600	64,600	50,700	61,600	144,000	128,000	114,000	156,000	79,100	67,300	37,000		
12	78,500	54,000	58,800	49,900	64,600	155,000	135,000	114,000	160,000	76,800	67,000	39,900		
13	74,000	53,500	57,500	47,700	65,700	153,000	140,000	115,000	167,000	68,200	65,800	44,000		
14	73,000	50,900	51,300	47,700	63,300	152,000	137,000	117,000	172,000	74,500	74,100	42,500		
15	71,300	51,200	49,100	48,600	62,300	149,000	139,000	124,000	174,000	78,700	69,100	43,300		
16	78,800	50,800	46,700	50,100	62,200	148,000	142,000	130,000	175,000	72,000	69,500	39,400		
17	85,400	50,800	47,100	51,300	61,800	140,000	146,000	143,000	175,000	66,700	61,900	35,000		
18	86,100	51,300	45,100	52,000	60,800	132,000	146,000	168,000	177,000	60,800	52,700	32,600		
19	85,900	52,700	46,700	50,000	60,900	123,000	148,000	211,000	183,000	54,500	52,600	35,800		
20	87,700	55,000	40,700	57,600	61,000	113,000	149,000	242,000	181,000	46,600	51,000	35,000		
21	83,800	58,800	40,600	70,700	65,500	110,000	147,000	259,000	188,000	48,900	49,600	35,300		
22	83,200	59,500	40,400	79,100	73,500	102,000	146,000	260,000	187,000	46,400	49,400	33,700		
23	83,400	62,100	43,700	90,700	76,600	105,000	147,000	253,000	199,000	46,200	53,300	31,300		
24	84,600	66,500	48,300	94,800	78,500	95,400	149,000	239,000	223,000	39,600	55,600	24,700		
25	84,900	68,500	54,800	94,000	77,500	81,500	151,000	228,000	245,000	44,000	52,500	23,500		
26	84,300	70,800	66,000	94,200	72,500	79,300	153,000	216,000	258,000	53,800	54,900	26,700		
27	84,400	76,500	71,400	116,000	70,100	71,800	150,000	202,000	257,000	60,300	54,200	29,200		
28	83,400	78,600	77,300	126,000	71,200	72,500	149,000	195,000	246,000	57,200	49,200	30,800		
29	80,600	79,400	81,500	132,000	-----	75,800	149,000	198,000	230,000	55,600	40,400	33,300		
30	80,200	81,700	80,600	142,000	-----	79,500	146,000	200,000	219,000	55,800	38,900	33,400		
31	79,800	-----	71,000	126,000	-----	91,800	-----	194,000	-----	55,200	40,000	-----		
TOTAL	2,591.3M	1,880.4M	2,050.4M	2,177.0M	2,082.5M	3,473.3M	3,959.7M	5,328.0M	5,506.0M	2,468.2M	1,636.5M	1,052.3M		
MEAN	83,590	62,680	66,140	70,230	74,380	112,000	132,000	171,900	183,500	79,620	52,790	35,080		
MAX	106,000	81,700	104,000	142,000	128,000	155,000	153,000	260,000	258,000	198,000	74,100	44,000		
MIN	70,500	50,800	40,400	47,700	59,300	71,800	96,500	114,000	128,000	39,600	38,900	23,500		
CFSM	.70	.53	.56	.59	.63	.94	1.11	1.44	1.54	.67	.44	.29		
IN.	.81	.59	.64	.68	.65	1.09	1.24	1.67	1.72	.77	.51	.33		
AC-FT	5,140M	3,730M	4,067M	4,318M	4,131M	6,889M	7,854M	10,570M	10,920M	4,896M	3,246M	2,087M		
CAL YR 1973	TOTAL	41,495,800	MEAN	113,700	MAX	344,000	MIN	34,300	CFSM	.96	IN	12.97	AC-FT	82,310,000
WTR YR 1974	TOTAL	34,205,600	MEAN	93,710	MAX	260,000	MIN	23,500	CFSM	.79	IN	10.69	AC-FT	67,850,000

M Expressed in thousands.

05476500 DES MOINES RIVER AT ESTHERVILLE, IOWA

LOCATION.--Lat 43°23'51", long 94°50'38", in SW/4 SE/4 sec.10, T.99 N., R.34 W., Emmet County, on right bank in city park, 1,200 ft (366 m) downstream from bridge on State Highway 9 at Estherville, 0.1 mi (0.2 km) upstream from School Creek, 2.3 mi (3.7 km) upstream from Brown Creek, and at mile 404.2 (650.4 km).

DRAINAGE AREA.--1,372 mi² (3,553 km²).

PERIOD OF RECORD.--October 1951 to current year. Prior to November 1951, monthly discharge only, published in WSP 1728.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,247.55 ft (380.25 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 299 ft³/s (8.47 m³/s), 2.96 in/yr (75 mm/yr), 216,600 acre-ft/yr (267 hm³/yr); median of yearly mean discharges, 220 ft³/s (6.23 m³/s), 2.2 in/yr (56 mm/yr), 159,000 acre-ft/yr (196 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,390 ft³/s (39.4 m³/s) June 10, gage height, 5.87 ft (1.789 m); minimum daily, 11 ft³/s (0.31 m³/s) Sept. 9-11.

Period of record: Maximum discharge, 16,000 ft³/s (453 m³/s) Apr. 12, 1969, gage height, 17.68 ft (5.389 m), from floodmark; minimum daily, 0.2 ft³/s (5.7 dm³/s) Sept. 21, 22, 28, Oct. 19, 1958.

REMARKS.--Records good except those for winter period, which are fair. Diurnal fluctuation at low flow caused by powerplant 0.3 mi (0.5 km) above station which discharges an average daily flow of about 0.5 ft³/s (14 dm³/s) into river from subterranean wells.

REVISIONS.--WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	51	243	93	60	185	232	357	457	199	36	15
2	140	50	226	89	57	212	238	344	425	181	33	15
3	105	47	211	85	56	275	250	333	397	172	44	14
4	83	47	190	78	52	295	264	314	377	197	47	14
5	71	46	85	72	48	294	235	303	353	154	39	13
6	61	44	63	69	46	310	260	291	387	146	34	13
7	55	43	164	67	44	400	360	279	506	139	31	13
8	50	41	200	62	43	400	424	289	656	128	29	12
9	49	27	176	58	42	400	449	292	635	121	36	11
10	64	41	144	56	41	352	454	306	1,200	131	50	11
11	77	50	138	54	42	380	467	355	985	119	38	11
12	93	56	136	50	63	392	578	398	815	115	33	20
13	97	64	126	47	98	372	820	401	720	110	31	22
14	93	69	128	45	87	348	944	389	664	103	29	26
15	88	87	126	45	83	332	868	392	613	92	26	24
16	77	81	122	47	69	306	757	407	554	85	24	20
17	72	82	114	49	93	264	700	390	504	79	25	19
18	67	83	120	50	176	235	657	388	468	90	26	18
19	64	73	118	50	210	214	615	408	451	89	24	17
20	61	187	116	49	219	220	576	437	429	88	24	17
21	63	474	114	50	219	204	584	450	406	83	76	18
22	58	505	112	50	202	190	560	452	394	70	69	16
23	60	503	113	52	186	110	527	448	356	65	49	16
24	60	430	110	52	158	125	475	420	330	58	36	18
25	59	373	108	52	148	198	454	404	317	61	30	16
26	60	340	106	53	144	232	457	398	299	59	25	19
27	59	315	105	55	155	198	438	399	276	54	26	19
28	60	292	105	56	174	203	426	403	250	49	24	21
29	57	271	105	56	-----	198	409	433	237	43	20	23
30	55	259	104	58	-----	203	382	400	219	37	18	22
31	52	-----	100	62	-----	203	-----	491	-----	37	16	-----
TOTAL	2,274	5,031	4,128	1,811	3,015	8,250	14,860	11,771	14,680	3,154	1,048	513
MEAN	73.4	168	133	58.4	108	266	495	380	489	102	33.8	17.1
MAX	164	505	243	93	219	400	944	491	1,200	199	76	26
MIN	49	27	63	45	41	110	232	279	219	37	16	11
CFSM	.05	.12	.10	.04	.08	.19	.36	.28	.36	.07	.02	.01
IN.	.06	.14	.11	.05	.08	.22	.40	.32	.40	.09	.03	.01
AC-FT	4,510	9,980	8,190	3,590	5,980	16,360	29,470	23,350	29,120	6,260	2,080	1,020

CAL YR 1973 TOTAL 108,289.3 MEAN 297 MAX 1,600 MIN 8.0 CFSM .22 IN 2.94 AC-FT 214,800
WTR YR 1974 TOTAL 70,535.0 MEAN 193 MAX 1,200 MIN 11 CFSM .14 IN 1.91 AC-FT 139,900

PEAK DISCHARGE (BASE, 1,500 FT³/S).--No peak above base.

DES MOINES RIVER BASIN

05476750 DES MOINES RIVER AT HUMBOLDT, IOWA

LOCATION.--Lat 42°43'12", long 94°13'06", in SE1/4 SW1/4 sec.1, T.91 N., R.29 W., Humboldt County, on left bank 5 ft (2 m) downstream from First Avenue bridge in city of Humboldt, about 700 ft (213 m) below dam, 3.2 mi (5.1 km) upstream from Indian Creek, 3.9 mi (6.3 km) upstream from East Fork Des Moines River, and at mile 334.3 (537.9 km).

DRAINAGE AREA.--2,256 mi² (5,843 km²).

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1970, published as West Fork Des Moines River at Humboldt.

GAGE.--Water-stage recorder. Datum of gage is 1,053.54 ft (321.12 m) above mean sea level. Prior to Oct. 3, 1966, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--10 years, 750 ft³/s (21.2 m³/s), 4.94 in/yr (125 mm/yr), 594,800 acre-ft/yr (733 hm³/yr); median of yearly mean discharges, 670 ft³/s (19.0 m³/s) 4.0 in/yr (102 mm/yr), 485,000 acre-ft/yr (598 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,340 ft³/s (94.6 m³/s) Nov. 23, gage height, 7.22 ft (2.201 m); minimum daily, 78 ft³/s (2.21 m³/s) Sept. 29, 30.

Period of record: Maximum discharge, 18,000 ft³/s (510 m³/s) Apr. 14, 1969, gage height, 15.40 ft (4.694 m); minimum daily, 20 ft³/s (0.57 m³/s) Jan. 10-12, 1968.

Flood of June 23, 1947, reached a stage of 12.2 ft (3.72 m), discharge, 11,000 ft³/s (312 m³/s) at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Daily nonrecording gage readings available in district office for period Mar. 7, 1940, to Sept. 30, 1964. Discharge not published for this period because of extreme regulation at dam 700 ft (213 m) upstream from gage. Power generation and streamflow regulation discontinued August 1964.

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,870	437	1,360	720	268	460	652	961	996	898	234	123
2	1,530	415	1,300	580	260	490	652	919	1,030	814	200	123
3	1,200	399	1,250	540	250	766	724	884	954	786	185	112
4	1,070	388	1,190	485	240	931	1,090	891	996	710	185	112
5	1,050	372	1,080	440	230	884	1,270	863	912	646	178	107
6	940	366	730	410	220	730	1,290	814	870	620	178	107
7	884	356	510	390	210	737	1,240	800	961	535	175	107
8	814	361	560	370	210	717	1,220	800	1,550	502	172	102
9	780	333	740	350	210	786	1,220	785	1,860	459	152	102
10	840	329	580	330	210	904	1,240	786	1,960	454	165	110
11	1,430	329	500	350	208	961	1,220	961	1,940	490	185	87
12	1,890	345	560	310	208	1,110	1,290	1,330	2,240	522	175	94
13	1,860	357	660	290	240	1,380	1,900	1,460	2,150	483	146	103
14	1,550	443	580	289	290	1,360	2,340	1,560	1,840	448	152	110
15	1,290	449	440	271	345	1,250	2,540	1,400	1,610	410	137	100
16	1,120	810	470	259	330	1,100	2,470	1,340	1,470	372	143	100
17	1,010	955	450	263	350	947	2,240	1,270	1,310	354	140	98
18	931	892	430	263	420	898	1,930	1,240	1,190	329	149	91
19	871	797	460	259	480	842	1,770	1,370	1,370	311	143	89
20	772	975	480	263	660	758	1,650	1,350	1,430	297	128	93
21	672	2,140	500	267	720	730	1,530	1,310	1,240	293	128	82
22	639	2,990	540	268	580	724	1,560	1,350	1,590	289	125	87
23	574	3,290	561	270	520	600	1,470	1,470	2,830	263	328	82
24	587	3,020	568	270	460	464	1,390	1,370	2,730	250	271	84
25	574	2,610	585	275	420	535	1,270	1,310	2,230	246	211	87
26	542	2,300	587	275	420	717	1,200	1,160	1,750	238	175	82
27	522	2,000	561	270	440	665	1,150	1,110	1,470	238	182	82
28	509	1,800	554	264	450	652	1,140	1,060	1,280	238	155	87
29	483	1,630	550	260	-----	620	1,060	1,040	1,130	222	146	78
30	464	1,480	560	250	-----	632	1,000	1,030	1,010	207	137	78
31	454	-----	640	260	-----	632	-----	1,130	-----	192	120	-----
TOTAL	29,722	33,368	20,536	10,361	9,849	24,982	42,718	35,124	45,899	13,116	5,300	2,899
MEAN	959	1,112	662	334	352	806	1,424	1,133	1,530	423	171	96.6
MAX	1,890	3,290	1,360	720	720	1,380	2,540	1,560	2,830	898	328	123
MIN	454	329	430	250	208	460	652	785	870	192	120	78
CFSM	.43	.49	.29	.15	.16	.36	.63	.50	.68	.19	.08	.04
IN.	.49	.55	.34	.17	.16	.41	.70	.58	.76	.22	.09	.05
AC-FT	58,950	66,190	40,730	20,550	19,540	49,550	84,730	69,670	91,040	26,020	10,510	5,750

CAL YR 1973 TOTAL 427,624 MEAN 1,172 MAX 4,520 MIN 107 CFSM .52 IN 7.05 AC-FT 848,200
WTR YR 1974 TOTAL 273,874 MEAN 750 MAX 3,290 MIN 78 CFSM .33 IN 4.52 AC-FT 543,200

PEAK DISCHARGE (BASE, 2,800 FT³/S).--Nov. 23 (0515) 3,340 ft³/s (7.22 ft); June 24 (0700) 2,840 ft³/s (6.71 ft).

05478000 EAST FORK DES MOINES RIVER NEAR BURT, IOWA

LOCATION.--Lat 43°12'38", long 94°10'35", in NW1/4 NE1/4 sec.20, T.97 N., R.28 W., Kossuth County, on right bank 30 ft (9 m) downstream from bridge on county highway, 0.8 mi (1.3 km) upstream from Buffalo Creek, 2.2 mi (3.5 km) northeast of Burt, 4.7 mi (7.6 km) downstream from Mud Creek, and at mile 389.7 (627.0 km) upstream from mouth of Des Moines River.

DRAINAGE AREA.--462 mi² (1,196 km²).

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,114.42 ft (339.67 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 144 ft³/s (4.08 m³/s), 4.23 in/yr (107 mm/yr), 104,300 acre-ft (129 hm³/yr); median of yearly mean discharges, 130 ft³/s (3.68 m³/s), 3.8 in/yr (97 mm/yr), 94,200 acre-ft (116 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 928 ft³/s (26.3 m³/s) Nov. 22, gage height, 10.52 ft (3.206 m); minimum daily discharge, 3.4 ft³/s (0.096 m³/s) Sept. 30.
Period of record: Maximum discharge, 5,000 ft³/s (142 m³/s) Apr. 6, 1965, gage height, 14.21 ft (4.331 m), backwater from ice; no flow Jan. 24 to Mar. 3, 1959.

REMARKS.--Records good except those for periods of indefinite stage-discharge relation and for winter periods, which are poor.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1708: 1955.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	46	443	51	43	68	151	251	326	212	18	13
2	143	42	410	49	42	88	170	245	340	195	16	12
3	112	39	350	47	40	120	192	231	320	175	16	10
4	211	37	300	46	38	200	420	212	308	163	15	9.4
5	248	36	260	45	36	210	530	213	298	149	14	8.3
6	251	34	220	45	34	192	518	196	328	138	13	7.2
7	183	35	170	45	33	158	460	199	380	120	14	6.8
8	129	35	132	45	32	132	420	240	440	107	13	6.0
9	105	36	110	45	32	164	390	270	540	104	12	5.0
10	119	37	90	45	32	250	375	290	660	100	18	4.3
11	184	33	87	45	32	277	380	340	760	108	18	4.0
12	278	32	84	45	34	495	400	540	800	117	15	6.0
13	296	33	82	44	38	635	560	580	780	109	13	7.9
14	251	32	75	43	45	592	740	485	750	98	12	7.2
15	193	138	72	41	56	436	800	460	700	90	10	6.3
16	152	313	65	39	64	314	790	430	660	84	9.7	6.5
17	112	315	69	38	74	240	720	410	610	74	9.4	6.7
18	87	261	69	38	104	212	620	415	570	67	9.7	6.7
19	77	201	64	38	114	194	550	425	540	59	8.6	6.7
20	74	284	61	38	130	178	510	445	520	57	7.6	6.3
21	75	734	61	38	138	170	470	465	500	56	16	6.3
22	77	914	61	38	128	168	440	490	520	54	77	5.6
23	71	911	58	37	122	164	410	520	538	48	84	5.3
24	70	838	56	38	116	162	380	490	478	43	55	4.9
25	64	752	60	38	92	160	360	445	428	39	44	4.6
26	57	687	61	38	73	158	340	410	377	36	35	4.3
27	52	633	62	38	67	154	320	370	332	32	29	3.7
28	50	575	62	39	66	140	280	350	295	29	24	3.7
29	49	524	59	39	-----	144	264	336	260	26	19	3.7
30	48	481	56	40	-----	146	256	320	233	23	17	3.4
31	48	-----	54	42	-----	148	-----	312	-----	20	16	-----
TOTAL	4,030	9,068	3,863	1,297	1,855	6,869	13,216	11,385	14,591	2,732	678.0	191.8
MEAN	130	302	125	41.8	66.3	222	441	367	486	88.1	21.9	6.39
MAX	296	914	443	51	138	635	800	580	800	212	84	13
MIN	48	32	54	37	32	68	151	196	233	20	7.6	3.4
CFSM	.28	.65	.27	.09	.14	.48	.95	.79	1.05	.19	.05	.01
IN.	.32	.73	.31	.10	.15	.55	1.06	.92	1.17	.22	.05	.02
AC-FT	7,990	17,990	7,660	2,570	3,680	13,620	26,210	22,580	28,940	5,420	1,340	380

CAL YR 1973 TOTAL 101,842.5 MEAN 279 MAX 1,260 MIN 2.9 CFSM .60 IN 8.20 AC-FT 202,000
WTR YR 1974 TOTAL 69,775.8 MEAN 191 MAX 914 MIN 3.4 CFSM .41 IN 5.62 AC-FT 138,400

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-22	1600	10.52	928	5-13	--	--	* 600
3-13	1830	9.61	663	5-23	--	--	* 530
4-6	--	--	* 530	6-11	--	--	* 760
4-15	--	--	* 810	6-23	0145	9.16	552

Note.--Stage-discharge relation indefinite Oct. 2, 3, 15-19, Nov. 19, 20, 28-30, Mar. 28 to Apr. 29, May 9 to Apr. 29, May 9 to June 22 (backwater from Buffalo Creek).

* About

DES MOINES RIVER BASIN

05479000 EAST FORK DES MOINES RIVER AT DAKOTA CITY, IOWA

LOCATION.--Lat 42°43'26", long 94°11'30", in NW1/4 SE1/4 sec.6, T.91 N., R.28 W., Humboldt County, on right bank 50 ft (15 m) upstream from old mill dam, in city park at east edge of Dakota City, 500 ft (152 m) upstream from bridge on county highway P56, 0.6 mi (1.0 km) downstream from bridge on State Highway 3, 3.4 mi (5.5 km) upstream from confluence with Des Moines River, and at mile 333.8 (537.1 km) upstream from mouth of Des Moines River.

DRAINAGE AREA.--1,308 mi² (3,387 km²).

PERIOD OF RECORD.--March 1940 to current year. Prior to October 1954, published as "near Hardy".

GAGE.--Water-stage recorder. Datum of gage is 1,038.71 ft (316.60 m) above mean sea level. Prior to Oct. 1, 1954, nonrecording gage at site 8 mi (12.9 km) upstream at different datum.

AVERAGE DISCHARGE.--34 years, 498 ft³/s (14.1 m³/s), 5.17 in/yr (131 mm/yr), 360,800 acre-ft/yr (445 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,840 ft³/s (80.4 m³/s) Nov. 26, gage height, 12.71 ft (3.874 m); minimum daily, 29 ft³/s (0.82 m³/s) Sept. 29.

Period of record: Maximum discharge, 18,800 ft³/s (532 m³/s) June 21, 1954, gage height, 16.95 ft (5.166 m), from floodmark, site and datum then in use; minimum daily, 5.0 ft³/s (142 dm³/s) Sept. 23, 1948.

Flood of June 21, 1954, reached a stage of 24.02 ft (7.321 m), discharge, 17,400 ft³/s (493 m³/s) at present site. Flood of September 1938 reached a stage of 17.4 ft (5.30 m), discharge, about 22,000 ft³/s (0.62 m³/s) site and datum in use during the period 1940-54.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1508: 1944, 1945-47 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,590	364	1,840	1,180	260	510	563	807	1,110	846	101	62
2	1,390	351	1,690	1,060	265	680	567	752	1,040	752	94	63
3	1,100	330	1,550	900	250	840	664	740	1,010	690	91	60
4	932	310	1,420	780	230	750	1,070	739	1,930	630	92	55
5	864	295	1,240	690	220	778	1,310	698	2,220	572	87	50
6	909	286	1,000	610	210	851	1,420	661	1,500	522	79	47
7	995	285	780	550	200	875	1,500	654	1,590	472	78	45
8	986	277	750	485	190	880	1,530	655	1,620	426	77	47
9	889	263	770	440	184	806	1,500	653	1,830	382	76	47
10	823	252	760	395	176	709	1,410	713	2,130	350	97	45
11	1,040	233	800	355	172	754	1,360	1,010	2,030	343	114	41
12	1,350	256	830	330	208	988	1,400	1,290	1,960	342	114	46
13	1,360	268	790	310	315	1,170	1,570	1,410	1,960	334	94	45
14	1,300	259	770	295	360	1,310	1,740	1,580	1,970	339	87	43
15	1,230	285	720	275	335	1,380	1,800	1,580	1,940	315	80	41
16	1,120	383	540	270	320	1,420	1,870	1,610	1,860	286	76	42
17	980	640	680	265	400	1,370	1,960	1,610	1,760	257	78	42
18	856	834	810	255	660	1,180	2,010	1,670	1,640	235	80	39
19	765	877	780	250	950	913	1,980	1,710	1,540	216	74	36
20	692	1,070	720	250	920	798	1,860	1,600	1,450	202	66	36
21	611	1,860	720	250	880	713	1,740	1,510	1,340	184	64	32
22	542	2,240	800	245	850	600	1,550	1,490	1,590	171	62	31
23	514	2,300	810	240	810	520	1,400	1,460	2,310	158	58	32
24	504	2,280	700	240	760	430	1,300	1,430	2,400	145	83	33
25	484	2,540	520	235	720	540	1,230	1,400	2,000	133	170	30
26	454	2,810	520	240	670	603	1,150	1,390	1,680	124	144	30
27	433	2,760	490	235	620	579	1,090	1,360	1,470	115	125	31
28	411	2,510	550	230	560	564	1,030	1,280	1,280	106	101	31
29	393	2,250	520	230	-----	552	960	1,200	1,100	100	89	29
30	382	2,030	860	235	-----	558	893	1,270	965	99	74	31
31	376	-----	1,400	250	-----	562	-----	1,220	-----	96	67	-----
TOTAL	26,275	31,698	27,130	12,575	12,695	25,183	41,427	37,152	50,225	9,942	2,772	1,242
MEAN	848	1,057	875	406	453	812	1,381	1,198	1,674	321	89.4	41.4
MAX	1,590	2,810	1,840	1,180	950	1,420	2,010	1,710	2,400	846	170	63
MIN	376	233	490	230	172	430	563	653	965	96	58	29
CFSM	.65	.81	.67	.31	.35	.62	1.06	.92	1.28	.25	.07	.03
IN.	.75	.90	.77	.36	.36	.72	1.18	1.06	1.43	.28	.08	.04
AC-FT	52,120	62,870	53,810	24,940	25,180	49,950	82,170	73,690	99,620	19,720	5,500	2,460

CAL YR 1973 TOTAL 400,742 MEAN 1,098 MAX 5,390 MIN 38 CFSM .84 IN 11.40 AC-FT 794,900
WTR YR 1974 TOTAL 278,316 MEAN 763 MAX 2,810 MIN 29 CFSM .58 IN 7.92 AC-FT 552,000

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-23	0100	11.99	2,330	4-18	1215	11.49	2,020	6-4	2400	12.10	2,540
11-26	1630	12.71	2,840	5-14	0500	10.81	1,590	6-10	0300	11.54	2,150
12-31	--	--	* 1,500	5-18	1945	11.10	1,760	6-24	0445	12.02	2,480
4-8	0515	10.72	1,530								

* About

05480000 LIZARD CREEK NEAR CLARE, IOWA

LOCATION.--Lat 42°32'35", long 94°20'45", in NE1/4 NE1/4 sec.11, T.89 N., R.30 W., Webster County, on right bank 20 ft (6 m) downstream from bridge on county highway, 2.3 mi (3.7 km) downstream from Drainage ditch 3, 3.0 mi (4.8 km) south of Clare, and 8.2 mi (13.2 km) upstream from South Lizard Creek.

DRAINAGE AREA.--257 mi² (666 km²).

PERIOD OF RECORD.--March 1940 to current year. Prior to April 1940, monthly discharge only, published in WSP 1308. Prior to October 1954, published as North Lizard Creek near Clare.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,079.30 ft (328.97 m) above mean sea level. Prior to May 6, 1953, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--34 years, 98.6 ft³/s (2.79 m³/s), 5.21 in/yr (132 mm/yr), 71,440 acre-ft/yr (88.1 hm³/yr); median of yearly mean discharges, 82 ft³/s (2.32 m³/s), 4.3 in/yr (109 mm/yr), 59,400 acre-ft/yr (73.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,340 ft³/s (37.9 m³/s) Oct. 12, gage height, 6.73 ft (2.051 m); minimum daily, 1.4 ft³/s (0.040 m³/s) Sept. 26.

Period of record: Maximum discharge, 10,000 ft³/s (283 m³/s) June 23, 1947, gage height, 16.0 ft (4.88 m), from floodmark, from rating curve extended above 5,300 ft³/s (150 m³/s); no flow Sept. 30, 1943, Aug. 27-29, 1956, Jan. 15, 16, 1968.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1508: 1940, 1942, 1944-46 (N), 1947-48.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	825	143	375	154	144	352	132	120	138	171	37	7.8
2	604	141	355	150	124	411	128	119	132	151	41	9.2
3	475	128	345	152	90	324	158	117	128	138	29	9.3
4	402	125	325	150	75	234	383	109	124	128	27	10
5	342	120	315	146	72	189	408	107	119	118	23	7.5
6	302	120	305	140	70	160	353	103	123	106	20	6.7
7	313	126	296	130	71	142	313	107	124	96	18	7.8
8	307	120	278	122	72	128	261	109	144	88	17	7.0
9	277	108	266	112	68	127	235	103	235	81	17	6.6
10	350	104	250	102	65	143	219	102	287	117	19	5.7
11	847	114	234	93	63	163	214	222	238	123	18	5.2
12	1,240	115	220	81	88	238	245	261	203	101	16	8.6
13	1,090	114	200	72	200	257	333	298	189	90	15	8.3
14	710	108	174	66	400	236	332	441	173	79	15	9.6
15	532	123	156	59	490	222	295	372	155	70	15	7.8
16	429	218	154	62	540	203	262	333	139	63	16	5.2
17	373	241	160	63	590	173	234	299	130	58	16	4.1
18	340	220	180	72	690	176	217	358	126	54	18	3.9
19	310	195	172	74	650	154	195	517	146	50	20	3.5
20	283	326	255	76	560	140	184	443	117	45	13	3.9
21	262	1,060	440	62	470	116	197	379	109	42	12	4.5
22	245	1,140	415	64	400	132	187	370	847	38	11	3.5
23	233	833	375	62	362	92	171	323	1,250	34	12	3.6
24	222	649	330	61	345	188	154	275	898	31	11	2.0
25	202	572	284	61	334	184	151	238	556	29	10	1.7
26	181	499	250	62	335	171	147	218	417	27	9.4	1.4
27	172	446	220	66	335	118	142	200	331	26	12	1.9
28	166	430	200	69	340	115	142	190	272	31	16	2.5
29	157	410	180	72	-----	121	134	176	231	24	14	2.5
30	154	385	164	81	-----	128	125	162	200	21	9.8	1.8
31	153	-----	156	94	-----	129	-----	152	-----	19	8.1	-----
TOTAL	12,498	9,433	8,029	2,830	8,043	5,666	6,651	7,323	8,281	2,249	535.3	163.1
MEAN	403	314	259	91.3	287	183	222	236	276	72.5	17.3	5.44
MAX	1,240	1,140	440	154	690	411	408	517	1,250	171	41	10
MIN	153	104	154	59	63	92	125	102	109	19	8.1	1.4
CFSM	1.57	1.22	1.01	.36	1.12	.71	.86	.92	1.07	.28	.07	.02
IN.	1.81	1.37	1.16	.41	1.16	.82	.96	1.06	1.20	.33	.08	.02
AC-FT	24,790	18,710	15,930	5,610	15,950	11,240	13,190	14,530	16,430	4,460	1,060	324
CAL YR 1973 TOTAL	105,841.0		MEAN 290	MAX 2,010	MIN 16	CFSM 1.13	IN 15.32	AC-FT 209,900				
WTR YR 1974 TOTAL	71,701.4		MEAN 196	MAX 1,250	MIN 1.4	CFSM .76	IN 10.38	AC-FT 142,200				

PEAK DISCHARGE (BASE, 800 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-12	1945	6.73	1,340	6-23	1000	6.66	1,280
11-21	2345	6.57	1,250				

DES MOINES RIVER BASIN

05480500 DES MOINES RIVER AT FORT DODGE, IOWA

LOCATION.--Lat 42°30'22", long 94°12'04", in NW1/4 SW1/4 sec.19, T.89 N., R.28 W., Webster County, on right bank 400 ft (122 m) upstream from Soldier Creek, 1,800 ft (549 m) downstream from Illinois Central Railroad bridge in Fort Dodge, 2,000 ft (610 m) downstream from Lizard Creek, and at mile 314.6 (506.2 km).

DRAINAGE AREA.--4,190 mi² (10,852 km²).

PERIOD OF RECORD.--April 1905 to July 1906 (no winter records), October 1913 to September 1927 (published as "at Kalo"), October 1946 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 969.38 ft (295.47 m) above mean sea level. See WSP 1728 for history of changes prior to Dec. 8, 1949.

AVERAGE DISCHARGE.--42 years (1913-27, 1946-74), 1,389 ft³/s (39.3 m³/s) 4.50 in/yr (114 mm/yr), 1,006,000 acre-ft/yr (1,240 hm³/yr); median of yearly mean discharges, 1,170 ft³/s (33.1 m³/s), 3.8 in/yr (96 mm/yr), 848,000 acre-ft/yr (1,050 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 8,490 ft³/s (240 m³/s) June 23, gage height, 7.50 ft (2.286 m); minimum daily, 177 ft³/s (5.01 m³/s) Sept. 23, 27.

Period of record: Maximum discharge, 35,600 ft³/s (1,010 m³/s) Apr. 8, 1965, gage height, 17.79 ft (5.422 m); maximum gage height, 19.62 ft (5.980 m), from floodmark, June 23, 1947, present site and datum; minimum daily discharge, 14 ft³/s (0.40 m³/s) Nov. 3, 1955.

REMARKS.--Records good except those for winter period, which are poor. Occasional minor regulation caused by dam 0.8 mi (1.3 km) upstream from gage.

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1308: 1924, 1925 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,690	1,330	3,810	1,780	660	1,310	1,560	2,210	2,620	2,200	511	266
2	4,630	1,300	3,580	1,520	630	1,700	1,560	2,110	2,520	2,030	450	273
3	3,810	1,140	3,360	1,380	580	2,630	1,900	2,020	2,420	1,800	420	258
4	3,120	1,020	3,140	1,260	590	2,840	3,090	1,970	3,040	1,680	406	251
5	2,880	991	2,860	1,140	610	2,660	3,720	1,880	3,630	1,520	392	241
6	2,720	960	2,310	1,090	640	2,430	3,730	1,770	2,820	1,410	364	239
7	2,750	963	2,000	1,060	670	2,350	3,650	1,760	2,920	1,270	350	234
8	2,700	948	2,040	1,040	690	2,280	3,500	1,750	3,440	1,180	344	230
9	2,490	896	2,120	1,030	680	2,250	3,400	1,760	4,420	1,050	338	227
10	2,520	853	2,020	1,030	630	2,250	3,290	1,850	5,060	1,110	364	227
11	4,030	848	1,920	1,030	530	2,390	3,230	2,640	4,690	1,160	357	206
12	5,490	870	2,040	1,020	490	2,890	3,380	3,250	4,690	1,120	378	227
13	5,530	903	2,270	1,020	510	3,310	4,100	3,750	4,630	1,100	357	220
14	4,630	955	2,140	1,000	540	3,420	4,700	4,200	4,290	1,030	332	220
15	3,920	976	1,970	950	560	3,340	4,950	3,930	3,990	933	326	224
16	3,400	1,410	1,760	880	610	3,180	4,950	3,730	3,700	842	320	215
17	3,020	2,060	1,820	800	670	2,960	4,790	3,620	3,460	770	332	214
18	2,600	2,200	1,900	740	1,220	2,740	4,570	3,950	3,200	718	338	202
19	2,350	2,130	1,940	660	2,000	2,350	4,340	4,520	3,390	665	314	199
20	2,140	2,680	1,980	620	2,240	2,100	4,110	4,360	3,270	638	290	191
21	1,910	5,800	2,050	600	2,160	1,940	4,090	3,970	2,960	620	282	186
22	1,790	7,400	2,100	590	1,780	1,900	3,800	3,910	6,580	584	275	180
23	1,680	7,430	1,900	590	1,580	1,640	3,520	3,760	8,240	559	373	177
24	1,620	6,680	1,680	590	1,440	1,300	3,260	3,550	7,630	527	427	186
25	1,540	6,350	1,620	600	1,380	1,330	3,040	3,330	5,770	503	429	183
26	1,420	6,250	1,610	610	1,340	1,710	2,870	3,160	4,390	488	412	178
27	1,370	5,840	1,660	630	1,220	1,600	2,750	3,040	3,660	472	404	177
28	1,320	5,210	1,740	650	1,210	1,530	2,660	2,890	3,210	519	347	195
29	1,270	4,630	1,820	660	-----	1,550	2,510	2,740	2,830	442	325	181
30	1,230	4,170	1,900	670	-----	1,570	2,360	2,710	2,490	420	299	178
31	1,220	-----	1,910	690	-----	1,580	-----	2,780	-----	399	278	-----
TOTAL	86,790	85,193	66,970	27,930	27,860	69,030	103,380	92,870	119,960	29,759	11,134	6,385
MEAN	2,800	2,840	2,160	901	995	2,227	3,446	2,996	3,999	960	359	213
MAX	5,690	7,430	3,810	1,780	2,240	3,420	4,950	4,520	8,240	2,200	511	273
MIN	1,220	848	1,610	590	490	1,300	1,560	1,750	2,420	399	275	177
CFSM	.67	.68	.52	.22	.24	.53	.82	.72	.95	.23	.09	.05
IN.	.77	.76	.59	.25	.25	.61	.92	.82	1.07	.26	.10	.06
AC-FT	172,100	169,000	132,800	55,400	55,260	136,900	205,100	184,200	237,900	59,030	22,080	12,660
CAL YR 1973 TOTAL	1,079,247		MEAN 2,957		MAX 12,600	MIN 229	CFSM .71	IN 9.58	AC-FT 2,141,000			
WTR YR 1974 TOTAL	727,261		MEAN 1,992		MAX 8,240	MIN 177	CFSM .48	IN 6.46	AC-FT 1,443,000			

PEAK DISCHARGE (BASE, 6,000 FT³/S).--Nov. 23 (0800) 7,910 ft³/s (7.28 ft); June 23 (1215) 8,490 ft³/s (7.50 ft).

05481000 BOONE RIVER NEAR WEBSTER CITY, IOWA

LOCATION.--Lat 42°26'01", long 93°48'12", in NW1/4 SE1/4 sec.18, T.88 N., R.25 W., Hamilton County, on right bank 10 ft (3 m) upstream from bridge on State Highway 17, 2.5 mi (4.0 km) southeast of junction of U.S. Highway 20 and State Highway 17 in Webster City, and 3.2 mi (5.1 km) downstream from Brewers Creek.

DRAINAGE AREA.--844 mi² (2,185 km²).

PERIOD OF RECORD.--March 1940 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 989.57 ft (301.62 m) above mean sea level. Prior to June 26, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--34 years, 385 ft³/s (10.9 m³/s), 6.19 in/yr (157 mm/yr), 278,900 acre-ft/yr (344 hm³/yr); median of yearly mean discharges, 300 ft³/s (8.50 m³/s), 4.8 in/yr (122 mm/yr), 217,000 acre-ft/yr (268 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,860 ft³/s (138 m³/s) June 22, gage height, 8.79 ft (2.679 m); minimum daily, 16 ft³/s (0.45 m³/s) Sept. 26, 27.

Period of record: Maximum discharge, 20,300 ft³/s (575 m³/s) June 22, 1954, gage height, 18.55 ft (5.654 m); minimum daily, 1.6 ft³/s (45 dm³/s) Sept. 30, Oct. 1, 1956.

Maximum stage since 1896, 19.1 ft (5.82 m) about June 10, 1918, from floodmarks, from information by local resident, discharge, 21,500 ft³/s (609 m³/s). Flood of June 18, 1932, reached a stage of 16.0 ft (4.88 m), discharge, 15,000 ft³/s (425 m³/s).

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1308: 1940 (M), WSP 1708: 1956.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,300	361	746	1,120	450	505	472	710	757	738	102	118
2	1,890	347	707	1,060	1,100	892	473	676	695	670	112	129
3	1,510	317	680	986	1,000	2,500	582	643	651	612	122	119
4	1,140	296	600	909	860	2,860	1,180	598	622	607	116	74
5	954	283	450	828	720	2,290	1,730	562	766	466	98	36
6	877	282	274	751	600	1,750	1,780	536	1,010	408	81	37
7	811	286	300	700	470	1,480	1,550	562	1,140	365	79	37
8	752	280	560	640	390	1,260	1,280	565	1,030	331	78	35
9	716	259	600	600	345	1,110	1,100	557	1,190	299	78	37
10	709	245	490	560	320	1,100	986	560	1,610	334	88	30
11	1,590	249	495	530	305	1,180	940	740	1,780	369	99	29
12	2,580	272	500	504	325	1,480	985	1,240	1,640	325	165	34
13	2,260	268	485	483	420	1,650	1,100	1,800	1,510	289	126	34
14	1,890	264	455	467	410	1,560	1,240	1,880	1,270	251	100	31
15	1,530	269	420	453	375	1,380	1,380	1,650	1,040	219	75	28
16	1,160	261	400	437	350	1,180	1,290	1,490	882	197	79	27
17	975	275	395	420	500	1,010	1,140	1,320	782	178	130	29
18	855	307	385	400	1,800	897	1,010	1,410	711	162	191	25
19	771	307	375	370	1,700	805	908	2,010	694	150	145	23
20	693	474	365	340	1,500	721	872	2,060	614	144	108	21
21	641	1,380	360	270	1,300	646	1,700	1,930	562	138	94	20
22	597	1,740	355	220	1,050	590	1,810	1,860	3,290	128	86	19
23	559	1,740	350	200	911	500	1,560	1,600	2,930	117	76	19
24	535	1,720	350	190	797	394	1,320	1,400	2,730	106	67	18
25	502	1,470	350	178	719	526	1,150	1,220	2,300	98	60	17
26	465	1,220	370	168	649	590	1,050	1,080	2,050	94	61	16
27	430	1,080	375	158	541	508	957	983	1,590	90	68	16
28	416	983	385	148	507	446	877	919	1,220	176	57	17
29	401	896	395	144	-----	446	838	875	1,010	128	92	34
30	389	823	405	140	-----	459	770	887	857	107	131	33
31	377	-----	435	250	-----	460	-----	836	-----	95	124	-----
TOTAL	31,275	18,954	13,812	14,624	20,414	33,175	34,030	35,159	38,933	8,391	3,088	1,142
MEAN	1,009	632	446	472	729	1,070	1,134	1,134	1,298	271	99.6	38.1
MAX	2,580	1,740	746	1,120	1,800	2,860	1,810	2,060	3,290	738	191	129
MIN	377	245	274	140	305	394	472	536	562	90	57	16
CFSM	1.20	.75	.53	.56	.86	1.27	1.34	1.34	1.54	.32	.12	.05
IN.	1.38	.84	.61	.64	.90	1.46	1.50	1.55	1.72	.37	.14	.05
AC-FT	62,030	37,600	27,400	29,010	40,490	65,800	67,500	69,740	77,220	16,640	6,130	2,270
CAL YR 1973	TOTAL 359,506	MEAN 985	MAX 5,080	MIN 31	CFSM 1.17	IN 15.85	AC-FT 713,100					
WTR YR 1974	TOTAL 252,997	MEAN 693	MAX 3,290	MIN 16	CFSM .82	IN 11.15	AC-FT 501,800					

PEAK DISCHARGE (BASE, 2,200 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-12	0900	6.48	2,640	3-3	2030	7.56	3,640
2-17	--	--	* 2,800	6-22	--	8.79	4,860

* About

DES MOINES RIVER BASIN

05481300 DES MOINES RIVER NEAR STRATFORD, IOWA

LOCATION.--Lat 42°15'04", long 93°59'52", in NW1/4 NE1/4 sec.21, T.86 N., R.27 W., Webster County, on right bank 6 ft (2 m) downstream from bridge on State Highway 175, 0.1 mi (0.2 km) downstream from Skillet Creek, 4.0 mi (6.4 km) southwest of Stratford, 7.3 mi (11.7 km) downstream from Boone River and at mile 276.7 (445.2 km).

DRAINAGE AREA.--5,452 mi² (14,120 km²).

PERIOD OF RECORD.--April 1920 to current year in reports of Geological Survey. Published as "near Boone" 1920-67. Monthly discharge only for some periods, published in WSP 1308. December 1904 to April 1920 (fragmentary gage heights during high-water periods only) in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 894.00 ft (272.49 m) above mean sea level. Prior to May 1, 1920, nonrecording gage 16.6 mi (26.7 km) downstream at datum 23.49 ft (7.16 m) lower. Oct. 9, 1924, to Jan. 10, 1933, nonrecording gage 17.6 mi (28.3 km) downstream at datum 28.53 ft (8.70 m) lower. Jan. 11, 1933, to Sept. 30, 1934, nonrecording gage 17.9 mi (28.8 km) downstream at datum 22.25 ft (6.78 m) lower. Oct. 1, 1934 to Feb. 6, 1935, nonrecording gage and Feb. 7, 1935 to Sept. 30, 1967, water-stage recorder 17.9 mi (28.8 km) downstream at datum 21.84 ft (6.66 m) lower.

AVERAGE DISCHARGE.--54 years, 1,773 ft³/s (50.2 m³/s), 4.42 in/yr (112 mm/yr), 1,285,000 acre-ft/yr (1,580 hm³/yr); median of yearly mean discharges, 1,540 ft³/s (43.6 m³/s), 3.8 in/yr (96 mm/yr), 1,116,000 acre-ft/yr (1,380 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 13,800 ft³/s (391 m³/s) June 23, gage height, 15.38 ft (4.688 m); minimum daily, 182 ft³/s (5.15 m³/s) Sept. 28.

Period of record: Maximum discharge, 57,400 ft³/s (1,630 m³/s) June 22, 1954, gage height, 25.35 ft (7.727 m), from graph based on hourly gage readings, site and datum then in use; no flow for a short time on Jan. 9, 25, 1938, caused by manipulation of gates in control dam, site then in use; minimum daily discharge, 17 ft³/s (0.48 m³/s) Jan. 28, 1940, unaffected by gate operation, site then in use.

Flood of May 30, 1903, reached a stage of 25.4 ft (7.74 m), from high-water mark, site and datum then in use, discharge, 43,600 ft³/s (1,230 m³/s). Flood of June 22, 1954, reached a stage of 29.7 ft (9.05 m), from floodmark, present site and datum, discharge, 54,200 ft³/s (1,530 m³/s).

REMARKS.--Records good except those for winter period, which are poor. Occasional minor regulation caused by dam at Fort Dodge. Records of periodic chemical analyses for the current year are published in Part 2 of this report.

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1508: 1925-27, 1934. WSP 1708: 1955.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,500	2,120	5,530	2,600	1,170	2,950	2,500	3,590	4,020	3,780	813	313
2	8,620	2,010	5,130	2,400	1,050	3,600	2,510	3,390	3,790	3,380	1,150	317
3	7,020	1,890	4,880	2,200	1,080	5,140	2,880	3,260	3,640	3,060	836	314
4	5,700	1,760	4,320	2,060	1,120	7,900	4,650	3,130	3,560	2,970	758	289
5	4,790	1,700	3,750	1,900	1,140	6,850	6,320	3,060	4,600	2,620	678	282
6	4,440	1,640	3,000	1,800	1,180	5,470	6,460	2,930	4,560	2,380	608	275
7	4,250	1,620	2,350	1,720	1,220	4,810	6,110	2,910	4,240	2,200	551	278
8	4,160	1,610	2,300	1,650	1,180	4,400	5,590	2,910	4,570	2,000	518	268
9	3,980	1,550	2,400	1,580	1,140	4,080	5,190	2,820	5,620	1,840	507	256
10	3,800	1,470	2,260	1,570	1,070	3,930	4,940	2,810	7,440	1,630	577	251
11	6,070	1,420	2,100	1,560	1,060	4,070	4,750	3,220	7,500	1,890	644	242
12	9,510	1,440	2,320	1,550	1,020	4,840	4,830	4,600	6,990	1,770	577	251
13	9,660	1,490	2,900	1,550	1,060	5,530	5,330	5,840	7,090	1,710	593	258
14	8,260	1,510	2,700	1,560	1,140	5,660	6,420	7,130	6,520	1,570	545	245
15	6,850	1,610	2,500	1,550	1,180	5,450	6,890	6,750	5,870	1,430	485	234
16	5,700	1,600	2,250	1,540	1,300	5,040	6,920	6,500	5,350	1,300	497	231
17	4,890	2,120	2,150	1,480	1,400	4,640	6,650	6,050	4,940	1,180	528	224
18	4,340	2,520	2,250	1,400	2,600	4,290	6,290	6,670	4,590	1,070	646	221
19	3,930	2,600	2,420	1,300	4,200	3,890	5,940	7,830	4,790	985	575	211
20	3,600	3,110	2,200	1,220	4,700	3,430	5,720	7,990	4,670	904	493	206
21	3,300	6,370	2,300	1,140	4,600	3,120	7,770	7,370	4,270	858	434	197
22	3,070	9,360	2,600	1,040	3,700	2,970	7,300	7,040	9,370	799	396	192
23	2,860	10,100	2,500	980	3,250	2,790	6,370	6,510	13,600	732	375	187
24	2,770	9,690	2,320	970	3,000	2,370	5,630	5,950	13,100	674	428	183
25	2,670	8,880	2,120	970	2,900	2,090	5,100	5,450	10,900	621	489	186
26	2,520	8,370	2,200	980	2,800	2,490	4,730	5,120	8,480	618	477	188
27	2,380	7,980	2,300	990	2,800	2,680	4,450	4,820	6,860	576	469	183
28	2,300	7,340	2,400	1,040	2,850	2,500	4,250	4,620	5,680	1,120	465	182
29	2,210	6,660	2,540	1,100	-----	2,450	4,060	4,400	4,870	1,130	396	230
30	2,150	6,090	2,750	1,220	-----	2,490	3,820	4,230	4,290	776	359	186
31	2,090	-----	2,900	1,200	-----	2,480	-----	4,260	-----	655	336	-----
TOTAL	148,390	117,630	86,640	45,820	56,910	124,400	160,370	153,160	185,770	48,228	17,203	7,080
MEAN	4,787	3,921	2,795	1,478	2,033	4,013	5,346	4,941	6,192	1,556	555	236
MAX	10,500	10,100	5,530	2,600	4,700	7,900	7,770	7,990	13,600	3,780	1,150	317
MIN	2,090	1,420	2,100	970	1,020	2,090	2,500	2,810	3,560	576	336	182
CFSM	.88	.72	.51	.27	.37	.74	.98	.91	1.14	.29	.10	.04
IN.	1.01	.80	.59	.31	.39	.85	1.09	1.05	1.27	.33	.12	.05
AC-FT	294,300	233,300	171,900	90,880	112,900	246,700	318,100	303,800	368,500	95,660	34,120	14,040
CAL YR 1973	TOTAL 1,702,864	MEAN 4,665	MAX 20,100	MIN 280	CFSM .86	IN 11.62	AC-FT 3,378,000					
WTR YR 1974	TOTAL 1,151,601	MEAN 3,155	MAX 13,600	MIN 182	CFSM .58	IN 7.86	AC-FT 2,284,000					

PEAK DISCHARGE (BASE, 7,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-12	2130	13.19	10,000	5-19	2200	12.03	8,240
11-23	1045	13.25	10,100	6-10	2145	11.75	7,830
4-21	1400	11.88	8,020	6-23	0215	15.38	13,800
5-14	0415	11.26	7,160				

DES MOINES RIVER BASIN

05481950 BEAVER CREEK NEAR GRIMES, IOWA

LOCATION.--Lat 41°41'18", long 93°44'08", 200 ft (61 m) east of southwest corner of sec.35, T.80 N., R.25 W., Polk County, on right bank 6 ft (2 m) upstream from bridge on Northwest 70th Avenue, 0.5 mi (0.8 km) downstream from Little Beaver Creek, 2.5 mi (4.0 km) east of Grimes and 6 mi (9.7 km) upstream from mouth.

DRAINAGE AREA.--358 mi² (927 km²).

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

GAGE.--Water-stage recorder and concrete and steel sheeting broad-crested control. Datum of gage is 806.98 ft (245.97 m) above mean sea level. Prior to Aug. 31, 1966, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--14 years, 207 ft³/s (5.86 m³/s), 7.85 in/yr (199 mm/yr), 150,000 acre-ft/yr (185 hm³/yr); median of yearly mean discharges, 160 ft³/s (4.53 m³/s) 6.1 in/yr (155 mm/yr), 116,000 acre-ft/yr (143 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,340 ft³/s (208 m³/s) May 19, gage height, 14.69 ft (4.478 m); minimum daily, 4.1 ft³/s (0.12 m³/s) Sept. 30.
Period of record: Maximum discharge, 7,340 ft³/s (208 m³/s) May 19, 1974, gage height, 14.69 ft (4.478 m); no flow Sept. 8, 11-13, 1970, Sept. 17, 18, Oct. 7-17, 1971.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Five discharge measurements furnished by Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,360	258	289	340	563	429	265	440	817	362	35	10
2	1,030	245	284	370	378	514	265	406	718	344	54	14
3	757	233	282	380	250	912	265	384	655	331	45	10
4	604	223	329	350	190	1,250	400	355	607	435	40	9.0
5	508	218	501	330	210	1,360	600	337	573	378	45	8.4
6	448	216	382	310	230	1,180	750	322	545	338	40	11
7	420	217	341	290	200	892	800	318	514	313	36	12
8	390	215	348	270	180	753	700	331	520	299	42	9.6
9	363	207	335	240	170	691	600	317	2,590	276	26	7.9
10	419	197	285	220	170	636	540	312	2,120	259	32	7.9
11	1,540	196	233	200	180	578	510	334	1,410	247	31	7.1
12	2,700	196	295	170	210	607	500	336	986	244	20	42
13	2,420	196	311	180	300	663	490	640	790	217	27	32
14	1,740	202	277	190	380	591	510	996	688	199	32	24
15	1,150	211	487	200	280	514	560	944	616	185	30	23
16	829	204	369	200	240	452	700	1,330	559	164	40	18
17	670	194	234	210	260	399	800	1,940	517	140	43	13
18	582	194	250	220	500	375	700	4,460	500	123	40	9.6
19	520	185	232	240	740	351	620	6,370	487	111	36	7.9
20	463	222	150	450	470	327	600	5,100	459	98	34	6.4
21	419	427	140	420	420	301	800	3,230	447	91	25	6.9
22	386	588	210	300	330	297	1,100	2,390	468	80	20	6.9
23	364	440	250	250	260	279	980	2,130	590	74	16	6.9
24	347	390	220	240	250	247	880	1,640	671	68	14	6.9
25	329	373	250	241	265	226	800	1,180	565	60	18	6.9
26	308	358	400	307	289	220	720	1,140	498	56	17	6.9
27	291	342	490	370	343	250	600	1,320	458	53	12	6.9
28	282	322	390	320	402	350	700	1,220	427	50	12	5.9
29	277	313	350	316	-----	300	600	1,370	405	45	8.4	4.5
30	270	302	310	472	-----	280	520	1,370	382	41	9.0	4.1
31	266	-----	280	849	-----	270	-----	1,020	-----	37	9.0	-----
TOTAL	22,452	8,084	9,504	9,445	8,660	16,494	18,875	43,982	21,582	5,718	888.4	345.6
MEAN	724	269	307	305	309	532	629	1,419	719	184	28.7	11.5
MAX	2,700	588	501	849	740	1,360	1,100	6,370	2,590	435	54	42
MIN	266	185	140	170	170	220	265	312	382	37	8.4	4.1
CFSM	2.02	.75	.86	.85	.86	1.49	1.76	3.96	2.01	.51	.08	.03
IN.	2.33	.84	.99	.98	.90	1.71	1.96	4.57	2.24	.59	.09	.04
AC-FT	44,530	16,030	18,850	18,730	17,180	32,720	37,440	87,240	42,810	11,340	1,760	685
CAL YR 1973	TOTAL 198,501.0	MEAN 544	MAX 4,000	MIN 27	CFSM 1.52	IN 20.63	AC-FT 393,700					
WTR YR 1974	TOTAL 166,030.0	MEAN 455	MAX 6,370	MIN 4.1	CFSM 1.27	IN 17.25	AC-FT 329,300					

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-12	1545	11.79	2,650	5-30	0015	8.84	1,500
5-19	0230	14.69	7,340	6-9	0400	12.45	3,940

05482140 STORM LAKE AT STORM LAKE, IOWA

LOCATION.--Lat 42°37'27", long 95°10'30", in NW1/4 SE1/4 sec.11, T.90 N., R.37 W., Buena Vista County, about 300 ft (91 m) south of swimming beach in Storm Lake State Park, 0.5 mi (0.8 km) southeast of park entrance at intersection of U.S. Highway 71 and Memorial Drive and 1.3 mi (2.1 km) upstream from lake outlet.

DRAINAGE AREA.--28.3 mi² (73.3 km²).

PERIOD OF RECORD.--April 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,384.32 ft (421.94 m) above mean sea level. Prior to Dec. 3, 1971, nonrecording gage at site 3 mi (4.8 km) upstream at west side of lake at datum 6.89 ft (2.10 m) higher.

EXTREMES.--Current year: Maximum gage height, 14.69 ft (4.478 m) June 22; minimum observed, 13.63 ft (4.154 m) Sept. 30.

Period of record: Maximum gage height observed, 8.51 ft (2.594 m) June 8, 1971, site and datum then in use; minimum observed, 6.00 ft (1.829 m) Oct. 2, 1970, site and datum then in use.

REMARKS.--Lake is formed by concrete dam with ungated spillway at elevation 1,398.56 ft (426.281 m) above mean sea level. Lake is used for conservation and recreation. Area of lake is approximately 3,000 acres (1,210 ha²).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	14.34	14.25	14.42		14.35	14.38	14.38	14.42	14.40	14.36	14.02	13.94	
2	14.34	14.27	14.45		14.35	14.38	14.35	14.33	14.36	14.35	14.03	13.96	
3	14.34	14.24	14.44		14.35	14.40	14.37	14.28	14.39	14.35	14.00	13.94	
4	14.34	14.22	14.41		14.35	14.40	14.46	14.26	14.35	14.34	13.96	13.92	
5	14.33	14.23	14.43		14.34	14.40	14.43	14.26	14.34	14.32	13.95	13.90	
6	14.31	14.20	14.42		14.34	14.40	14.44	14.23	14.38	14.30	13.94	13.89	
7	14.33	14.23	14.42		14.33	14.40	14.36	14.20	14.40	14.27	13.92	13.88	
8	14.32	14.23	14.41			14.40	14.41	14.21	14.37	14.26	13.90	13.88	
9	14.33	14.20	14.41			14.41	14.41	14.20	14.44	14.25	13.89	13.88	
10	14.38	14.20	14.40			14.41	14.35	14.18	14.50	14.23	14.01	13.88	
11	14.45	14.20	14.40			14.45	14.37	14.40	14.45	14.25	14.01	13.88	
12	14.46	14.20	14.40			14.49	14.49	14.33	14.44	14.27	13.98	13.90	
13	14.44	14.20	14.39			14.48	14.43	14.30	14.43	14.26	13.96	13.90	
14	14.42	14.19	14.40			14.49	14.47	14.41	14.42	14.23	13.95	13.88	
15	14.40	14.33	14.40			14.51	14.43	14.34	14.41	14.20	13.95	13.85	
16	14.39	14.32	14.39	14.33		14.46	14.42	14.35	14.35	14.18	13.95	13.84	
17	14.39	14.33	14.39	14.33		14.43	14.42	14.35	14.34	14.17	13.91	13.84	
18	14.36	14.34	14.38	14.33		14.45	14.40	14.48	14.33	14.13	14.01	13.81	
19	14.36	14.30	14.38	14.33		14.42	14.36	14.52	14.31	14.11	14.06	13.80	
20	14.34	14.44	14.38	14.33		14.44	14.39	14.56	14.31	14.08	14.06	13.80	
21	14.34	14.54	14.37	14.33		14.45	14.50	14.60	14.29	14.07	14.09	13.80	
22	14.33	14.51	14.38	14.34		14.44	14.47	14.59	14.47	14.05	14.09	13.77	
23	14.33	14.50	14.37	14.34			14.39	14.57	14.51	14.03	14.07	13.78	
24	14.36	14.52	14.43	14.34			14.38	14.50	14.50	14.00	14.05	13.75	
25	14.33	14.50	14.44	14.34			14.38	14.47	14.49	13.97	14.04	13.73	
26	14.31	14.50	14.44	14.35	14.38	14.38	14.37	14.48	14.47	13.95	14.03	13.72	
27	14.29	14.50	14.45	14.35	14.37	14.38	14.39	14.47	14.45	13.95	14.05	13.70	
28	14.26	14.50	14.45	14.35	14.38	14.37	14.39	14.46	14.42	13.97	14.03	13.69	
29	14.25	14.47	14.44	14.35	-----	14.40	14.39	14.45	14.40	13.96	14.02	13.69	
30	14.26	14.45		14.35	-----		14.39	14.37	14.43	14.39	13.92	14.00	13.64
31	14.27	-----		14.36	-----	14.32	-----	14.40	-----	13.90	13.97	-----	
MEAN	14.35	14.34					14.41	14.39	14.40	14.15	14.00	13.83	
MAX	14.46	14.54					14.50	14.60	14.51	14.36	14.09	13.96	
MIN	14.25	14.19					14.35	14.18	14.29	13.90	13.89	13.64	

DES MOINES RIVER BASIN

05482170 BIG CEDAR CREEK NEAR VARINA, IOWA

LOCATION.--Lat 42°41'16", long 94°47'52", in NE1/4 NE1/4 sec.24, T.91 N., R.34 W., Pocahontas County, on left bank 5 ft (2 m) downstream from bridge on county highway W33, 2.0 mi (3.2 km) downstream from Drainage ditch 21, 3.5 mi (5.6 km) upstream from Drainage ditch 74, and 5.5 mi (8.8 km) northeast of Varina.

DRAINAGE AREA.--80.0 mi² (207 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,225.12 ft (373.42 m) above mean sea level.

AVERAGE DISCHARGE.--15 years, 35.5 ft³/s (1.01 m³/s), 6.03 in/yr (153 mm/yr), 25,720 acre-ft/yr (31.7 hm³/yr); median of yearly mean discharges, 27 ft³/s (0.76 m³/s), 4.6 in/yr (117 mm/yr), 19,600 acre-ft/yr (24.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 642 ft³/s (18.2 m³/s) Nov. 21, gage height, 8.11 ft (2.472 m); minimum daily, 0.37 ft³/s (0.010 m³/s) Sept. 30.
Period of record: Maximum discharge, 2,080 ft³/s (58.9 m³/s) Aug. 31, 1962, gage height, 13.68 ft (4.170 m); maximum gage height, 15.05 ft (4.587 m) Apr. 6, 1965, backwater from ice; no flow at times in 1964, 1967, 1968, 1972.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	284	45	95	20	21	29	38	37	38	36	9.0	1.0
2	228	42	95	19	20	34	37	38	38	33	5.0	1.8
3	190	39	85	19	19	48	56	34	37	33	4.0	1.1
4	169	39	82	19	18	44	117	33	36	30	3.8	.86
5	148	37	74	19	17	39	103	33	35	27	3.1	.86
6	133	38	67	19	17	39	91	32	38	25	3.1	.86
7	127	38	64	18	16	35	79	33	37	23	2.4	.86
8	116	35	60	18	16	34	65	32	40	21	2.4	.86
9	106	32	56	18	16	49	62	30	56	20	2.6	.78
10	238	33	57	18	16	61	59	32	56	20	3.6	.78
11	448	34	53	18	18	71	59	77	49	20	2.8	.78
12	442	34	49	18	35	122	83	68	45	19	2.4	1.5
13	288	33	45	18	164	95	89	104	43	16	1.8	2.0
14	217	32	43	19	110	80	87	119	39	14	1.8	1.0
15	176	125	41	19	100	71	79	90	36	13	1.8	.86
16	147	137	41	19	84	59	70	81	34	12	2.3	.78
17	128	103	39	19	160	50	64	70	33	11	5.0	.71
18	112	84	36	20	188	45	59	97	32	10	4.7	.78
19	102	74	35	21	66	41	54	116	30	9.3	2.1	.78
20	91	309	34	22	50	42	53	104	28	8.7	1.4	.78
21	85	545	35	22	45	36	61	94	28	8.1	2.7	.78
22	79	349	34	22	36	35	57	90	201	7.3	3.6	.78
23	75	268	31	21	30	37	51	78	191	6.7	1.8	.71
24	75	230	29	21	40	38	47	68	113	6.2	1.4	.71
25	65	186	27	21	70	39	46	61	87	6.0	1.1	.59
26	60	161	26	21	46	35	44	58	71	5.7	1.0	.53
27	56	144	24	22	28	34	46	55	60	5.2	3.2	.47
28	53	126	23	22	28	35	43	53	51	4.7	2.4	.53
29	51	115	22	23	-----	36	40	49	46	4.0	1.4	.47
30	50	103	21	22	-----	36	38	45	39	3.6	1.2	.37
31	46	-----	20	22	-----	36	-----	41	-----	3.6	1.0	-----
TOTAL	4,585	3,570	1,443	619	1,474	1,485	1,877	1,952	1,667	462.1	85.9	25.67
MEAN	148	119	46.5	20.0	52.6	47.9	62.6	63.0	55.6	14.9	2.77	.86
MAX	448	545	95	23	188	122	117	119	201	36	9.0	2.0
MIN	46	32	20	18	16	29	37	30	28	3.6	1.0	.37
CFSM	1.85	1.49	.58	.25	.66	.60	.78	.79	.70	.19	.03	.01
IN.	2.13	1.66	.67	.29	.69	.69	.87	.91	.78	.21	.04	.01
AC-FT	9,090	7,080	2,860	1,230	2,920	2,950	3,720	3,870	3,310	917	170	51
CAL YR 1973	TOTAL 33,681.50	MEAN 92.3	MAX 746	MIN 3.2	CFSM 1.15	IN 15.66	AC-FT 66,810					
WTR YR 1974	TOTAL 19,245.67	MEAN 52.7	MAX 545	MIN .37	CFSM .66	IN 8.95	AC-FT 38,170					

PEAK DISCHARGE (BASE, 400 FT³/S).--Oct. 11 (2100) 573 ft³/s (7.75 ft); Nov. 21 (0030) 642 ft³/s (8.11 ft).

DES MOINES RIVER BASIN

99

05482300 NORTH RACCOON RIVER NEAR SAC CITY, IOWA

LOCATION.--Lat 42°20'28", long 94°59'05", in NE1/4 NW1/4 sec.24, T.87 N., R.36 W., Sac County, on right bank 15 ft (5 m) downstream from bridge on county highway, 0.2 mi (0.3 km) upstream from Indian Creek, 0.9 mi (1.4 km) downstream from Drainage ditch 73, and 5.6 mi (9.0 km) south of Sac City.

DRAINAGE AREA.--713 mi² (1,846 km²).

PERIOD OF RECORD.--June 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,144.60 ft (348.87 m) above mean sea level (levels by Iowa Natural Resources Council).

AVERAGE DISCHARGE.--16 years, 299 ft³/s (8.47 m³/s), 5.69 in/yr (145 mm/yr), 216,600 acre-ft/yr (267 hm³/yr); median of yearly mean discharges, 250 ft³/s (7.08 m³/s), 4.8 in/yr (122 mm/yr), 181,000 acre-ft/yr (223 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,060 ft³/s (115 m³/s) Oct. 12, gage height, 13.33 ft (4.063 m); minimum daily, 19 ft³/s (0.54 m³/s) Sept. 25, 30.

Period of record: Maximum discharge, 10,800 ft³/s (306 m³/s) Sept. 1, 1962, gage height, 18.12 ft (5.523 m); minimum daily, 1.0 ft³/s (28 dm³/s) Jan. 25 to Feb. 5, 1959.

Flood of June 21, 1954, reached a stage of 15.61 ft (4.758 m), from floodmark, discharge, 7,000 ft³/s (198 m³/s).

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,510	521	857	240	220	260	395	370	447	347	71	39
2	1,960	494	846	240	220	310	392	354	409	311	74	39
3	1,650	461	815	236	194	400	431	345	391	280	67	39
4	1,460	440	740	230	160	500	786	313	371	257	51	37
5	1,310	431	670	226	160	475	993	299	349	235	44	36
6	1,180	426	600	220	156	440	911	291	337	209	43	36
7	1,170	435	570	220	144	420	826	283	365	186	40	36
8	1,080	421	540	220	136	399	708	284	483	176	39	36
9	993	395	520	220	134	404	632	273	557	168	39	36
10	1,340	381	500	216	134	495	589	258	656	160	69	36
11	2,970	388	490	216	136	566	571	358	643	164	71	35
12	3,900	393	480	214	142	874	643	567	539	154	52	38
13	3,070	393	470	214	164	950	742	689	466	151	49	39
14	2,150	380	425	212	208	821	762	1,160	415	142	43	37
15	1,720	424	385	210	252	747	785	842	376	128	41	34
16	1,440	897	370	214	300	678	714	696	349	116	62	30
17	1,230	866	355	216	355	584	647	623	329	105	44	28
18	1,140	764	340	220	490	549	609	1,450	313	94	42	26
19	1,040	679	330	224	620	503	559	2,250	297	86	43	25
20	943	1,130	315	230	920	474	525	1,700	276	77	44	25
21	869	3,000	305	234	620	433	522	1,320	260	69	45	25
22	813	2,850	300	240	490	449	622	1,120	353	68	42	25
23	765	2,210	295	236	360	372	577	953	1,390	65	40	22
24	748	1,730	285	232	305	286	509	810	1,130	60	38	21
25	711	1,510	280	232	275	430	478	706	821	56	37	19
26	650	1,350	275	236	260	473	469	687	669	56	36	20
27	613	1,230	265	238	252	374	447	622	575	56	38	20
28	589	1,100	260	240	250	377	435	585	456	56	40	20
29	568	1,000	255	242	-----	390	421	684	437	54	40	20
30	552	935	250	246	-----	402	393	565	395	45	40	19
31	544	-----	245	230	-----	396	-----	505	-----	48	39	-----
TOTAL	41,678	27,634	13,633	7,044	8,057	15,231	18,093	21,962	14,854	4,179	1,463	898
MEAN	1,344	921	440	227	288	491	603	708	495	135	47.2	29.9
MAX	3,900	3,000	857	246	920	950	993	2,250	1,390	347	74	39
MIN	544	380	245	210	134	260	392	258	260	45	36	19
CFSM	1.89	1.29	.62	.32	.40	.69	.85	.99	.69	.19	.07	.04
IN.	2.17	1.44	.71	.37	.42	.79	.94	1.15	.77	.22	.08	.05
AC-FT	82,670	54,810	27,040	13,970	15,980	30,210	35,890	43,560	29,460	8,290	2,900	1,780

CAL YR 1973 TOTAL 325,399 MEAN 892 MAX 4,390 MIN 117 CFSM 1.25 IN 16.98 AC-FT 645,400
WTR YR 1974 TOTAL 174,726 MEAN 479 MAX 3,900 MIN 19 CFSM .67 IN 9.12 AC-FT 346,600

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-12	0515	13.33	4,060	5-19	0630	11.21	2,400
11-21	1800	12.11	3,250				

DES MOINES RIVER BASIN

05482315 BLACKHAWK LAKE AT LAKE VIEW, IOWA

LOCATION.--Lat 42°18'15", long 95°02'30", in NW1/4 SE1/4 sec.33, T.87 N., R.36 W., Sac County, on south shore across from swimming beach at Lake View and 2 mi (3.2 km) upstream from lake outlet.

DRAINAGE AREA.--23.3 mi² (60.3 km²).

PERIOD OF RECORD.--April 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,218.50 ft (371.40 m) above mean sea level and 2.00 ft (0.61 m) below crest of spillway of dam at outlet. Prior to June 25, 1970, nonrecording gage at lake outlet.

EXTREMES.--Current year: Maximum gage height, 3.44 ft (1.049 m) May 29; minimum, 1.63 ft (0.497 m) Sept. 29.
Period of record: Maximum gage height, 3.45 ft (1.052 m) Feb. 20, 1971; minimum, 0.59 ft (0.180 m) Oct. 27, 1971.

REMARKS.--Lake is formed by concrete dam with ungated overflow spillway at elevation 1,220.50 ft (372.008 m) above mean sea level. Lake is used for conservation and recreation. Area of lake is approximately 957 acres (390 ha²).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.16	2.58	2.67	2.48	2.48	2.60	2.36	2.42	2.90	2.37		1.98
2	3.11	2.55	2.65	2.47	2.49	2.60	2.40	2.38	2.85	2.35		1.98
3	3.05	2.55	2.63	2.46	2.48	2.65	2.42	2.35	2.82	2.35		1.98
4	2.99	2.55	2.60	2.45	2.48	2.67	2.46	2.35	2.76	2.35		1.97
5	2.94	2.53	2.60	2.44	2.46	2.68	2.51	2.33	2.74	2.35		1.97
6	2.90	2.54	2.60	2.45	2.46	2.67	2.53	2.33	2.70	2.34		1.96
7	2.89	2.52	2.59	2.45	2.45	2.65	2.53	2.35	2.69	2.32		1.94
8	2.86	2.50	2.58	2.44	2.44	2.65	2.52	2.35	2.70	2.30	2.00	1.94
9	2.85	2.50	2.57	2.44	2.44	2.65	2.52	2.36	2.69	2.27	2.01	1.93
10	2.87	2.49	2.55	2.43	2.43	2.65	2.54	2.40	2.63	2.30	2.02	1.93
11	3.03	2.48	2.54	2.43	2.42	2.66	2.55	2.44	2.60	2.30	2.01	1.91
12	3.18	2.49	2.54	2.43	2.43	2.65	2.54	2.44	2.59	2.30	2.00	1.93
13	3.20	2.47	2.54	2.42	2.44	2.65	2.52	2.56	2.57	2.26	2.01	1.93
14	3.18	2.51	2.54	2.42	2.46	2.64	2.53	2.54	2.55	2.25	2.03	1.91
15	3.13	2.54	2.53	2.41	2.48	2.58	2.55	2.56	2.50		2.03	1.91
16	3.08	2.55	2.53	2.40	2.48	2.55	2.56	2.57	2.47		2.05	1.91
17	3.02	2.55	2.52	2.41	2.50	2.55	2.55	2.60	2.45		2.07	1.88
18	2.97	2.52	2.51	2.41	2.55	2.52	2.55	2.82	2.45		2.10	1.88
19	2.92	2.54	2.50	2.42	2.60	2.50	2.56	3.16	2.44		2.11	1.87
20	2.90	2.64	2.49	2.42	2.62	2.50	2.57	3.27	2.44		2.10	1.86
21	2.86	2.70	2.48	2.44	2.62	2.48	2.49	3.25	2.42		2.09	1.83
22	2.82	2.75	2.48	2.45	2.64	2.46	2.46	3.22	2.50		2.08	1.83
23	2.80	2.77	2.47	2.45	2.62	2.47	2.45	3.15	2.51		2.07	1.83
24	2.75	2.77	2.50	2.45	2.60	2.45	2.46	3.09	2.50		2.07	1.79
25	2.70	2.77	2.54	2.45	2.59	2.44	2.44	3.05	2.50		2.05	1.78
26	2.68	2.76	2.54	2.45	2.58	2.43	2.45	3.05	2.49		2.04	1.77
27	2.65	2.73	2.54	2.45	2.57	2.43	2.45	3.02	2.46		2.05	1.76
28	2.62	2.71	2.53	2.45	2.60	2.42	2.45	2.96	2.45		2.04	1.74
29	2.61	2.70	2.52	2.45	-----	2.40	2.43	3.04	2.42		2.03	1.71
30	2.60	2.68	2.51	2.45	-----	2.40	2.41	3.00	2.39		2.01	1.70
31	2.58	-----	2.49	2.46	-----	2.42	-----	2.94	-----		1.99	-----
MEAN	2.90	2.60	2.54	2.44	2.51	2.55	2.49	2.72	2.57			1.88
MAX	3.20	2.77	2.67	2.48	2.64	2.68	2.57	3.27	2.90			1.98
MIN	2.58	2.47	2.47	2.40	2.42	2.40	2.36	2.33	2.39			1.70

DES MOINES RIVER BASIN

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05482500 NORTH RACCOON RIVER NEAR JEFFERSON, IOWA

LOCATION.--Lat 41°59'17", long 94°22'36", in SW1/4 NW1/4 sec.20, T.83 N., R.30 W., Greene County, on right bank 5 ft (2 m) downstream from bridge on State Highway 4, 0.1 mi (0.2 km) downstream from Drainage ditch 33, and 40, 1.9 mi (3.1 km) south of Jefferson, and 4.2 mi (6.8 km) upstream from Hardin Creek.

DRAINAGE AREA.--1,619 mi² (4,193 km²).

PERIOD OF RECORD.--March 1940 to current year. Prior to April 1940, monthly discharge only, published in WSP 1308. Prior to October 1955, published as Raccoon River near Jefferson.

GAGE.--Water-stage recorder. Datum of gage is 967.09 ft (294.77 m) above mean sea level. Prior to Apr. 22, 1946, nonrecording gage at site 4 mi (6.4 km) upstream at different datum. Apr. 22 to June 25, 1946, nonrecording gage, June 26, 1946 to Sept. 30, 1955, water-stage recorder, Oct. 1, 1955 to Apr. 30, 1958, nonrecording gage, at present site and datum.

AVERAGE DISCHARGE.--34 years, 682 ft³/s (19.3 m³/s), 5.72 in/yr (145 mm/yr), 494,100 acre-ft/yr (609 hm³/yr); median of yearly mean discharges, 580 ft³/s (16.4 m³/s), 4.9 in/yr (124 mm/yr), 420,000 acre-ft/yr (518 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,240 ft³/s (205 m³/s) Oct. 14, gage height, 14.06 ft (4.286 m); maximum gage height, 15.11 ft (4.606 m) Feb. 20, backwater from ice; minimum daily discharge, 65 ft³/s (1.84 m³/s) Sept. 30.

Period of record: Maximum discharge, 29,100 ft³/s (824 m³/s) June 23, 1947, gage height, 22.3 ft (6.80 m); minimum daily, 0.6 ft³/s (17 dm³/s) Oct. 5, 1956.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1508: 1940 (N), 1950-51.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,590	1,510	2,060	710	680	1,720	1,000	970	1,670	1,220	204	94
2	7,760	1,470	1,960	690	650	1,690	986	935	1,540	1,110	239	94
3	6,690	1,400	1,900	680	610	1,960	1,040	911	1,460	1,020	249	94
4	5,090	1,340	1,800	670	590	2,160	1,260	880	1,380	974	224	92
5	4,230	1,280	1,600	660	560	2,120	1,990	839	1,310	904	198	90
6	3,630	1,260	1,540	650	540	1,920	2,420	798	1,240	836	177	88
7	3,260	1,240	1,500	640	520	1,710	2,250	780	1,220	775	163	86
8	3,090	1,230	1,500	630	500	1,580	2,020	767	1,260	719	152	85
9	2,880	1,190	1,500	620	490	1,490	1,760	762	1,640	665	152	82
10	2,750	1,130	1,480	620	490	1,420	1,590	724	2,040	636	156	80
11	3,680	1,090	1,450	610	500	1,440	1,510	762	2,110	607	167	78
12	5,550	1,090	1,420	610	550	1,610	1,470	870	1,950	576	179	97
13	6,610	1,100	1,380	600	640	1,900	1,510	1,410	1,740	551	176	94
14	7,070	1,100	1,340	590	750	2,090	1,640	1,840	1,590	510	170	90
15	6,320	1,110	1,320	590	870	1,930	1,730	2,200	1,460	470	183	88
16	4,280	1,130	1,240	590	960	1,770	1,780	3,170	1,340	446	179	87
17	3,330	1,370	1,150	580	1,100	1,630	1,650	2,430	1,260	409	189	82
18	2,880	1,620	1,070	600	1,280	1,510	1,530	5,290	1,190	381	243	77
19	2,560	1,490	990	610	2,000	1,420	1,440	5,700	1,130	360	270	74
20	2,390	1,530	950	620	4,800	1,330	1,380	6,090	1,070	335	232	75
21	2,270	2,740	910	630	4,300	1,250	1,420	5,750	1,020	318	201	73
22	2,180	4,530	890	640	3,300	1,190	1,380	4,250	1,160	298	168	72
23	2,130	5,240	860	650	2,540	1,140	1,360	3,340	2,140	275	149	70
24	2,020	4,850	840	650	2,700	1,050	1,340	2,820	3,200	253	136	68
25	1,940	3,800	830	650	2,950	961	1,240	2,450	3,220	235	128	68
26	1,860	3,260	810	660	3,200	973	1,190	2,710	2,380	216	120	67
27	1,760	2,930	790	670	3,260	1,150	1,150	2,430	1,950	201	114	68
28	1,690	2,650	770	680	2,040	1,030	1,110	2,170	1,700	202	106	67
29	1,640	2,420	750	680	-----	986	1,080	2,020	1,500	196	101	67
30	1,590	2,220	740	700	-----	1,000	1,020	2,140	1,350	188	99	65
31	1,550	-----	730	710	-----	1,000	-----	1,860	-----	173	99	-----
TOTAL	113,270	60,320	38,078	19,890	43,370	46,130	44,246	70,068	49,220	16,059	5,323	2,412
MEAN	3,654	2,011	1,228	642	1,549	1,488	1,475	2,266	1,641	518	172	80.4
MAX	8,590	5,240	2,060	710	4,800	2,160	2,420	6,090	3,220	1,220	270	97
MIN	1,550	1,090	730	580	490	961	986	724	1,020	173	99	65
CFSM	2.26	1.24	.76	.40	.96	.92	.91	1.40	1.01	.32	.11	.05
IN.	2.60	1.39	.87	.46	1.00	1.06	1.02	1.61	1.13	.37	.12	.06
AC-FT	224,700	119,600	75,510	39,450	86,020	91,500	87,760	139,000	97,630	31,850	10,560	4,780
CAL YR 1973	TOTAL 876,724	MEAN 2,402	MAX 10,200	MIN 370	CFSM 1.48	IN 20.14	AC-FT 1,739,000					
WTR YR 1974	TOTAL 508,378	MEAN 1,393	MAX 8,590	MIN 65	CFSM .86	IN 11.68	AC-FT 1,008,000					

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-14	1600	14.06	7,240	5-16	1000	11.25	4,260
11-23	1715	12.04	5,340	5-18	1715	13.35	6,400
2-20	--	--	* 5,900				

* About

DES MOINES RIVER BASIN

05483000 EAST FORK HARDIN CREEK NEAR CHURDAN, IOWA

LOCATION.--Lat 42°06'27", long 94°22'12", in SE1/4 SW1/4 sec.5, T.84 N., R.30 W., Greene County, on left bank 35 ft (11 m) upstream from bridge on county highway E26, 1.6 mi (2.6 km) upstream from small left-bank tributary, 4.4 mi (7.1 km) upstream from mouth, and 6.5 mi (10.5 km) southeast of Churdan.

DRAINAGE AREA.--24.0 mi² (62.2 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,050.90 ft (320.31 m) above mean sea level.

AVERAGE DISCHARGE.--22 years, 9.92 ft³/s (0.281 m³/s), 5.61 in/yr (142 mm/yr, 7,190 acre-ft/yr (8.87 hm³/yr); median of yearly mean discharges, 7.4 ft³/s (0.210 m³/s), 4.2 in/yr (107 mm/yr), 5,400 acre-ft/yr (6.66 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 385 ft³/s (10.9 m³/s) May 18, gage height, 7.71 ft (2.350 m); minimum daily, 0.01 ft³/s (0.0003 m³/s) Sept. 22-27, 30.
Period of record: Maximum discharge, 413 ft³/s (11.7 m³/s) May 5, 1960, gage height, 8.92 ft (2.719 m), from rating curve extended above 270 ft³/s (7.65 m³/s); no flow at times most years.

CORRECTIONS.--The minimum discharge for the water year 1973 is 1.5 ft³/s Aug. 22. The previously published figure was not the minimum.

REMARKS.--Records good except those for winter period or those below 2.0 ft³/s (0.057 m³/s), which are poor. Small diversion for irrigation above station. Records of periodic chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1708: 1954-55, 1957 (d).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	18	22	17	9.5	35	18	23	30	20	3.3	.18
2	50	17	20	16	8.7	67	17	23	28	18	2.1	.26
3	37	16	20	15	7.8	98	23	21	29	16	1.7	.20
4	32	15	22	14	8.8	86	37	22	26	15	1.7	.13
5	29	15	20	13	7.6	67	38	21	25	14	1.4	.10
6	29	15	18	12	7.8	51	35	20	24	13	1.3	.12
7	31	15	18	11	7.2	42	31	21	23	12	1.2	.13
8	31	14	19	10	6.4	37	27	19	24	11	1.1	.10
9	31	13	18	11	6.1	34	27	18	85	9.9	1.2	.07
10	50	13	17	9.8	5.8	31	27	18	60	9.4	1.2	.06
11	147	13	17	11	6.3	32	26	20	43	9.0	.98	.05
12	119	13	17	10	10	39	26	18	36	8.5	.89	.34
13	78	14	15	10	14	37	25	58	32	7.7	.92	.22
14	59	14	15	9.3	11	34	25	146	29	7.2	.87	.09
15	49	14	14	8.5	8.9	31	27	76	28	6.7	.88	.05
16	42	15	14	8.5	14	28	27	148	28	6.4	1.6	.04
17	38	16	14	7.8	62	27	27	115	25	6.0	2.8	.03
18	35	15	14	7.8	93	27	25	265	24	5.6	2.6	.02
19	34	14	13	7.8	72	26	25	201	22	5.3	1.3	.02
20	31	39	13	8.1	60	24	25	179	21	4.8	.74	.02
21	29	64	13	7.7	50	23	49	156	20	4.6	.57	.02
22	26	39	13	7.7	35	23	42	127	105	4.1	.48	.01
23	24	32	12	7.7	25	21	35	96	69	3.7	.40	.01
24	23	29	14	7.7	20	20	33	74	45	3.3	.34	.01
25	22	27	32	8.0	18	20	31	63	36	3.1	.30	.01
26	22	28	31	8.3	17	19	31	62	30	2.8	.26	.01
27	21	29	25	7.5	18	19	28	54	27	2.8	.28	.01
28	20	27	21	7.7	28	19	28	49	25	2.7	.22	.02
29	20	26	20	7.8	-----	19	28	43	23	2.2	.19	.02
30	21	23	18	9.0	-----	18	25	41	21	1.9	.18	.01
31	20	-----	18	10	-----	18	-----	33	-----	1.8	.19	-----
TOTAL	1,265	642	557	306.7	637.9	1,072	868	2,230	1,043	238.5	33.19	2.36
MEAN	40.8	21.4	18.0	9.89	22.8	34.6	28.9	71.9	34.8	7.69	1.07	.079
MAX	147	64	32	17	93	98	49	265	105	20	3.3	.34
MIN	20	13	12	7.5	5.8	18	17	18	20	1.8	.18	.01
CFSM	1.70	.89	.75	.41	.95	1.44	1.20	3.00	1.45	.32	.04	.003
IN.	1.96	1.00	.86	.48	.99	1.66	1.35	3.46	1.62	.37	.05	.003
AC-FT	2,510	1,270	1,100	608	1,270	2,130	1,720	4,420	2,070	473	66	4.7

CAL YR 1973 TOTAL 13,454.10 MEAN 36.9 MAX 262 MIN 1.5 CFSM 1.54 IN 20.85 AC-FT 26,690
WTR YR 1974 TOTAL 8,895.65 MEAN 24.4 MAX 265 MIN .01 CFSM 1.02 IN 13.79 AC-FT 17,640

PEAK DISCHARGE (BASE, 150 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	1545	5.65	197	5-16	0645	6.13	243
2-17	2100	5.25	159	5-18	0200	7.71	385
5-13	2345	5.58	206				

05483600 MIDDLE RACCON RIVER AT PANORA, IOWA

LOCATION.--Lat 41°41'14"N, long 94°22'15"W, in NE1/4 NW1/4 sec.5, T.79 N., R.30 W., Guthrie County, on left bank 15 ft (5 m) downstream from bridge on county highway, 0.2 mi (0.3 km) southwest of Panora, 1.5 mi (2.4 km) upstream from Andy's Branch, and 1.7 mi (2.7 km) downstream from Lake Panorama.

DRAINAGE AREA.--440 mi² (1,139 km²).

PERIOD OF RECORD.--June 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 991.20 ft (302.12 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 225 ft³/s (6.37 m³/s), 6.94 in/yr (176 mm/yr), 163,000 acre-ft/yr (201 hm³/yr); median of yearly mean discharges, 170 ft³/s (4.81 m³/s), 5.2 in/yr (132 mm/yr), 123,000 acre-ft/yr (152 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 14,000 ft³/s (396 m³/s) May 19, gage height, 14.80 ft (4.511 m); minimum daily, 44 ft³/s (1.25 m³/s) Sept. 30.

Period of record: Maximum discharge, 12,000 ft³/s (340 m³/s) July 3, 1973, gage height, 13.56 ft (4.133 m), from floodmark, from rating curve extended above 5,200 ft³/s (147 m³/s) by step-backwater analysis; minimum daily, 1.0 ft³/s (28 dm³/s) June 19, 1969, result of construction of dam at Lake Panorama; minimum daily discharge excluding construction period and operation of Lake Panorama, 10 ft³/s (0.28 m³/s) Jan. 7-13, 1968.

Flood of June 10, 1953, reached a stage of 14.3 ft (4.36 m), from floodmark, discharge, about 14,000 ft³/s (396 m³/s).

REMARKS.--Records good. City of Panora diverts approximately 100 acre-ft/yr (0.123 hm³/yr) above station. Flow regulated by dam on Lake Panorama since August 1970. Records of periodic chemical analyses for the current year are published in Part 2 of this report.

REVISIONS.--The figures of peak discharge for water year 1973 have been revised. The figures in the following table supplement and correct those published in WRD Iowa, 1973.

REVISED PEAK DISCHARGE.--1973: Sept. 28 (0730) 4,090 ft³/s (8.99 ft); Sept. 26 (deleted).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,150	284	313	191	377	589	298	253	643	219	70	58
2	765	275	372	223	308	765	211	284	613	215	88	62
3	743	266	410	240	280	1,020	393	244	734	223	97	60
4	496	258	602	236	223	930	191	244	649	236	93	58
5	327	249	450	227	198	805	57	240	479	223	87	56
6	294	240	308	223	215	765	124	219	254	215	83	55
7	357	308	520	211	206	699	289	236	301	206	79	55
8	372	271	520	206	202	556	479	249	536	202	77	55
9	496	171	455	198	202	508	399	223	1,110	191	93	55
10	664	188	404	195	191	352	266	227	791	184	95	53
11	1,580	202	318	191	184	337	298	275	837	184	94	53
12	2,210	215	455	184	232	432	332	249	436	191	91	78
13	1,240	223	444	181	367	444	327	382	306	184	87	87
14	1,260	223	280	181	427	427	327	1,070	765	99	88	85
15	544	232	206	215	362	410	332	643	289	65	96	75
16	582	223	219	227	303	372	266	998	90	81	153	68
17	609	223	215	249	367	337	55	2,360	576	125	215	64
18	538	223	181	289	813	332	284	3,980	455	150	231	61
19	393	184	184	298	1,020	318	393	11,000	253	135	103	59
20	367	438	184	294	821	308	538	4,400	275	123	51	55
21	382	765	191	313	743	342	896	2,890	347	117	57	54
22	322	729	211	298	622	427	636	981	576	112	62	50
23	308	576	227	262	467	313	399	1,070	393	100	61	48
24	332	410	240	236	404	244	188	1,100	362	95	60	47
25	337	496	332	232	332	178	303	731	362	92	60	47
26	327	496	404	258	342	202	318	2,750	347	90	61	46
27	318	362	410	266	399	232	308	2,690	332	87	63	45
28	313	318	432	249	484	240	352	1,400	318	65	60	47
29	294	322	416	151	-----	253	332	1,420	303	55	60	45
30	289	327	318	206	-----	253	284	1,480	289	57	58	44
31	294	-----	223	421	-----	232	-----	905	-----	59	58	-----
TOTAL	18,503	9,697	10,444	7,351	11,091	13,622	9,880	45,193	14,021	4,380	2,731	1,725
MEAN	597	323	337	237	396	439	329	1,458	467	141	88.1	57.5
MAX	2,210	765	602	421	1,020	1,020	896	11,000	1,110	236	231	87
MIN	289	171	181	151	184	178	55	219	90	55	51	44
CFSM	1.36	.73	.77	.54	.90	1.00	.75	3.31	1.06	.32	.20	.13
IN.	1.56	.82	.88	.62	.94	1.15	.84	3.82	1.19	.37	.23	.15
AC-FT	36,700	19,230	20,720	14,580	22,000	27,020	19,600	89,640	27,810	8,690	5,420	3,420
CAL YR 1973	TOTAL 263,411	MEAN 722	MAX 10,100	MIN 40	CFSM 1.64	IN 22.27	AC-FT 522,500					
WTR YR 1974	TOTAL 148,638	MEAN 407	MAX 11,000	MIN 44	CFSM .93	IN 12.57	AC-FT 294,800					

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-17	0530	7.85	2,810	5-27	0515	9.13	4,410
5-19	0230	14.80	14,000	6-14	0945	8.13	3,150
5-21	1530	9.00	4,240				

DES MOINES RIVER BASIN

05484000 SOUTH RACCOON RIVER AT REDFIELD, IOWA

LOCATION.--Lat 41°34'48", long 94°10'58", in SW1/4 SW1/4 sec.3, T.78 N., R.29 W., Dallas County, on left bank 10 ft (3 m) downstream from bridge on county highway at Redfield, 0.8 mi (1.3 km) downstream from bridge on U.S. Highway 6, 1.0 mi (1.6 km) downstream from Middle Raccoon River, and 15.6 mi (25.1 km) upstream from mouth.

DRAINAGE AREA.--988 mi² (2,558 km²).

PERIOD OF RECORD.--March 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 896.43 ft (273.23 m) above mean sea level. Prior to June 12, 1946, nonrecording gage, and June 12, 1946, to Sept. 30, 1966, water-stage recorder at site 20 ft (6 m) upstream at same datum.

AVERAGE DISCHARGE.--34 years, 449 ft³/s (12.7 m³/s), 6.17 in/yr (157 mm/yr), 325,300 acre-ft/yr (401 hm³/yr); median of yearly mean discharges, 380 ft³/s (10.8 m³/s), 5.2 in/yr (132 mm/yr), 275,000 acre-ft/yr (339 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 20,000 ft³/s (566 m³/s) May 19, gage height, 21.85 ft (6.660 m); minimum daily, 102 ft³/s (2.89 m³/s) Sept. 30.

Period of record: Maximum discharge, 35,000 ft³/s (991 m³/s) July 2, 1958, gage height, 29.04 ft (8.851 m), from floodmark; minimum daily, 19 ft³/s (0.54 m³/s) July 27, 1940, Nov. 30, 1955.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Two discharge measurement furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1508: 1940.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,150	554	605	380	740	1,500	655	999	1,750	552	196	141
2	1,370	537	695	420	610	2,030	669	929	1,610	484	241	150
3	1,360	512	720	460	520	2,880	840	896	1,550	470	246	156
4	1,110	495	990	450	370	2,590	1,260	792	1,640	720	232	144
5	767	480	960	440	400	2,270	810	787	1,310	547	220	138
6	626	471	710	430	420	1,870	731	710	1,190	498	209	135
7	700	474	804	410	400	1,730	820	728	942	475	199	141
8	715	591	960	400	400	1,510	948	798	1,350	457	194	140
9	734	374	840	390	390	1,410	1,010	725	2,970	412	280	130
10	1,190	386	750	370	370	1,190	840	690	2,210	396	284	122
11	5,330	417	700	360	350	987	735	925	1,760	423	249	122
12	4,180	443	700	355	400	1,250	867	801	1,270	435	229	233
13	2,810	454	840	350	560	1,280	844	910	1,810	421	240	305
14	2,020	450	640	355	820	1,180	852	1,910	1,400	397	272	200
15	1,550	453	570	360	700	1,120	885	1,370	1,230	278	261	168
16	1,100	442	560	380	580	1,050	897	3,490	630	279	303	151
17	1,240	426	590	450	710	940	578	3,950	860	292	412	140
18	1,150	431	540	530	940	923	593	8,350	1,060	377	488	132
19	923	422	490	570	1,480	899	897	15,600	765	346	349	124
20	780	995	430	560	1,400	848	1,690	10,100	710	333	154	119
21	784	1,810	510	600	1,300	764	5,770	5,160	740	319	134	108
22	746	1,390	660	580	1,100	630	2,310	4,130	992	303	162	108
23	658	1,110	630	520	800	620	1,610	2,170	980	283	155	108
24	679	977	550	480	710	635	1,140	2,310	785	258	150	108
25	671	931	700	450	600	608	1,010	2,070	755	238	148	108
26	640	961	1,000	500	680	611	1,060	5,070	725	233	147	108
27	619	822	940	520	820	633	998	5,020	695	229	142	107
28	602	696	840	410	1,200	670	2,650	3,080	660	225	140	108
29	582	689	700	250	-----	689	2,620	3,380	635	180	137	108
30	566	681	600	410	-----	721	1,200	2,960	606	174	139	102
31	568	-----	440	820	-----	669	-----	2,330	-----	170	141	-----
TOTAL	38,920	19,874	21,664	13,960	19,770	36,707	37,789	93,140	35,590	11,204	6,853	4,164
MEAN	1,255	662	699	450	706	1,184	1,260	3,005	1,186	361	221	139
MAX	5,330	1,810	1,000	820	1,480	2,880	5,770	15,600	2,970	720	488	305
MIN	566	374	430	250	350	608	578	690	606	170	134	102
CFSM	1.27	.67	.71	.46	.71	1.20	1.28	3.04	1.20	.37	.22	.14
IN.	1.47	.75	.82	.53	.74	1.38	1.42	3.51	1.34	.42	.26	.16
AC-FT	77,200	39,420	42,970	27,690	39,210	72,810	74,950	184,700	70,590	22,220	13,590	8,260

CAL YR 1973 TOTAL 492,561 MEAN 1,349 MAX 13,400 MIN 180 CFSM 1.37 IN 18.55 AC-FT 977,000
WTR YR 1974 TOTAL 339,635 MEAN 931 MAX 15,600 MIN 102 CFSM .94 IN 12.79 AC-FT 673,700

PEAK DISCHARGE (BASE, 5,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	1345	11.96	6,380	5-19	1300	21.85	20,000
4-21	0200	15.58	10,300	5-21	2130	13.42	8,300
4-28	2045	12.93	7,380	5-26	2130	11.52	6,150
5-16	1915	10.64	5,210				

05484500 RACCOON RIVER AT VAN METER, IOWA

LOCATION.--Lat 41°32'02"N, long 93°56'59"W, in SW1/4 SW1/4 sec.22, T.78 N., R.27 W., Dallas County, on right bank 100 ft (30 m) downstream from bridge on County highway B16, 0.3 mi (0.5 km) northeast of Van Meter, 0.7 mi (1.1 km) upstream from small left bank tributary, 1.2 mi (1.9 km) downstream from confluence of North and South Raccoon River, and 30 mi (48.3 km) upstream from mouth.

DRAINAGE AREA.--3,441 mi² (8,912 km²).

PERIOD OF RECORD.--April 1915 to current year. Prior to October 1934, monthly discharge only, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 841.16 ft (256.39 m) above mean sea level. See WSP 1308 for history of changes prior to Aug. 8, 1934.

AVERAGE DISCHARGE.--59 years, 1,309 ft³/s (37.1 m³/s), 5.17 in/yr (131 mm/yr), 948,400 acre-ft/yr (1,170 hm³/yr); median of yearly mean discharges, 1,120 ft³/s (31.7 m³/s), 4.4 in/yr (112 mm/yr), 811,000 acre-ft/yr (1,000 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 30,400 ft³/s (861 m³/s) May 19, gage height, 20.13 ft (6.136 m); minimum daily, 191 ft³/s (5.4 m³/s) Sept. 30.

Period of record: Maximum discharge, 41,200 ft³/s (1,170 m³/s) June 13, 1947, gage height, 21.37 ft (6.514 m), from floodmark; maximum gage height, 21.77 ft (6.635 m) July 3, 1958; minimum daily discharge, 10 ft³/s (0.28 m³/s) Jan. 22-31, 1940.

REMARKS.--Records good except those for winter period, which are poor. Records of chemical, water temperature and biological analyses for the current year are published in Part 2 of this report.

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1308: 1927 (M). WSP 1438: Drainage area. WSP 1508: 1915 (M), 1916-17, 1918-23 (M), 1925 (M), 1926, 1933 (M), 1939 (M), 1947 (M), 1949 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16,800	2,520	3,690	1,450	1,850	4,480	2,010	3,150	5,270	2,640	473	308
2	14,500	2,430	3,470	1,460	1,650	4,910	2,060	2,870	4,700	2,340	531	318
3	12,400	2,330	3,390	1,500	1,440	6,500	2,240	2,700	4,360	2,190	561	324
4	10,700	2,220	3,630	1,460	1,240	7,060	3,380	2,470	4,270	2,450	570	303
5	8,290	2,130	3,240	1,440	1,250	7,070	3,190	2,380	3,790	2,130	547	291
6	6,100	2,050	2,900	1,420	1,250	6,250	3,790	2,230	3,580	1,920	515	284
7	5,150	2,010	2,680	1,360	1,190	5,480	4,270	2,190	3,150	1,790	486	286
8	4,750	2,070	3,200	1,330	1,170	4,880	4,150	2,260	3,450	1,680	462	289
9	4,460	1,920	3,020	1,300	1,150	4,450	3,980	2,170	8,510	1,560	468	271
10	4,590	1,820	2,990	1,290	1,120	4,020	3,420	2,070	6,500	1,470	517	262
11	12,100	1,790	2,860	1,260	1,100	3,570	3,170	2,300	5,760	1,460	514	251
12	11,100	1,780	2,810	1,250	1,300	3,880	3,150	2,210	5,380	1,450	477	328
13	10,200	1,780	2,800	1,240	1,590	4,070	3,100	2,510	5,330	1,390	462	483
14	9,690	1,780	2,760	1,240	2,040	4,130	3,170	4,290	4,610	1,320	532	405
15	10,500	1,770	2,500	1,240	2,030	4,160	3,290	4,870	4,230	1,120	509	334
16	9,700	1,760	2,320	1,270	2,000	3,870	3,390	6,720	3,300	1,020	519	299
17	8,610	1,730	2,030	1,370	2,350	3,510	3,210	9,330	3,070	955	580	288
18	6,280	1,850	1,820	1,510	3,200	3,270	2,940	14,900	3,440	946	628	267
19	5,320	2,120	1,620	1,520	4,200	3,090	3,080	25,000	2,950	911	670	251
20	4,670	2,440	1,490	1,550	5,000	2,880	3,190	26,800	2,710	838	592	240
21	4,320	4,100	1,370	1,600	6,000	2,700	10,600	17,200	2,630	803	489	225
22	4,040	5,120	1,490	1,590	5,000	2,690	6,260	16,400	2,790	769	459	225
23	3,710	6,290	1,620	1,520	3,800	2,520	5,000	10,600	3,320	722	429	215
24	3,530	6,790	1,840	1,460	3,600	2,240	4,110	8,380	4,590	683	393	210
25	3,360	6,680	2,200	1,420	2,550	2,110	3,600	6,630	5,520	648	373	208
26	3,190	5,830	2,320	1,520	2,610	2,060	3,440	9,600	5,350	608	357	204
27	3,050	5,110	2,190	1,550	3,010	2,050	3,220	10,500	4,280	566	341	203
28	2,900	4,520	2,040	1,390	3,890	2,150	4,510	7,700	3,650	543	328	204
29	2,770	4,200	1,960	1,270	-----	2,130	8,260	8,360	3,230	510	319	203
30	2,660	3,920	1,850	1,430	-----	2,150	3,700	7,210	2,910	483	311	191
31	2,590	-----	1,600	1,990	-----	2,070	-----	6,520	-----	473	313	-----
TOTAL	212,030	92,860	75,700	44,200	68,580	116,400	116,880	232,520	126,630	38,388	14,725	8,170
MEAN	6,840	3,095	2,442	1,426	2,449	3,755	3,896	7,501	4,221	1,238	475	272
MAX	16,800	6,790	3,690	1,990	6,000	7,070	10,600	26,800	8,510	2,640	670	483
MIN	2,590	1,730	1,370	1,240	1,100	2,050	2,010	2,070	2,630	473	311	191
CFSM	1.99	.90	.71	.41	.71	1.09	1.13	2.18	1.23	.36	.14	.08
IN.	2.29	1.00	.82	.48	.74	1.26	1.26	2.51	1.37	.42	.16	.09
AC-FT	420,600	184,200	150,200	87,670	136,000	230,900	231,800	461,200	251,200	76,140	29,210	16,210

CAL YR 1973 TOTAL 1,891,318 MEAN 5,182 MAX 33,700 MIN 920 CFSM 1.51 IN 20.45 AC-FT 3,751,000
WTR YR 1974 TOTAL 1,147,083 MEAN 3,143 MAX 26,800 MIN 191 CFSM .91 IN 12.40 AC-FT 2,275,000

PEAK DISCHARGE (BASE, 8,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-1	0630	15.33	17,100	4-21	0945	13.47	13,400	5-27	0315	11.95	11,000
10-11	1900	14.01	14,300	4-29	0230	14.33	15,000	5-29	1945	10.71	9,380
10-15	1400	11.87	10,600	5-19	2200	20.13	30,400	6-9	0500	11.87	11,100

DES MOINES RIVER BASIN

05484800 WALNUT CREEK AT DES MOINES, IOWA

LOCATION.--Lat 41°35'14", long 93°42'11", in SW1/4 SE1/4 sec.2, T.78 N., R.25 W., Polk County, on left bank, 25 ft (8 m) downstream from bridge on 63rd Street in Des Moines, and 2.2 mi (3.5 km) upstream from Raccoon River.

DRAINAGE AREA.--80.9 mi² (210 km²).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 801.04 ft above mean sea level (levels by Iowa Natural Resources Council).

EXTREMES.--Current year: Maximum discharge, 8,160 ft³/s (231 m³/s) June 9, gage height, 17.44 ft (5.316 m); minimum daily, 1.6 ft³/s (0.045 m³/s) Sept. 23-27, 30.
 Period of record: Maximum discharge, 9,000 ft³/s (255 m³/s) July 1, 1973, gage height, 17.72 ft (5.401 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Oct. 1, 3, 5, 12, 17, 1971.

REMARKS.--Records good except those for winter period, which are poor. Records of periodic chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Iowa 1973: 1972.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	59	47	100	130	110	53	252	169	52	7.7	5.9
2	91	57	54	98	80	132	52	211	153	49	5.9	9.9
3	58	53	47	96	60	205	98	173	142	62	5.1	7.6
4	55	52	215	100	50	244	88	155	130	57	7.1	5.4
5	44	49	190	94	75	239	92	148	122	47	5.4	3.7
6	41	49	130	80	70	188	92	136	116	43	5.1	8.7
7	41	50	110	68	65	160	92	140	106	40	5.1	5.1
8	36	46	90	66	60	179	92	123	172	37	8.5	4.8
9	36	43	74	62	52	172	92	109	4,120	34	10	4.5
10	133	42	65	60	50	154	68	101	424	31	13	4.1
11	1,310	45	84	55	46	157	72	143	301	31	9.1	10
12	570	44	70	50	52	161	68	101	248	30	6.3	8.0
13	350	33	64	56	48	140	55	219	207	25	11	7.0
14	274	42	54	70	43	129	82	186	194	23	8.3	6.0
15	228	42	50	80	52	115	62	145	168	20	11	5.5
16	196	36	42	94	63	104	62	205	150	19	18	5.0
17	186	36	58	110	58	109	57	265	135	17	13	4.5
18	171	33	56	130	66	102	57	826	117	16	9.1	4.0
19	144	30	50	130	63	108	52	1,180	116	14	7.1	3.5
20	129	120	43	340	55	100	97	451	102	13	5.5	3.4
21	123	101	76	240	58	94	252	354	97	12	4.6	2.2
22	113	70	86	140	67	94	161	392	146	12	4.0	2.2
23	102	72	80	120	54	49	134	281	88	11	3.7	1.6
24	96	85	110	108	47	44	113	237	81	8.9	4.0	1.6
25	78	66	165	124	42	56	102	216	74	7.5	7.6	1.6
26	76	71	113	203	64	57	93	316	70	8.0	6.5	1.6
27	71	67	88	194	56	54	87	278	65	6.2	4.7	1.6
28	67	55	74	123	95	54	409	253	65	8.3	4.8	3.4
29	66	55	58	155	-----	65	664	349	60	6.4	4.1	2.2
30	66	52	62	212	-----	61	337	249	58	4.7	7.2	1.6
31	66	-----	90	244	-----	52	-----	202	-----	4.7	6.4	-----
TOTAL	5,144	1,655	2,595	3,802	1,721	3,688	3,835	8,396	8,196	749.7	228.9	136.2
MEAN	166	55.2	83.7	123	61.5	119	128	271	273	24.2	7.38	4.54
MAX	1,310	120	215	340	130	244	664	1,180	4,120	62	18	10
MIN	36	30	42	50	42	44	52	101	58	4.7	3.7	1.6
CFSM	2.05	.68	1.03	1.52	.76	1.47	1.58	3.35	3.37	.30	.09	.06
IN.	2.37	.76	1.19	1.75	.79	1.70	1.76	3.86	3.77	.34	.11	.06
AC-FT	10,200	3,280	5,150	7,540	3,410	7,320	7,610	16,650	16,260	1,490	454	270

CAL YR 1973	TOTAL	54,909.2	MEAN	150	MAX	4,520	MIN	7.2	CFSM	1.85	IN	25.25	AC-FT	108,900
WTR YR 1974	TOTAL	40,146.8	MEAN	110	MAX	4,120	MIN	1.6	CFSM	1.36	IN	18.46	AC-FT	79,630

PEAK DISCHARGE (BASE, 400 FT³/S, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	1730	12.79	1,820	5-19	1145	12.78	1,810
12-4	1045	7.75	449	5-29	0500	8.23	517
4-28	2300	12.73	1,780	6-9	0230	17.44	8,160
5-13	1930	7.94	465				

DES MOINES RIVER BASIN

05485640 FOURMILE CREEK AT DES MOINES, IOWA

LOCATION.--Lat 41°36'50", long 93°32'43", in NE1/4 NE1/4 sec.32, T.79 N., R.23 W., Polk County, on right bank 20 ft (6 m) downstream from bridge on Easton Blvd., 4.4 mi (7.1 km) downstream from Muchkinock Creek and 5.0 mi (8.0 km) upstream from Des Moines River.

DRAINAGE AREA.--92.7 mi² (240 km²).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 795.866 ft (242.580 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 3,750 ft³/s (106 m³/s) June 9, gage height, 14.84 ft (4.523 m); minimum daily, 0.94 ft³/s (0.027 m³/s) Sept. 23, 26.
 Period of record: Maximum discharge, 3,750 ft³/s (106 m³/s) June 9, 1974, gage height, 14.84 ft (4.523 m); minimum daily, 0.06 ft³/s (0.017 m³/s) Oct. 6, 1971.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	308	78	64	85	110	140	59	213	221	131	9.4	2.0
2	229	72	68	140	70	193	54	178	195	123	7.5	6.7
3	190	65	67	150	45	291	81	147	175	114	6.6	3.8
4	146	61	217	65	30	292	80	127	160	139	8.9	2.0
5	108	59	308	90	55	304	82	118	145	117	8.7	1.8
6	94	57	212	80	50	217	84	104	138	88	8.5	2.2
7	81	60	160	45	37	182	77	109	126	79	8.0	4.7
8	69	57	130	56	34	239	65	99	125	70	7.9	1.9
9	61	52	110	42	32	239	61	90	2,820	65	21	1.5
10	85	50	97	60	29	193	60	86	795	60	20	1.4
11	959	55	88	45	26	183	71	114	481	60	23	1.2
12	836	56	80	35	35	216	88	97	385	58	12	37
13	476	50	72	50	28	198	80	384	317	52	14	21
14	352	42	66	90	20	165	84	525	315	45	13	10
15	279	44	62	95	18	147	75	276	496	40	11	5.0
16	230	37	60	100	21	124	70	612	277	35	20	3.7
17	196	38	66	100	24	105	64	534	229	30	17	3.1
18	176	39	70	110	32	103	62	2,510	224	26	17	2.2
19	163	36	50	130	26	92	58	1,460	2,420	22	9.6	2.0
20	144	71	45	400	24	82	72	953	562	20	6.5	1.8
21	134	99	76	250	31	75	165	708	336	18	4.0	2.1
22	124	78	86	140	27	75	171	461	752	16	2.5	2.5
23	117	73	80	110	22	63	148	354	518	14	1.9	.94
24	113	101	95	90	30	62	144	290	303	12	1.7	.99
25	103	90	220	100	35	67	97	246	251	10	9.7	.99
26	96	85	180	190	40	61	95	461	219	10	16	.94
27	91	84	140	200	60	62	87	420	187	7.9	4.4	2.1
28	91	79	130	120	130	61	283	439	180	10	1.9	12
29	87	73	110	110	-----	66	610	483	164	7.0	1.5	5.2
30	84	70	100	180	-----	64	287	353	146	6.2	3.2	2.7
31	82	-----	130	200	-----	56	-----	270	-----	6.2	1.9	-----
TOTAL	6,304	1,911	3,439	3,658	1,121	4,417	3,514	13,221	13,662	1,491.3	298.3	145.46
MEAN	203	63.7	111	118	40.0	142	117	426	455	48.1	9.62	4.85
MAX	959	101	308	400	130	304	610	2,510	2,820	139	23	37
MIN	61	36	45	35	18	56	54	86	125	6.2	1.5	.94
CFSM	2.19	.69	1.20	1.27	.43	1.53	1.26	4.60	4.91	.52	.10	.05
IN.	2.53	.77	1.38	1.47	.45	1.77	1.41	5.31	5.48	.60	.12	.06
AC-FT	12,500	3,790	6,820	7,260	2,220	8,760	6,970	26,220	27,100	2,960	592	289
CAL YR 1973	TOTAL 54,117.20	MEAN 148	MAX 1,570	MIN 5.2	CFSM 1.60	IN 21.72	AC-FT 107,300					
WTR YR 1974	TOTAL 53,182.06	MEAN 146	MAX 2,820	MIN .94	CFSM 1.58	IN 21.34	AC-FT 105,500					

PEAK DISCHARGE (BASE, 500 FT³/S, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	1200	9.77	1,270	5-18	1400	14.61	3,560	6-15	0300	8.89	914
4-29	0030	10.89	1,620	5-29	1215	7.95	655	6-19	0500	14.28	3,420
5-13	2245	10.05	1,280	6-9	1100	14.84	3,750	6-22	1800	9.40	1,190

05486000 NORTH RIVER NEAR NORWALK, IOWA

LOCATION.--Lat 41°27'25", long 93°39'10", in NW1/4 SW1/4 sec.20, T.77 N., R.24 W., Warren County, on left bank 10 ft (3 m) downstream from bridge on county highway R57, 1.7 mi (2.7 km) southeast of Norwalk, 5.2 mi (8.4 km) upstream from Middle Creek, and 6.2 mi (10.0 km) downstream from Badger Creek.

DRAINAGE AREA.--349 mi² (904 km²).

PERIOD OF RECORD.--February 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 788.45 ft (240.32 m) above mean sea level (levels by Corps of Engineers). Prior to June 12, 1946, nonrecording gage at same site and datum. Jan. 7 to Oct. 11, 1960, nonrecording gage at site 2.1 mi (3.4 km) upstream at different datum.

AVERAGE DISCHARGE.--34 years, 179 ft³/s (5.07 m³/s), 6.97 in/yr (177 mm/yr), 129,700 acre-ft/yr (160 ha³/s/yr); median of yearly mean discharges, 140 ft³/s (3.96 m³/s), 5.4 in/yr (137 mm/yr), 101,400 acre-ft/yr (125 mh³/yr).

EXTREMES.--Current year: Maximum discharge, 8,500 ft³/s (241 m³/s) June 10, gage height, 23.25 ft (7.087 m); minimum daily, 4.2 ft³/s (0.12 m³/s) Sept. 27.

Period of record: Maximum discharge, 32,000 ft³/s (906 m³/s) June 13, 1947, gage height, 25.3 ft (7.71 m), from floodmark, from rating curve extended above 9,100 ft³/s (258 m³/s) on basis of velocity-area studies; no flow at times during period 1954-58.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1508: 1946.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	151	171	170	1,000	733	220	3,040	405	126	22	7.6
2	190	143	163	160	450	610	204	1,180	351	117	22	7.5
3	230	132	162	155	300	815	212	505	320	114	23	8.2
4	165	124	405	150	260	980	312	419	289	205	24	9.8
5	138	117	1,140	145	240	1,230	345	377	264	216	24	8.7
6	124	117	665	140	220	777	294	346	249	152	22	8.8
7	118	115	371	140	200	530	266	329	236	123	20	8.8
8	118	117	300	140	190	558	244	369	231	111	18	7.9
9	115	117	270	140	180	644	222	352	5,500	101	19	7.2
10	118	113	250	135	170	512	211	309	6,770	94	20	7.2
11	1,290	109	230	130	160	434	209	343	3,100	92	24	6.9
12	3,190	110	260	130	150	492	236	387	1,130	97	38	8.7
13	4,230	113	250	130	210	507	230	563	490	98	30	9.3
14	2,150	113	240	130	280	423	241	1,060	627	85	21	9.7
15	649	112	200	140	180	383	293	457	403	76	20	9.9
16	390	109	180	160	140	357	264	944	329	65	23	9.2
17	333	104	170	200	160	324	231	1,070	291	61	27	11
18	300	98	170	270	220	306	211	1,760	271	57	43	8.4
19	274	97	160	400	240	300	198	2,080	253	53	50	6.9
20	249	127	150	800	180	276	205	2,060	238	48	40	6.0
21	227	484	140	1,300	170	256	663	958	225	44	28	5.7
22	204	497	150	1,400	180	247	1,420	631	212	41	21	5.7
23	197	267	155	1,200	140	241	1,410	591	201	39	15	4.9
24	189	331	160	500	100	196	498	412	186	37	12	4.4
25	181	365	300	450	150	210	391	362	172	34	12	4.3
26	170	266	500	600	190	249	351	806	165	31	12	4.4
27	159	232	460	1,000	287	240	325	1,560	157	29	9.9	4.2
28	154	226	360	1,100	665	220	571	1,210	148	28	8.8	4.9
29	153	198	290	700	-----	220	3,360	787	140	26	8.3	5.3
30	154	180	250	900	-----	224	4,710	915	134	25	7.8	5.2
31	151	-----	210	1,300	-----	252	-----	528	-----	23	7.6	-----
TOTAL	16,490	5,384	8,882	14,415	7,012	13,746	18,547	26,710	23,487	2,448	672.4	216.7
MEAN	532	179	287	465	250	443	618	862	783	79.0	21.7	7.22
MAX	4,230	497	1,140	1,400	1,000	1,230	4,710	3,040	6,770	216	50	11
MIN	115	97	140	130	100	196	198	309	134	23	7.6	4.2
CFSM	1.52	.51	.82	1.33	.72	1.27	1.77	2.47	2.24	.23	.06	.02
IN.	1.76	.57	.95	1.54	.75	1.47	1.98	2.85	2.50	.26	.07	.02
AC-FT	32,710	10,680	17,620	28,590	13,910	27,270	36,790	52,980	46,590	4,860	1,330	430
CAL YR 1973	TOTAL 223,543.0	MEAN 612	MAX 5,500	MIN 36	CFSM 1.75	IN 23.83	AC-FT 443,400					
WTR YR 1974	TOTAL 138,010.1	MEAN 378	MAX 6,770	MIN 4.2	CFSM 1.08	IN 14.71	AC-FT 273,700					

PEAK DISCHARGE (BASE, 1,700 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-3	0030	21.95	5,050	5-19	2015	20.31	1,960
4-30	0515	21.71	4,370	6-10	0400	23.25	8,500

DES MOINES RIVER BASIN

05486490 MIDDLE RIVER NEAR INDIANOLA, IOWA

LOCATION.--Lat 41°25'27", long 93°35'09", in SW1/4 SE1/4 sec.35, T.77 N., R.24 W., Warren County, on right bank 10 ft (3 m) downstream from bridge on county highway, 0.4 mi (0.6 km) upstream from Cavitt Creek, 1.5 mi (2.4 km) upstream from bridge on U.S. Highway 69, and 4.6 mi (7.4 km) northwest of Indianola.

DRAINAGE AREA.--503 mi² (1,302 km²).

PERIOD OF RECORD.--March 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 776.15 ft (236.57 m) above mean sea level (Corps of Engineers bench mark). Prior to June 11, 1946, June 9, 1947, to Nov. 23, 1948, and Sept. 8, 1951, to Oct. 30, 1952, nonrecording gage and June 11, 1946, to June 8, 1947 (destroyed by flood), Nov. 24, 1948, to Sept. 7, 1951, Sept. 1, 1952, to Sept. 30, 1962, water-stage recorder at site 1.6 mi (2.6 km) downstream at datum 2.81 ft (0.86 m) lower.

AVERAGE DISCHARGE.--34 years, 257 ft³/s (7.28 m³/s) 6.94 in/yr (176 mm/yr), 186,200 acre-ft/yr (230 hm³/yr); median of yearly mean discharges, 220 ft³/s (6.23 m³/s) 5.9 in/yr (150 mm/yr), 159,000 acre-ft/yr (196 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 12,600 ft³/s (357 m³/s) June 9, gage height, 25.33 ft (7.721 m); minimum daily, 13 ft³/s (0.368 m³/s) Sept. 27-30.
Period of record: Maximum discharge, 34,000 ft³/s (963 m³/s) June 13, 1947, gage heights: 26.40 ft (8.047 m), from floodmark, former site and datum; 28.27 ft (8.617 m), from floodmark, present site and datum; minimum daily, 0.66 ft³/s (19 m³/s) Oct. 4, 1968.

REMARKS.--Records fair except those for winter period, which are poor.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1508: 1940 (M), 1941, 1944, 1946, 1949 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	426	226	270	230	800	1,040	268	1,330	481	125	27	21
2	411	209	254	200	450	924	244	914	426	116	27	22
3	839	190	252	190	300	1,240	274	727	368	110	27	20
4	339	178	1,300	180	210	1,560	454	599	330	236	26	20
5	298	167	2,050	175	250	1,630	461	519	300	159	26	20
6	231	166	120	170	250	984	393	461	283	119	27	19
7	209	162	100	165	240	699	335	442	278	103	26	19
8	197	156	200	160	230	1,300	290	485	263	94	25	19
9	183	151	250	160	230	1,270	259	443	9,550	87	28	18
10	184	145	90	160	220	882	243	400	7,160	82	31	17
11	6,900	142	306	155	200	633	240	519	1,320	79	34	17
12	8,250	142	321	150	240	842	269	603	856	80	39	20
13	2,600	143	400	150	300	771	261	836	949	76	31	19
14	1,080	140	350	170	360	620	286	1,590	804	72	30	19
15	810	136	250	190	320	542	298	618	554	66	31	20
16	666	130	450	220	240	519	284	653	444	60	40	24
17	566	124	600	280	250	430	262	1,460	383	56	41	20
18	501	121	540	400	370	407	224	2,390	344	54	44	18
19	460	115	450	700	560	390	191	2,710	319	51	46	17
20	419	198	280	2,000	380	361	200	1,480	300	48	39	15
21	391	1,340	250	1,700	360	331	2,030	909	277	45	32	15
22	361	950	350	1,000	400	328	2,670	923	269	44	31	15
23	339	479	400	500	320	293	941	1,050	233	42	30	14
24	319	1,200	450	370	230	272	635	603	212	39	30	14
25	300	733	700	400	237	274	514	521	195	38	29	14
26	280	485	1,000	900	279	299	445	1,300	180	35	27	14
27	261	436	800	1,600	627	294	402	1,480	167	31	24	13
28	250	467	600	800	1,420	288	1,320	922	156	30	20	13
29	244	348	400	700	-----	281	8,790	1,270	146	29	20	13
30	235	299	320	1,000	-----	328	4,300	978	136	28	20	13
31	232	-----	280	1,500	-----	311	-----	634	-----	27	20	-----
TOTAL	28,781	9,878	14,383	16,675	10,276	20,343	27,783	29,769	27,683	- 2,261	928	522
MEAN	928	329	464	538	367	656	926	960	923	72.9	29.9	17.4
MAX	8,250	1,340	2,050	2,000	1,420	1,630	8,790	2,710	9,550	236	46	24
MIN	183	115	90	150	200	272	191	400	136	27	20	13
CFSM	1.84	.65	.92	1.07	.73	1.30	1.84	1.91	1.84	.14	.06	.03
IN.	2.13	.73	1.06	1.23	.76	1.50	2.05	2.20	2.05	.17	.07	.04
AC-FT	57,090	19,590	28,530	33,070	20,380	40,350	55,110	59,050	54,910	4,480	1,840	1,040

CAL YR 1973 TOTAL 293,529 MEAN 804 MAX 9,550 MIN 43 CFSM 1.60 IN 21.71 AC-FT 582,200
WTR YR 1974 TOTAL 189,282 MEAN 519 MAX 9,550 MIN 13 CFSM 1.03 IN 14.00 AC-FT 375,400

PEAK DISCHARGE (BASE, 4,500 FT³/S).--Oct. 12 (0700) 9,310 ft³/s (22.41 ft); Apr. 29 (1445) 9,520 ft³/s (22.62 ft); June 9 (2315) 12,600 ft³/s (25.33 ft).

05487470 SOUTH RIVER NEAR ACKWORTH, IOWA

LOCATION.--Lat 41°20'14", long 93°29'10", in SE1/4 SE1/4 sec.34, T.76 N., R.23 W., Warren County, on right bank 15 ft (5 m) downstream from bridge on county highway, 0.5 mi (0.8 km) downstream from Otter Creek, and 2.2 mi (3.5 km) southwest of Ackworth.

DRAINAGE AREA.--460 mi² (1,191 km²).

PERIOD OF RECORD.--February 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 769.97 ft (234.69 m) above mean sea level (levels by Corps of Engineers). Prior to June 12, 1946, nonrecording gage, June 13, 1946, to Apr. 13, 1960, water-stage recorder, and Apr. 14, 1960, to Sept. 30, 1961, nonrecording gage, all at site 4.0 mi (6.4 km) downstream at datum 8.06 ft (2.46 m) lower.

AVERAGE DISCHARGE.--34 years, 246 ft³/s (6.97 m³/s), 7.26 in/yr (184 mm/yr), 178,200 acre-ft/yr (220 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 19,500 ft³/s (552 m³/s) June 10, gage height, 29.07 ft (8.861 m); minimum daily, 6.0 ft³/s (0.17 m³/s) Sept. 25.

Period of record: Maximum discharge, 34,000 ft³/s (963 m³/s) June 5, 1947, gage height, 24.60 ft (7.498 m), site and datum then in use; maximum gage height, 29.07 ft (8.861 m) June 10, 1974; no flow Sept. 19 to Oct. 13, 1956.

Flood in June 1930 reached a stage of 24.5 ft (7.47 m), from information by local residents, discharge, about 30,000 ft³/s (850 m³/s), at site 4.0 mi (6.4 km) downstream.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Five discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: Drainage area. WSP 1508: 1941, 1945 (M), 1946.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	502	124	197	200	588	679	187	333	359	48	14	8.4
2	453	112	192	190	420	602	170	248	194	42	15	10
3	4,420	99	190	180	300	801	267	197	137	55	15	11
4	1,740	93	3,350	170	310	1,530	679	164	99	199	14	9.5
5	495	89	3,480	160	400	1,590	644	142	78	171	13	8.6
6	338	88	908	155	330	685	344	119	71	67	14	8.6
7	322	92	520	150	260	443	261	131	85	46	13	10
8	290	91	540	145	210	1,550	209	169	87	39	15	9.2
9	244	89	480	140	180	1,520	170	132	15,000	34	17	9.6
10	248	83	330	140	160	726	156	111	9,340	31	18	8.1
11	11,400	89	400	140	150	475	160	329	1,570	34	17	7.9
12	12,200	91	380	135	190	674	207	280	1,050	36	14	42
13	2,070	92	500	130	230	532	190	627	1,320	33	17	29
14	1,110	87	470	130	200	371	341	3,350	1,300	28	14	14
15	766	83	350	150	130	379	247	775	639	25	13	9.6
16	574	77	360	200	120	390	192	323	450	22	27	8.1
17	370	76	370	260	140	304	167	2,890	365	21	28	8.0
18	256	74	320	420	200	304	151	6,630	312	20	23	7.6
19	231	73	250	1,000	150	277	153	3,580	268	18	17	7.7
20	203	240	290	3,400	130	241	218	1,100	231	17	14	7.2
21	185	1,170	320	2,800	190	189	2,330	528	200	17	11	7.5
22	173	397	500	1,100	350	234	1,170	887	183	18	11	7.1
23	162	214	470	752	200	169	431	367	143	17	9.5	8.4
24	154	1,110	700	608	140	160	275	208	111	16	9.4	6.2
25	139	658	1,300	849	120	184	210	240	87	15	31	6.0
26	127	332	1,400	2,730	191	231	170	1,800	77	15	20	6.9
27	120	321	660	4,470	699	172	138	1,410	69	14	9.4	6.4
28	117	449	400	1,740	1,380	185	1,470	768	62	14	9.1	8.3
29	121	275	310	1,300	-----	233	3,090	2,050	58	14	9.0	7.0
30	118	224	250	2,000	-----	311	645	1,130	53	13	8.7	6.2
31	130	-----	220	2,000	-----	235	-----	1,380	-----	13	8.6	-----
TOTAL	39,778	7,092	20,407	27,944	8,068	16,376	15,042	32,398	33,998	1,152	468.7	304.1
MEAN	1,283	236	658	901	288	528	501	1,045	1,133	37.2	15.1	10.1
MAX	12,200	1,170	3,480	4,470	1,380	1,590	3,090	6,630	15,000	199	31	42
MIN	117	73	190	130	120	160	138	111	53	13	8.6	6.0
CFSM	2.79	.51	1.43	1.96	.63	1.15	1.09	2.27	2.46	.08	.03	.02
IN.	3.22	.57	1.65	2.26	.65	1.22	1.22	2.62	2.75	.09	.04	.02
AC-FT	78,900	14,070	40,480	55,430	16,000	32,480	29,840	64,260	67,440	2,280	930	603
CAL YR 1973	TOTAL 283,096.0	MEAN 776	MAX 12,200	MIN 17	CFSM 1.69	IN 22.89	AC-FT 561,500					
WTR YR 1974	TOTAL 203,027.8	MEAN 556	MAX 15,000	MIN 6.0	CFSM 1.21	IN 16.42	AC-FT 402,700					

PEAK DISCHARGE (BASE, 5,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-3	0645	23.39	10,400	4-28	2000	19.05	6,360
10-12	0700	28.30	15,400	5-18	0930	22.54	8,880
12-4	1915	19.34	6,830	6-10	0130	29.07	19,500
1-27	0100	18.75	6,600				

DES MOINES RIVER BASIN

05487980 WHITE BREAST CREEK NEAR DALLAS, IOWA

LOCATION.--Lat 41°14'41", long 93°16'08", in NW1/4 NW1/4 sec.3, T.74 N., R.21 W., Marion County, on left bank 15 ft (5 m) downstream from bridge on county highway, 0.5 mi (0.8 km) downstream from Kirk Branch, and 1.7 mi (2.7 km) northwest of Dallas.

DRAINAGE AREA.--342 mi² (886 km²).

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 759.12 ft (231.38 m) above mean sea level, datum of 1929 (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--12 years, 193 ft³/s (5.47 m³/s), 7.66 in/yr (195 mm/yr), 139,800 acre-ft/yr (172 hm³/yr); median of yearly mean discharges, 160 ft³/s (4.53 m³/s), 6.4 in/yr (162 mm/yr), 116,000 acre-ft/yr (143 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 9,430 ft³/s (267 m³/s) Oct. 11, gage height, 26.04 ft (7.937 m); minimum daily, 2.5 ft³/s (0.071 m³/s) Sept. 20, 29.
 Period of record: Maximum discharge, 9,430 ft³/s (267 m³/s) Oct. 11, 1973, gage height, 26.04 ft (7.937 m); minimum daily, 0.07 ft³/s (2.0 dm³/s) Sept. 29, 1968.
 Flood of June 11, 1962, reached a stage of 28.87 ft (8.800 m), from floodmark, discharge, about 12,000 ft³/s (340 m³/s). Flood of June 6, 1947, may have been slightly higher.

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Five discharge measurements furnished by Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	614	98	74	250	500	440	121	139	586	14	4.3	3.2
2	506	88	73	190	250	330	99	117	205	9.2	6.8	5.0
3	5,390	82	73	160	180	390	228	104	136	24	5.6	5.1
4	1,550	75	1,810	140	120	635	1,100	91	104	326	5.0	5.8
5	432	71	2,120	130	170	807	820	82	95	230	4.3	4.4
6	300	68	1,090	130	200	503	361	71	89	77	4.0	3.6
7	272	69	300	120	180	297	232	78	118	45	3.8	4.7
8	240	62	210	120	150	540	166	108	201	34	4.7	4.4
9	211	55	160	110	130	611	145	94	6,580	31	7.9	3.6
10	713	51	120	110	110	384	137	82	2,830	26	33	3.0
11	7,830	54	130	100	100	237	137	211	2,180	26	17	3.1
12	7,630	56	150	100	110	285	156	220	439	29	10	23
13	5,530	56	350	95	140	283	131	285	520	21	33	22
14	1,610	54	250	100	120	208	617	655	1,070	17	69	11
15	487	54	210	110	100	198	328	352	317	15	19	4.8
16	340	49	170	110	90	201	213	197	187	13	27	3.6
17	249	47	150	120	95	153	155	2,420	141	13	34	3.2
18	213	46	150	350	150	149	128	5,560	108	12	19	2.8
19	191	46	160	800	130	140	109	4,740	107	11	10	2.7
20	169	77	180	2,000	110	119	117	1,250	92	9.3	7.0	2.5
21	153	310	190	1,700	130	101	1,680	446	76	8.8	6.6	3.2
22	144	396	190	1,100	350	102	1,620	261	106	9.2	6.8	4.2
23	134	134	170	480	250	90	408	172	58	8.4	8.5	3.0
24	128	290	200	370	120	78	237	140	47	6.3	6.2	2.9
25	115	200	1,500	450	100	66	186	136	46	6.0	8.0	2.7
26	106	168	2,100	1,300	130	113	159	773	40	6.4	13	2.7
27	100	125	1,200	3,000	250	103	142	600	36	6.3	6.5	2.8
28	97	145	800	1,700	550	93	188	809	29	5.9	4.0	2.7
29	101	109	600	1,100	-----	95	509	1,120	21	5.3	3.3	2.5
30	98	91	450	1,000	-----	171	181	576	17	4.6	3.3	2.6
31	105	-----	350	1,100	-----	137	-----	756	-----	4.2	2.7	-----
TOTAL	35,758	3,226	15,680	18,645	5,015	8,059	10,810	22,645	16,581	1,053.9	393.3	150.8
MEAN	1,153	108	506	601	179	260	360	730	553	34.0	12.7	5.03
MAX	7,830	396	2,120	3,000	550	807	1,680	5,560	6,580	326	69	23
MIN	97	46	73	95	90	66	99	71	17	4.2	2.7	2.5
CFSM	3.37	.32	1.48	1.76	.52	.76	1.05	2.13	1.62	.10	.04	.01
IN.	3.89	.35	1.71	2.03	.55	.88	1.18	2.46	1.80	.11	.04	.02
AC-FT	70,930	6,400	31,100	36,980	9,950	15,990	21,440	44,920	32,890	2,090	780	299
CAL YR 1973 TOTAL	216,630.0		MEAN 594	MAX 7,830	MIN 15	CFSM 1.74	IN 23.56	AC-FT 429,700				
WTR YR 1974 TOTAL	138,017.0		MEAN 378	MAX 7,830	MIN 2.5	CFSM 1.11	IN 15.01	AC-FT 273,800				

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-3	1700	23.00	7,300	5-17	1100	16.03	3,250
10-11	2215	26.04	9,430	5-18	1300	23.25	7,270
12-4	1700	17.25	3,820	5-19	1100	22.79	6,930
1-27	--	--	* 3,400	6-9	1345	25.58	8,410

* About

DES MOINES RIVER BASIN

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05488100 LAKE RED ROCK NEAR PELLA, IOWA

LOCATION.--Lat 41°22'11", long 92°58'48", in NE1/4 NW1/4 sec.19, T.76 N., R.18 W., Marion County, at outlet works near right end of Red Rock Dam on Des Moines River, 1.4 mi (2.3 km) upstream from Lake Creek, 4.5 mi (7.2 km) southwest of Pella and at mile 142.3 (229.0 km).

DRAINAGE AREA.--12,323 mi² (31,916 km²).

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

GAGE.--Water-stage recorder. Data of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 1,040,000 acre-ft (1,280 hm³) June 16, elevation, 765.79 ft (233.413 m); minimum, 65,400 acre-ft (80.6 hm³) Jan. 1, 1974, elevation, 721.92 ft (220.041 m).
 Period of record: Maximum contents, 1,700,000 acre-ft (2,100 hm³) May 14, 1973, elevation, 777.95 ft (237.119 m); minimum, 65,400 acre-ft (80.6 hm³) Jan. 1, 1974, elevation, 721.92 ft (220.041 m).

REMARKS.--Reservoir is formed by earthfill dam completed in 1969. Storage began in March 1969. Releases controlled through 14 concrete conduits extending through the concrete ogee spillway section into the stilling basin. Inlet invert elevation at 690 ft (210 m) above mean sea level. Maximum design discharge through the conduits is 37,500 ft³/s (1,060 m³/s) but normal flood control operation limits maximum outflow to 30,000 ft³/s (850 m³/s). Spillway section consists of 5 Tainter gates, 41 ft (12 m) wide and 46 ft (14 m) high, on concrete ogee crest at elevation 736 ft (224 m). The storage capacity of the reservoir at full flood-control pool level, 780 ft (238 m), is 1,830,000 acre-ft (2,260 hm³) and that of conservation pool level, 725 feet (221 m), is 90,000 acre-feet (111 hm³). Reservoir is used for flood control, low-flow augmentation, conservation and recreation. Normal operation will maintain an elevation of 725 ft (221 m) with minimum release of 300 ft³/s (8.50 m³/s) and maximum release of 30,000 ft³/s (850 m³/s) during the non-growing season, providing discharges at Ottumwa and Keosauqua do not exceed 30,000 ft³/s (850 m³/s) and 35,000 ft³/s (991 m³/s) respectively.

Capacity table (elevation, in feet, and contents, in acre-feet)
 Note--Includes 90,000 acre-feet sedimentation storage below elevation 725 ft.

722	66,200	740	292,000	760	825,000
725	90,000	745	392,000	765	1,020,000
730	142,000	750	517,000	770	1,250,000
735	208,400	755	653,000		

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187.0	309.0	112.0	66.60	124.0	79.20	77.30	194.0	862.0	944.0	248.0	91.90
2	214.0	271.0	101.0	67.50	113.0	78.00	76.90	179.0	854.0	926.0	234.0	91.90
3	268.0	246.0	93.20	69.50	99.90	79.50	79.80	179.0	843.0	904.0	221.0	91.40
4	285.0	223.0	102.0	72.70	85.50	90.00	82.60	164.0	831.0	856.0	203.0	91.40
5	322.0	199.0	121.0	75.70	76.70	106.0	84.20	145.0	814.0	873.0	193.0	91.80
6	334.0	178.0	120.0	75.90	75.90	112.0	83.90	128.0	799.0	852.0	183.0	92.00
7	330.0	161.0	114.0	74.90	78.20	105.0	82.60	117.0	784.0	867.0	172.0	92.40
8	323.0	147.0	113.0	73.30	80.00	94.80	81.10	107.0	769.0	805.0	162.0	92.50
9	311.0	134.0	112.0	70.60	81.20	94.00	79.00	97.30	794.0	780.0	154.0	92.60
10	297.0	123.0	105.0	69.00	82.00	81.50	75.50	93.60	909.0	751.0	148.0	92.40
11	298.0	113.0	98.30	69.20	81.60	76.60	75.10	94.30	990.0	721.0	140.0	92.80
12	370.0	104.0	94.70	70.10	80.70	75.90	75.90	94.80	1,020	692.0	133.0	95.50
13	471.0	99.30	92.00	70.80	80.10	76.10	75.50	101.0	1,030	662.0	127.0	96.10
14	522.0	95.30	89.00	71.50	78.90	78.10	74.10	132.0	1,040	636.0	120.0	96.40
15	546.0	94.50	84.80	72.60	77.40	79.00	74.10	142.0	1,040	612.0	112.0	97.00
16	565.0	93.60	79.80	73.50	75.70	76.00	76.00	157.0	1,040	588.0	108.0	97.10
17	572.0	93.80	76.80	74.10	75.10	73.40	78.70	192.0	1,030	564.0	105.0	97.30
18	579.0	94.20	76.60	75.00	76.60	72.80	78.20	280.0	1,020	540.0	101.0	97.30
19	568.0	94.20	75.20	77.40	79.00	73.50	75.20	312.0	1,020	516.0	97.10	97.10
20	557.0	98.00	72.60	86.20	82.10	74.60	75.50	416.0	1,020	493.0	95.70	97.00
21	544.0	99.50	70.70	102.0	86.00	74.00	82.10	508.0	1,000	467.0	95.40	96.30
22	528.0	103.0	70.50	116.0	88.10	74.00	107.0	590.0	999.0	444.0	94.30	96.00
23	513.0	108.0	70.80	119.0	84.20	74.20	120.0	654.0	992.0	425.0	93.20	95.80
24	492.0	116.0	73.50	115.0	75.40	73.60	120.0	709.0	988.0	392.0	92.80	96.20
25	475.0	127.0	78.80	109.0	70.50	74.50	113.0	733.0	988.0	367.0	93.10	96.40
26	450.0	134.0	82.20	106.0	74.30	75.20	101.0	744.0	991.0	346.0	93.40	96.40
27	428.0	136.0	81.30	120.0	75.90	75.60	86.10	761.0	994.0	327.0	93.20	97.00
28	405.0	134.0	79.90	128.0	78.40	75.90	96.10	786.0	989.0	317.0	92.90	97.70
29	379.0	130.0	79.00	127.0	-----	79.00	117.0	815.0	976.0	301.0	92.40	98.20
30	355.0	122.0	75.80	125.0	-----	77.00	188.0	838.0	963.0	277.0	92.20	98.10
31	332.0	-----	68.90	128.0	-----	75.90	-----	860.0	-----	263.0	92.20	-----
MAX	579.0	309.0	121.0	128.0	124.0	112.0	188.0	860.0	1,040	944.0	248.0	98.20
MIN	187.0	93.60	68.90	66.60	70.50	72.80	74.10	93.60	769.0	263.0	92.20	91.40
+	742.30	728.23	722.38	728.82	723.62	723.30	733.67	761.12	763.80	738.38	725.24	725.89
*	+173,000	-210,000	-53,100	+59,100	-49,600	-2,500	+112,100	+672,000	+103,000	-700,000	-170,800	+5,900

CAL YR 1973.....*-127,100
 WTR YR 1974.....*-60,900

+ Elevation, in feet, at end of month.
 * Change in contents, in acre-feet.

DES MOINES RIVER BASIN

05488500 DES MOINES RIVER NEAR TRACY, IOWA

LOCATION.--Lat 41°16'53", long 92°51'34", in NW1/4 SE1/4 sec.19, T.75 N., R.17 W., Mahaska County, on right bank 250 ft (76 m) upstream from abandoned Bellefontaine Bridge, 0.5 mi (0.8 km) downstream from bridge on State Highway 92, 0.8 mi (1.3 km) east of Tracy, 3.1 mi (5.0 km) upstream from Cedar Creek, 6.4 mi (10.3 km) downstream from English Creek, and at mile 130.4 (209.8 km).

DRAINAGE AREA.--12,479 mi² (32,321 km²).

PERIOD OF RECORD.--March 1920 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 670.91 ft (204.49 m) above mean sea level. Prior to June 26, 1940, and June 30, 1952, to Nov. 4, 1960, nonrecording gage, and June 27, 1940, to June 29, 1952, water-stage recorder, at site 250 ft (76 m) downstream at same datum.

AVERAGE DISCHARGE.--54 years, 4,641 ft³/s (131 m³/s), 5.05 in/yr (128 mm/yr), 3,362,000 acre-ft/yr (4,150 hm³/yr); median of yearly mean discharges, 3,960 ft³/s (112 m³/s), 4.3 in/yr (109 mm/yr), 2,870,000 acre-ft/yr (3,540 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 22,600 ft³/s (640 m³/s) Mar. 7, gage height, 13.40 ft (4.084 m); minimum daily, 526 ft³/s (14.9 m³/s) Sept. 30.

Period of record: Maximum discharge, 155,000 ft³/s (4,390 m³/s), June 14, 1947, gage height, 26.5 ft (8.08 m); minimum daily, 40 ft³/s (1.13 m³/s) Jan. 29 to Feb. 1, 1940.

Maximum stage since 1851, that of June 14, 1947. Flood of May 31, 1903, reached a stage of about 25 ft (7 m), discharge, about 130,000 ft³/s (3,680 m³/s). Minimum daily discharge since at least 1910, that of Jan. 29 to Feb. 1, 1940.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Lake Red Rock since March 12, 1969 (see sta. 05488100).

COOPERATION.--Ten discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS)--WSP 1438: Drainage area. WSP 1508: 1920 (M), 1922 (M), 1933.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17,100	17,200	17,100	6,400	13,300	11,300	6,350	19,500	17,800	18,400	8,370	1,180
2	16,500	16,900	16,800	4,700	13,800	12,100	6,330	18,000	18,700	18,200	8,280	1,170
3	17,900	16,600	15,100	4,300	13,500	12,100	6,480	17,800	18,600	18,100	8,200	1,130
4	15,400	16,400	12,100	3,930	11,500	13,400	8,210	17,600	18,500	18,600	8,110	997
5	13,600	15,800	13,900	4,150	8,200	17,200	9,790	17,600	18,300	18,200	7,730	896
6	16,000	14,500	16,000	4,870	5,400	20,900	11,100	17,100	18,400	17,500	6,700	882
7	17,000	13,300	14,000	5,870	4,340	22,500	12,800	14,200	18,100	17,600	6,630	881
8	17,200	12,000	10,100	6,000	4,240	22,200	13,400	13,000	17,200	17,900	6,280	866
9	17,400	10,500	10,000	6,000	4,220	21,400	13,100	12,400	18,300	18,000	5,500	859
10	17,100	9,460	9,900	5,800	4,350	19,500	12,100	10,200	13,700	18,400	5,060	852
11	15,600	9,320	9,710	5,200	4,570	16,700	11,700	8,590	11,900	18,500	5,020	853
12	11,500	8,390	9,580	4,500	4,720	13,300	10,200	8,530	15,200	18,100	4,950	927
13	14,800	6,960	9,500	4,000	5,370	13,300	10,300	8,580	17,300	17,600	4,940	870
14	17,100	6,240	9,450	3,900	5,690	13,200	11,600	10,900	17,200	17,100	4,860	850
15	18,100	5,500	9,280	3,900	6,520	13,700	11,900	14,800	17,000	16,700	4,810	840
16	18,200	4,410	9,130	4,100	6,510	14,300	11,000	14,400	15,600	16,200	4,380	826
17	18,300	4,490	8,150	4,500	6,210	14,000	11,000	13,300	17,300	15,700	3,360	824
18	18,300	4,470	6,240	4,800	5,890	12,600	11,600	11,300	17,300	15,100	3,280	824
19	18,300	4,460	6,270	5,400	6,680	10,500	12,300	9,560	18,000	14,500	3,260	823
20	18,200	4,760	6,080	7,000	8,950	10,000	11,500	11,900	17,400	14,500	2,840	823
21	18,300	6,510	5,310	10,500	10,800	9,420	11,900	6,870	17,100	14,400	2,060	819
22	18,500	9,770	4,740	11,000	13,300	8,790	15,300	6,530	17,400	14,200	2,040	809
23	18,400	11,200	4,630	10,000	14,500	8,070	17,500	6,510	17,200	14,100	1,850	746
24	18,300	14,700	4,470	10,000	13,500	7,820	18,200	7,800	17,300	13,900	1,490	545
25	18,300	14,900	5,390	10,000	10,500	7,020	18,200	13,100	18,200	13,100	1,420	539
26	18,400	15,700	8,740	11,000	7,470	6,310	18,000	17,900	18,300	11,200	1,420	534
27	18,200	16,800	12,400	12,000	7,960	6,350	17,600	18,900	18,300	9,420	1,390	534
28	18,000	16,800	12,100	12,000	9,630	6,350	15,000	17,500	18,400	8,710	1,370	538
29	17,800	16,900	11,400	12,000	-----	6,370	14,900	16,400	18,700	8,600	1,350	534
30	17,600	17,300	10,300	12,000	-----	6,860	19,600	15,400	18,600	8,520	1,340	526
31	17,400	-----	9,000	12,500	-----	7,240	-----	14,600	-----	8,440	1,280	-----
TOTAL	532,800	342,240	306,870	222,320	231,620	384,750	378,960	410,770	521,300	469,490	129,570	24,297
MEAN	17,190	11,410	9,899	7,172	8,272	12,410	12,630	13,250	17,380	15,140	4,180	810
MAX	18,500	17,300	17,100	12,500	14,500	22,500	19,600	19,500	18,700	18,600	8,370	1,180
MIN	11,500	4,410	4,470	3,900	4,220	6,310	6,330	6,510	11,900	8,440	1,280	526
AC-FT	1,057M	678,800	608,700	441,000	459,400	763,200	751,700	814,800	1,034M	931,200	257,000	48,190
CAL YR 1973	TOTAL	5,707,360	MEAN	15,640	MAX	28,700	MIN	2,840	AC-FT	11,320,000		
WTR YR 1974	TOTAL	3,954,987	MEAN	10,840	MAX	22,500	MIN	526	AC-FT	7,845,000		

05489000 CEDAR CREEK NEAR BUSSEY, IOWA

LOCATION.--Lat 41°13'09", long 92°54'38", at SW corner sec.11, T.74 N., R.18 W., Marion County, on left bank 10 ft (3 m) downstream from bridge on State Highway 156, 0.8 mi (1.3 km) downstream from North Cedar Creek, 1.6 mi (2.6 km) northwest of Bussey, 3.0 mi (4.8 km) upstream from Honey Creek, and 8.9 mi (14.3 km) upstream from mouth.

DRAINAGE AREA.--374 mi² (969 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 682.15 ft (207.92 m) above mean sea level (levels by Corps of Engineers). Prior to Feb. 21, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--27 years, 199 ft³/s (5.64 m³/s), 7.23 in/yr (184 mm/yr), 144,200 acre-ft/yr (178 hm³/yr); median of yearly mean discharges, 180 ft³/s (5.10 m³/s), 6.5 in/yr (165 mm/yr), 130,000 acre-ft/yr (160 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 14,700 ft³/s (416 m³/s) May 19, gage height, 25.52 ft (7.778 m); minimum daily, 3.9 ft³/s (0.11 m³/s) Sept. 30.

Period of record: Maximum discharge, 29,300 ft³/s (830 m³/s) May 9, 1950, gage height, 27.50 ft (8.382 m); maximum gage height, 28.06 ft (8.553 m) July 2, 1958; no flow Sept. 6-20, 1955, Oct. 11, 12, 1956.

Flood in June 1946 reached a stage of 28.45 ft (8.672 m) on upstream side and 28.05 ft (8.550 m) on downstream side of bridge, levels to floodmarks by Corps of Engineers, discharge, 31,500 ft³/s (892 m³/s).

REMARKS.--Records good except those for winter period, which are poor.

COOPERATION.--Five discharge measurements furnished by Corps of Engineers.

REVISIONS.--WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,540	77	53	300	400	299	135	108	468	55	14	9.1
2	1,020	71	52	250	280	249	136	97	251	53	17	11
3	2,850	64	54	200	230	340	138	94	203	113	17	13
4	6,880	57	1,060	170	210	535	144	88	177	700	16	15
5	2,950	53	1,500	140	200	983	144	79	158	1,000	15	13
6	402	52	400	120	180	413	144	73	153	700	14	9.6
7	277	53	230	105	150	278	150	76	289	400	12	11
8	226	55	170	96	125	302	147	101	388	253	12	14
9	189	53	130	88	110	445	140	86	5,720	134	18	12
10	845	50	115	80	100	273	137	74	4,840	98	45	8.4
11	5,180	49	105	76	105	207	137	94	577	80	38	7.3
12	3,180	54	95	72	115	205	151	128	335	69	20	41
13	659	55	170	70	130	205	137	135	233	61	74	59
14	360	40	200	72	120	205	231	421	226	57	97	31
15	240	40	140	75	107	205	226	247	1,810	55	43	17
16	185	51	125	80	112	205	200	123	732	48	31	11
17	147	45	120	93	121	205	177	2,260	221	43	34	7.7
18	134	48	115	150	155	205	154	5,400	173	39	34	6.5
19	125	44	105	550	146	199	136	8,970	712	35	22	5.9
20	114	68	95	1,600	130	171	129	5,270	269	32	17	5.2
21	105	162	90	2,700	140	151	461	997	152	30	13	4.8
22	100	119	100	1,700	160	137	404	575	401	28	30	5.2
23	96	72	110	1,100	200	127	256	392	220	26	48	4.1
24	93	74	130	900	150	117	184	299	96	25	19	4.0
25	87	77	1,500	1,000	140	119	154	248	88	24	193	4.3
26	79	66	1,800	2,200	160	148	139	449	89	26	154	4.6
27	74	69	1,000	5,630	318	137	129	1,010	79	24	28	4.3
28	74	81	850	3,870	477	131	128	951	72	21	16	5.9
29	77	66	700	1,410	-----	129	167	1,710	66	19	12	5.6
30	79	58	500	1,430	-----	135	141	1,130	62	18	10	3.9
31	78	-----	400	1,380	-----	135	-----	1,170	-----	14	9.6	-----
TOTAL	29,445	1,923	12,214	27,707	4,971	7,595	5,256	32,855	19,260	4,280	1,122.6	354.4
MEAN	950	64.1	394	894	178	245	175	1,060	642	138	36.2	11.8
MAX	6,880	162	1,800	5,630	477	983	461	8,970	5,720	1,000	193	59
MIN	74	40	52	70	100	117	128	73	62	14	9.6	3.9
CFSM	2.54	.17	1.05	2.39	.48	.66	.47	2.83	1.72	.37	.10	.03
IN.	2.93	.19	1.21	2.76	.49	.76	.52	3.27	1.92	.43	.11	.04
AC-FT	58,400	3,810	24,230	54,960	9,860	15,060	10,430	65,170	38,200	8,490	2,230	703
CAL YR 1973	TOTAL 230,121.0	MEAN 630	MAX 8,150	MIN 16	CFSM 1.68	IN 22.89	AC-FT 456,400					
WTR YR 1974	TOTAL 146,983.0	MEAN 403	MAX 8,970	MIN 3.9	CFSM 1.08	IN 14.62	AC-FT 291,500					

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-4	0700	22.97	8,030	5-19	1930	25.52	14,700
10-11	2115	20.87	6,280	6-9	2115	22.73	8,670
1-27	2000	21.00	6,430				

DES MOINES RIVER BASIN

05489500 DES MOINES RIVER AT OTTUMWA, IOWA

LOCATION.--Lat 41°00'39", long 92°24'40", in SE1/4 NE1/4 sec.25, T.72 N., R.14 W., Wapello County, on right bank 15 ft (4 m) downstream from Wabash Railroad Bridge at Ottumwa, 0.4 mi (0.6 km) downstream from Ottumwa powerplant, 6.5 mi (10.5 km) upstream from Village Creek, 9.5 mi (15.3 km) downstream from South Avery Creek, and at mile 94.1 (151.4 km).

DRAINAGE AREA.--13,374 mi² (34,638 km²).

PERIOD OF RECORD.--March 1917 to current year (published as "at Eldon" October 1930 to March 1935). Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 622.00 ft (189.59 m) above mean sea level. Prior to Sept. 30, 1930, nonrecording gages at Market Street Bridge half a mile upstream at datum 0.83 ft (0.25 m) higher. Oct. 1, 1930, to Mar. 31, 1935, nonrecording gage at Eldon 15 mi (24.1 km) downstream at different datum. Apr. 1, 1935, to Oct. 25, 1963, water-stage recorder at site 1, 100 ft (335 m) downstream at Vine Street Bridge at datum 0.77 ft (0.23 m) higher.

AVERAGE DISCHARGE.--57 years, 5,063 ft³/s (143 m³/s), 5.14 in/yr (131 mm/yr), 3,668,000 acre-ft/yr (4,520 hm³/yr); median of yearly mean discharges, 4,160 ft³/s (118 m³/s), 4.2 in/yr (107 mm/yr), 3,010,000 acre-ft/yr (3,710 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 29,900 ft³/s (847 m³/s) June 9, gage height, 10.33 ft (3.149 m); maximum gage height, 10.41 ft (3.173 m) May 19; minimum daily discharge, 571 ft³/s (16.2 m³/s) Sept. 29. Period of record: Maximum discharge, 135,000 ft³/s (3,820 m³/s) June 7, 1947, gage height, 20.2 ft (6.16 m), site and datum then in use; minimum daily, 30 ft³/s (0.85 m³/s) Jan. 27-29, 31, Feb. 2, 3, 5-7, 1940. Maximum stage since at least 1850, that of June 7, 1947. Flood of May 31, 1903, reached a stage of 19.4 ft (5.91 m), former site and datum at Vine Street Bridge or about 22 ft (6.71 m) at Market Street Bridge, from information by Corps of Engineers and U.S. Weather Bureau, discharge about 140,000 ft³/s (3,960 m³/s).

REMARKS.--Records good except those for winter period, which are fair. Prior to Dec. 12, 1958, and since Nov. 30, 1960, diurnal fluctuation at low flow caused by powerplant above station. Flow regulated by Lake Red Rock since March 12, 1969 (see sta. 05488100).

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 525: 1917-20. WSP 1308: 1917-23 (M), 1925-27 (M), 1931. WSP 1438: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19,700	17,400	15,800	8,000	14,500	11,500	7,380	18,500	17,600	18,600	8,850	1,500
2	17,500	17,200	15,700	5,800	14,200	12,600	6,960	17,500	18,600	18,400	8,760	1,420
3	19,000	17,000	15,400	5,000	14,000	12,800	6,870	16,900	18,700	18,400	8,670	1,400
4	20,500	16,700	13,100	4,500	13,800	13,700	7,950	16,700	18,600	21,600	8,520	1,320
5	17,900	16,500	15,500	4,300	12,000	10,600	10,300	16,500	18,500	20,500	8,520	1,170
6	16,000	15,500	16,400	4,500	8,600	19,100	11,100	16,800	18,300	18,000	7,510	1,050
7	17,200	14,400	16,100	5,700	6,000	20,900	12,300	15,100	20,100	17,500	7,060	1,100
8	17,200	13,600	11,800	6,400	4,800	21,100	13,300	13,600	18,500	17,900	7,080	1,070
9	17,700	12,000	10,300	6,500	4,600	20,800	13,300	13,000	26,600	17,700	6,350	1,040
10	19,700	10,600	10,200	6,600	4,800	19,300	12,600	11,900	23,400	18,000	5,750	1,060
11	22,100	10,200	11,300	6,400	5,000	17,600	12,300	9,720	15,900	18,300	5,470	1,040
12	18,000	10,100	9,980	5,600	5,100	15,500	11,100	9,270	15,400	18,000	5,290	1,240
13	15,200	8,220	9,900	5,000	5,200	14,200	10,600	9,210	17,300	17,600	8,020	1,360
14	17,200	7,230	10,000	4,500	5,800	13,600	12,200	10,500	17,900	17,200	5,820	1,180
15	18,600	6,870	9,740	4,200	6,200	13,700	13,600	14,200	18,300	16,700	5,320	1,090
16	18,700	5,220	9,650	4,000	6,800	14,600	11,700	14,800	17,300	16,400	5,250	1,070
17	18,800	4,770	9,610	4,200	6,800	14,400	11,400	18,600	17,500	16,000	4,300	1,020
18	18,800	4,740	8,390	4,500	6,400	13,900	11,400	21,700	17,700	15,400	3,840	1,060
19	18,700	4,720	6,930	5,400	6,700	11,700	12,300	24,200	18,500	14,900	3,650	1,020
20	18,700	5,190	6,500	7,400	8,740	10,800	12,400	23,900	18,800	14,600	3,640	1,020
21	18,600	5,700	6,200	11,000	10,800	10,400	11,700	13,100	18,500	14,500	2,680	1,020
22	18,800	8,890	5,600	13,000	13,100	9,720	15,200	8,670	18,100	14,400	2,700	1,010
23	18,800	9,890	5,200	12,500	14,800	8,910	16,100	8,190	18,700	14,200	2,380	980
24	18,700	12,900	5,400	12,000	14,300	8,640	17,100	8,010	17,500	14,100	2,020	894
25	18,500	13,900	7,440	12,000	12,600	8,160	17,100	11,400	18,300	14,000	2,560	620
26	18,700	14,100	10,700	13,800	9,180	7,320	17,000	16,300	18,600	12,600	2,860	668
27	18,500	15,300	13,200	19,600	8,580	7,110	16,700	20,100	18,600	10,800	1,820	706
28	18,300	15,600	13,900	19,900	10,100	6,990	16,300	19,900	18,500	9,560	1,660	663
29	18,200	15,600	13,600	17,600	-----	7,080	13,700	19,200	18,800	9,240	1,570	571
30	18,100	15,800	12,100	16,400	-----	7,560	17,500	18,900	18,700	9,090	1,580	674
31	17,600	-----	10,000	15,500	-----	8,220	-----	15,800	-----	9,030	1,570	-----
TOTAL	570,000	345,840	335,640	271,800	253,500	398,210	379,460	472,170	557,800	483,220	151,070	31,036
MEAN	18,390	11,530	10,830	8,768	9,054	12,850	12,650	15,230	18,590	15,590	4,873	1,035
MAX	22,100	17,400	16,400	19,900	14,800	21,100	17,500	24,200	26,600	21,600	8,850	1,500
MIN	15,200	4,720	5,200	4,000	4,600	6,990	6,870	8,010	15,400	9,030	1,570	571
AC-FT	1,131M	686,000	665,700	539,100	502,800	789,800	752,700	936,500	1,106M	958,500	299,600	61,560
CAL YR 1973	TOTAL	6,054,470	MEAN	16,590	MAX	32,000	MIN	3,460	AC-FT	12,010,000		
WTR YR 1974	TOTAL	4,249,746	MEAN	11,640	MAX	26,600	MIN	571	AC-FT	8,429,000		

DES MOINES RIVER BASIN

05490500 DES MOINES RIVER AT KEOSAUQUA, IOWA

LOCATION.--Lat 40°43'40", long 91°57'34", in SE1/4 SW1/4 sec.36, T.69 N., R.10 W., Van Buren County, on right bank 10 ft (3 m) upstream from bridge on State Highway 1 at Keosauqua, 4.0 mi (6.4 km) downstream from Chequest Creek, and at mile 51.3 (82.5 km).

DRAINAGE AREA.--14,038 mi² (36,358 km²).

PERIOD OF RECORD.--May 1903 to July 1906, April to December 1910, August 1911 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 547.36 ft (166.84 m) above mean sea level. Prior to Dec. 24, 1933, nonrecording gage, and Dec. 25, 1933, to Sept. 30, 1972, water-stage recorder, same site at datum 10.00 ft (3.05 m) higher.

AVERAGE DISCHARGE.--65 years (1903-5, 1911-74), 5,514 ft³/s (156 m³/s) 5.33 in/yr (135 mm/yr), 3,995,000 acre-ft/yr (4,930 hm³/yr); median of yearly mean discharges, 4,880 ft³/s (138 m³/s), 4.7 in/yr (119 mm/yr), 3,540,000 acre-ft/yr (4,360 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 38,500 ft³/s (1,090 m³/s) May 20, gage height, 21.51 ft (6.556 m); maximum gage height, 24.79 ft (7.556 m) Jan. 21, backwater from ice; minimum daily discharge, 601 ft³/s (17.0 m³/s) Sept. 27.

Period of record: Maximum discharge, 146,000 ft³/s (4,130 m³/s) June 1, 1903, gage height, 27.85 ft (8.489 m), from floodmark, datum then in use; minimum daily, 40 ft³/s (1.13 m³/s) Jan. 30, 1940.

Flood of June 1, 1851, reached a stage of 24 ft (7 m), discharge not determined).

REMARKS.--Records good except those for winter period, which are poor. Prior to Dec. 21, 1958, and since Nov. 30, 1960, some diurnal fluctuation at medium and low stages caused by powerplant at Ottumwa. Flow regulated by Lake Red Rock since March 12, 1969 (see sta 05488100).

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 525: 1913-20. WSP 1438: Drainage area. WSP 1508: 1903, 1905-6, 1915-18 (M), 1922 (M), 1924-26 (M), 1932-34 (M), 1937, 1942 (M).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22,700	18,100	16,700	7,500	16,300	10,600	8,200	19,900	17,300	18,700	9,130	1,670
2	21,200	17,900	16,500	6,000	15,100	11,900	7,000	19,500	19,000	18,500	9,160	1,650
3	19,000	17,600	16,400	5,200	15,000	12,800	6,900	18,100	19,400	18,600	8,990	1,570
4	26,900	17,300	16,000	4,800	13,700	13,400	7,310	18,000	19,200	27,900	8,850	1,500
5	22,000	17,000	17,000	4,600	11,400	16,800	9,410	17,700	19,000	25,800	8,770	1,370
6	17,500	16,400	17,800	4,400	10,100	19,300	10,700	17,700	18,800	19,900	8,540	1,210
7	17,500	15,200	17,200	4,800	7,750	21,600	11,700	17,200	24,300	18,300	7,420	1,100
8	18,300	14,000	15,300	6,000	5,670	22,900	13,200	14,700	25,000	18,300	7,590	1,120
9	18,400	12,900	10,500	6,800	5,310	23,100	13,700	13,800	29,100	18,500	7,820	1,090
10	19,600	11,100	10,200	6,900	5,160	21,800	13,300	12,900	29,700	18,500	8,940	1,040
11	30,400	9,850	9,930	7,000	5,310	19,900	12,400	12,700	20,400	18,800	6,030	1,070
12	24,400	9,740	10,500	7,000	5,500	21,700	12,100	9,890	14,300	18,900	5,740	1,140
13	16,700	9,180	10,100	6,400	5,480	16,900	10,600	9,170	16,500	18,500	7,200	1,610
14	17,000	7,610	10,000	5,400	6,060	14,900	11,000	10,300	18,200	18,100	8,210	1,440
15	18,800	6,730	9,880	5,000	6,120	14,400	14,100	12,700	18,500	17,700	5,810	1,160
16	19,400	6,350	9,810	4,700	6,850	15,500	12,800	15,500	18,900	17,200	5,560	1,050
17	19,400	4,940	9,640	4,500	6,980	15,500	11,500	20,500	16,900	16,800	5,380	1,020
18	19,300	4,750	8,640	5,000	6,870	14,800	11,400	25,800	17,800	16,300	4,370	985
19	19,300	4,800	8,810	5,400	6,510	13,400	11,900	31,900	18,300	15,700	4,040	995
20	19,200	4,900	6,240	7,000	6,920	11,200	12,500	34,600	19,200	15,200	3,850	986
21	19,100	6,940	5,840	10,000	9,400	10,600	11,900	20,900	19,100	15,100	3,750	964
22	19,100	6,600	5,500	15,000	12,900	9,910	14,200	10,900	17,900	15,100	2,860	966
23	19,300	9,740	5,440	13,500	14,900	9,380	16,400	8,730	18,900	14,900	2,860	937
24	19,100	10,500	5,820	12,500	15,000	8,360	17,700	7,960	17,800	14,800	2,560	907
25	19,000	14,100	7,000	12,000	13,500	8,300	18,300	8,660	17,800	14,600	2,200	884
26	19,000	14,400	9,000	16,600	11,000	7,620	18,200	14,000	18,500	13,900	3,510	645
27	19,100	15,100	11,000	28,800	8,290	6,940	18,000	19,800	18,600	12,100	2,790	601
28	18,900	16,300	15,000	24,200	8,990	6,930	17,800	25,100	18,500	11,200	1,930	632
29	18,700	16,300	14,000	21,100	-----	6,920	15,700	25,000	18,600	9,440	1,770	650
30	18,500	16,400	13,100	18,600	-----	8,180	16,500	22,600	18,900	9,300	1,670	626
31	18,400	-----	9,970	18,600	-----	8,010	-----	19,100	-----	9,160	1,670	-----
TOTAL	615,200	352,730	346,820	305,300	262,070	423,550	386,420	535,310	584,400	515,800	168,970	32,588
MEAN	19,850	11,760	11,190	9,848	9,360	13,660	12,880	17,270	19,480	16,640	5,451	1,086
MAX	30,400	18,100	17,800	28,800	16,300	23,100	18,300	34,600	29,700	27,900	9,160	1,670
MIN	16,700	4,750	5,440	4,400	5,160	6,920	6,900	7,960	14,300	9,160	1,670	601
AC-FT	1,220M	699,600	687,900	605,600	519,800	840,100	766,500	1,062M	1,159M	1,023M	335,200	64,640
CAL YR 1973	TOTAL 6,630,590	MEAN 18,170	MAX 57,100	MIN 3,620	AC-FT 13,150,000							
WTR YR 1974	TOTAL 4,529,158	MEAN 12,410	MAX 34,600	MIN 601	AC-FT 8,984,000							

BIG SIOUX RIVER BASIN

06483270 ROCK RIVER AT ROCK RAPIDS, IOWA

LOCATION.--Lat 43°26'13", long 96°09'58", in NE1/4 SW1/4 sec. 33, T.100 N., R.45 W., Lyon County, on right bank at dam on north side of city park in Rock Rapids, 0.3 mi (0.5 km) upstream from Tom Creek, 0.5 mi (0.8 km) northeast of junction of U.S. Highway 75 and State Highway 9, and at mile 42.8 (68.9 km).

DRAINAGE AREA.--788 mi² (2,040 km²).

PERIOD OF RECORD.--August 1959 to September 1974 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,331.55 ft (405.86 m) above mean sea level.

AVERAGE DISCHARGE.--15 years, 164 ft³/s (4.64 m³/s), 2.83 in/yr (72 mm/yr), 118,800 acre-ft/yr (146 hm³/yr); median of yearly mean discharges, 120 ft³/s (3.40 m³/s), 2.1 in/yr (53 mm/yr), 86,900 acre-ft/yr (107 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 830 ft³/s (23.5 m³/s) Mar. 5, gage height, 2.57 ft (0.783 m); minimum daily, 4.1 ft³/s (0.12 m³/s) July 29, 30, Aug. 2, 3, 6-8.
Period of record: Maximum discharge, 29,000 ft³/s (821 m³/s) Apr. 8, 1969, gage height, 10.23 ft (3.118 m); minimum daily, 0.8 ft³/s (23 dm³/s) Feb. 1-5, 1965.

REMARKS.--Records fair except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	30	37	15	16	131	104	52	65	17	5.4	15
2	76	26	46	15	15	177	100	44	65	17	4.1	15
3	56	26	50	15	15	340	105	43	62	14	4.1	14
4	42	26	13	15	15	546	106	42	53	13	5.4	13
5	34	23	14	15	15	695	106	34	46	12	5.4	13
6	29	23	14	15	14	477	106	29	46	11	4.1	11
7	26	26	14	15	14	373	106	26	46	11	4.1	11
8	23	23	16	15	14	279	111	26	46	11	4.1	11
9	24	13	18	15	14	258	115	29	54	11	15	11
10	27	20	17	15	14	216	143	31	64	11	58	10
11	135	26	16	15	14	206	174	41	70	11	61	10
12	379	26	15	15	16	206	180	50	76	9.6	62	13
13	195	26	15	13	18	198	215	59	76	8.8	63	14
14	133	26	15	15	15	198	338	65	76	8.8	50	14
15	99	26	15	15	15	213	370	68	62	8.8	38	12
16	77	26	15	15	15	190	313	74	50	8.8	29	11
17	63	23	15	15	45	162	251	76	45	8.8	34	8.1
18	54	23	15	17	139	175	215	81	42	8.8	55	7.0
19	48	23	15	17	188	168	183	84	35	6.4	37	7.0
20	42	33	15	17	249	152	164	198	25	5.5	28	6.8
21	37	46	15	17	336	143	152	260	20	4.9	45	7.0
22	37	50	15	17	154	142	143	217	45	4.9	41	7.0
23	37	60	15	17	156	81	126	185	40	4.4	37	7.0
24	37	70	15	17	188	86	115	174	35	4.2	33	6.8
25	37	70	15	17	200	133	109	154	30	5.4	28	6.5
26	37	70	15	17	202	135	96	136	25	5.4	26	6.0
27	37	60	15	19	158	114	89	111	23	5.4	29	6.3
28	33	55	15	20	135	114	82	94	20	5.4	22	5.3
29	33	50	15	19	-----	110	72	82	18	4.1	17	4.4
30	33	50	15	18	-----	101	65	76	17	4.1	15	6.2
31	33	-----	15	17	-----	99	-----	69	-----	5.4	15	-----
TOTAL	2,035	1,075	555	499	2,389	6,618	4,554	2,710	1,377	266.9	874.7	289.4
MEAN	65.6	35.8	17.9	16.1	85.3	213	152	87.4	45.9	8.61	28.2	9.65
MAX	379	70	50	20	336	695	370	260	76	17	63	15
MIN	23	13	13	13	14	81	65	26	17	4.1	4.1	4.4
CFSM	.08	.05	.02	.02	.11	.27	.19	.11	.06	.01	.04	.01
IN.	.10	.05	.03	.02	.11	.31	.21	.13	.07	.01	.04	.01
AC-FT	4,040	2,130	1,100	990	4,740	13,130	9,030	5,380	2,730	529	1,730	574

CAL YR 1973 TOTAL 57,324.0 MEAN 157 MAX 3,500 MIN 6.5 CFSM .20 IN 2.71 AC-FT 113,700
WTR YR 1974 TOTAL 23,243.0 MEAN 63.7 MAX 695 MIN 4.1 CFSM .08 IN 1.10 AC-FT 46,100

PEAK DISCHARGE (BASE, 2,000 FT³/S).--No peak above base.

06483500 ROCK RIVER NEAR ROCK VALLEY, IOWA

LOCATION.--Lat 43°11'58", long 96°20'22", in NW1/4 NE1/4 sec.25, T.97 N., R.47 W., Sioux County, on downstream side of bridge on U.S. Highway 18, 1.8 mi (2.9 km) west of Rock Valley, and at mile 15.9 (25.6 km).

DRAINAGE AREA.--1,600 mi² (4,144 km²).

PERIOD OF RECORD.--June 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,211.81 ft (369.36 m) above mean sea level. Prior to Aug. 13, 1952, nonrecording gage (June 4, 1949, to Aug. 12, 1952, supplementary water-stage recorder operating above 6.2 ft (1.9 m) gage height) at same site and datum.

AVERAGE DISCHARGE.--26 years, 302 ft³/s (8.55 m³/s), 2.56 in/yr (65 mm/yr), 218,800 acre-ft/yr (270 hm³/yr); median of yearly mean discharges, 240 ft³/s (6.80 m³/s), 2.0 in/yr (51 mm/yr), 174,000 acre-ft/yr (215 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 988 ft³/s (28.0 m³/s) Feb. 21, gage height, 6.65 ft (2.027 m); maximum gage height, 7.02 ft (2.140 m) Feb. 19, backwater from ice; minimum daily discharge, 15 ft³/s (0.42 m³/s) July 29, 30, Aug. 4-9.

Period of record: Maximum discharge, 40,400 ft³/s (1,140 m³/s) Apr. 7, 1969, gage height, 17.32 ft (5.279 m); no flow Feb. 20-23, Feb. 27 to Mar. 8, 1959.

Flood in 1897 reached a stage of 17.0 ft (5.18 m), discharge not determined, from information by State Highway Commission.

REMARKS.--Records fair except those for winter period, which are poor.

REVISIONS.--WSP 1439: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	247	94	115	27	50	423	201	154	142	59	17	37		
2	225	92	115	27	48	408	208	144	135	57	17	36		
3	199	91	110	27	46	462	212	137	135	54	17	35		
4	169	88	70	27	46	533	220	133	130	50	15	34		
5	144	85	45	27	46	644	222	130	126	45	15	34		
6	132	85	40	27	46	652	231	128	135	44	15	33		
7	128	85	38	27	46	501	253	126	132	43	15	32		
8	123	84	40	27	46	426	262	126	140	42	15	31		
9	121	82	42	27	46	370	296	125	151	41	15	29		
10	138	78	40	27	48	342	298	130	187	40	50	28		
11	135	90	40	27	50	316	289	153	197	37	72	28		
12	200	100	40	27	70	316	298	154	210	34	59	30		
13	365	107	39	27	80	318	331	177	212	33	53	31		
14	275	113	38	27	70	318	376	189	201	32	51	29		
15	225	118	37	27	70	318	411	191	171	31	42	28		
16	193	123	36	29	80	298	411	191	149	30	38	28		
17	169	128	35	31	100	269	378	189	137	29	37	26		
18	154	132	34	32	200	266	324	191	125	28	39	25		
19	138	132	33	30	500	260	286	185	121	24	42	25		
20	128	135	32	30	900	253	275	195	112	22	43	26		
21	121	135	31	30	948	231	255	280	102	20	100	25		
22	117	130	30	30	852	231	240	298	132	19	98	25		
23	113	125	30	30	732	150	231	275	110	18	156	26		
24	112	125	30	30	617	130	220	255	95	16	132	25		
25	109	125	30	31	585	180	210	240	89	17	89	25		
26	106	125	29	32	578	240	201	216	85	17	69	25		
27	102	120	29	33	539	210	193	197	72	16	63	25		
28	101	115	28	38	474	197	183	185	68	16	57	24		
29	100	115	28	45	-----	203	175	171	64	15	48	23		
30	98	115	27	60	-----	203	162	162	60	15	43	22		
31	96	-----	27	55	-----	197	-----	151	-----	16	39	-----		
TOTAL	4,783	3,272	1,338	971	7,913	9,865	7,852	5,578	3,925	960	1,561	850		
MEAN	154	109	43.2	31.3	283	318	262	180	131	31.0	50.4	28.3		
MAX	365	135	115	60	948	652	411	298	212	59	156	37		
MIN	96	78	27	27	46	130	162	125	60	15	15	22		
CFSM	.10	.07	.03	.02	.18	.20	.16	.11	.08	.02	.03	.02		
IN.	.11	.06	.03	.02	.18	.23	.18	.13	.09	.02	.04	.02		
AC-FT	9,490	6,490	2,650	1,930	15,700	19,570	15,570	11,060	7,790	1,900	3,100	1,690		
CAL YR 1973	TOTAL	140,223	MEAN	384	MAX	8,620	MIN	27	CFSM	.24	IN	3.26	AC-FT	278,100
WTR YR 1974	TOTAL	48,868	MEAN	134	MAX	948	MIN	15	CFSM	.08	IN	1.14	AC-FT	96,930

PEAK DISCHARGE (BASE, 3,000 FT³/S).--No peak above base.

BIG SIOUX RIVER BASIN

06485500 BIG SIOUX RIVER AT AKRON, IOWA

LOCATION.--Lat 42°49'42", long 96°33'45", in NW1/4 SW1/4 sec.31, T.93 N., R.48 W., Plymouth County, Iowa, on left bank at west edge of Akron, 0.6 mi (1.0 km) downstream from bridge on State Highway 48, and 2.3 mi (3.7 km) upstream from Union Creek.

DRAINAGE AREA.--9,030 mi² (23,390 km²), approximately, of which about 1,970 mi² (5,100 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,118.90 ft (341.041 m) above mean sea level. Prior to Dec. 3, 1934, nonrecording gage at bridge 300 ft (91 m) upstream at same datum.

AVERAGE DISCHARGE.--46 years, 851 ft³/s (24.1 m³/s), 616,500 acre-ft/yr (760 hm³/yr); median of yearly mean discharges, 730 ft³/s (20.7 m³/s), 529,000 acre-ft/yr (652 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,000 ft³/s (85.0 m³/s) June 22, gage height, 9.76 ft (2.975 m); minimum daily discharge, 73 ft³/s (2.07 m³/s) Aug. 8.

Period of record: Maximum discharge, 80,800 ft³/s (2,290 m³/s) Apr. 9, 1969, gage height, 22.59 ft (7.007 m); minimum daily, 7 ft³/s (0.20 m³/s) Feb. 26-28, 1936.

REMARKS.--Records good except those for the winter period, which are poor. Records of chemical analyses for the water year 1974 are published in Part 2 of Water Resources Data for South Dakota, 1974.

REVISIONS (WATER YEARS).--BSP 1309: 1929 (M), 1931-33 (M), 1936 (M), 1938 (M), 1940 (M). WSP 1389: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	383	268	301	125	145	400	601	406	462	258	102	128
2	440	266	295	120	150	600	596	394	440	235	92	123
3	385	263	296	115	140	750	623	370	412	216	85	119
4	346	261	282	110	135	996	646	357	392	209	81	112
5	315	250	260	105	125	1,100	646	347	375	202	78	106
6	291	246	219	100	120	1,520	659	336	384	190	75	102
7	278	246	200	98	125	1,790	667	328	395	182	75	102
8	262	243	190	95	135	1,580	659	323	380	168	73	102
9	247	239	195	93	140	1,370	667	325	416	168	84	100
10	262	229	200	90	160	1,350	672	337	457	160	110	94
11	347	242	195	85	180	1,490	680	364	470	159	151	94
12	1,560	249	190	80	210	1,460	670	384	494	156	176	106
13	1,080	247	185	85	240	1,260	676	438	491	154	185	108
14	904	246	180	90	260	1,120	718	453	486	149	171	106
15	729	255	180	93	275	1,040	758	448	464	143	156	103
16	607	251	175	97	290	981	813	460	426	135	149	99
17	536	247	170	100	310	924	817	448	394	128	144	96
18	486	248	165	103	325	878	781	455	372	120	158	92
19	445	234	160	107	340	836	734	460	352	114	166	87
20	406	244	160	110	350	826	686	457	335	109	170	85
21	370	276	165	110	360	791	651	497	315	104	191	84
22	343	298	170	113	370	760	611	582	1,830	100	194	82
23	322	333	180	115	350	719	577	681	1,430	97	226	81
24	305	333	175	118	320	400	537	709	661	94	234	81
25	300	328	170	120	290	425	521	694	496	93	246	81
26	296	323	160	123	270	580	503	673	419	93	210	80
27	302	326	155	125	250	630	488	641	365	95	187	79
28	317	322	145	128	300	629	474	601	329	105	165	78
29	298	315	140	132	-----	604	453	559	299	92	153	79
30	288	311	135	135	-----	594	433	528	275	86	142	77
31	279	-----	130	140	-----	602	-----	495	-----	85	137	-----
TOTAL	13,729	8,139	5,923	3,360	6,665	29,005	19,017	14,550	14,816	4,399	4,566	2,866
MEAN	443	271	191	108	238	936	634	469	494	142	147	95.5
MAX	1,560	333	301	140	370	1,790	817	709	1,830	258	246	128
MIN	247	229	130	80	120	400	433	323	275	85	73	77
AC-FT	27,230	16,140	11,750	6,660	13,220	57,530	37,720	28,860	29,390	8,730	9,060	5,680

CAL YR 1973 TOTAL 374,797 MEAN 1,027 MAX 12,100 MIN 130 AC-FT 743,400
 WTR YR 1974 TOTAL 127,035 MEAN 348 MAX 1,830 MIN 73 AC-FT 252,000

PEAK DISCHARGE (BASE, 3,500 FT³/S).--Hc peak above base.

06486000 MISSOURI RIVER AT SIOUX CITY, IOWA

LOCATION.--Lat 42°29'10", long 96°24'47", in NW1/4 SE1/4 sec.16, T.29 N., R.9 E., sixth principal meridian, Dakota County, Nebraska, on right bank on upstream side of bridge on U.S. Highway 77 at South Sioux City, Nebraska, 2.0 mi (3.2 km) downstream from Big Sioux River, and at mile 732.3 (1,178.3 km).

DRAINAGE AREA.--314,600 mi² (814,800 km²), approximately.

PERIOD OF RECORD.--October 1897 to current year in reports of Geological Survey. Prior to October 1928 and October 1931 to September 1938, monthly discharges only published in WSP 1310. January 1879 to December 1890 (monthly discharges only) in House Document 238, 73rd Congress, 2d session, Missouri River. Gage-height records collected in this vicinity September 1878 to December 1899 are contained in reports of Missouri River Commission and since July 1889 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,056.98 ft (322.17 m) above mean sea level. Sept. 2, 1878, to Dec. 31, 1905, nonrecording gages at various locations within 1.7 mi (2.7 km) of present site and at various datums. Jan. 1, 1906, to Feb. 14, 1935, nonrecording gage, and Feb. 15, 1935 to Sept. 30, 1969, water-stage recorder at present site at datum 19.98 ft (6.09 m) higher, and Oct. 1, 1969 to Sept. 30, 1970 at datum 20.00 ft (6.10 m) higher.

AVERAGE DISCHARGE.--77 years, 31,860 ft³/s (902 m³/s), 23,080,000 acre-ft/yr (28,500 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 41,100 ft³/s (1,160 m³/s) June 23, gage height, 21.49 ft (6.550 m); maximum gage height, 21.75 ft (6.629 m) Aug. 1; minimum daily discharge, 13,000 ft³/s (368 m³/s) Jan. 10, 11; minimum gage height not determined, occurred during period of no gage-height record Jan. 9, 10.
Period of record: Maximum discharge, 441,000 ft³/s (12,500 m³/s) Apr. 14, 1952, gage height, 24.28 ft (7.401 m); minimum, 2,500 ft³/s (70.8 m³/s) Dec. 29, 1941; minimum gage height, -6.60 ft (-2.012 m) Dec. 14, 1968, result of freezeup.

REMARKS.--Records good except those for winter period, which are poor. Flow partly regulated by upstream main-stem reservoirs. Records of chemical and biological analyses, water temperatures, and suspended-sediment discharges for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 716: 1929-30. WSP 876: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32,500	32,500	18,900	17,300	18,400	19,700	30,700	30,100	31,600	33,100	38,800	33,700
2	32,500	31,600	18,900	16,500	18,900	20,200	30,100	30,100	34,000	33,400	37,300	34,300
3	32,200	31,000	18,900	16,200	19,800	21,000	31,000	30,700	31,600	33,100	37,000	33,700
4	31,600	31,300	18,700	16,000	17,600	21,400	32,200	29,800	29,000	33,100	37,000	33,700
5	31,300	31,000	18,500	16,000	17,600	20,800	30,400	28,400	31,000	34,300	37,000	34,000
6	31,300	31,000	17,600	16,000	20,400	20,600	30,700	29,500	31,300	34,000	37,000	34,000
7	31,300	31,000	17,800	16,000	19,300	20,800	31,600	31,600	30,700	34,300	37,300	34,000
8	31,000	31,000	19,200	16,000	19,800	21,000	31,900	29,500	30,700	34,600	37,600	34,300
9	31,600	31,000	18,900	14,500	20,000	20,800	31,900	29,500	32,200	34,600	38,800	34,600
10	34,600	31,000	17,900	13,000	20,000	20,000	32,500	30,700	32,800	34,900	38,500	34,600
11	32,200	31,300	18,100	13,000	20,600	19,700	31,600	30,700	30,700	35,500	38,200	35,200
12	26,600	31,300	19,800	13,500	21,000	19,800	31,600	27,800	29,800	34,900	38,500	36,700
13	27,000	31,300	19,200	13,500	21,400	20,400	30,700	29,500	30,400	34,600	38,200	36,100
14	24,800	31,600	18,100	14,000	20,000	18,100	30,700	30,700	30,400	34,300	37,600	34,000
15	24,400	31,600	17,600	17,000	19,200	18,900	30,100	30,100	30,700	34,300	37,000	34,300
16	24,600	31,300	18,100	21,800	19,500	18,700	30,400	31,000	32,200	35,200	35,500	34,300
17	24,600	30,700	17,800	22,000	20,000	18,500	31,000	31,000	34,000	37,600	34,000	34,900
18	24,800	30,400	18,900	21,800	21,400	18,900	31,300	32,500	31,600	37,300	33,400	34,600
19	24,800	30,400	19,700	20,400	19,300	20,800	31,300	32,200	33,100	37,000	33,400	34,900
20	24,800	31,600	18,100	19,000	18,900	25,100	31,000	28,700	32,500	37,000	34,000	34,600
21	24,800	31,600	18,100	19,500	19,000	27,600	30,700	24,600	31,900	37,000	33,700	34,300
22	24,600	30,700	18,900	19,300	19,000	31,300	31,600	27,000	34,300	36,400	33,700	35,200
23	24,600	30,700	20,200	19,300	19,000	32,800	29,500	30,100	40,000	36,400	33,100	36,400
24	25,100	31,000	18,700	19,500	18,700	30,700	30,100	32,800	36,100	37,000	33,400	36,100
25	25,800	29,000	18,700	20,000	19,300	31,300	30,400	32,800	30,700	37,300	33,100	35,800
26	26,300	26,000	18,700	20,600	19,300	31,000	30,700	34,300	32,500	37,000	32,800	35,800
27	25,800	22,800	18,500	20,800	19,000	31,000	31,300	32,500	32,800	36,700	32,800	35,800
28	25,800	19,800	18,200	20,200	19,800	31,300	31,600	32,500	31,300	37,000	32,800	36,100
29	25,600	19,300	17,800	20,400	-----	30,700	28,400	32,200	33,100	37,000	32,500	35,500
30	27,600	19,000	17,300	21,200	-----	30,400	31,000	30,100	35,200	36,700	33,400	35,200
31	31,600	-----	17,000	22,000	-----	30,100	-----	31,600	-----	37,000	33,700	-----
TOTAL	866,100	883,800	572,800	556,300	546,200	743,400	928,000	944,600	968,200	1,102,6M	1,101.1M	1,046.7M
MEAN	27,940	29,460	18,480	17,950	19,510	23,980	30,930	30,470	32,270	35,570	35,520	34,890
MAX	34,600	32,500	20,200	22,000	21,400	32,800	32,500	34,300	40,000	37,600	38,800	36,700
MIN	24,400	19,000	17,000	13,000	17,600	18,100	28,400	24,600	29,000	33,100	32,500	33,700
AC-FT	1,718M	1,753M	1,136M	1,103M	1,083M	1,475M	1,841M	1,874M	1,920M	2,187M	2,184M	2,076M
CAL YR 1973	TOTAL	10,331,700	MEAN	28,310	MAX	40,900	MIN	17,000	AC-FT	20,490,000		
WTR YR 1974	TOTAL	10,259,800	MEAN	28,110	MAX	40,000	MIN	13,000	AC-FT	20,350,000		

M Expressed in thousands.

FLOYD RIVER BASIN

06600100 FLOYD RIVER AT ALTON, IGWA

LOCATION.--Lat 42°58'55", long 96°00'03", in NE1/4 NE1/4 sec.11, T.94 N., R.44 W., Sioux County, on left bank at downstream side of Chicago and Northwestern Railway Company bridge at east edge of Alton, 34.3 mi (55.2 km) upstream from West Branch Floyd River at mile 58.1 (93.5 km).

DRAINAGE AREA.--265 mi² (686 km²).

PERIOD OF RECORD.--October 1955 to current year. Prior to December 1955, monthly discharge only, published in WSP 1730.

GAGE.--Water-stage recorder. Datum of gage is 1,269.55 ft (386.96 m) above mean sea level.

AVERAGE DISCHARGE.--19 years, 43.8 ft³/s (1.24 m³/s), 2.24 in/yr (57 mm/yr), 31,730 acre-ft/yr (39.1 hm³/yr); median of yearly mean discharges, 37 ft³/s (1.05 m³/s), 1.9 in/yr (48 mm/yr), 26,800 acre-ft/yr (33.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,500 ft³/s (42.5 m³/s) June 22, gage height, 14.00 ft (4.267 m); minimum daily, 5.9 ft³/s (0.17 m³/s) Aug. 5-7. Period of record: Maximum discharge, 12,200 ft³/s (346 m³/s) Mar. 28, 1962, gage height, 18.35 ft (5.593 m); no flow at times in 1956, 1958-59, 1965, 1968. Flood in June 1953 reached a discharge of about 45,500 ft³/s (1,290 m³/s), from information by Corps of Engineers.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	48	76	18	20	45	59	45	41	51	10	26
2	119	47	76	18	20	47	67	45	38	48	9.0	26
3	107	44	76	18	19	63	77	44	37	45	7.6	25
4	92	43	52	18	19	52	88	42	35	41	6.8	23
5	76	41	50	18	19	43	103	41	34	38	5.9	22
6	78	41	54	18	19	40	104	41	37	35	5.9	21
7	77	40	60	18	19	40	99	40	42	33	5.9	20
8	76	41	66	18	19	38	91	42	41	30	6.6	20
9	74	30	60	18	19	40	86	40	61	30	12	19
10	86	35	52	18	20	39	83	43	115	30	108	18
11	113	38	50	18	25	43	83	59	139	29	53	17
12	126	39	54	18	30	56	95	64	123	28	25	20
13	117	41	50	18	25	61	103	68	101	27	17	22
14	102	40	45	18	22	65	98	84	88	23	14	24
15	91	43	40	19	24	64	89	76	77	21	13	20
16	82	48	35	22	30	62	83	68	68	20	12	19
17	78	48	30	23	40	48	76	62	63	19	13	19
18	74	47	26	22	60	55	73	58	60	19	18	18
19	72	45	24	20	100	52	68	59	56	18	18	17
20	67	63	22	19	130	48	66	58	52	17	50	17
21	65	154	21	19	90	43	66	58	48	15	94	16
22	63	160	21	19	90	40	64	63	850	13	355	16
23	61	129	21	19	60	36	58	60	363	14	287	16
24	59	117	21	19	50	36	54	56	137	12	116	16
25	59	115	20	20	35	50	54	52	107	11	77	16
26	55	108	20	21	35	56	53	50	89	10	58	15
27	53	101	19	22	40	56	54	48	78	13	51	15
28	51	92	19	23	50	53	54	48	69	12	44	14
29	50	86	18	25	-----	56	50	46	63	8.6	38	14
30	49	82	18	30	-----	56	47	45	57	7.6	33	14
31	49	-----	18	22	-----	56	-----	45	-----	6.8	29	-----
TOTAL	2,464	2,006	1,214	616	1,129	1,539	2,245	1,650	3,169	725.0	1,592.7	565
MEAN	79.5	66.9	39.2	19.9	40.3	49.6	74.8	53.2	106	23.4	51.4	18.8
MAX	143	160	76	30	130	65	104	84	850	51	355	26
MIN	49	30	18	18	19	36	47	40	34	6.8	5.9	14
CFSM	.30	.25	.15	.08	.15	.19	.28	.20	.40	.09	.19	.07
IN.	.35	.28	.17	.09	.16	.22	.32	.23	.44	.10	.22	.08
AC-FT	4,890	3,980	2,410	1,220	2,240	3,050	4,450	3,270	6,290	1,440	3,160	1,120

CAL YR 1973 TOTAL 35,602.0 MEAN 97.5 MAX 2,160 MIN 13 CFSM .37 IN 5.00 AC-FT 70,620
 WTR YR 1974 TOTAL 18,914.7 MEAN 51.8 MAX 850 MIN 5.9 CFSM .20 IN 2.66 AC-FT 37,520

PEAK DISCHARGE (BASE, 800 FT³/S).--June 22 (2030) 1,500 ft³/s (14.00 ft).

06600300 WEST BRANCH FLOYD RIVER NEAR STRUBLE, IOWA

LOCATION.--Lat 42°55'15", long 96°10'30", in NE1/4 NE1/4 sec.32, T.54 N., R.45 W., Sioux County, on right bank at downstream side of bridge on county highway B62, 0.2 mi (0.3 km) west of U.S. Highway 75, 0.8 mi (1.3 km) downstream from Orange City slough, 2.2 mi (3.5 km) northeast of Struble, 14 mi (22.5 km) upstream from Floyd River, and at mile 39.3 (63.2 km).

DRAINAGE AREA.--181 mi² (469 km²).

PERIOD OF RECORD.--October 1955 to current year. Prior to December 1955, monthly discharge only, published in WSP 1730.

GAGE.--Water-stage recorder. Datum of gage is 1,239.40 ft (377.77 m) above mean sea level (State Highway Commission benchmark).

AVERAGE DISCHARGE.--19 years, 29.9 ft³/s (0.85 m³/s), 2.24 in/yr (57 mm/yr), 21,660 acre-ft/yr (26.7 hm³/yr); median of yearly mean discharges, 24 ft³/s (0.68 m³/s), 1.8 in/yr (46 mm/yr), 17,400 acre-ft/yr (21.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,870 ft³/s (138 m³/s) June 22, gage height, 15.03 ft (4.581 m); minimum daily, 2.8 ft³/s (0.079 m³/s) Dec. 29 to Jan. 13, Jan. 23, 24.

Period of record: Maximum discharge, 8,060 ft³/s (228 m³/s) Mar. 28, 1962, gage height, 15.63 ft (4.764 m); no flow at times most years.

REMARKS.--Records fair except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	15	24	2.8	9.4	25	21	17	16	54	10	18
2	43	14	25	2.8	9.2	20	26	17	15	49	9.3	15
3	34	14	25	2.8	9.2	15	30	17	14	42	7.6	12
4	29	14	10	2.8	9.2	13	25	16	13	39	7.2	10
5	25	14	9.5	2.8	9.2	12	72	15	12	35	6.6	8.0
6	23	14	8.5	2.8	9.2	13	64	16	15	31	5.9	6.0
7	22	14	8.0	2.8	9.2	11	54	17	21	28	5.9	5.0
8	22	14	9.0	2.8	9.2	11	45	20	19	25	6.9	4.5
9	21	12	8.5	2.8	9.2	9.0	41	22	29	24	13	4.2
10	30	14	7.0	2.8	9.2	9.3	40	26	97	24	44	3.9
11	38	16	6.8	2.8	9.4	11	39	38	79	22	34	4.2
12	38	16	6.2	2.8	12	17	44	41	53	22	19	5.6
13	34	15	5.6	2.8	14	18	43	51	45	19	13	5.6
14	29	15	5.2	2.9	12	21	37	58	41	18	10	3.9
15	25	16	5.0	3.0	12	21	33	48	35	17	9.0	4.2
16	21	17	4.5	4.0	12	19	32	38	30	16	9.7	4.2
17	21	16	4.0	4.5	15	20	29	34	27	15	14	3.9
18	19	15	3.7	5.0	25	22	27	36	26	14	17	3.7
19	19	15	3.4	3.5	35	16	26	35	24	13	12	4.2
20	17	22	3.2	3.3	50	15	24	35	22	12	11	4.4
21	18	50	3.1	3.1	100	13	26	35	19	11	18	4.4
22	17	46	3.1	2.9	60	11	24	37	3,560	9.4	25	4.7
23	17	34	3.0	2.8	30	10	21	35	459	9.7	18	4.4
24	15	32	3.0	2.8	15	15	20	33	188	7.6	16	3.2
25	16	33	3.0	3.0	13	20	20	31	141	8.6	16	3.7
26	15	30	2.9	3.4	25	22	20	28	116	7.9	16	5.6
27	14	30	2.9	3.8	50	21	20	26	101	8.8	18	5.6
28	15	27	2.9	6.0	35	19	22	24	85	12	18	5.0
29	15	26	2.8	10	-----	18	20	22	73	7.9	16	5.3
30	15	25	2.8	15	-----	20	20	20	62	6.6	15	4.7
31	15	-----	2.8	9.5	-----	19	-----	18	-----	6.8	15	-----
TOTAL	751	635	214.4	124.9	616.6	506.3	965	906	5,437	615.3	456.1	177.1
MEAN	24.2	21.2	6.92	4.03	22.0	16.3	32.2	29.2	181	19.8	14.7	5.90
MAX	69	50	25	15	100	25	72	58	3,560	54	44	18
MIN	14	12	2.8	2.8	9.2	9.0	20	15	12	6.6	5.9	3.2
CFSM	.13	.12	.04	.02	.12	.09	.18	.16	1.00	.11	.08	.03
IN.	.15	.13	.04	.03	.13	.10	.20	.19	1.12	.13	.09	.04
AC-FT	1,490	1,260	425	248	1,220	1,000	1,910	1,800	10,780	1,220	905	351

CAL YR 1973 TOTAL 21,362.9 MEAN 58.5 MAX 1,800 MIN 2.8 CFSM .32 IN 4.39 AC-FT 42,370
 WTR YR 1974 TOTAL 11,404.7 MEAN 31.2 MAX 3,560 MIN 2.8 CFSM .17 IN 2.34 AC-FT 22,620

PEAK DISCHARGE (BASE, 400 FT³/S).--June 22 (1845) 4,870 ft³/s (15.03 ft).

FLOYD RIVER BASIN

06600500 FLOYD RIVER AT JAMES, IOWA

LOCATION.--Lat 42°34'36", long 96°18'43", in SE1/4 SE1/4 sec.30, T.90 N., R.46 W., Plymouth County, on right bank at downstream side of bridge on county highway C70, 0.2 mi (0.3 km) east of James, 14.3 mi (23.0 km) downstream from West Branch Floyd River, and at mile 9.5 (15.3 km).

DRAINAGE AREA.--882 mi² (2,284 km²).

PERIOD OF RECORD.--December 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,092.59 ft (333.02 m) above mean sea level. Prior to Sept. 11, 1938, June 9 to Nov. 5, 1953, and Oct. 1, 1955, to May 22, 1957, nonrecording gage and May 23, 1957, to Sept. 30, 1970, water-stage recorder at same site at datum 10.0 ft (3.0 m) higher.

AVERAGE DISCHARGE.--39 years (1935-74), 179 ft³/s (5.07 m³/s), 2.76 in/yr (70 mm/yr), 129,700 acre-ft/yr (160 hm³/yr); median of yearly mean discharges, 150 ft³/s (4.25 m³/s), 2.3 in/yr (58 mm/yr), 109,000 acre-ft/yr (134 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,180 ft³/s (61.7 m³/s) June 23, gage height, 16.63 ft (5.069 m); minimum daily, 40 ft³/s (1.13 m³/s) Dec. 6.

Period of record: Maximum discharge, 71,500 ft³/s (2,020 m³/s) June 8, 1953, gage height, 25.3 ft (7.71 m), from floodmarks, datum then in use, from rating curve extended above 16,000 ft³/s (453 m³/s) on basis of contracted-opening and flow-over-embankment measurement of peak flow; minimum daily, 1 ft³/s (28 dm³/s) Aug. 20, 27, 1936, Feb. 10-23, 1959.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS) WSP 1240: 1935 (M), 1936, 1937-38 (M), 1942, 1945. WSP 1440: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	104	146	43	66	210	133	117	121	191	71	92
2	242	103	148	42	64	200	134	111	120	176	65	90
3	211	99	146	42	62	180	156	109	119	168	56	87
4	186	95	135	41	62	187	197	109	108	156	50	83
5	165	94	70	41	62	153	223	103	104	145	47	78
6	156	92	40	41	62	130	294	101	106	134	44	71
7	151	90	50	41	62	119	286	99	109	125	42	69
8	144	89	60	41	62	110	260	103	112	117	42	67
9	147	82	80	41	62	118	223	107	144	112	66	65
10	184	88	70	41	62	131	215	111	208	107	121	67
11	179	90	70	41	66	121	213	135	319	109	163	63
12	203	94	75	41	80	131	209	151	325	109	176	70
13	215	89	70	41	75	144	209	177	287	103	114	71
14	204	87	65	41	70	148	209	209	249	101	86	65
15	186	100	60	43	70	155	209	217	222	99	72	63
16	168	96	56	45	74	148	207	203	197	95	62	63
17	155	97	52	45	84	135	199	183	180	88	62	60
18	148	97	50	43	90	131	189	191	169	80	74	58
19	144	95	48	42	95	135	175	175	160	70	68	54
20	140	114	46	42	100	135	168	173	153	68	69	52
21	135	142	45	42	110	125	162	177	145	64	81	50
22	128	232	45	42	100	133	153	185	1,070	60	138	50
23	127	253	45	42	90	95	153	170	1,720	56	415	49
24	125	226	45	42	80	90	150	156	686	52	436	46
25	119	205	45	43	80	115	142	151	398	50	247	45
26	117	200	45	45	100	151	137	131	318	50	197	43
27	114	188	45	50	150	141	139	132	275	50	170	43
28	109	176	45	55	220	138	134	137	250	51	144	42
29	109	161	45	65	-----	132	132	134	229	54	128	43
30	109	156	44	80	-----	129	123	128	207	49	114	41
31	106	-----	43	70	-----	130	-----	121	-----	47	100	-----
TOTAL	4,850	3,834	2,029	1,414	2,360	4,300	5,533	4,506	8,810	2,936	3,720	1,840
MEAN	156	128	65.5	45.6	84.3	139	184	145	294	94.7	120	61.3
MAX	242	253	148	80	220	210	294	217	1,720	191	436	92
MIN	106	82	40	41	62	90	123	99	104	47	42	41
CFSM	.18	.15	.07	.05	.10	.16	.21	.16	.33	.11	.14	.07
IN.	.20	.16	.09	.06	.10	.18	.23	.19	.37	.12	.16	.08
AC-FT	9,620	7,600	4,020	2,800	4,680	8,530	10,970	8,940	17,470	5,820	7,380	3,650

CAL YR 1973 TOTAL 109,386 MEAN 300 MAX 5,180 MIN 40 CFSM .34 IN 4.61 AC-FT 217,000
WTR YR 1974 TOTAL 46,132 MEAN 126 MAX 1,720 MIN 40 CFSM .14 IN 1.95 AC-FT 91,500

PEAK DISCHARGE (BASE, 2,500 FT³/S).--No peak above base.

MONONA-HARRISON DITCH BASIN

125

06602400 MONONA-HARRISON DITCH NEAR TURIN, IOWA

LOCATION.--Lat 41°57'52", long 95°59'30", in NW1/4 NE1/4 sec.32, T.83 N., R.44 W., Monona County, on right pier at downstream side of bridge on county highway E54, 1.0 mi (1.6 km) west of gaging station on Little Sioux River near Turin, 4 mi (6.4 km) southwest of Turin, 5.2 mi (8.4 km) northeast of Blencoe, and 12.5 mi (20.1 km) upstream from mouth.

DRAINAGE AREA.--900 mi² (2,331 km²).

PERIOD OF RECORD.--January 1958 to current year. Records for April 1939 to January 1958 not equivalent owing to diversion from Little Sioux River through equalizer ditch 1.5 mi (2.4 km) upstream. Prior to May 1942, published as "near Blencoe".

GAGE.--Water-stage recorder. Datum of gage is 1,020.00 ft (310.90 m) above mean sea level (Corps of Engineers bench mark). Prior to May 7, 1942, non-recording gage at site 4.8 mi (7.7 km) downstream at datum 10.40 ft (3.17 m) lower. May 7, 1942, to Oct. 13, 1953, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--16 years, 222 ft³/s (6.29 m³/s), 3.53 in/yr (90 mm/yr), 160,800 acre-ft/yr (198 hm³/yr); median of yearly mean discharges, 200 ft³/s (5.66 m³/s), 3.2 in/yr (81 mm/yr), 145,000 acre-ft/yr (179 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,440 ft³/s (69.1 m³/s) May 19, gage height, 9.03 ft (2.752 m); minimum daily, 44 ft³/s (1.25 m³/s) Sept. 29.
Period of record: Maximum discharge, 19,900 ft³/s (564 m³/s) Feb. 19, 1971, gage height, 23.03 ft (7.020 m); minimum daily, 8.5 ft³/s (241 dm³/s) Jan. 3-11, 1959.

REMARKS.--Records good except those for winter period, which are poor. Monona-Harrison ditch is a dug channel and is a continuation of West Fork ditch, paralleling the Little Sioux River, and discharging into the Missouri River 1.5 mi (2.4 km) upstream from the mouth of the Little Sioux River.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	112	145	73	342	109	141	111	243	153	94	75
2	107	114	141	72	261	139	145	112	203	151	135	80
3	93	118	149	71	220	171	159	103	187	145	111	85
4	91	111	120	70	180	133	201	103	171	133	89	68
5	85	111	70	70	160	145	209	103	161	131	80	57
6	87	112	100	70	150	131	241	98	290	131	75	57
7	91	118	105	70	120	135	249	103	298	122	75	73
8	96	116	120	70	107	124	219	102	245	116	80	73
9	102	105	105	70	96	126	197	116	338	112	134	73
10	371	100	100	70	93	126	187	129	393	112	566	73
11	729	118	100	70	100	159	185	372	372	127	311	62
12	485	124	100	70	105	169	191	221	253	129	169	69
13	292	120	100	70	201	177	199	203	221	114	143	73
14	215	118	99	70	309	169	189	296	201	100	153	71
15	177	153	98	71	190	159	179	241	175	93	126	64
16	161	169	98	75	139	143	173	193	161	91	116	59
17	149	143	97	80	200	129	163	171	151	89	109	57
18	141	127	96	80	412	139	157	1,030	151	85	191	56
19	137	124	92	76	462	147	145	1,940	147	80	163	61
20	131	149	80	76	245	143	147	920	141	76	124	61
21	127	233	80	75	107	124	163	507	133	78	126	54
22	126	237	80	74	64	122	145	481	171	73	120	50
23	124	181	80	70	84	89	135	309	925	75	126	50
24	122	183	80	72	105	100	126	235	332	73	111	52
25	114	197	80	80	118	109	129	209	233	71	98	49
26	112	181	80	85	112	185	124	241	207	71	94	49
27	109	173	80	90	149	175	133	235	193	69	89	52
28	111	161	80	100	110	157	133	197	183	71	96	49
29	107	149	78	110	-----	155	127	1,180	171	73	94	44
30	109	153	76	140	-----	147	116	818	159	68	93	52
31	111	-----	74	342	-----	145	-----	342	-----	68	87	-----
TOTAL	5,157	4,310	2,983	2,682	4,941	4,381	5,007	11,421	7,209	3,080	4,178	1,848
MEAN	166	144	96.2	86.5	176	141	167	368	240	99.4	135	61.6
MAX	729	237	149	342	462	185	249	1,940	925	153	566	85
MIN	85	100	70	70	64	89	116	98	133	68	75	44
CFSM	.18	.16	.11	.10	.20	.16	.19	.41	.27	.11	.15	.07
IN.	.21	.18	.12	.11	.20	.18	.21	.47	.30	.13	.17	.08
AC-FT	10,230	8,550	5,920	5,320	9,800	8,690	9,930	22,650	14,300	6,110	8,290	3,670
CAL YR 1973	TOTAL 111,605	MEAN 306	MAX 3,940	MIN 70	CFSM .34	IN 4.61	AC-FT 221,400					
WTR YR 1974	TOTAL 57,197	MEAN 157	MAX 1,940	MIN 44	CFSM .17	IN 2.36	AC-FT 113,500					

PEAK DISCHARGE (BASE, 2,500 FT³/S).--No peak above base.

LITTLE SIOUX RIVER BASIN

06603920 LOON CREEK NEAR ORLEANS, IOWA

LOCATION.--Lat 43°31'16", long 95°06'05", in NW1/4 SE1/4 sec. 25, T.101 N., R.36 W., Jackson County, Minnesota, on left bank at downstream side of bridge on county highway, 100 ft (30 m) downstream from outlet structure of Loon Lake and 5.5 mi (8.8 km) north of Orleans.

DRAINAGE AREA.--31 mi² (80.3 km²).

PERIOD OF RECORD.--May 1971 to September 1974 (discontinued). Monthly discharge measurements October to April 1971.

GAGE.--Water-stage recorder. Prior to Dec. 21, 1971, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum discharge, 47 ft³/s (1.33 m³/s) June 10, gage height, 5.57 ft (1.698 m); no flow on many days.

Period of record: Maximum discharge, 63 ft³/s (1.78 m³/s) June 7, 1971, gage height, 6.05 ft (1.844 m), from graph based on gage readings; no flow on many days each year.

REMARKS.--Records poor. Records of periodic chemical analyses for the period of record are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	0	.06	13	9.0	2.5	4.8	11	11	18	7.0				
2	0	.06	13	8.6	2.4	5.1	14	12	17	6.6				
3	0	.06	14	8.2	2.4	5.4	23	9.9	15	6.8				
4	0	.06	8.0	7.7	2.4	5.4	22	7.6	14	5.9				
5	0	.11	13	7.4	2.4	5.3	15	8.7	12	4.4				
6	0	0	19	7.0	2.4	5.4	15	6.1	18	2.6				
7	0	0	16	6.7	2.4	5.6	20	6.6	20	2.8				
8	0	.11	14	6.5	2.5	5.8	17	8.3	25	2.3				
9	0	.50	13	6.3	2.5	5.8	18	7.4	32	2.3				
10	0	.16	12	6.1	2.5	5.6	18	7.7	44	3.6				
11	0	0	14	5.9	2.6	9.1	19	12	45	2.7				
12	0	0	13	5.7	2.7	12	24	14	44	2.4				
13	0	0	13	5.4	3.0	11	29	13	43	2.4				
14	0	0	14	5.0	3.2	11	33	13	42	2.3				
15	0	0	14	4.2	3.5	13	30	13	41	1.3				
16	0	0	14	3.9	3.5	13	30	15	35	.38				
17	0	0	13	3.7	3.6	9.9	29	14	30	0				
18	0	0	12	3.6	4.9	12	31	16	27	.16				
19	.06	0	11	3.5	5.7	13	29	16	26	0				
20	.06	.38	10	3.4	6.3	11	27	15	23	0				
21	0	.55	9.6	3.3	6.6	10	28	17	23	0				
22	0	.71	9.4	3.1	6.3	11	29	17	23	0				
23	.06	2.0	9.2	3.0	6.0	10	26	15	19	0				
24	0	9.0	10	2.9	5.5	9.9	20	13	16	0				
25	.11	14	11	2.8	5.1	9.3	20	12	14	0				
26	.11	14	10	2.8	4.8	9.1	19	12	12	0				
27	.06	16	9.6	2.8	4.7	8.9	18	11	10	0				
28	.11	15	9.6	2.8	4.6	8.5	19	12	8.9	0				
29	0	15	9.5	2.7	-----	9.3	18	13	9.7	0				
30	.06	14	9.4	2.6	-----	7.9	15	13	9.3	0				
31	.06	-----	9.2	2.5	-----	8.3	-----	19	-----	0		-----		
TOTAL	.69	101.76	369.5	149.1	107.0	271.4	666	380.3	715.9	55.94	0	0		
MEAN	.022	3.39	11.9	4.81	3.82	8.75	22.2	12.3	23.9	1.80	0	0		
MAX	.11	16	19	9.0	6.6	13	33	19	45	7.0	0	0		
MIN	0	0	8.0	2.5	2.4	4.8	11	6.1	8.9	0	0	0		
CFSM	.0007	.11	.38	.16	.12	.28	.72	.40	.77	.06	0	0		
IN.	0	.12	.44	.18	.13	.33	.80	.46	.86	.07	0	0		
AC-FT	1.4	202	733	296	212	538	1,320	754	1,420	111	0	0		
CAL YR 1973	TOTAL	2,699.97	MEAN	7.40	MAX	36	MIN	0	CFSM	.24	IN	3.24	AC-FT	5,360
WTR YR 1974	TOTAL	2,817.59	MEAN	7.72	MAX	45	MIN	0	CFSM	.25	IN	3.38	AC-FT	5,590

LITTLE SIOUX RIVER BASIN

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06604100 SPIRIT LAKE OUTLET AT ORLEANS, IOWA

LOCATION.--Lat 43°26'45", long 95°05'45", in SE1/4 SE1/4 sec. 28, T.100 N., R.36 W., Dickinson County, on right bank 25 ft (8 m) upstream from culvert on State Highway 327 in city of Orleans, 200 ft (61 m) downstream from outlet structure of Spirit Lake.

DRAINAGE AREA.--75.6 mi² (196 km²).

PERIOD OF RECORD.--May 1971 to September 1974 (discontinued). Monthly discharge measurements October 1970 to April 1971. Occasional low-flow measurements: Water years 1958-59, 1961, 1965-68, 1970.

GAGE.--Water-stage recorder. Prior to Apr. 14, 1972, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum discharge, 90 ft³/s (2.55 m³/s) June 19, gage height, 14.95 ft (4.557 m); from recorded range in stage; no flow on many days.
Period of record: Maximum discharge, 90 ft³/s (2.55 m³/s) June 19, 1974, gage height, 14.95 ft (4.557), from recorded range in stage; no flow on many days each year.

REMARKS.--Records poor. Records of periodic chemical analyses for the period of record are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	0	.10				0	6.9	18	19	3.1	0			
2	0	0				0	9.4	26	16	2.4	.18			
3	.10	0				0	52	30	11	4.5	.33			
4	1.0	0				0	63	11	12	4.5	0			
5	.12	0				0	28	22	9.4	.82	0			
6	.04	0				0	18	7.8	31	.06	0			
7	0	0				0	30	6.3	29	.06	0			
8	0	0				.10	18	11	29	0	0			
9	0	0				.28	20	7.2	46	0	0			
10	.28	0				.15	18	6.6	72	.15	0			
11	.62	0				1.0	23	20	67	0	0			
12	.06	0				2.1	35	32	63	.10	0			
13	.23	0				2.8	47	26	64	.06	0			
14	.15	0				2.8	63	20	66	1.3	0			
15	.72	0				3.5	38	15	75	.38	0			
16	.82	0				4.0	38	17	65	0	0			
17	.10	0				3.8	32	17	58	0	0			
18	0	0				5.0	38	21	75	0	0			
19	.33	0				5.8	32	19	84	0	0			
20	.12	0				6.0	29	18	71	0	0			
21	0	0				5.8	35	27	58	.10	0			
22	0	0				7.5	49	31	47	.38	0			
23	0	0				7.2	46	31	39	0	0			
24	0	0				6.6	24	25	32	0	0			
25	.21	0				5.0	24	21	27	0	0			
26	.15	0				6.9	23	20	22	.04	0			
27	.23	0				5.8	24	17	15	0	0			
28	1.3	0				5.2	28	20	10	.21	0			
29	.15	0				4.8	34	27	11	.67	0			
30	.02	0				3.8	30	26	9.7	.12	0			
31	.12	-----				4.0	-----	33	-----	0	0	-----		
TOTAL	6.87	.10	0	0	0	99.93	955.3	628.9	1,233.1	18.95	.51	0		
MEAN	.22	.003	0	0	0	3.22	31.8	20.3	41.1	.61	.017	0		
MAX	1.3	.10	0	0	0	7.5	63	33	84	4.5	.33	0		
MIN	0	0	0	0	0	0	6.9	6.3	9.4	0	0	0		
CFSM	.003	0	0	0	0	.04	.42	.27	.54	.008	.0002	0		
IN.	.003	0	0	0	0	.05	.47	.31	.61	.009	0	0		
AC-FT	14	.2	0	0	0	198	1,890	1,250	2,450	38	1.0	0		
CAL YR 1973	TOTAL	3,758.42	MEAN	10.3	MAX	68	MIN	0	CFSM	.14	IN	1.85	AC-FT	7,450
WTR YR 1974	TOTAL	2,943.66	MEAN	8.06	MAX	84	MIN	0	CFSM	.11	IN	1.45	AC-FT	5,840

LITTLE SIOUX RIVER BASIN

06604400 MILFORD CREEK AT MILFORD, IOWA

LOCATION.--Lat 43°19'14", long 95°08'41", in NE1/4 SW1/4 sec. 7, T.98 N., R.36 W., Dickinson County, on left bank at downstream side of highway bridge at east edge of Milford.

DRAINAGE AREA.--146 mi² (378 km²).

PERIOD OF RECORD.--October 1971 to September 1974 (discontinued). Occasional low-flow measurements: Water years 1958-59, 1961, 1965-68, 1970, at site 0.5 mi (0.8 km) (revised) downstream.

GAGE.--Water-stage recorder. Prior to Nov. 3, 1971, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum discharge, 231 ft³/s (6.54 m³/s) June 10, gage height, 8.15 ft (2.484 m); minimum daily, 1.2 ft³/s (0.034 m³/s) on many days.
 Period of record: Maximum discharge, 316 ft³/s (8.95 m³/s) Feb. 11, 1973, gage height, 8.60 ft (2.622 m); maximum gage height, 9.03 ft (2.752 m) Jan. 23, 1973, backwater from ice; minimum daily discharge, 0.37 ft³/s (10 dm³/s) Aug. 2, 1973.

REMARKS.--Records poor. Records of periodic chemical analyses for the period of record are published in Part 2 of this report. Streamflow data includes the effluent of Milford sewage treatment plant.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	2.3	1.8	2.2	1.8	1.2	4.2	36	35	52	11	2.8	2.5		
2	2.1	1.8	2.1	1.7	1.2	10	48	31	48	10	2.8	2.4		
3	2.0	1.7	1.8	1.7	1.2	7.2	103	54	31	11	2.4	2.2		
4	1.8	1.7	2.9	1.6	1.2	13	84	42	27	20	2.6	2.1		
5	1.9	2.2	3.5	1.6	1.2	14	51	45	24	7.5	2.6	2.0		
6	2.0	1.8	4.0	1.5	1.2	18	36	36	82	3.2	2.6	2.2		
7	2.0	1.8	3.7	1.4	1.2	26	75	30	90	3.2	2.4	2.0		
8	2.0	1.8	3.6	1.3	1.2	23	42	41	91	2.5	2.4	2.2		
9	2.1	2.4	3.5	1.2	1.2	23	45	30	145	2.4	2.7	2.0		
10	2.4	2.1	3.4	1.3	1.2	23	38	27	190	5.9	2.8	2.0		
11	2.4	1.8	3.2	1.4	1.2	37	48	37	161	5.9	2.1	1.9		
12	2.1	1.8	3.1	1.3	1.3	41	57	56	152	3.8	2.0	2.4		
13	2.0	1.7	3.0	1.5	1.3	41	76	52	134	3.9	2.1	2.0		
14	1.8	1.8	2.9	1.5	1.4	34	99	42	115	8.9	2.3	2.0		
15	1.8	2.0	2.7	1.2	1.4	34	75	48	96	4.5	2.2	1.8		
16	1.8	1.9	2.6	1.2	1.4	40	69	51	99	2.7	2.2	1.8		
17	1.8	1.9	2.5	1.2	1.5	37	53	58	111	2.6	2.2	1.9		
18	1.8	1.8	2.5	1.2	1.6	36	75	69	120	2.8	2.1	1.9		
19	1.8	1.7	2.4	1.2	1.7	46	58	57	90	3.1	2.2	1.9		
20	1.8	5.0	2.4	1.2	1.8	37	36	32	88	2.9	2.1	2.0		
21	1.8	3.1	2.3	1.2	1.9	37	46	56	69	2.7	4.9	2.0		
22	1.9	2.8	2.3	1.2	1.9	35	76	59	50	2.8	3.1	2.1		
23	1.9	2.6	2.2	1.2	1.9	30	79	58	64	2.7	2.6	2.1		
24	1.8	2.5	2.2	1.2	1.9	26	43	58	72	2.8	2.6	2.0		
25	1.8	2.4	2.1	1.2	2.1	22	56	53	47	2.7	2.6	2.0		
26	1.8	2.2	2.1	1.2	2.2	30	47	53	37	2.7	2.4	2.1		
27	1.8	2.0	2.0	1.2	2.3	32	39	36	24	2.7	2.4	2.0		
28	1.8	2.2	2.0	1.2	2.2	31	63	49	18	2.7	2.3	1.9		
29	1.7	2.3	1.9	1.2	-----	30	65	60	23	2.6	2.3	2.0		
30	1.9	2.0	1.9	1.2	-----	34	57	51	27	2.8	2.3	2.0		
31	1.7	-----	1.8	1.2	-----	32	-----	63	-----	2.9	2.3	-----		
TOTAL	59.6	64.6	80.8	41.2	43.0	883.4	1,775	1,469	2,377	147.9	77.4	61.4		
MEAN	1.92	2.15	2.61	1.33	1.54	28.5	59.2	47.4	79.2	4.77	2.50	2.05		
MAX	2.4	5.0	4.0	1.8	2.3	46	103	69	190	20	4.9	2.5		
MIN	1.7	1.7	1.8	1.2	1.2	4.2	36	27	18	2.4	2.0	1.8		
CFSM	.01	.01	.02	.009	.01	.20	.41	.32	.54	.03	.02	.01		
IN.	.02	.02	.02	.01	.01	.23	.45	.37	.61	.04	.02	.02		
AC-FT	118	128	160	82	85	1,750	3,520	2,910	4,710	293	154	122		
CAL YR 1973	TOTAL	11,869.55	MEAN	32.5	MAX	166	MIN	.37	CFSM	.22	IN	3.02	AC-FT	23,540
WTR YR 1974	TOTAL	7,080.30	MEAN	19.4	MAX	190	MIN	1.2	CFSM	.13	IN	1.80	AC-FT	14,040

LITTLE SIOUX RIVER BASIN

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06604000 SPIRIT LAKE NEAR ORLEANS, IOWA

LOCATION.--Lat 43°28'11" , long 95°07'25", in NE1/4 NW1/4 sec.20, T.100 N., R.36 W., Dickinson County, 2.3 mi (3.7 km) upstream from lake outlet and 2.3 mi (3.7 km) northwest of Orleans.

DRAINAGE AREA.--75.6 mi² (196 km²).

PERIOD OF RECORD.--May 1933 to current year (fragmentary prior to 1951). Prior to October 1949, published as "at Orleans".

GAGE.--Water-stage recorder. Datum of gage is 1,387.25 ft (422.83 m) above mean sea level, 90.0 ft (27.4 m) above Iowa Lake Survey datum, and 14.2 ft (4.3 m) below crest of spillway. Prior to July 6, 1950, nonrecording gage or water-stage recorder at various sites near outlet, all at present datum.

EXTREMES.--Current year: Maximum gage height, 14.61 ft (4.453 m) June 11-14; minimum, 13.32 ft (4.060 m) Sept. 29.

Period of record: Maximum gage height observed, 15.74 ft (4.798 m) June 19, 1944; minimum observed, 6.75 ft (2.057 m) Oct. 20, 1935.

REMARKS.--Lake is formed by concrete dam with ungated spillway at elevation 1,401.4 ft (427.15 m) above mean sea level. Dam constructed in 1969. A previous outlet works had been constructed in 1944. Lake is used for conservation and recreation. Area of lake is approximately 5,700 acres (2,310 ha²). Records of water temperatures for the current year are published in Part 2 of this report.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.73	13.54	13.82	14.01	14.05	14.13	14.37	14.42	14.40	14.26	13.78	13.69
2	13.73	13.52	13.82	14.01	14.06	14.14	14.37	14.40	14.38	14.26	13.76	13.68
3	13.72	13.52	13.83	14.01	14.06	14.15	14.40	14.39	14.36	14.25	13.73	13.65
4	13.71	13.51	13.84	14.01	14.06	14.15	14.41	14.37	14.36	14.24	13.70	13.63
5	13.69	13.49	13.82	14.01	14.06	14.15	14.40	14.36	14.35	14.21	13.69	13.60
6	13.67	13.48	13.83	14.02	14.06	14.15	14.40	14.35	14.43	14.18	13.68	13.60
7	13.68	13.47	13.83	14.02	14.06	14.15	14.41	14.35	14.45	14.17	13.67	13.59
8	13.69	13.45	13.84	14.02	14.06	14.15	14.40	14.36	14.46	14.16	13.65	13.59
9	13.70	13.44	13.84	14.03	14.06	14.15	14.40	14.36	14.53	14.14	13.67	13.57
10	13.74	13.43	13.84	14.03	14.06	14.16	14.42	14.37	14.60	14.20	13.71	13.56
11	13.75	13.43	13.84	14.03	14.06	14.20	14.44	14.40	14.61	14.17	13.70	13.56
12	13.73	13.43	13.84	14.03	14.06	14.26	14.48	14.40	14.61	14.16	13.68	13.62
13	13.72	13.43	13.85	14.02	14.06	14.27	14.51	14.43	14.61	14.16	13.67	13.60
14	13.71	13.44	13.87	14.03	14.07	14.28	14.51	14.40	14.61	14.15	13.66	13.58
15	13.70	13.48	13.89	14.02	14.07	14.28	14.50	14.40	14.58	14.13	13.65	13.56
16	13.69	13.47	13.89	14.04	14.07	14.28	14.50	14.40	14.56	14.12	13.65	13.55
17	13.67	13.46	13.89	14.04	14.08	14.28	14.49	14.40	14.53	14.08	13.65	13.55
18	13.66	13.45	13.90	14.04	14.08	14.30	14.50	14.45	14.53	14.08	13.65	13.54
19	13.65	13.46	13.90	14.04	14.09	14.31	14.50	14.44	14.53	14.07	13.67	13.53
20	13.65	13.70	13.91	14.04	14.10	14.32	14.49	14.44	14.53	14.06	13.65	13.51
21	13.63	13.73	13.91	14.05	14.11	14.32	14.48	14.47	14.53	14.04	13.86	13.50
22	13.63	13.75	13.91	14.05	14.12	14.33	14.49	14.46	14.53	14.03	13.87	13.47
23	13.63	13.76	13.91	14.05	14.12	14.33	14.48	14.44	14.49	14.00	13.85	13.45
24	13.61	13.78	13.94	14.05	14.12	14.33	14.45	14.43	14.48	13.97	13.83	13.43
25	13.61	13.78	13.98	14.05	14.12	14.33	14.45	14.41	14.45	13.96	13.80	13.43
26	13.60	13.80	13.98	14.05	14.13	14.33	14.45	14.41	14.41	13.93	13.80	13.42
27	13.60	13.81	13.99	14.05	14.13	14.33	14.46	14.40	14.37	13.92	13.80	13.40
28	13.59	13.81	14.00	14.05	14.13	14.33	14.47	14.41	14.35	13.89	13.79	13.39
29	13.58	13.81	14.00	14.05	-----	14.33	14.46	14.41	14.33	13.86	13.76	13.35
30	13.56	13.83	14.01	14.05	-----	14.33	14.44	14.41	14.30	13.83	13.73	13.34
31	13.55	-----	14.01	14.05	-----	14.34	-----	14.40	-----	13.80	13.70	-----
MEAN	13.66	13.58	13.89	14.03	14.08	14.25	14.45	14.40	14.48	14.08	13.72	13.53
MAX	13.75	13.83	14.01	14.05	14.13	14.34	14.51	14.47	14.61	14.26	13.87	13.69
MIN	13.55	13.43	13.82	14.01	14.05	14.13	14.37	14.35	14.30	13.80	13.65	13.34

WTR YR 1974 MEAN 14.01 MAX 14.61 MIN 13.34

LITTLE SIOUX RIVER BASIN

06604200 WEST OKOBOJI LAKE AT LAKESIDE LABORATORY NEAR MILFORD, IOWA

LOCATION.--Lat 43°22'43", long 95°10'52", in NE1/4 SW1/4 sec.23, T.99 N., R.37 W., Dickinson County, at gauging station of Lakeside Laboratory on west shore, 2.3 mi (3.7 km) upstream from lake outlet and 3.8 mi (6.1 km) northwest of Milford.

DRAINAGE AREA.--125 mi² (324 km²).

PERIOD OF RECORD.--May 1933 to current year. Prior to October 1937, published as "at Arnolds Park". Prior to October 1966, published as Okoboji Lake at Lakeside Laboratory near Milford.

GAGE.--Water-stage recorder. Datum of gage is 1,391.76 ft (424.21 m) above mean sea level, 94.51 ft (28.81 m) above Iowa Lake Survey datum, and about 4.0 ft (1.2 m) below crest of spillway. Prior to June 17, 1938, nonrecording gage at State Pier at Arnolds Park at same datum.

EXTREMES.--Current year: Maximum gage height, 4.48 ft (1.366 m) June 11, 13; minimum, 3.28 ft (1.000 m) Sept. 29. Period of record: Maximum gage height, 6.18 ft (1.884 m) July 7, 1962; minimum observed, 0.20 ft (0.061 m) Sept. 20, 1959.

REMARKS.--Lake is formed by concrete dam with ungated spillway at elevation 1,395.8 ft (425.44 m) above mean sea level. Lake is used for conservation and recreation. Area of lake is approximately 3,900 acres (1,580 ha²).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.78			3.97	4.05	4.17	4.24	4.33	4.24	4.16	3.73	3.69
2	3.78			3.97	4.05	4.18	4.25	4.31	4.23	4.16	3.70	3.67
3	3.78			3.97	4.05	4.20	4.29	4.30	4.21	4.15	3.67	3.65
4	3.76			3.99	4.05	4.20	4.30	4.30	4.20	4.14	3.65	3.63
5	3.74			3.99	4.05	4.20	4.30	4.28	4.20	4.11	3.64	3.61
6	3.73			3.99	4.06	4.20	4.29	4.25	4.27	4.10	3.62	3.59
7	3.74			3.99	4.06	4.19	4.33	4.25	4.30	4.08	3.60	3.59
8	3.74		3.82	3.99	4.06	4.18	4.29	4.26	4.30	4.06	3.60	3.59
9	3.75		3.80	4.00	4.07	4.19	4.29	4.25	4.35	4.05	3.60	3.57
10	3.79		3.82	4.00	4.07	4.18	4.30	4.27	4.44	4.10	3.64	3.57
11	3.82		3.82	4.01	4.07	4.21	4.32	4.30	4.45	4.08	3.62	3.58
12	3.79		3.82	4.02	4.07	4.25	4.37	4.30	4.45	4.07	3.61	3.61
13	3.79		3.84	4.02	4.08	4.25	4.40	4.33	4.45	4.07	3.61	3.59
14	3.77		3.86	4.03	4.08	4.25	4.40	4.30	4.45	4.06	3.61	3.56
15	3.78		3.86	4.03	4.09	4.25	4.40	4.31	4.45	4.05	3.59	3.56
16	3.75		3.86	4.03	4.09	4.25	4.40	4.30	4.40	4.01	3.59	3.53
17	3.73		3.86	4.02	4.10	4.25	4.38	4.30	4.38	3.98	3.59	3.53
18	3.74		3.86	4.03	4.12	4.25	4.40	4.32	4.37	3.97	3.60	3.51
19	3.74		3.86	4.03	4.12	4.25	4.37	4.31	4.37	3.96	3.61	3.51
20	3.72	3.53	3.87	4.03	4.14	4.25	4.37	4.31	4.37	3.96	3.58	3.50
21	3.70	3.53	3.88	4.03	4.15	4.25	4.39	4.34	4.37	3.95	3.81	3.49
22	3.70	3.52	3.88	4.03	4.15	4.25	4.40	4.33	4.36	3.95	3.84	3.45
23	3.70	3.51	3.87	4.03	4.15	4.24	4.39	4.31	4.35	3.94	3.82	3.42
24	3.68	3.50	3.90	4.03	4.15	4.24	4.36	4.30	4.32	3.91	3.80	3.40
25	3.68	3.48	3.92	4.04	4.15	4.23	4.35	4.29	4.31	3.89	3.78	3.40
26	3.67	3.48	3.93	4.04	4.16	4.23	4.35	4.28	4.30	3.87	3.78	3.39
27	3.66		3.94	4.04	4.17	4.23	4.36	4.27	4.25	3.85	3.80	3.38
28	3.66		3.96	4.04	4.17	4.22	4.37	4.27	4.24	3.84	3.79	3.36
29	3.64		3.96	4.04	-----	4.22	4.35	4.27	4.21	3.80	3.77	3.34
30	3.60		3.96	4.04	-----	4.22	4.35	4.26	4.19	3.76	3.73	3.31
31		-----	3.96	4.04	-----	4.21	-----	4.26	-----	3.75	3.70	-----
MEAN				4.02	4.10	4.22	4.35	4.29	4.33	3.99	3.68	3.52
MAX				4.04	4.17	4.25	4.40	4.34	4.45	4.16	3.84	3.69
MIN				3.97	4.05	4.17	4.24	4.25	4.19	3.75	3.58	3.31

06605850 LITTLE SIOUX RIVER AT LINN GROVE, IOWA

LOCATION.--Lat 42°53'24"N, long 95°14'30"W, in SW1/4 SW1/4 sec.5, T.93 N., R.37 W., Buena Vista County, on right bank at downstream side of bridge on State Highway 264, in Linn Grove, Iowa, and at mile 123.7 (199.0 km).

DRAINAGE AREA.--1,548 mi² (4,009 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,223.60 ft (372.95 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,770 ft³/s (50.1 m³/s) Nov. 23, gage height, 10.77 ft (3.283 m), minimum daily, 39 ft³/s (1.10 m³/s) Sept. 30.
Period of record: Maximum discharge, 3,060 ft³/s (86.7 m³/s) Mar. 7, 1973, gage height, 14.52 ft (4.426 m), backwater from ice; minimum daily, 39 ft³/s (1.10 m³/s) Sept. 30, 1974.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	766	270	882	240	208	396	429	495	394	402	79	81
2	697	262	838	228	200	445	455	464	374	382	89	77
3	557	250	812	216	194	540	535	449	366	345	74	74
4	499	240	781	204	190	520	670	427	360	310	69	70
5	480	233	720	202	190	495	831	422	342	278	64	62
6	455	227	620	200	190	473	901	405	392	250	59	65
7	410	227	560	198	188	460	913	388	456	270	59	58
8	386	231	500	194	188	449	913	396	557	224	52	51
9	366	218	445	190	190	528	894	382	670	197	60	55
10	406	189	410	186	194	552	862	390	790	186	85	52
11	565	224	380	186	210	530	843	436	1,000	200	95	51
12	786	233	355	184	272	620	877	513	1,170	206	80	56
13	798	229	355	184	410	704	956	608	1,290	188	66	65
14	704	224	325	182	430	735	1,060	685	1,300	166	62	62
15	598	280	315	180	425	740	1,110	699	1,260	149	59	62
16	535	408	300	176	475	730	1,080	663	1,160	139	59	58
17	486	427	295	176	570	700	1,020	627	1,070	132	68	55
18	458	404	285	176	600	670	956	596	980	124	74	52
19	425	376	282	176	590	620	886	586	910	116	75	51
20	404	526	280	176	560	580	850	586	820	104	69	48
21	384	1,190	274	176	540	550	790	589	1,050	93	80	47
22	368	1,570	274	176	465	520	740	574	1,450	82	100	47
23	350	1,740	272	176	405	500	700	570	1,300	76	264	47
24	340	1,680	272	178	380	510	661	561	1,200	75	240	43
25	336	1,430	270	182	340	550	632	535	1,060	72	256	44
26	310	1,300	270	188	332	550	584	506	862	66	178	44
27	298	1,190	270	202	320	499	572	484	694	63	146	43
28	290	1,100	264	212	362	444	565	462	591	63	130	42
29	280	1,010	258	222	-----	431	535	442	508	61	112	40
30	274	944	254	230	-----	433	524	416	455	59	102	39
31	272	-----	250	220	-----	420	-----	404	-----	64	90	-----
TOTAL	14,283	18,832	12,668	6,016	9,618	16,894	23,344	15,760	24,831	5,142	3,095	1,641
MEAN	461	628	409	194	344	545	778	508	828	166	99.8	54.7
MAX	798	1,740	882	240	600	740	1,110	699	1,450	402	264	81
MIN	272	189	250	176	188	396	429	382	342	59	52	39
CFSM	.30	.41	.26	.13	.22	.35	.50	.33	.53	.11	.06	.04
IN.	.34	.45	.30	.14	.23	.41	.56	.38	.60	.12	.07	.04
AC-FT	28,330	37,350	25,130	11,930	19,080	33,510	46,300	31,260	49,250	10,200	6,140	3,250
CAL YR 1973	TOTAL 248,310	MEAN 680	MAX 3,000	MIN 84	CFSM .44	IN 5.97	AC-FT 492,500					
WTR YR 1974	TOTAL 152,124	MEAN 417	MAX 1,740	MIN 39	CFSM .27	IN 3.66	AC-FT 301,700					

PEAK DISCHARGE (BASE, 2,500 FT³/S).--Nov. 23 (2100) 1,770 ft³/s (10.77 ft).

LITTLE SIOUX RIVER BASIN

06606600 LITTLE SIOUX RIVER AT CORRECTIONVILLE, IOWA

LOCATION.--Lat 42°28'20"W, long 95°47'49"W, in NE1/4 NW1/4 sec.1, T.88 N., R.43 W., Woodbury County, on right bank 10 ft (3 m) upstream from bridge on State Highway 31, 0.3 mi (0.5 km) upstream from Bacon Creek, 0.5 mi (0.8 km) west of Correctionville, 0.8 mi (1.3 km) downstream from Pierson Creek, and at mile 56.0 (90.1 km).

DRAINAGE AREA.--2,500 mi² (6,475 km²).

PERIOD OF RECORD.--May 1918 to July 1925, October 1928 to July 1932, June 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 1,096.49 ft (334.21 m) above mean sea level. May 28, 1918, to July 1, 1925 and Oct. 29, 1928 to July 15, 1929, nonrecording gage 0.2 mi (0.3 km) downstream at datum 1.25 ft (0.38 m) lower. July 16, 1929, to July 2, 1932, and June 15, 1936, to Nov. 7, 1938, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--47 years, (1918-24, 1928-31, 1936-74), 692 ft³/s (19.6 m³/s), 3.76 in/yr (96 mm/yr), 501,400 acre-ft/yr (618 hm³/yr); median of yearly mean discharge, 550 ft³/s (15.6 m³/s), 3.0 in/yr (76 mm/yr), 398,000 acre-ft/yr (491 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,320 ft³/s (94.0 m³/s) June 24, gage height, 12.85 ft (3.917 m); minimum daily, 119 ft³/s (3.37 m³/s) Sept. 30.

Period of record: Maximum discharge, 29,800 ft³/s (844 m³/s) Apr. 7, 1965, gage height, 25.86 ft (7.882 m); minimum daily, 2.6 ft³/s (74 dm³/s) July 17, 25, 1936, caused by construction dam above gage.

Flood of June 23 or 24, 1891, reached a stage of 29.34 ft (8.943 m), present datum, from levels to floodmark by Soil Conservation Service (discharge not determined).

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSF 856: 1919. WSP 1240: 1924-25, 1931, 1932 (M), 1937, 1945 (M), 1947 (M), 1949 (M). WSP 1440: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	828	569	1,370	490	370	980	787	891	798	1,060	272	262
2	1,030	555	1,300	480	365	917	792	854	775	965	296	251
3	1,150	542	1,240	470	360	992	836	823	746	893	242	245
4	1,130	537	1,190	460	355	1,140	928	795	711	834	217	231
5	1,040	524	1,080	450	350	1,180	1,070	765	685	770	203	215
6	960	507	800	440	350	1,050	1,270	738	933	704	190	205
7	904	492	580	430	350	959	1,390	720	1,000	653	177	194
8	854	481	520	420	350	905	1,410	707	1,030	609	170	190
9	818	469	700	410	350	878	1,380	702	1,220	566	188	182
10	826	457	850	400	350	995	1,360	709	1,430	538	273	169
11	868	447	820	390	360	1,050	1,340	789	1,500	555	308	165
12	967	444	770	380	380	1,070	1,340	825	1,550	540	301	197
13	1,100	441	700	370	750	1,120	1,350	993	1,600	493	247	203
14	1,190	446	600	360	800	1,150	1,380	1,130	1,650	471	216	204
15	1,220	514	640	350	800	1,190	1,400	1,190	1,690	438	211	201
16	1,210	529	620	350	820	1,210	1,420	1,200	1,700	409	194	198
17	1,160	579	600	350	850	1,210	1,440	1,140	1,630	380	215	182
18	1,090	643	590	350	1,000	1,180	1,450	1,760	1,510	357	237	173
19	1,010	637	580	350	1,200	1,140	1,440	1,340	1,400	336	335	158
20	954	738	570	350	1,400	1,090	1,400	1,200	1,300	317	387	149
21	907	1,030	560	350	1,500	1,000	1,350	1,340	1,200	296	369	147
22	861	1,660	550	350	1,400	900	1,320	1,210	1,870	276	336	146
23	819	2,040	550	350	1,200	800	1,270	1,130	2,530	256	553	143
24	784	2,170	550	350	1,000	750	1,190	1,070	3,120	238	882	139
25	751	2,230	550	350	950	720	1,110	1,030	2,730	239	711	136
26	720	2,100	550	360	1,000	767	1,070	1,030	2,180	216	585	135
27	690	1,870	550	370	1,050	861	1,030	979	1,710	208	468	134
28	660	1,710	540	390	1,000	902	996	941	1,460	217	420	125
29	633	1,570	520	410	-----	850	978	906	1,300	204	364	120
30	610	1,470	510	430	-----	810	939	877	1,170	191	325	119
31	588	-----	500	390	-----	794	-----	838	-----	180	291	-----
TOTAL	28,332	28,401	22,110	12,150	21,130	30,560	36,436	30,622	44,128	14,409	10,183	5,318
MEAN	914	947	713	392	755	986	1,215	988	1,471	465	328	177
MAX	1,220	2,230	1,370	490	1,500	1,210	1,450	1,760	3,120	1,060	882	262
MIN	588	441	500	350	350	720	787	702	685	180	170	119
CFSM	.37	.38	.29	.16	.30	.39	.49	.40	.59	.19	.13	.07
IN.	.42	.42	.33	.18	.31	.45	.54	.46	.66	.21	.15	.08
AC-FT	56,200	56,330	43,860	24,100	41,910	60,620	72,270	60,740	87,530	28,580	20,200	10,550

CAL YR 1973 TOTAL 455,462 MEAN 1,248 MAX 6,690 MIN 160 CFSM .50 IN 6.78 AC-FT 903,400
WTR YR 1974 TOTAL 283,779 MEAN 777 MAX 3,120 MIN 119 CFSM .31 IN 4.22 AC-FT 562,900

PEAK DISCHARGE (BASE, 4,000 FT³/S).--No peak above base.

06607000 ODEBOLT CREEK NEAR ARTHUR, IOWA

LOCATION.--Lat 42°20'10", long 95°22'52", in SE1/4 NE1/4 sec.21, T.87 N., R.39 W., Ida County, near center of span on downstream side of bridge on county highway M27, 700 ft (213 m) south of State Highway 175, 1.0 mi (1.6 km) downstream from Hoskins Creek, 1.8 mi (2.9 km) west of Arthur, 4.6 mi (7.4 km) southeast of Ida Grove, and 6.5 mi (10.5 km) upstream from mouth.

DRAINAGE AREA.--39.3 mi² (102 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,258.57 ft (383.61 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 15.7 ft³/s (0.44 m³/s), 5.42 in/yr (138 mm/yr), 11,370 acre-ft/yr (14.0 hm³/yr); median of yearly mean discharges, 14 ft³/s (0.40 m³/s), 4.8 in/yr (122 mm/yr), 10,100 acre-ft/yr (12.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 700 ft³/s (19.8 m³/s) May 29, gage height, 7.10 ft (2.164 m); minimum daily, 4.2 ft³/s (0.12 m³/s) Sept. 16, 17, 19-30.

Period of record: Maximum discharge, 5,200 ft³/s (147 m³/s) Aug. 30, 1962, gage height, 13.78 ft (4.200 m); maximum gage height, 14.11 ft (4.301 m) Mar. 31, 1965, backwater from ice; minimum daily discharge, 0.2 ft³/s (5.7 dm³/s) Jan. 2 to Feb. 27, 1959.

Flood of July 3, 1951, reached a stage of 11.96 ft (3.645 m), from floodmark, discharge, 4,320 ft³/s (122 m³/s), from contracted-opening measurement of peak flow.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	18	7.9	29	20	15	13	34	15	25	4.8
2	12	15	19	7.9	20	27	14	13	34	15	7.8	4.8
3	13	14	17	7.9	18	30	21	12	32	15	7.8	4.5
4	23	14	16	7.9	19	26	20	12	31	16	6.5	4.5
5	13	14	15	8.0	19	24	21	12	30	16	6.5	4.5
6	13	14	14	8.1	19	23	21	12	28	15	6.5	4.5
7	13	14	14	8.2	19	21	19	12	29	14	6.5	4.5
8	12	12	13	8.3	18	21	17	13	28	14	6.1	4.5
9	11	12	13	8.4	17	20	16	13	29	15	7.2	4.5
10	45	13	12	8.5	17	19	16	15	24	16	6.8	4.5
11	94	13	12	8.7	19	24	16	27	22	17	6.8	4.5
12	53	13	11	8.9	50	24	18	15	22	16	7.2	6.8
13	37	13	11	9.0	35	22	17	20	22	15	6.8	4.5
14	32	13	10	9.3	15	22	20	15	21	15	6.1	4.5
15	29	15	10	9.6	12	22	19	13	20	14	7.2	4.5
16	26	13	9.8	9.8	17	21	18	16	20	14	7.2	4.2
17	23	13	9.6	10	84	19	18	15	21	13	7.2	4.2
18	21	13	9.3	10	64	20	17	113	21	12	7.9	4.5
19	20	13	9.0	11	30	19	16	65	21	11	38	4.2
20	19	59	8.9	11	19	18	17	41	20	11	6.5	4.2
21	19	38	8.7	12	17	17	16	35	21	10	6.5	4.2
22	18	26	8.5	13	16	17	15	32	40	10	6.1	4.2
23	18	23	8.4	15	15	16	15	28	28	10	6.5	4.2
24	18	24	8.2	13	15	15	14	26	22	10	6.1	4.2
25	16	22	8.1	11	21	15	14	24	21	10	5.4	4.2
26	16	22	8.0	11	18	15	14	34	20	9.7	5.4	4.2
27	16	20	8.0	11	28	16	14	26	19	9.3	5.4	4.2
28	16	19	7.9	11	24	17	14	27	18	8.9	5.0	4.2
29	16	19	7.9	12	-----	17	13	231	17	8.5	5.0	4.2
30	15	18	7.9	16	-----	16	13	44	16	8.5	5.0	4.2
31	15	-----	7.9	40	-----	15	-----	36	-----	9.2	4.8	-----
TOTAL	705	546	341.1	343.4	694	618	498	1,010	731	393.1	248.8	133.7
MEAN	22.7	18.2	11.0	11.1	24.8	19.9	16.6	32.6	24.4	12.7	8.03	4.46
MAX	94	59	19	40	84	30	21	231	40	17	38	6.8
MIN	11	12	7.9	7.9	12	15	13	12	16	8.5	4.8	4.2
CFSM	.58	.46	.28	.28	.63	.51	.42	.83	.62	.32	.20	.11
IN.	.67	.52	.32	.33	.66	.58	.47	.96	.69	.37	.24	.13
AC-FT	1,400	1,080	677	681	1,380	1,230	988	2,000	1,450	780	493	265
CAL YR 1973	TOTAL 9,715.6	MEAN 26.6	MAX 120	MIN 4.8	CFSM .68	IN 9.20	AC-FT 19,270					
WTR YR 1974	TOTAL 6,262.1	MEAN 17.2	MAX 231	MIN 4.2	CFSM .44	IN 5.93	AC-FT 12,420					

PEAK DISCHARGE (BASE, 500 FT³/S).--May 29 (0500) 700 ft³/s (7.10 ft).

LITTLE SIOUX RIVER BASIN

06607200 MAPLE RIVER AT MAPLETON, IOWA

LOCATION.--Lat 42°09'28", long 95°48'27", in SE1/4 SE1/4 sec.23, T.85 N., R.43 W., Monona County, on right bank on downstream side of bridge on State Highway 175, 80 ft (24 m) downstream from Chicago & North Western Railway Co. bridge, 0.5 mi (0.8 km) southwest of Mapleton, 0.8 mi (1.3 km) downstream from Wilsey Creek, 2.0 mi (3.2 km) upstream from McClarey Creek, and 16.0 mi (25.7 km) upstream from mouth.

DRAINAGE AREA.--669 mi² (1,732 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,085.86 ft (330.97 m) above mean sea level. See WSP 1730 for history of changes prior to Sept. 20, 1956.

AVERAGE DISCHARGE.--33 years, 231 ft³/s (6.54 m³/s), 4.69 in/yr (119 mm/yr), 167,400 acre-ft/yr (206 km³/yr).

EXTREMES.--Current year: Maximum discharge, 6,180 ft³/s (175 m³/s) May 18, gage height, 8.95 ft (2.728 m); minimum daily, 73 ft³/s (2.07 m³/s) Sept. 30.
Period of record: Maximum discharge, 15,700 ft³/s (445 m³/s) Feb. 19, 1971, gage height, 15.17 ft (4.624 m); maximum gage height, 22.1 ft (6.74 m) June 12, 1950; no flow Sept. 21, 22, 1945 caused by temporary dam above gage.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1310: 1942 (H), 1946 (H), 1948 (H). WSP 1440: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	376	198	344	130	350	341	186	220	482	334	242	124
2	310	198	334	130	250	300	184	214	435	334	294	126
3	281	203	334	130	210	320	217	209	424	330	228	126
4	284	200	300	130	190	324	297	203	394	334	200	121
5	254	192	280	130	170	281	294	203	380	317	192	114
6	242	195	180	130	165	245	348	200	427	297	186	107
7	245	206	200	130	160	234	373	200	664	281	170	105
8	240	198	260	130	155	226	320	212	591	260	154	105
9	408	186	300	130	150	228	281	200	687	257	164	96
10	645	175	290	130	150	223	269	337	603	257	186	93
11	772	192	280	130	155	257	269	617	542	275	156	91
12	714	200	275	130	250	288	304	310	482	260	143	114
13	534	198	275	130	700	320	313	327	446	240	138	119
14	466	189	270	130	600	307	351	470	431	226	151	107
15	402	220	260	130	450	288	366	341	398	223	148	96
16	355	269	250	135	380	260	330	227	373	220	146	91
17	327	266	240	140	500	242	310	304	366	214	186	89
18	320	234	230	140	1,100	240	297	2,590	351	206	214	84
19	310	220	220	140	1,020	240	288	2,420	358	198	175	82
20	297	409	210	140	709	226	275	1,040	344	192	167	77
21	284	781	200	140	558	206	369	1,730	337	184	223	77
22	278	768	195	140	376	206	324	830	478	164	167	77
23	266	562	190	140	291	180	272	683	928	156	148	80
24	260	490	185	140	206	150	245	612	790	156	146	80
25	257	462	180	145	184	170	242	538	558	154	143	80
26	248	439	170	160	272	300	245	629	494	151	133	80
27	242	416	160	170	358	223	248	526	435	151	126	82
28	234	398	150	180	402	203	260	482	398	161	136	80
29	228	376	140	200	-----	206	257	1,760	380	164	131	77
30	212	369	135	300	-----	198	234	696	348	154	131	73
31	203	-----	130	500	-----	192	-----	530	-----	156	131	-----
TOTAL	10,494	9,409	7,167	4,860	10,461	7,624	8,568	19,860	14,324	7,006	5,255	2,853
MEAN	339	314	231	157	374	246	286	641	477	226	170	95.1
MAX	772	781	344	500	1,100	341	373	2,590	928	334	294	126
MIN	203	175	130	130	150	150	184	200	337	151	126	73
CFSM	.51	.47	.35	.23	.56	.37	.43	.96	.71	.34	.25	.14
IN.	.58	.52	.40	.27	.58	.42	.48	1.10	.80	.39	.29	.16
AC-FT	20,810	18,660	14,220	9,640	20,750	15,120	16,990	39,390	28,410	13,900	10,420	5,660
CAL YR 1973	TOTAL 165,365	MEAN 453	MAX 5,370	MIN 114	CFSM .68	IN 9.20	AC-FT 328,000					
WTR YR 1974	TOTAL 107,881	MEAN 296	MAX 2,590	MIN 73	CFSM .44	IN 6.00	AC-FT 214,000					

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-18	2000	8.95	6,180	5-29	0430	7.39	4,220
5-21	1000	7.75	4,620				

06607500 LITTLE SIOUX RIVER NEAR TURIN, IOWA

LOCATION.--Lat 41°57'52", long 95°58'21", in NW1/4 NE1/4 sec.33, T.83 N., R.44 W., Monona County, on left bank on downstream side of bridge on county highway E51, 1.0 mi (1.6 km) east of gaging station on Monona-Harrison ditch near Turin, 2.5 mi (4.0 km) downstream from Maple River, 3.8 mi (6.1 km) south of Turin, 6.2 mi (10.0 km) northeast of Blencoe, and at mile 13.5 (21.7 km).

DRAINAGE AREA.--3,526 mi² (9,132 km²). Prior to Jan. 15, 1958, 4,426 mi² (11,463 km²), combined area above this station and Monona-Harrison ditch station 1.0 mi (1.6 km) west).

PERIOD OF RECORD.--January 1958 to current year. April 1939 to May 1942 at site 4.7 mi (7.6 km) downstream published as "near Blencoe", June 1942 to January 1958 at site 1,200 ft (366 m) east on old river channel; records not equivalent owing to diversion into Monona-Harrison ditch through equalizer ditch 1.5 mi (2.4 km) upstream.

GAGE.--Water-stage recorder. Datum of gage is 1,019.85 ft (310.85 m) above mean sea level (Corps of Engineers bench mark). Prior to July 15, 1958, nonrecording gages near present site at different datums. July 15 to Sept. 3, 1958, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--16 years, 1,084 ft³/s (30.7 m³/s), 4.17 in/yr (106 mm/yr), 785,400 acre-ft/yr (968 hm³/yr); median of yearly mean discharges, 970 ft³/s (27.5 m³/s), 3.7 in/yr (94 mm/yr), 703,000 acre-ft/yr (867 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,400 ft³/s (210 m³/s) May 18, gage height, 17.64 ft (5.377 m); minimum daily, 192 ft³/s (5.44 m³/s) Sept. 9.
Period of record: Maximum discharge, about 30,000 ft³/s (850 m³/s) Feb. 19, 1971, gage height, 27.44 ft (8.364 m), backwater from ice; minimum daily, 22 ft³/s (0.62 m³/s) Feb. 10-22, 1959.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,250	849	2,120	940	900	1,600	1,120	1,150	1,320	1,480	463	467
2	1,340	842	2,020	920	700	1,460	1,120	1,120	1,280	1,340	578	461
3	1,530	831	1,930	910	600	1,460	1,120	1,060	1,250	1,240	558	460
4	1,480	812	1,860	900	560	1,500	1,220	1,040	1,210	1,180	490	430
5	1,430	790	1,730	890	540	1,580	1,330	1,020	1,170	1,120	447	426
6	1,370	775	1,400	860	520	1,500	1,480	992	1,250	1,070	434	411
7	1,350	767	1,300	820	510	1,380	1,680	992	1,500	1,020	413	390
8	1,300	738	1,800	760	510	1,300	1,710	980	1,560	966	414	240
9	1,510	733	1,400	720	510	1,260	1,680	976	1,720	918	496	192
10	2,160	718	1,500	680	510	1,250	1,630	986	1,810	888	615	345
11	1,960	720	1,400	640	510	1,390	1,610	1,530	1,960	914	524	360
12	1,890	732	1,400	600	510	1,440	1,620	1,190	2,040	949	524	381
13	1,910	717	1,300	560	600	1,500	1,640	1,220	2,070	882	569	398
14	1,910	712	1,300	540	1,100	1,570	1,670	1,490	2,120	823	555	384
15	1,850	808	1,200	520	1,200	1,600	1,750	1,500	2,140	787	474	377
16	1,680	908	1,200	530	1,250	1,600	1,780	1,590	2,070	753	458	368
17	1,570	976	1,150	540	1,300	1,580	1,790	1,480	1,930	725	441	371
18	1,470	1,000	1,100	520	1,400	1,500	1,750	3,710	1,800	676	613	376
19	1,390	1,070	1,100	500	1,500	1,460	1,690	5,440	1,680	626	500	388
20	1,310	1,210	1,050	500	2,000	1,400	1,620	2,620	1,570	592	578	309
21	1,250	1,580	1,050	500	2,500	1,370	1,620	3,590	1,480	570	636	300
22	1,180	2,070	1,000	500	2,800	1,310	1,600	2,540	1,590	534	594	279
23	1,120	2,650	1,000	500	2,200	1,300	1,520	1,950	2,990	513	538	288
24	1,090	2,860	1,000	500	2,000	1,200	1,440	1,770	4,190	497	732	270
25	1,020	2,970	1,000	520	2,100	1,140	1,390	1,650	3,870	475	914	255
26	979	2,970	1,000	530	2,200	1,190	1,350	1,720	3,170	453	816	228
27	938	2,730	1,000	540	2,300	1,210	1,340	1,650	2,490	441	718	206
28	901	2,540	1,000	550	1,800	1,250	1,290	1,530	2,040	438	632	203
29	887	2,390	1,000	570	-----	1,230	1,240	3,020	1,790	434	588	228
30	868	2,250	980	700	-----	1,190	1,190	1,720	1,620	420	538	208
31	855	-----	960	800	-----	1,160	-----	1,420	-----	414	502	-----
TOTAL	42,748	41,718	40,250	20,060	35,130	42,880	44,990	54,646	58,680	24,138	17,352	9,999
MEAN	1,379	1,391	1,298	647	1,255	1,383	1,500	1,763	1,956	779	560	333
MAX	2,160	2,970	2,120	940	2,800	1,600	1,790	5,440	4,190	1,480	914	467
MIN	855	712	960	500	510	1,140	1,120	976	1,170	414	413	192
CFSM	.39	.39	.37	.18	.36	.39	.43	.50	.55	.22	.16	.09
IN.	.45	.44	.42	.21	.37	.45	.47	.58	.62	.25	.18	.11
AC-FT	84,790	82,750	79,840	39,790	69,680	85,050	89,240	108,400	116,400	47,880	34,420	19,830

CAL YR 1973 TOTAL 652,166 MEAN 1,787 MAX 10,400 MIN 401 CFSM .51 IN 6.88 AC-FT 1,294,000
WTR YR 1974 TOTAL 432,591 MEAN 1,185 MAX 5,440 MIN 192 CFSM .34 IN 4.56 AC-FT 858,000

PEAK DISCHARGE (BASE, 4,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-18	2400	17.64	7,400	6-24	2100	14.38	4,520
5-21	1715	15.18	5,120				

SOLDIER RIVER BASIN

06608500 SOLDIER RIVER AT PISGAH, IOWA

LOCATION.--Lat 41°49'52", long 95°55'50", in NW1/4 NE1/4 sec.14, T.81 N., R.44 W., Harrison County, on left bank on downstream side of bridge on county highway P20, at west edge of Pisgah, 0.4 mi (0.6 km) downstream from Cobb Creek, 0.5 mi (0.8 km) upstream from Hogger Ditch, and 13.1 mi (21.1 km) upstream from mouth.

DRAINAGE AREA.--407 mi² (1,054 km²).

PERIOD OF RECORD.--March 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,036.53 ft (315.93 m) above mean sea level. Prior to Oct. 11, 1954, nonrecording gage at same site and datum with supplementary water-stage recorder operating above 8.2 ft (2.5 m) gage height Mar. 2, 1946, to Sept. 24, 1953.

AVERAGE DISCHARGE.--34 years, 127 ft³/s (3.60 m³/s), 4.24 in/yr (108 mm/yr), 92,010 acre-ft/yr (113 km³/yr).

EXTREMES.--Current year: Maximum discharge, 5,610 ft³/s (159 m³/s) May 19, gage height, 12.71 ft (3.874 m); minimum daily, 45 ft³/s (1.27 m³/s) Sept. 20-22.
Period of record: Maximum discharge, 22,500 ft³/s (637 m³/s) June 12, 1950, gage height, 28.17 ft (8.586 m); minimum daily, 2 ft³/s (0.06 m³/s) Jan. 2-10, 1945.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 956: 1940 (M). WSP 1240: 1940, 1941 (M), 1947. WSP 1440: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	126	122	88	150	268	104	70	288	134	150	61
2	124	126	128	86	130	237	102	70	220	206	154	67
3	117	126	128	84	110	262	108	70	200	211	86	70
4	120	124	122	82	100	262	115	75	200	136	78	66
5	120	124	100	80	100	240	136	85	204	132	72	73
6	113	122	90	78	100	201	130	90	222	163	70	72
7	128	122	110	78	100	175	124	113	260	126	66	71
8	115	118	130	78	100	152	117	113	384	117	73	70
9	776	113	120	76	100	161	113	109	340	122	659	70
10	704	115	115	76	100	158	115	109	308	111	224	69
11	774	120	115	74	100	163	117	364	248	128	623	69
12	436	126	115	74	200	178	139	181	232	128	117	75
13	156	126	115	72	600	172	134	161	393	120	561	73
14	150	122	115	70	200	161	317	176	400	105	393	60
15	145	136	110	72	150	156	204	163	222	90	209	56
16	141	126	110	80	125	150	136	340	174	104	152	54
17	136	117	110	150	300	141	128	222	193	90	132	51
18	136	115	110	180	250	145	139	1,470	198	90	126	49
19	132	111	105	100	200	147	109	2,770	172	90	117	48
20	130	290	105	90	180	152	128	582	165	90	124	45
21	126	260	105	86	180	147	139	1,070	172	91	117	45
22	124	156	105	82	160	150	120	424	193	91	118	45
23	122	139	100	78	150	147	104	290	260	91	97	47
24	124	150	100	76	120	142	96	257	210	91	90	54
25	122	145	100	78	140	138	90	342	170	106	78	57
26	122	141	100	120	160	134	82	393	147	113	76	56
27	120	141	100	115	240	118	76	285	152	124	84	56
28	120	128	100	95	302	117	88	600	156	111	97	63
29	118	126	100	90	-----	117	73	1,110	150	91	75	75
30	120	128	95	180	-----	111	71	549	147	78	61	53
31	122	-----	90	500	-----	106	-----	377	-----	81	61	-----
TOTAL	6,132	4,119	3,370	3,268	4,847	5,108	3,654	13,030	6,780	3,561	5,140	1,820
MEAN	198	137	109	105	173	165	122	420	226	115	166	60.7
MAX	776	290	130	500	600	268	317	2,770	400	211	659	75
MIN	113	111	90	70	100	106	71	70	147	78	61	45
CFSM	.49	.34	.27	.26	.43	.41	.30	1.03	.56	.28	.41	.15
IN.	.56	.38	.31	.30	.44	.47	.33	1.19	.62	.33	.47	.17
AC-FT	12,160	8,170	6,680	6,480	9,610	10,130	7,250	25,850	13,450	7,060	10,200	3,610
CAL YR 1973	TOTAL 74,902	MEAN 205	MAX 2,840	MIN 78	CFSM .50	IN 6.85	AC-FT 148,600					
WTR YR 1974	TOTAL 60,829	MEAN 167	MAX 2,770	MIN 45	CFSM .41	IN 5.56	AC-FT 120,700					

PEAK DISCHARGE (BASE, 5,000 FT³/S).--May 19 (1500) 5,610 ft³/s (12.71 ft).

06609500 BOYER RIVER AT LOGAN, IOWA

LOCATION.--Lat 41°38'33", long 95°46'57", in SE1/4 NW1/4 sec.19, T.79 N., R.42 W., Harrison County, on left bank 9 ft (3 m) downstream from Illinois Central Railroad bridge at Logan, 0.4 mi (0.6 km) downstream from Elk Grove Creek, 10.5 mi (16.9 km) upstream from Willow Creek, and 15.8 mi (25.4 km) upstream from mouth.

DRAINAGE AREA.--871 mi² (2,256 km²).

PERIOD OF RECORD.--May 1918 to July 1925, November 1937 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 1,009.38 ft (307.66 m) above mean sea level (Chicago and Northwestern Railway Company bench mark). See WSP 1918 for history of changes prior to Oct. 18, 1960.

AVERAGE DISCHARGE.--42 years, 313 ft³/s (8.86 m³/s), 4.88 in/yr (124 mm/yr), 226,800 acre-ft/yr (280 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 20,900 ft³/s (592 m³/s) May 19, gage height, 20.21 ft (6.16 m); minimum daily, 110 ft³/s (3.12 m³/s) Sept. 30.
Period of record: Maximum discharge, 25,000 ft³/s (708 m³/s) Feb. 19, 1971, gage height, 22.65 ft (6.904 m), from floodmark; maximum gage height, 25.22 ft (7.687 m) Mar. 1, 1965, backwater from ice; minimum daily discharge, 1.5 ft³/s (42 dm³/s) July 16, 1938.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 956: 1938-39. WSP 1240: 1918-19, 1920 (M), 1921, 1922 (M), 1924-25, 1938 (M), 1945. WSP 1440: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	825	426	577	400	500	720	341	344	650	409	220	175
2	626	423	568	400	380	706	338	338	650	399	419	182
3	529	416	586	400	330	810	347	334	630	395	298	198
4	477	402	568	400	310	706	496	328	644	433	254	175
5	448	410	480	400	300	582	504	316	626	399	232	164
6	389	416	450	400	300	492	508	313	617	373	228	159
7	416	419	440	390	300	466	504	316	670	347	220	155
8	399	423	430	390	300	437	455	350	626	344	220	159
9	366	402	450	380	300	430	416	355	729	338	251	155
10	905	386	480	380	300	416	412	315	760	328	313	148
11	2,920	392	460	370	310	402	412	400	634	354	268	146
12	2,570	416	460	370	400	504	496	520	599	357	248	361
13	1,530	426	460	360	1,000	470	504	420	568	322	678	248
14	1,210	419	440	360	500	448	648	475	564	319	869	191
15	1,040	451	420	360	450	437	639	600	517	322	751	168
16	925	466	410	400	450	402	560	2,220	477	286	687	157
17	845	444	410	450	600	389	513	1,130	458	271	466	150
18	796	437	400	600	2,000	395	485	8,480	462	265	473	144
19	760	419	400	500	3,500	409	473	11,400	455	260	344	148
20	706	645	400	450	4,000	389	451	3,060	444	248	295	132
21	666	1,490	400	440	3,600	373	455	2,160	430	243	262	128
22	634	1,010	400	420	1,200	389	444	2,260	440	232	240	122
23	604	815	400	400	738	354	423	1,350	644	225	218	122
24	582	774	400	400	1,500	319	402	1,110	604	220	203	122
25	546	774	400	420	2,300	341	426	915	525	218	193	122
26	504	706	400	440	3,220	395	402	1,250	481	218	186	119
27	496	688	400	440	3,200	402	399	1,050	455	213	189	117
28	496	648	400	470	1,150	373	409	940	444	205	218	115
29	489	604	400	500	-----	373	419	1,200	419	210	186	113
30	496	595	400	600	-----	370	366	1,650	412	208	177	110
31	489	-----	400	800	-----	354	-----	850	-----	196	175	-----
TOTAL	24,684	16,742	13,689	13,490	33,438	14,053	13,647	46,749	16,634	9,157	9,981	4,705
MEAN	796	558	442	435	1,194	453	455	1,508	554	295	322	157
MAX	2,920	1,490	586	800	4,000	810	648	11,400	760	433	869	361
MIN	366	386	400	360	300	319	338	313	412	196	175	110
CFSM	.91	.64	.51	.50	1.37	.52	.52	1.73	.64	.34	.37	.18
IN.	1.05	.72	.58	.58	1.43	.60	.58	2.00	.71	.39	.43	.20
AC-FT	48,960	33,210	27,150	26,760	66,320	27,870	27,070	92,730	32,990	18,160	19,800	9,330

CAL YR 1973 TOTAL 286,074 MEAN 784 MAX 10,700 MIN 159 CFSM .90 IN 12.22 AC-FT 567,400
WTR YR 1974 TOTAL 216,969 MEAN 594 MAX 11,400 MIN 110 CFSM .68 IN 9.27 AC-FT 430,400

PEAK DISCHARGE (BASE, 6,000 FT³/S).--May 19 (0200) 20,900 ft³/s (20.21 ft).

BOYER RIVER BASIN

06609600 WILLOW CREEK NEAR LOGAN, IOWA

LOCATION.--Lat 41°37'54", long 95°53'27", in NW1/4 NE1/4 sec. 30, T.79 N., R.43 W., Harrison County, on right bank on downstream side of bridge on County Highway F50, 5.5 mi (8.8 km) west of Logan, and 7.5 mi (12.1 km) upstream from mouth.

DRAINAGE AREA.--129 mi² (334 km²).

PERIOD OF RECORD.--October 1972 to current year. March 1948 to October 1971 in reports of U.S. Corps of Engineers. Published as "near Missouri Valley" prior to October 1972.

GAGE.--Water-stage recorder. Datum of gage is 1,005.40 ft (306.45 m) above mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum discharge, 7,970 ft³/s (226 m³/s) May 18, gage height, 18.78 ft (5.724 m); minimum daily, 15 ft³/s (0.42 m³/s) Sept. 29, 30.

Period of record: Maximum discharge, 7,970 ft³/s (226 m³/s) May 18, 1974, gage height, 18.78 ft (5.724 m); minimum daily, 12 ft³/s (0.34 m³/s) Dec. 6, 7, 1972.

Flood of June 15, 1957, reached a stage of 24.90 ft (7.590 m), discharge not determined, from information by Corps of Engineers.

REMARKS.--Records fair except those for winter period, which are poor. Records of chemical analyses, water temperatures, and suspended-sediment analyses for the current year are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	53	56	40	35	62	36	40	77	40	28	19
2	54	52	57	40	31	65	33	39	65	39	30	20
3	52	51	58	40	29	72	41	40	60	38	25	21
4	51	51	55	40	29	64	49	39	66	40	23	20
5	49	50	40	40	29	58	45	39	65	38	22	19
6	49	51	33	40	29	55	42	39	66	36	22	18
7	53	52	35	40	29	53	42	41	137	34	23	18
8	50	55	40	40	29	51	39	45	136	33	24	18
9	61	52	50	40	29	52	40	41	133	32	162	18
10	172	53	46	40	30	49	40	41	69	32	84	17
11	314	55	47	40	33	49	42	61	55	36	56	17
12	135	56	47	40	40	54	49	48	53	35	53	44
13	90	56	46	40	60	49	46	44	57	32	322	26
14	80	55	44	40	50	48	114	47	53	30	165	21
15	74	58	42	42	45	47	73	40	50	30	88	19
16	69	57	41	44	48	45	56	445	48	29	138	18
17	68	55	40	45	55	43	52	264	46	28	59	17
18	66	55	40	44	70	44	48	2,230	47	28	51	17
19	64	53	40	43	100	43	46	1,910	48	28	29	17
20	62	91	40	42	74	43	45	249	47	27	23	16
21	61	94	40	41	74	40	47	276	49	27	21	16
22	61	67	40	40	58	38	44	139	56	26	21	16
23	59	60	40	40	50	35	42	84	53	25	19	16
24	59	63	40	40	50	36	46	89	46	25	18	16
25	58	61	40	42	56	37	44	85	46	25	18	18
26	56	59	40	43	59	46	43	98	44	25	17	17
27	56	58	40	44	103	40	43	143	43	24	18	16
28	54	57	40	45	98	38	44	123	42	24	19	16
29	54	56	40	46	-----	38	44	298	41	24	18	15
30	54	57	40	50	-----	38	41	894	41	22	19	15
31	54	-----	40	45	-----	37	-----	664	-----	23	18	-----
TOTAL	2,296	1,743	1,337	1,296	1,422	1,469	1,416	8,635	1,839	935	1,633	561
MEAN	74.1	58.1	43.1	41.8	50.8	47.4	47.2	279	61.3	30.2	52.7	18.7
MAX	314	94	58	50	103	72	114	2,230	137	40	322	44
MIN	49	50	33	40	29	35	33	39	41	22	17	15
CFSM	.57	.45	.33	.32	.39	.37	.37	2.16	.48	.23	.41	.15
IN.	.66	.50	.39	.37	.41	.42	.41	2.49	.53	.27	.47	.16
AC-FT	4,550	3,460	2,650	2,570	2,820	2,910	2,810	17,130	3,650	1,850	3,240	1,110
CAL YR 1973	TOTAL 27,125	MEAN 74.3	MAX 919	MIN 20	CFSM .58	IN 7.82	AC-FT 53,800					
WTR YR 1974	TOTAL 24,582	MEAN 67.3	MAX 2,230	MIN 15	CFSM .52	IN 7.09	AC-FT 48,760					

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-16	1530	10.51	894	8-9	1900	9.64	607
5-18	2345	18.78	7,970	8-13	2100	10.64	941
5-30	2200	15.63	4,170				

06610000 MISSOURI RIVER AT OMAHA, NEBRASKA

LOCATION.--Lat 41°15'32", long 95°55'20", in SE1/4 NW1/4 sec.23, T.15 N., R.13 E., Douglas County, on right bank on left side of concrete floodwall, at foot of Douglas Street, 275 ft (84 m) downstream from Interstate 480 Highway bridge in Omaha, and at mile 615.9 (991.0 km).

DRAINAGE AREA.--322,600 mi² (836,052 km²), approximately.

PERIOD OF RECORD.--September 1928 to current year. April 1872 to December 1899 (gage heights only) in reports of the Missouri River Commission and since January 1875, gage heights only) in reports of the U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 958.24 ft (292.07 m) above mean sea level. See WSP 1730 for history of changes prior to Sept. 30, 1936.

AVERAGE DISCHARGE.--46 years, 28,880 ft³/s (818 m³/s), 20,920,000 acre-ft/yr (25,800 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 52,400 ft³/s (1,480 m³/s) May 19, gage height, 10.86 ft (3.310 m); minimum daily, 13,300 ft³/s (377 m³/s) Jan. 12; minimum gage height, 3.20 ft (0.975 m) Jan. 11, 12.
Period of record: Maximum discharge, 396,000 ft³/s (11,200 m³/s) Apr. 18, 1952, gage height, 30.20 ft (9.205 m); minimum, about 2,200 ft³/s (62.3 m³/s) Jan. 6, 1937; minimum gage height observed, -2.77 ft (-0.844 m) Jan. 10, 1957, result of freezeup.

REMARKS.--Records good. Flow partly regulated by upstream main-stem reservoirs. Records of chemical analyses, water temperatures, and suspended-sediment discharges for the current year are published in Part 2 of this report.

REVISIONS.--WSP 761: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34,400	31,000	23,400	17,000	24,000	23,200	31,100	33,400	35,700	35,000	37,100	35,200
2	33,400	31,800	23,100	17,500	22,600	22,600	32,200	32,800	35,100	35,400	37,700	34,900
3	33,200	33,000	22,900	17,400	20,000	22,600	33,200	31,900	35,300	35,300	37,500	34,200
4	33,800	33,400	22,700	17,200	19,800	23,200	33,100	31,800	34,400	35,700	37,200	34,100
5	33,700	33,200	22,100	17,000	19,700	23,300	33,700	31,800	33,200	35,800	37,000	34,000
6	33,300	32,500	20,600	16,900	17,600	23,100	33,300	30,900	35,400	35,300	36,700	34,300
7	33,200	32,300	19,200	17,100	18,100	22,800	33,200	32,300	37,000	35,000	36,500	34,500
8	33,100	32,100	19,200	17,500	20,000	22,600	33,600	33,900	38,100	34,500	37,000	34,600
9	32,500	32,000	20,700	16,900	19,900	22,800	33,600	34,000	37,300	34,800	38,000	34,500
10	33,500	31,400	21,000	16,300	20,500	22,900	33,600	32,600	36,700	35,100	39,400	35,000
11	39,400	31,200	20,600	13,500	20,700	22,700	35,200	33,800	36,400	36,000	39,300	35,900
12	38,100	31,800	20,300	13,300	20,800	22,500	35,400	34,100	35,400	36,300	37,800	36,900
13	33,100	31,600	21,400	14,100	22,100	22,400	35,500	32,400	34,700	36,100	37,900	37,000
14	31,300	31,800	22,500	13,800	23,900	23,200	35,700	33,300	35,200	35,700	39,400	36,800
15	31,000	32,000	21,100	14,800	23,400	22,700	35,000	34,800	35,300	35,300	38,500	35,900
16	29,200	32,100	20,000	17,700	21,400	22,000	33,800	36,100	35,000	35,300	38,600	35,500
17	29,400	31,800	20,200	22,300	20,900	22,500	33,200	35,100	34,800	35,300	37,400	35,100
18	29,000	32,000	19,900	24,900	23,900	22,400	34,100	38,700	35,100	36,500	36,100	35,200
19	27,200	31,600	19,800	24,500	26,000	22,300	33,400	47,900	33,100	37,300	35,500	35,500
20	27,400	32,700	20,800	22,500	26,100	22,900	33,700	37,800	33,500	36,700	35,100	35,700
21	27,200	33,900	20,600	20,600	24,500	27,200	33,700	34,700	34,600	36,300	35,100	35,800
22	27,200	34,500	19,500	20,000	23,400	31,500	32,600	35,000	34,500	36,600	35,000	35,900
23	27,200	34,100	19,500	20,200	22,600	33,900	33,800	33,000	35,800	36,500	34,300	35,900
24	27,400	33,900	21,400	20,200	22,200	32,600	33,300	33,700	40,800	36,100	34,300	36,300
25	27,600	33,600	21,700	20,300	21,600	31,900	33,000	35,600	42,000	35,900	34,400	36,500
26	27,700	32,000	20,500	20,400	21,800	31,500	32,500	37,300	36,600	36,400	34,400	36,200
27	27,900	29,200	20,100	20,900	23,100	31,900	32,400	38,400	35,500	36,200	34,200	36,200
28	28,100	26,400	19,800	20,800	23,400	32,500	33,200	36,600	35,100	36,300	34,500	36,500
29	27,800	24,000	19,400	20,500	-----	32,500	34,200	37,600	33,900	36,400	35,000	36,500
30	28,200	23,400	18,600	20,500	-----	31,300	32,900	41,500	33,600	36,800	34,900	36,600
31	29,000	-----	17,500	22,300	-----	30,600	-----	38,100	-----	36,800	34,900	-----
TOTAL	954,500	946,300	640,100	578,900	614,000	802,100	1,007.2M	1,090.9M	1,069.1M	1,112.7M	1,130.7M	1,067.2M
MEAN	30,790	31,540	20,650	18,670	21,930	25,870	33,570	35,190	35,640	35,890	36,470	35,570
MAX	39,400	34,500	23,400	24,900	26,100	33,900	35,700	47,900	42,000	37,300	39,400	37,000
MIN	27,200	23,400	17,500	13,300	17,600	22,000	31,100	30,900	33,100	34,500	34,200	34,000
AC-FT	1,893M	1,877M	1,270M	1,148M	1,218M	1,591M	1,998M	2,164M	2,121M	2,207M	2,243M	2,117M

CAL YR 1973 TOTAL 11,436,600 MEAN 31,330 MAX 52,400 MIN 17,500 AC-FT 22,680,000
WTR YR 1974 TOTAL 11,013,700 MEAN 30,170 MAX 47,900 MIN 13,300 AC-FT 21,850,000

M Expressed in thousands.

INDIAN CREEK BASIN

06610500 INDIAN CREEK AT COUNCIL BLUFFS, IOWA

LOCATION.--Lat 41°17'32", long 95°49'59", in SE1/4 SW1/4 sec.18, T.75 N., R.43 W., Pottawattamie County, on left bank at downstream side of first bridge off State Highway 183, on Mud Hollow Road at north edge of Council Bluffs, 8.8 mi (14.2 km) upstream from mouth.

DRAINAGE AREA.--7.99 mi² (20.7 ks²).

PERIOD OF RECORD.--July 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,038.86 ft (316.64 m) above mean sea level (City of Council Bluffs bench mark). Prior to Apr. 12, 1955, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum.

AVERAGE DISCHARGE.--20 years, 1.62 ft³/s (0.046 m³/s), 2.75 in/yr (70 mm/yr), 1,170 acre-ft/yr (1.44 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 20 ft³/s (0.57 m³/s) Oct. 10, gage height, 2.94 ft (0.896 m); no flow July 25, 28-30.

Period of record: Maximum discharge, 2,980 ft³/s (84.4 m³/s) Sept. 7, 1965, gage height, 15.36 ft (4.682 m); no flow at times most years.

REMARKS.--Records fair except those for winter period, which are poor. Records of periodic chemical analyses for the current year are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.6	1.8	1.9	2.1	2.9	1.8	1.5	1.1	.52	.08	.42
2	2.1	1.7	2.0	2.0	2.1	2.8	1.7	1.5	1.1	.38	.08	.48
3	2.1	1.7	2.0	2.0	2.3	3.0	1.7	1.4	1.1	.52	.06	.38
4	2.0	1.7	1.9	2.0	3.0	2.9	1.8	1.3	1.0	.52	.04	.30
5	1.9	1.6	1.7	2.1	2.4	2.9	1.7	1.5	1.0	.45	.06	.26
6	2.1	1.7	1.6	2.1	2.3	2.9	1.6	1.4	1.2	.34	.04	.26
7	2.1	1.7	1.6	2.1	2.1	2.7	1.7	1.3	1.2	.34	.11	.26
8	2.1	1.7	1.8	2.2	2.3	2.7	1.6	1.4	1.4	.22	.13	.26
9	2.1	1.8	1.8	2.2	2.2	2.7	1.6	1.3	1.6	.11	.48	.19
10	5.9	1.9	1.5	2.2	2.2	2.5	1.6	1.5	1.4	.26	.52	.22
11	12	1.9	1.5	2.1	2.1	2.5	2.3	2.1	1.3	.34	.45	.26
12	4.0	1.9	1.5	2.0	2.3	2.7	2.2	1.7	1.2	.26	.30	4.9
13	2.7	2.0	1.5	2.1	2.3	2.6	1.8	1.5	1.2	.19	.34	1.6
14	2.4	1.9	1.5	2.2	2.3	2.6	2.3	1.5	.92	.38	.52	1.2
15	2.4	1.9	1.5	2.1	2.3	2.6	2.0	1.4	.80	.26	1.3	1.1
16	2.1	1.9	1.6	1.9	2.3	2.5	2.1	1.5	.88	.19	1.3	.92
17	2.1	2.0	1.6	1.9	2.3	2.3	2.0	1.5	.76	.13	.84	.96
18	2.1	2.1	1.6	1.9	2.6	2.3	2.1	1.7	.76	.13	.68	.88
19	1.9	2.0	1.6	1.9	2.7	2.3	2.1	1.8	.84	.13	.42	.84
20	1.7	2.6	1.6	1.9	2.7	2.2	2.2	1.6	.80	.11	.30	.60
21	1.7	2.7	1.7	1.9	2.7	2.7	2.6	1.6	.72	.06	.19	.64
22	1.6	2.3	1.7	1.9	2.6	2.7	2.3	1.5	.68	.02	.19	.68
23	1.6	2.1	1.7	1.8	2.3	2.6	2.1	1.4	.60	.02	.11	.76
24	1.6	2.3	1.7	1.8	2.2	2.9	2.0	1.4	.60	.01	.11	.72
25	1.7	2.0	1.7	1.8	2.2	2.5	2.0	1.3	.64	0	.11	.72
26	1.8	2.0	1.8	1.8	2.5	2.2	2.0	1.8	.56	.02	.13	.64
27	1.6	1.9	1.8	1.8	2.8	2.0	1.9	1.7	.56	.01	.30	.60
28	1.6	1.9	1.8	1.9	2.9	2.0	1.9	1.6	.56	0	.19	.68
29	1.6	1.8	1.8	1.9	-----	1.9	1.6	1.4	.48	0	.16	.56
30	1.6	1.8	1.9	2.0	-----	1.9	1.5	1.3	.48	0	.13	.52
31	1.6	-----	1.9	2.0	-----	1.9	-----	1.2	-----	.01	.26	-----
TOTAL	76.0	58.1	52.7	61.4	67.1	77.9	57.8	46.6	27.44	5.93	9.93	22.81
MEAN	2.45	1.94	1.70	1.98	2.40	2.51	1.93	1.50	.91	.19	.32	.76
MAX	12	2.7	2.0	2.2	3.0	3.0	2.6	2.1	1.6	.52	1.3	4.9
MIN	1.6	1.6	1.5	1.8	2.1	1.9	1.5	1.2	.48	0	.04	.19
CFSM	.31	.24	.21	.25	.30	.31	.24	.19	.11	.02	.04	.10
IN.	.35	.27	.25	.29	.31	.36	.27	.22	.13	.03	.05	.11
AC-FT	151	115	105	122	133	155	115	92	54	12	20	45

CAL YR 1973 TOTAL 1,398.54 MEAN 3.83 MAX 117 MIN .48 CFSM .48 IN 6.51 AC-FT 2,770
WTR YR 1974 TOTAL 563.71 MEAN 1.54 MAX 12 MIN 0 CFSM .19 IN 2.62 AC-FT 1,120

PEAK DISCHARGE (BASE, 700 FT³/S).--No peak above base.

06610520 MOSQUITO CREEK NEAR EARLING, IOWA

LOCATION.--Lat 41°45'10", long 95°27'50", in N1/2 SE1/4 sec.11, T.80 N., R.40 W., Shelby County, on right bank at stream-stabilization structure 1,300 ft (396 m) downstream from bridge on State Highway 191, 0.5 mi (0.8 km) downstream from small left-bank tributary and 2.3 mi (3.7 km) southwest of Earling.

DRAINAGE AREA.--32.0 mi² (82.9 km²).

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

GAGE.--Duplex water-stage recorder. Datum of gage is 1,222.56 ft (372.64 m) above mean sea level. Gage heights obtained of headwater (base gage) and tailwater (supplementary gage) elevations at stream-stabilization structure.

AVERAGE DISCHARGE.--9 years, 17.4 ft³/s (0.49 m³/s), 7.38 in/yr (187 mm/yr), 12,610 acre-ft/yr (15.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,780 ft³/s (107 m³/s) May 16, gage height, 24.58 ft (7.49 m); minimum daily, 3.5 ft³/s (0.10 m³/s) Sept. 11.
Period of record: Maximum discharge, 12,000 ft³/s (340 m³/s) Sept. 11, 1972, gage height, 31.18 ft (9.504 m), from floodmarks; no flow for several days in 1970-72.

REMARKS.--Records fair except those for winter period, which are poor. Records of periodic chemical analyses for the current year are published in Part 2 of this report. The stabilization structure is a dam approximately 16 ft (5 m) high constructed of sheet piling and derrick stone. The crest of the cut-off piling is rectangular in shape at low stages and trapezoidal at high stages. Daily discharges computed from headwater gage readings.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	27	25	19	15	42	22	17	22	14	7.4	5.2
2	52	26	28	17	14	36	21	18	21	14	6.0	6.0
3	56	26	26	16	12	38	23	15	20	13	5.4	4.9
4	66	26	17	16	11	30	30	16	20	15	4.9	4.7
5	68	25	20	16	11	28	30	15	19	14	3.8	4.5
6	80	26	21	16	11	27	32	15	19	13	4.0	4.5
7	73	26	22	15	11	22	27	17	23	13	4.2	4.7
8	78	26	23	15	11	26	23	16	23	12	4.7	4.2
9	70	25	21	14	11	25	27	16	28	12	7.4	3.8
10	220	25	21	15	11	22	23	17	22	12	9.0	3.8
11	210	26	22	14	12	28	33	19	21	14	4.9	3.5
12	116	26	22	14	30	27	32	16	21	13	4.7	4.1
13	60	26	22	15	26	25	28	18	20	11	36	7.1
14	45	27	21	16	18	23	34	15	20	11	9.3	5.4
15	42	27	18	16	17	22	28	15	18	11	9.3	5.4
16	40	25	17	17	56	21	23	395	18	10	62	5.4
17	39	25	18	17	207	22	22	28	18	9.7	17	5.2
18	38	23	18	19	119	22	22	694	18	9.3	12	4.2
19	37	25	16	18	81	21	20	101	18	9.0	8.3	4.7
20	36	54	17	17	58	21	21	48	18	9.0	7.1	4.5
21	35	33	18	17	38	19	19	38	17	9.0	6.8	4.2
22	34	28	19	17	18	17	18	33	18	9.0	6.6	4.5
23	33	28	18	15	20	14	18	28	17	8.0	6.3	4.3
24	32	34	22	16	17	15	17	27	17	6.3	6.0	4.3
25	28	30	32	17	18	40	17	26	17	6.6	5.7	4.3
26	30	30	26	18	23	21	17	27	16	6.0	4.9	4.2
27	32	27	22	17	77	22	17	27	15	6.3	8.0	4.1
28	32	26	22	17	50	22	18	26	15	6.3	5.2	4.1
29	32	26	19	18	-----	23	17	27	15	6.0	4.7	4.1
30	30	25	16	17	-----	21	18	28	15	5.2	4.9	4.0
31	30	-----	18	16	-----	19	-----	25	-----	5.4	4.7	-----
TOTAL	1,822	829	647	507	1,003	761	697	1,823	569	313.1	291.2	174.8
MEAN	58.8	27.6	20.9	16.4	35.8	24.5	23.2	58.8	19.0	10.1	9.39	5.83
MAX	220	54	32	19	207	42	34	694	28	15	62	41
MIN	28	23	16	14	11	14	17	15	15	5.2	3.8	3.5
CFSM	1.84	.86	.65	.51	1.12	.77	.73	1.84	.59	.32	.29	.18
IN.	2.12	.96	.75	.59	1.17	.88	.81	2.12	.66	.36	.34	.20
AC-FT	3,610	1,640	1,280	1,010	1,990	1,510	1,380	3,620	1,130	621	578	347

CAL YR 1973	TOTAL	16,922.5	MEAN	46.4	MAX	833	MIN	7.7	CFSM	1.45	IN	19.67	AC-FT	33,570
WTR YR 1974	TOTAL	9,437.1	MEAN	25.9	MAX	694	MIN	3.5	CFSM	.81	IN	10.97	AC-FT	18,720

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-17	1830	20.58	725	5-18	0830	24.37	3,570
5-16	0500	24.58	3,780				

MISSOURI RIVER MAIN STEM

06807000 MISSOURI RIVER AT NEBRASKA CITY, NEBR.

LOCATION.--Lat 40°40'55", long 95°50'48", in NW1/4 NE1/4 sec.9, T.8 N., R.14 E., Otto County, on right bank 0.7 mi (1.1 km) upstream from Waubensie Highway Bridge at Nebraska City, and at mile 562.6 (905.2 km).

DRAINAGE AREA.--414,400 mi² (1,073,296 km²), approximately.

PERIOD OF RECORD.--August 1929 to current year. Gage-height records collected in this vicinity from August 1878 to December 1899 are contained in reports of Missouri River Commission.

GAGE.--Water-stage recorder. Datum of gage is 905.36 ft (275.95 m) above mean sea level, datum of 1929, supplementary adjustment of 1954. See WSP 1918 or 1919 for history of changes prior to Apr. 1, 1963.

AVERAGE DISCHARGE.--45 years, 34,810 ft³/s (986 m³/s), 25,220,000 acre-ft/yr (31,100 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 86,700 ft³/s (2,460 m³/s) May 19, gage height, 16.31 ft (4.971 m); maximum gage height, 18.63 ft (5.678 m) Jan. 12, backwater from ice; minimum daily discharge, 18,500 ft³/s (524 m³/s) Jan. 13-15; minimum gage height, 4.38 ft (1.335 m) Jan. 12.
Period of record: Maximum discharge, 414,000 ft³/s (11,700 m³/s) Apr. 19, 1952; maximum gage height, 27.66 ft (8.431 m) Apr. 18, 1952; minimum discharge, 1,600 ft³/s (45.3 m³/s) Dec. 31, 1946 (discharge measurement); minimum gage height observed, -0.28 ft (-0.085 m) Dec. 24, 1960, result of freezeup.

REMARKS.--Records good. Flow partly regulated by upstream main-stem reservoirs. Records of chemical and biological analyses, water temperatures, and suspended-sediment discharges for the current year are published in Part 2 of this report.

REVISIONS.--WSP 761: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51,400	38,500	31,400	23,200	37,100	35,100	40,000	41,200	42,700	36,100	36,800	36,600
2	53,800	41,200	31,400	22,300	37,100	35,100	41,800	42,100	41,200	36,600	37,100	37,100
3	50,300	42,400	31,400	21,800	35,600	34,400	41,800	41,800	40,300	36,100	38,500	37,100
4	48,600	42,100	31,800	21,800	33,800	34,600	43,000	40,900	39,400	36,400	37,900	36,600
5	46,800	41,500	31,800	22,300	33,800	34,100	44,200	40,600	37,400	36,100	37,900	36,400
6	45,400	40,900	29,900	21,800	32,400	34,100	45,100	39,400	37,400	35,800	38,200	35,600
7	44,500	41,200	29,500	21,600	31,100	33,800	44,500	38,500	39,100	35,800	37,900	35,400
8	43,900	40,900	28,100	21,600	31,600	33,600	44,500	39,400	41,200	35,800	37,900	35,600
9	42,700	40,900	27,400	21,000	31,400	33,400	44,800	40,000	44,500	35,800	38,500	35,400
10	48,500	40,300	28,100	20,600	30,600	33,600	44,500	39,100	42,100	35,800	40,600	35,400
11	78,200	40,000	28,100	19,800	29,900	33,400	45,100	40,600	42,100	35,800	40,900	36,100
12	82,200	39,700	27,900	18,800	30,200	33,600	45,800	43,300	44,800	36,400	38,800	38,200
13	66,700	39,100	28,800	18,500	32,100	34,100	46,100	44,200	44,500	36,400	37,600	38,500
14	53,200	39,700	29,000	18,500	34,800	34,100	47,800	41,200	43,000	36,100	40,600	38,200
15	47,500	41,200	28,600	18,500	36,100	34,100	48,200	41,500	43,000	35,800	40,300	37,400
16	43,600	40,900	27,700	20,000	36,100	33,600	46,400	40,600	41,200	35,100	42,100	36,600
17	42,700	39,700	27,000	28,500	35,800	33,600	46,400	42,700	41,800	35,400	40,900	36,400
18	42,100	40,600	26,600	31,000	40,000	33,400	45,400	46,400	41,500	36,100	38,800	36,600
19	41,500	40,000	24,800	33,000	44,200	33,400	45,800	71,800	40,000	37,600	37,100	36,800
20	41,200	40,300	23,200	32,100	44,500	33,800	44,800	75,000	38,200	37,400	36,100	36,800
21	40,000	43,900	22,000	31,100	43,600	34,800	45,100	50,300	38,500	37,100	35,800	37,100
22	40,000	49,600	21,600	30,800	41,500	37,100	44,800	49,200	38,200	36,800	36,100	36,400
23	39,400	47,800	21,800	31,400	37,100	39,400	45,100	48,200	38,200	36,600	36,400	36,600
24	38,800	46,100	23,200	31,600	36,100	43,900	44,800	40,900	40,900	36,400	36,100	37,600
25	38,500	44,800	25,400	31,400	34,400	43,000	43,000	40,000	43,300	36,400	35,800	37,900
26	38,500	44,800	25,400	32,100	32,800	43,900	42,700	41,200	40,000	36,800	35,800	37,400
27	38,800	40,300	25,400	32,600	32,600	44,500	42,400	44,500	36,600	37,100	35,800	37,100
28	38,500	37,400	25,900	32,800	34,400	43,000	42,100	44,500	37,100	37,100	36,100	37,100
29	37,900	34,400	26,100	32,800	-----	43,000	45,800	42,400	36,800	37,100	36,100	37,100
30	37,400	32,100	25,900	33,600	-----	42,700	43,000	50,000	35,600	37,100	36,100	37,100
31	37,400	-----	24,500	35,600	-----	41,500	-----	48,600	-----	37,100	36,100	-----
TOTAL	1,440.0M	1,232.3M	839.700	812.500	990.700	1,135.7M	1,334.8M	1,390.1M	1,210.6M	1,128.0M	1,170.7M	1,104.2M
MEAN	46,450	41,080	27,090	26,210	35,380	36,640	44,490	44,840	40,350	36,390	37,760	36,810
MAX	82,200	49,600	31,800	35,600	44,500	44,500	48,200	75,000	44,800	37,600	42,100	38,500
MIN	37,400	32,100	21,600	18,500	29,900	33,400	40,000	38,500	35,600	35,100	35,800	35,400
AC-FT	2,856M	2,444M	1,666M	1,612M	1,965M	2,253M	2,648M	2,757M	2,401M	2,237M	2,322M	2,190M

CAL YR 1973 TOTAL 15,588,000 MEAN 42,710 MAX 82,200 MIN 21,600 AC-FT 30,920,000
WTR YR 1974 TOTAL 13,789,300 MEAN 37,780 MAX 82,200 MIN 18,500 AC-FT 27,350,000

M Expressed in thousands.

06807410 WEST NISHNABOTNA RIVER AT HANCOCK, IOWA

LOCATION.--Lat 41°23'24", long 95°22'17", in NE1/4 sec.18, T.76 N., R.39 W., Pottawattamie County, on downstream end of right pier of bridge on county highway 630, 0.6 mi (1.0 km) west of Hancock school, and 3.0 mi (4.8 km) downstream from Jim Creek.

DRAINAGE AREA.--609 mi² (1,577 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,085.94 ft (330.99 m) above mean sea level.

AVERAGE DISCHARGE.--15 years, 279 ft³/s (7.90 m³/s), 6.22 in/yr (158 mm/yr), 202,100 acre-ft/yr (249 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 8,950 ft³/s (253 m³/s) May 19, gage height, 12.81 ft (3.904 m); minimum daily, 104 ft³/s (2.95 m³/s) Sept. 30.
Period of record: Maximum discharge, 26,400 ft³/s (748 m³/s) Sept. 13, 1972, gage height, 22.12 ft (6.742 m); minimum daily, 2.2 ft³/s (62 dm³/s) Feb. 8, 9, 1971.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	995	554	462	290	440	990	487	403	650	310	169	148
2	886	536	466	290	400	1,340	459	406	600	297	195	153
3	823	522	473	280	380	1,620	498	406	570	290	179	158
4	787	508	466	280	360	1,240	630	393	540	303	166	145
5	728	494	374	270	340	1,060	590	390	529	294	161	139
6	697	487	370	270	330	926	558	383	532	281	158	136
7	710	494	390	260	320	872	530	393	540	272	153	136
8	684	494	420	260	320	814	508	415	562	263	153	134
9	658	470	425	260	320	805	480	386	622	257	213	128
10	886	456	428	260	330	756	487	383	582	251	200	126
11	3,540	466	428	260	350	728	484	442	501	284	192	124
12	2,530	480	442	260	400	868	532	422	476	272	156	334
13	1,560	476	473	260	450	774	501	383	470	251	348	303
14	1,320	470	435	260	460	715	536	526	462	240	459	182
15	1,190	476	410	270	470	720	590	419	445	234	313	158
16	1,070	459	390	280	480	674	529	2,170	425	223	438	143
17	1,010	445	380	290	800	618	508	1,520	412	221	415	136
18	936	442	370	300	1,610	642	508	4,680	412	210	348	128
19	886	428	360	310	1,240	622	501	5,580	409	203	246	124
20	828	590	350	330	1,140	578	490	2,010	406	197	203	120
21	800	1,130	340	350	1,200	543	487	1,120	393	197	179	118
22	774	638	340	370	859	598	476	950	393	192	177	114
23	724	550	340	390	760	515	438	828	399	182	171	114
24	715	582	340	390	674	522	428	760	374	177	164	116
25	670	562	340	400	646	526	432	702	367	177	161	114
26	646	532	340	440	638	543	438	774	358	174	158	112
27	618	522	340	460	692	532	435	832	345	171	174	112
28	618	487	340	470	1,200	536	473	733	335	171	182	110
29	590	473	330	480	-----	526	480	760	326	169	153	106
30	578	473	320	500	-----	522	425	1,020	316	169	148	104
31	574	-----	300	470	-----	498	-----	895	-----	161	148	-----
TOTAL	30,031	15,696	11,982	10,260	17,609	23,223	14,918	31,484	13,751	7,093	6,680	4,275
MEAN	969	523	387	331	629	749	497	1,016	458	229	215	143
MAX	3,540	1,130	473	500	1,610	1,620	630	5,580	650	310	459	334
MIN	574	428	300	260	320	498	425	383	316	161	148	104
CFSM	1.59	.86	.64	.54	1.03	1.23	.82	1.67	.75	.38	.35	.23
IN.	1.83	.96	.73	.63	1.08	1.42	.91	1.92	.84	.43	.41	.26
AC-FT	59,570	31,130	23,770	20,350	34,930	46,060	29,590	62,450	27,280	14,070	13,250	8,480

CAL YR 1973 TOTAL 309,730 MEAN 849 MAX 10,000 MIN 203 CFSM 1.39 IN 18.92 AC-FT 614,300
WTR YR 1974 TOTAL 187,002 MEAN 512 MAX 5,580 MIN 104 CFSM .84 IN 11.42 AC-FT 370,900

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	2000	9.13	4,730	5-19	0730	12.81	8,950
5-16	1830	9.10	4,700				

NISHNABOTNA RIVER BASIN

06808500 WEST NISHNABOTNA RIVER AT RANDOLPH, IOWA

LOCATION.--Lat 40°52'23", long 95°34'48", in NE1/4 NE1/4 sec.17, T.70 N., R.41 W., Fremont County, on right bank on downstream side of bridge on State Highway 184, 0.3 mi (0.5 km) downstream from Deer Creek, 0.5 mi (0.8 km) west of Randolph, and 16.2 mi (26.1 km) upstream from confluence with East Nishnabotna River.

DRAINAGE AREA.--1,326 mi² (3,434 km²).

PERIOD OF RECORD.--June 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 932.99 ft (284.38 m) above mean sea level, unadjusted. Prior to Aug. 26, 1955, nonrecording gage and June 30, 1949, to Aug. 25, 1955, supplementary water-stage recorder, operating above gage height 8.4 ft (2.6 m) at same site and datum.

AVERAGE DISCHARGE.--26 years, 546 ft³/s (15.5 m³/s), 5.59 in/yr (142 mm/yr), 395,600 acre-ft/yr (488 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,590 ft³/s (215 m³/s) May 19, gage height, 16.95 ft (5.166 m); minimum daily, 190 ft³/s (5.38 m³/s) Sept. 30.

Period of record: Maximum discharge, 35,500 ft³/s (1,010 m³/s) June 21, 1967, gage height, 22.60 ft (6.888 m) maximum gage height, 24.8 ft (7.56 m) Mar. 5, 1949, from graph based on gage readings, backwater from ice; minimum daily discharge, 10 ft³/s (0.28 m³/s) Dec. 17-21, 1955.

Flood in June 1947 reached a stage of about 24 ft (7 m), discharge not determined, from information by local residents.

CORRECTIONS.--The maximum gage height for water year 1973 is 19.79 ft (6.032 m) Sept. 26; the previously published figure for that date was incorrect.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS.--WSP 1440: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,740	1,100	910	700	1,300	2,090	999	763	1,100	586	322	320
2	1,560	1,070	920	690	1,050	1,980	967	747	1,050	572	354	326
3	1,380	1,030	946	680	1,020	2,550	970	752	1,000	563	357	325
4	1,270	1,000	1,110	670	860	2,690	1,010	752	1,030	586	350	314
5	1,190	991	1,000	660	850	2,280	1,110	752	956	586	330	294
6	1,140	984	920	660	900	1,890	1,060	752	976	572	331	291
7	1,130	984	900	660	920	1,730	1,040	763	940	554	324	291
8	1,130	991	950	660	940	1,650	987	822	956	540	329	284
9	1,090	964	980	660	980	1,590	934	817	1,170	518	365	275
10	1,320	925	1,000	660	1,000	1,530	906	784	1,120	504	476	266
11	5,540	925	991	660	1,020	1,500	918	984	978	504	421	258
12	5,380	932	998	660	1,370	1,610	982	850	879	504	388	298
13	3,130	945	1,030	660	1,970	1,630	959	806	852	496	346	518
14	2,500	925	991	660	1,560	1,490	924	1,180	871	468	734	455
15	2,160	913	951	680	1,200	1,440	997	817	820	446	742	321
16	1,920	900	881	720	1,100	1,400	1,050	774	773	432	665	278
17	1,710	875	887	780	1,440	1,330	946	3,230	823	428	880	261
18	1,530	862	938	840	2,750	1,300	904	2,350	801	414	690	246
19	1,490	856	900	880	2,690	1,280	868	6,780	776	399	558	236
20	1,500	1,110	850	920	2,200	1,230	868	3,780	761	388	442	222
21	1,460	1,410	840	980	2,120	1,190	916	1,850	737	381	390	218
22	1,420	1,590	840	1,030	2,080	1,200	844	1,570	712	377	369	212
23	1,370	1,110	840	1,030	1,500	1,150	773	1,370	702	367	359	212
24	1,330	1,220	840	1,000	1,200	1,050	740	1,250	705	355	350	209
25	1,280	1,130	840	980	1,050	1,080	726	1,200	674	348	338	208
26	1,210	1,060	840	1,050	1,000	1,100	721	1,230	665	344	330	205
27	1,180	997	830	1,100	1,300	1,120	726	1,350	581	339	321	201
28	1,130	945	820	1,060	1,870	1,100	1,020	1,370	545	334	334	200
29	1,120	922	800	1,050	-----	1,090	1,600	1,200	625	325	345	196
30	1,150	904	760	1,240	-----	1,070	881	2,030	600	320	316	190
31	1,160	-----	720	1,590	-----	1,040	-----	1,300	-----	309	349	-----
TOTAL	53,620	30,570	28,023	26,270	39,240	46,380	28,346	44,975	25,178	13,859	13,205	8,130
MEAN	1,730	1,019	904	847	1,401	1,496	945	1,451	839	447	426	271
MAX	5,540	1,590	1,110	1,590	2,750	2,690	1,600	6,780	1,170	586	880	518
MIN	1,090	856	720	660	850	1,040	721	747	545	309	316	190
CFSM	1.30	.77	.68	.64	1.06	1.13	.71	1.09	.63	.34	.32	.20
IN.	1.50	.86	.79	.74	1.10	1.30	.80	1.26	.71	.39	.37	.23
AC-FT	106,400	60,640	55,580	52,110	77,830	91,990	56,220	89,210	49,940	27,490	26,190	16,130

CAL YR 1973 TOTAL 632,733 MEAN 1,734 MAX 12,600 MIN 473 CFSM 1.31 IN 17.75 AC-FT 1,255,000
WTR YR 1974 TOTAL 357,796 MEAN 980 MAX 6,780 MIN 190 CFSM .74 IN 10.04 AC-FT 709,700

PEAK DISCHARGE (BASE, 6,500 FT³/S).--Oct. 11 (1600) 6,850 ft³/s (16.27 ft); May 19 (1700) 7,590 ft³/s (16.95 ft).

06809210 EAST NISHNABOTNA RIVER NEAR ATLANTIC, IOWA

LOCATION.--Lat 41°20'47", long 95°04'31", in NW1/4 NW1/4 sec.35, T.76 N., R.67 W., Cass County, on left bank at downstream side of bridge on county highway, 1.9 mi (3.1 km) upstream from Turkey Creek, and 5.4 mi (8.7 km) southwest of junction of U.S. Highway 6 and State Highway 83 in Atlantic.

DRAINAGE AREA.--436 mi² (1,129 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,105.83 ft (337.06 m) above mean sea level. Prior to Oct. 1, 1970, at site 2.0 mi (3.2 km) upstream at datum 5.00 ft (1.52 m) higher.

AVERAGE DISCHARGE.--14 years, 219 ft³/s (6.20 m³/s), 6.82 in/yr (173 mm/yr), 158,700 acre-ft/yr (196 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 5,720 ft³/s (162 m³/s) Oct. 11, gage height, 11.65 ft (3.551 m); minimum daily, 41 ft³/s (1.16 m³/s) Sept. 30.
 Period of record: Maximum discharge, 26,700 ft³/s (756 m³/s) Sept. 12, 1972, gage height, 22.81 ft (6.952 m); minimum daily, 7.0 ft³/s (198 dm³/s) Dec. 17-23, 1963, Jan. 5-11, 1971.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	490	282	275	240	250	776	340	347	372	182	83	67
2	362	275	289	235	220	1,220	333	354	351	176	91	67
3	462	269	279	230	210	990	320	340	351	168	80	69
4	438	262	300	225	205	1,290	430	320	344	194	74	65
5	323	258	250	210	200	1,180	430	316	337	170	72	63
6	225	258	230	190	195	945	391	306	330	159	71	62
7	235	258	220	170	190	762	376	320	326	154	69	63
8	225	258	230	160	185	684	340	330	330	143	71	60
9	216	255	240	160	175	688	326	313	466	135	708	56
10	349	252	250	160	175	603	337	306	391	135	252	55
11	3,470	248	260	160	175	561	351	354	326	154	135	53
12	1,490	248	260	160	200	820	330	306	313	148	91	135
13	925	245	260	160	500	620	337	292	306	138	190	182
14	607	238	250	160	400	591	369	426	316	125	140	83
15	528	232	230	160	300	565	454	316	289	117	112	69
16	482	222	210	180	200	528	422	527	275	96	212	65
17	454	219	200	200	750	498	399	595	275	98	156	71
18	418	219	190	230	1,230	486	387	1,710	279	98	151	56
19	403	212	180	270	930	462	333	1,810	275	96	120	56
20	380	450	180	320	825	422	347	895	265	87	100	53
21	365	637	180	300	905	403	1,010	599	255	85	89	50
22	362	347	180	290	458	354	865	637	241	94	83	46
23	356	309	190	280	430	372	454	462	245	78	78	46
24	351	362	210	270	410	340	376	414	228	72	74	46
25	344	333	240	260	430	296	365	384	222	71	72	46
26	340	330	320	250	474	323	362	478	212	67	69	44
27	309	296	280	240	540	326	358	502	206	63	71	44
28	289	282	270	250	870	320	536	442	200	63	69	44
29	275	286	260	260	-----	340	507	612	194	62	67	44
30	275	282	250	350	-----	347	358	490	188	62	67	41
31	282	-----	250	300	-----	344	-----	544	-----	69	67	-----
TOTAL	16,030	8,624	7,413	7,030	12,032	18,456	12,543	16,047	8,708	3,559	3,784	1,901
MEAN	517	287	239	227	430	595	418	518	290	115	122	63.4
MAX	3,470	637	320	350	1,230	1,290	1,010	1,810	466	194	708	182
MIN	216	212	180	160	175	296	320	292	188	62	67	41
CFSM	1.19	.66	.55	.52	.99	1.36	.96	1.19	.67	.26	.28	.15
IN.	1.37	.74	.63	.60	1.03	1.57	1.07	1.37	.74	.30	.32	.16
AC-FT	31,800	17,110	14,700	13,940	23,870	36,610	24,880	31,830	17,270	7,060	7,510	3,770

CAL YR 1973 TOTAL 219,465 MEAN 601 MAX 4,770 MIN 115 CFSM 1.38 IN 18.72 AC-FT 435,300
 WTR YR 1974 TOTAL 116,127 MFAN 318 MAX 3,470 MIN 41 CFSM .73 IN 9.91 AC-FT 230,300

PEAK DISCHARGE (BASE, 3,000 FT³/S).--Oct. 11 (1200) 5,720 ft³/s (11.65 ft); May 19 (0600) 3,270 ft³/s (9.30 ft).

NISHNABOTNA RIVER BASIN

06809500 EAST NISHNABOTNA RIVER AT RED OAK, IOWA

LOCATION.--Lat 41°00'41", long 95°14'07", in NW1/4 SE1/4 sec.29, T.72 N., R.38 W., Montgomery County, on left bank ca downstream side of Coolbaugh Street bridge in Red Oak, and 0.2 mi (0.3 km) upstream from Red Oak Creek.

DRAINAGE AREA.--894 mi² (2,315 km²).

PERIOD OF RECORD.--May 1918 to July 1925, May 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 1,005.45 ft (306.46 m) above mean sea level, unadjusted. Prior to July 5, 1925, nonrecording gage at present site at datum 4.60 ft (1.40 m) higher. May 29, 1936, to Nov. 13, 1952, nonrecording gage with supplementary water-stage recorder in operation above 3.2 ft (1.0 m) gage height July 30, 1939 to Nov. 13, 1952, and Nov. 14, 1952 to June 13, 1966, water-stage recorder, all at site 0.5 mi (0.8 km) upstream at datum 5.00 ft (1.52 m) higher. June 14, 1966 to Sept. 30, 1969, at present site at datum 5.00 ft (1.52 m) higher.

AVERAGE DISCHARGE.--44 years (1918-24, 1936-74), 372 ft³/s (10.5 m³/s), 5.65 in/yr (144 mm/yr), 269,500 acre-ft/yr (332 hm³/yr); median of yearly mean discharges, 330 ft³/s (9.35 m³/s), 5.0 in/yr (127 mm/yr), 239,000 acre-ft/yr (295 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 8,460 ft³/s (240 m³/s) Oct. 11, gage height, 15.28 ft (4.657 m); minimum daily, 107 ft³/s (3.03 m³/s) Sept. 30.
Period of record: Maximum discharge, 38,000 ft³/s (1,080 m³/s) Sept. 13, 1972, gage height, 27.43 ft (8.361 m); maximum gage height, 28.23 ft (8.605 m) June 13, 1947, present datum; minimum daily discharge, 6 ft³/s (0.17 m³/s) Aug. 18, 1936.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1240: 1921, 1922-23 (M), 1924, 1942 (M), 1944 (M), 1946. WSP 1440: Drainage area. WSP 1710: 1957.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	652	558	582	380	550	1,780	658	915	855	352	143	194
2	715	532	555	360	450	2,100	629	817	706	334	171	182
3	562	508	545	340	430	3,670	624	763	675	345	175	185
4	516	488	583	320	380	2,620	758	700	643	353	159	188
5	488	480	558	300	370	2,330	768	645	623	374	152	167
6	476	468	516	280	365	1,670	740	624	618	334	152	161
7	480	468	512	270	360	1,550	714	612	618	310	147	143
8	472	468	520	260	355	1,360	683	654	630	297	134	134
9	472	456	530	250	350	1,360	637	624	947	281	817	140
10	562	436	500	250	350	1,290	624	595	1,010	271	736	140
11	4,870	425	490	250	350	1,070	620	715	698	271	383	152
12	3,660	425	510	250	440	1,390	675	748	627	294	265	172
13	2,350	429	530	250	1,000	1,390	679	632	593	277	204	183
14	1,790	429	500	250	1,040	1,190	641	1,120	577	255	1,180	229
15	1,450	421	460	250	612	1,100	745	845	551	239	412	220
16	1,230	410	420	250	508	1,050	776	633	521	229	540	191
17	1,100	395	380	300	950	952	700	1,340	491	229	666	173
18	1,020	392	350	350	2,940	951	671	2,300	478	213	671	156
19	955	392	320	400	1,720	923	654	3,540	472	207	397	155
20	880	468	310	500	1,470	830	679	2,060	463	201	290	149
21	840	1,800	300	550	1,470	775	1,260	1,340	442	194	249	144
22	810	1,050	300	540	1,300	768	1,300	1,600	430	188	233	137
23	760	705	300	530	745	750	709	1,170	426	176	220	131
24	725	800	330	510	700	745	658	965	418	182	207	130
25	690	870	400	470	660	740	612	875	402	170	204	125
26	637	710	600	470	748	735	588	983	389	152	191	123
27	609	671	600	460	842	735	572	1,210	393	152	188	119
28	584	630	500	450	1,430	718	706	1,000	385	143	197	119
29	564	616	450	460	-----	722	2,220	934	373	146	182	115
30	558	605	420	480	-----	718	1,340	1,120	365	143	176	107
31	562	-----	400	700	-----	683	-----	1,210	-----	140	197	-----
TOTAL	32,039	17,505	14,271	11,680	22,885	38,665	23,640	33,289	16,819	7,452	10,038	4,664
MEAN	1,034	584	460	377	817	1,247	788	1,074	561	240	324	155
MAX	4,870	1,800	600	700	2,940	3,670	2,220	3,540	1,010	374	1,180	229
MIN	472	392	300	250	350	683	572	595	365	140	134	107
CFSM	1.16	.65	.51	.42	.91	1.39	.88	1.20	.63	.27	.36	.17
IN.	1.33	.73	.59	.49	.95	1.61	.98	1.39	.70	.31	.42	.19
AC-FT	63,550	34,720	28,310	23,170	45,390	76,690	46,890	66,030	33,360	14,780	19,910	9,250

CAL YR 1973 TOTAL 437,972 MEAN 1,200 MAX 10,600 MIN 180 CFSM 1.34 IN 18.22 AC-FT 868,700
WTR YR 1974 TOTAL 232,947 MEAN 638 MAX 4,870 MIN 107 CFSM .71 IN 9.69 AC-FT 462,100

PEAK DISCHARGE (BASE, 4,500 FT³/S).--Oct. 11 (1800) 8,460 ft³/s (15.28 ft); Mar. 3 (1215) 4,600 ft³/s (12.08 ft).

NISHNABOTNA RIVER BASIN

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06810000 NISHNABOTNA RIVER ABOVE HAMBURG, IOWA

LOCATION.--Lat 40°37'57", long 95°37'32", in SW1/4 SE1/4 sec.11, T.67 N., R.42 W., Fremont County, on left bank 1.6 mi (2.6 km) downstream from confluence of East Nishnabotna and West Nishnabotna Rivers and 2 mi (3.2 km) northeast of Hamburg, and at mile 13.2 (21.2 km), revised.

DRAINAGE AREA.--2,806 mi² (7,268 km²).

PERIOD OF RECORD.--March 1922 to September 1923, October 1928 to current year. Monthly discharge only for some periods published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 894.17 ft (272.54 m) above mean sea level. See WSP 1730 for history of changes prior to Nov. 16, 1950.

AVERAGE DISCHARGE.--47 years, 1,018 ft³/s (28.8 m³/s), 4.93 in/yr (125 mm/yr), 737,500 acre-ft/yr (909 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 16,300 ft³/s (462 m³/s) Oct. 12, gage height, 23.07 ft (7.032 m); minimum daily, 348 ft³/s (9.86 m³/s) Sept. 30.

Period of record: Maximum discharge, 55,500 ft³/s (1,570 m³/s) June 24, 1947, gage height, 26.03 ft (7.934 m), present site and datum, from floodmark; maximum gage height, 27.42 ft (8.358 m) Sept. 15, 1972; minimum daily discharge, 4.5 ft³/s (127 dm³/s) Aug. 30, 1934.

REMARKS.--Records good except those for winter period, which are poor. Diversion upstream from East and West Nishnabotna Rivers for wildlife preserve near Riverton.

REVISIONS (WATER YEARS).--WSP 1240: 1923, 1929-37, 1938-40 (M), 1943 (M). WSP 1440: Drainage area. Revised figures of discharge, in cubic feet per second, for the water year 1973, superseding figures published in WRD Iowa 1973 are given below:

Oct. 1, 1972.....1,750
Oct. 2, 1972.....1,600

Month	Cfs-days	Maximum	Mean	Per square mile	Runoff in inches	Runoff in acre-feet
October 1972.....	44,212	3,800	1,426	0.51	0.59	87,690
Cal. year 1972....	547,540		1,496	.53	7.26	1,086,000
Water year 1973...	1,286,027	16,200	3,523	1.26	17.05	2,551,000

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,300	2,160	1,980	1,600	2,820	3,930	2,010	2,220	3,110	1,200	598	554
2	2,860	2,110	1,950	1,600	2,710	3,930	1,940	1,920	2,140	1,160	597	548
3	2,610	2,020	1,940	1,500	2,340	5,030	1,930	1,810	1,990	1,120	606	552
4	2,330	1,960	1,900	1,500	1,900	6,210	1,950	1,700	1,920	1,120	616	550
5	2,140	1,890	1,800	1,500	1,800	4,920	2,080	1,600	1,820	1,140	607	545
6	2,010	1,850	2,000	1,500	2,000	4,410	2,080	1,540	1,800	1,140	591	537
7	1,950	1,860	1,900	1,500	2,200	3,740	2,050	1,490	1,800	1,080	583	515
8	1,920	1,880	1,900	1,500	2,500	3,520	1,980	1,500	1,820	1,050	580	490
9	1,870	1,880	1,900	1,500	2,700	3,330	1,910	1,540	4,370	1,000	578	460
10	2,250	1,860	1,900	1,500	3,000	3,200	1,830	1,470	2,740	958	2,130	454
11	9,530	1,820	1,900	1,500	2,580	3,010	1,820	1,940	2,340	945	1,180	442
12	15,100	1,820	1,900	1,500	1,890	3,030	1,910	1,860	1,960	932	907	449
13	8,770	1,850	1,900	1,500	2,180	3,330	1,950	1,670	1,840	958	802	484
14	5,570	1,870	1,800	1,500	2,930	3,140	1,950	2,510	1,780	920	983	556
15	4,550	1,840	1,800	1,600	2,540	2,920	1,920	1,880	1,720	878	1,860	610
16	3,950	1,800	1,800	1,800	2,080	2,820	2,110	1,620	1,630	840	1,410	613
17	3,520	1,800	1,800	2,000	1,980	2,690	2,070	2,870	1,580	769	1,510	610
18	3,300	1,780	1,800	2,200	3,440	2,560	1,930	4,270	1,560	785	1,470	604
19	3,090	1,770	1,800	2,300	4,950	2,530	1,880	7,540	1,550	769	1,070	581
20	2,920	1,980	1,800	2,400	3,850	2,470	1,910	6,510	1,540	752	932	529
21	2,840	2,530	1,800	2,500	3,560	2,370	3,000	3,790	1,490	743	798	480
22	2,700	3,590	1,800	2,500	3,660	2,340	2,630	2,920	1,430	735	689	415
23	2,610	2,630	1,800	2,500	3,050	2,290	2,420	2,970	1,390	706	657	380
24	2,570	2,490	1,800	2,500	2,480	2,130	1,930	2,520	1,390	692	641	369
25	2,490	2,560	1,800	2,600	2,470	2,100	1,810	2,320	1,360	677	628	365
26	2,390	2,470	1,800	3,000	2,350	2,160	1,760	2,220	1,290	670	613	365
27	2,310	2,320	1,800	3,200	2,510	2,200	1,730	2,400	1,300	663	594	365
28	2,250	2,230	1,800	2,990	3,010	2,190	1,840	2,620	1,270	648	571	360
29	2,180	2,120	1,800	2,480	-----	2,160	3,030	2,350	1,250	637	567	356
30	2,170	2,040	1,700	2,320	-----	2,150	3,490	4,210	1,230	622	543	348
31	2,170	-----	1,700	2,620	-----	2,100	-----	3,520	-----	610	540	-----
TOTAL	110,220	62,780	57,070	62,710	75,480	94,910	62,850	81,300	54,410	26,919	26,451	14,486
MEAN	3,555	2,093	1,841	2,023	2,696	3,062	2,095	2,623	1,814	868	853	483
MAX	15,100	3,590	2,000	3,200	4,950	6,210	3,490	7,540	4,370	1,200	2,130	613
MIN	1,870	1,770	1,700	1,500	1,800	2,100	1,730	1,470	1,230	610	540	348
CFSM	1.27	.75	.66	.72	.96	1.09	.75	.93	.65	.31	.30	.17
IN.	1.46	.83	.76	.83	1.00	1.26	.83	1.08	.72	.36	.35	.19
AC-FT	218,600	124,500	113,200	124,400	149,700	188,300	124,700	161,300	107,900	53,390	52,470	28,730
CAL YR 1973 TOTAL	1,300,135		MEAN 3,562		MAX 16,200	MIN 899	CFSM 1.27		IN 17.24	AC-FT 2,579,000		
WTR YR 1974 TOTAL	729,586		MEAN 1,999		MAX 15,100	MIN 348	CFSM .71		IN 9.67	AC-FT 1,447,000		

PEAK DISCHARGE (BASE, 9,000 FT³/S).--Oct. 12 (1145) 16,300 ft³/s (23.07 ft).

TARKIO RIVER BASIN

06811840 TARKIO RIVER AT STANTON, IOWA

LOCATION.--Lat 40°58'52", long 95°06'32", in NW1/4 SW1/4 sec.4, T.71 N., R.37 W., Montgomery County, on right bank 10 ft (3 m) downstream from bridge on county highway H42, 0.1 mi (0.2 km) downstream from Little Tarkio Creek, and 0.5 mi (0.8 km) west of Stanton.

DRAINAGE AREA.--45.3 mi² (128 km²).

PERIOD OF RECORD.--October 1957 to current year. Annual maximum, water years 1952-57.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,104.67 ft (336.70 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 26.7 ft³/s (0.76 m³/s), 7.35 in/yr (187 mm/yr), 19,340 acre-ft/yr (23.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,470 ft³/s (41.6 m³/s) Oct. 11, gage height, 12.61 ft (3.844 m); minimum daily, 0.23 ft³/s (0.007 m³/s) Sept. 20.
Period of record: Maximum discharge, 22,500 ft³/s (637 m³/s) June 9, 1967, gage height, 28.56 ft (8.705 m), from rating curve extended above 1,600 ft³/s (45.3 m³/s) on basis of slope-area measurement of peak flow; no flow at times most years.

REMARKS.--Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1919: 1960 (N).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	36	38	29	80	99	32	52	22	15	2.3	1.2
2	30	34	40	28	66	135	32	50	22	14	2.5	1.9
3	26	33	37	28	52	132	32	47	23	12	2.1	1.6
4	23	33	88	28	48	114	30	42	21	14	2.0	1.3
5	21	32	64	28	45	91	29	35	21	12	2.0	.79
6	21	32	51	28	36	77	29	31	21	11	1.7	.85
7	22	33	47	28	32	68	26	34	23	10	1.7	1.6
8	20	32	48	28	32	69	26	43	21	10	2.0	1.1
9	19	30	46	28	33	58	26	41	96	9.7	3.7	.81
10	196	30	43	28	35	52	25	35	51	9.8	3.7	.51
11	844	31	42	28	45	60	28	85	40	12	2.3	.42
12	160	30	40	28	55	70	28	51	36	9.3	1.4	3.3
13	110	28	40	28	56	58	25	47	33	7.7	8.3	1.7
14	88	27	38	28	46	55	30	39	31	7.4	6.8	.94
15	74	28	35	28	41	51	26	36	28	8.0	2.7	.66
16	63	26	32	30	42	46	26	39	24	7.4	18	.62
17	60	27	30	32	51	46	25	47	25	6.7	4.2	.54
18	56	25	27	35	53	46	25	49	25	6.0	3.6	.27
19	52	25	25	40	47	41	23	44	24	5.3	2.3	.31
20	49	111	30	45	46	41	172	38	23	4.6	1.6	.23
21	44	63	32	55	45	39	169	35	22	4.2	1.3	.46
22	44	30	33	45	38	37	61	35	19	5.3	1.3	.58
23	44	36	33	40	37	35	49	30	18	4.7	1.1	.72
24	42	69	40	38	38	33	41	30	18	4.4	1.1	.62
25	39	41	60	50	38	35	37	30	17	3.9	1.5	.62
26	39	38	50	72	43	38	34	29	16	3.7	.89	.62
27	39	65	45	66	72	38	33	33	16	2.8	.60	.62
28	37	42	40	57	94	36	55	35	15	2.8	.40	1.5
29	37	42	36	81	-----	38	110	32	15	1.8	.40	.89
30	38	39	32	177	-----	36	59	27	13	1.9	.50	.57
31	38	-----	30	136	-----	35	-----	23	-----	2.1	.69	-----
TOTAL	2,410	1,148	1,272	1,420	1,346	1,809	1,343	1,224	779	229.5	84.68	27.85
MEAN	77.7	38.3	41.0	45.8	48.1	58.4	44.8	39.5	26.0	7.40	2.73	.93
MAX	844	111	88	177	94	135	172	85	96	15	18	3.3
MIN	19	25	25	28	32	33	23	23	13	1.8	.40	.23
CFSM	1.58	.78	.83	.93	.98	1.18	.91	.80	.53	.15	.06	.02
IN.	1.82	.87	.96	1.07	1.02	1.37	1.01	.92	.59	.17	.06	.02
AC-FT	4,780	2,280	2,520	2,820	2,670	3,590	2,660	2,430	1,550	455	168	55

CAL YR 1973 TOTAL 25,138.90 MEAN 68.9 MAX 1,090 MIN 7.7 CFSM 1.40 IN 18.97 AC-FT 49,860
WTR YR 1974 TOTAL 13,093.03 MEAN 35.9 MAX 844 MIN .23 CFSM .73 IN 9.88 AC-FT 25,970

PEAK DISCHARGE (BASE, 1,500 FT³/S).--No peak above base.

06813500 MISSOURI RIVER AT RULO, NEBR.

LOCATION.--Lat 40°03'14", long 95°25'12", in NW1/4 NW1/4 sec.17, T.1 N., R.18 E., Richardson County, on downstream end of middle pier of bridge on U.S. Highway 159 at Rulo, 3.2 mi (5.1 km) upstream from Nemaha River, and at mile 498.0 (801.3 km).

DRAINAGE AREA.--418,900 mi² (1,085,000 km²), approximately.

PERIOD OF RECORD.--October 1949 to current year in reports of Geological Survey. Gage-height record collected at site 80 ft (24 m) upstream January 1886 to December 1899 published in reports of Missouri River Commission; September 1929 to September 1950 in files of Kansas City office of Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 837.23 ft (255.19 m) above mean sea level. Prior to Sept. 13, 1950, nonrecording gage at site 80 ft (24 m) upstream at same datum.

AVERAGE DISCHARGE.--25 years, 38,650 ft³/s (1,095 m³/s), 28,000,000 acre-ft/yr (34,500 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 125,000 ft³/s (3,540 m³/s) Oct. 12, gage height, 23.41 ft (7.135 m), backwater from Nemaha River; minimum daily, 21,000 ft³/s (595 m³/s) Jan. 13-16; minimum gage height, 6.51 ft (1.984 m) Jan. 3.

Period of record: Maximum discharge, 358,000 ft³/s (10,100 m³/s) Apr. 22, 1952, gage height, 25.60 ft (7.803 m); minimum daily, 4,420 ft³/s (125 m³/s) Jan. 13, 1957; minimum gage height, 0.65 ft (0.198 m) Jan. 7, 1971, result of freezeup.

Flood in 1881 reached a stage of 22.9 ft (6.98 m), from floodmark (discharge not determined).

REMARKS.--Records good except those for period of backwater from Nemaha River and for winter period, which are poor. Flow partly regulated by upstream main-stem reservoirs.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58,500	43,500	38,900	27,100	46,700	39,600	44,900	47,100	54,900	37,900	38,400	36,600
2	63,000	45,200	37,900	26,900	44,600	39,600	46,000	46,700	49,100	38,600	38,600	37,400
3	57,200	47,900	37,400	26,700	41,000	39,400	47,100	47,500	45,600	38,400	39,400	37,200
4	54,400	47,500	41,300	26,900	38,400	41,300	47,900	46,000	44,600	38,400	39,900	36,900
5	52,600	47,500	45,600	27,100	37,600	41,000	50,800	45,200	42,500	38,600	39,200	36,600
6	50,400	45,600	38,400	26,900	37,900	39,900	51,300	45,200	40,400	38,200	39,400	36,400
7	50,000	45,200	35,000	26,700	35,600	39,200	50,800	43,200	43,200	37,900	39,400	36,600
8	50,400	44,600	33,600	26,500	35,000	39,400	48,700	43,500	44,200	37,900	39,200	36,600
9	49,100	44,900	32,900	26,000	35,400	39,400	49,100	44,600	67,500	37,900	39,400	36,600
10	65,100	44,600	32,500	25,000	35,200	39,200	47,900	43,800	57,200	37,600	41,300	36,600
11	100,000	43,200	32,500	24,000	34,300	39,200	47,900	44,900	48,700	37,600	42,800	36,600
12	122,000	43,200	32,200	22,500	34,000	38,900	49,100	49,500	48,700	37,900	41,300	38,400
13	102,000	43,200	33,200	21,000	35,000	39,200	49,100	50,000	51,300	38,400	39,600	39,900
14	75,000	42,500	34,300	21,000	37,600	39,400	50,000	50,400	46,700	38,200	40,700	38,900
15	65,000	43,500	33,400	21,000	39,200	39,400	52,200	47,100	46,700	37,900	45,600	38,600
16	60,500	43,800	31,600	21,000	38,200	39,200	51,300	46,300	45,600	37,400	44,200	37,600
17	54,900	42,800	30,900	24,000	37,600	39,200	50,000	50,400	44,600	37,200	43,500	36,900
18	51,300	43,500	31,100	34,000	39,600	39,200	47,900	62,500	44,900	36,900	41,600	37,200
19	49,100	43,800	29,900	38,000	50,800	39,200	47,100	72,000	44,200	37,600	39,400	38,200
20	48,300	43,800	27,700	40,000	48,300	39,400	46,300	87,800	41,200	38,200	37,900	38,400
21	46,700	48,700	26,900	39,000	47,900	39,900	58,000	66,500	41,300	37,600	36,900	38,400
22	46,000	54,000	26,700	38,000	44,900	41,900	50,400	57,200	41,000	37,400	36,600	38,400
23	45,200	53,100	26,700	37,000	40,700	45,200	49,100	59,500	41,000	37,200	36,900	37,900
24	43,800	50,800	27,700	38,000	36,900	49,100	49,100	52,600	42,000	36,900	36,900	38,200
25	42,800	50,400	32,500	42,000	37,200	49,500	47,900	49,100	44,000	37,200	36,900	38,200
26	41,900	50,000	32,900	46,000	35,900	48,700	47,900	49,500	46,000	37,400	36,200	38,200
27	41,900	48,300	31,100	44,000	36,200	50,000	47,100	50,800	40,400	37,600	36,400	37,400
28	41,900	46,300	30,700	42,800	37,600	48,300	46,700	53,100	39,600	37,900	36,400	37,600
29	42,200	43,200	30,700	41,600	-----	47,500	50,800	50,400	39,400	37,900	36,200	37,600
30	41,900	41,000	30,300	41,900	-----	48,300	54,400	54,400	38,400	38,400	36,400	37,900
31	42,800	-----	28,700	44,600	-----	46,700	-----	66,000	-----	38,600	36,400	-----
TOTAL	1,755.9M	1,375.6M	1,015.2M	987.200	1,099.3M	1,305.4M	1,476.8M	1,622.8M	1,365.0M	1,172.8M	1,213.0M	1,128.0M
MEAN	56,640	45,850	32,750	31,850	39,260	42,110	49,230	52,350	45,500	37,830	39,130	37,600
MAX	122,000	54,000	45,600	46,000	50,800	50,000	58,000	87,800	67,500	38,600	45,600	39,900
MIN	41,900	41,000	26,700	21,000	34,000	38,900	44,900	43,200	38,400	36,900	36,200	36,400
AC-FT	3,483M	2,729M	2,014M	1,958M	2,180M	2,589M	2,929M	3,219M	2,707M	2,326M	2,406M	2,237M

CAL YR 1973 TOTAL 18,567,600 MEAN 50,870 MAX 122,000 MIN 24,000 AC-FT 36,830,000
WTR YR 1974 TOTAL 15,517,000 MEAN 42,510 MAX 122,000 MIN 21,000 AC-FT 30,780,000

M Expressed in thousands.

Note: Backwater from Nemaha River Oct. 10-15.

WODAWAY RIVER BASIN

06817000 WODAWAY RIVER AT CLARINDA, IOWA

LOCATION.--Lat 40°44'19", long 95°00'47", in SW1/4 NE1/4 sec.32, T.69 N., R.36 W., Page County, on downstream side of center bridge pier on State Highway 2, 0.5 mi (0.8 km) downstream from North Branch, 1.2 mi (1.9 km) east of city square of Clarinda, and 7.5 mi (12.1 km) upstream from East Nodaway River.

DRAINAGE AREA.--762 mi² (1,973 km²).

PERIOD OF RECORD.--May 1918 to July 1925, May 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 960.36 ft (292.72 m) above mean sea level. Prior to July 5, 1925, and May 28, 1936, to Mar. 26, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--44 years (1918-24, 1936-74), 323 ft³/s (9.15 m³/s), 5.76 in/yr (146 mm/yr), 234,000 acre-ft/yr (289 hm³/yr); median of yearly mean discharges, 250 ft³/s (7.08 m³/s), 4.5 in/yr (114 mm/yr), 181,000 acre-ft/yr (223 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 21,400 ft³/s (606 m³/s) Oct. 11, gage height, 17.74 ft (5.407 m); minimum daily, 32 ft³/s (0.91 m³/s) Sept. 24, 26, 27.
 Period of record: Maximum discharge, 31,100 ft³/s (881 m³/s) June 13, 1947, gage height, 25.3 ft (7.71 m), from floodmark, from rating curve extended above 15,000 ft³/s (425 m³/s) on basis of an overflow profile and extended channel rating; minimum daily, 1 ft³/s (0.028 m³/s) Sept. 5, 9, 12, 14, 1918, Dec. 9, 27-31, 1923.
 Flood in August 1903 reached a stage of 25.4 ft (7.74 m), from floodmarks, discharge not determined.

REMARKS.--Records fair except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1240: 1918-20 (M), 1921, 1922-25 (M), 1936-38, 1942, 1943-45 (M), 1948. WSP 1440: Drainage area. WSP 1710: 1958, 1959 (P).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	776	426	633	500	1,640	1,750	422	1,640	570	204	56	46
2	670	379	606	480	1,380	1,720	426	1,320	489	188	60	52
3	615	379	588	460	930	2,420	379	1,100	476	184	56	52
4	656	366	1,190	450	642	2,070	480	925	489	181	56	48
5	480	312	1,830	440	560	2,300	538	848	431	184	54	45
6	453	301	969	430	520	1,410	494	755	417	175	56	45
7	458	301	633	420	507	1,190	435	675	426	169	52	46
8	462	294	600	410	494	1,210	387	740	856	160	56	46
9	440	298	580	400	525	1,330	358	695	4,300	148	76	45
10	1,290	290	560	390	516	1,020	362	642	1,660	140	90	45
11	18,300	276	520	380	494	881	358	864	886	145	90	43
12	8,230	269	720	370	685	1,250	375	1,110	695	145	74	52
13	3,160	266	826	360	1,450	1,180	404	680	602	140	70	64
14	2,170	259	725	350	1,140	914	431	1,390	552	140	166	56
15	1,680	259	680	340	660	826	431	1,060	534	131	100	56
16	1,390	242	640	330	543	771	417	665	574	117	154	46
17	1,170	226	600	320	793	656	370	798	395	112	197	45
18	1,060	216	550	370	1,640	646	350	1,730	383	97	140	41
19	958	210	520	450	1,140	620	331	2,960	379	90	100	43
20	864	2,320	500	1,000	832	561	770	1,410	358	83	79	38
21	771	4,450	490	2,000	832	525	7,320	1,110	327	79	66	41
22	710	1,640	480	1,580	925	516	2,550	1,670	312	79	60	34
23	660	1,110	470	986	556	490	1,760	1,040	305	74	50	36
24	633	1,790	500	776	500	480	1,290	771	280	76	46	32
25	579	1,520	1,200	980	460	470	1,070	665	262	74	45	34
26	512	1,020	1,300	1,560	520	530	947	675	256	72	45	32
27	489	1,080	1,000	1,560	903	520	870	1,050	249	68	41	32
28	458	854	876	1,400	2,050	489	917	628	236	66	36	41
29	440	740	710	1,290	-----	476	5,830	1,320	223	60	39	41
30	426	680	560	2,240	-----	480	2,610	1,070	213	58	38	34
31	431	-----	520	3,420	-----	476	-----	947	-----	54	46	-----
TOTAL	51,391	22,773	22,576	26,442	23,837	30,177	33,682	32,953	18,135	3,693	2,294	1,311
MEAN	1,658	759	728	853	851	973	1,123	1,063	605	119	74.0	43.7
MAX	18,300	4,450	1,830	3,420	2,050	2,420	7,320	2,960	4,300	204	197	64
MIN	426	210	470	320	460	470	331	628	213	54	36	32
CFSM	2.18	1.00	.96	1.12	1.12	1.28	1.47	1.40	.79	.16	.10	.06
IN.	2.51	1.11	1.10	1.29	1.16	1.47	1.64	1.61	.89	.18	.11	.06
AC-FT	101,900	45,170	44,780	52,450	47,280	59,860	66,810	65,360	35,970	7,330	4,550	2,600

CAL YR 1973 TOTAL 421,382 MEAN 1,154 MAX 18,300 MIN 163 CFSM 1.51 IN 20.57 AC-FT 835,800
 WTR YR 1974 TOTAL 269,264 MEAN 738 MAX 18,300 MIN 32 CFSM 1.97 IN 13.15 AC-FT 534,100

PEAK DISCHARGE (BASE, 5,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	1600	17.74	21,400	4-29	1500	10.10	7,250
11-21	0100	9.68	6,670	6-9	0600	9.00	5,790
4-21	1000	11.50	9,400				

PLATTE RIVER BASIN

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06818750 PLATTE RIVER NEAR DIAGONAL, IOWA

LOCATION.--Lat 40°46'02", long 94°24'46", in NE1/4 NW1/4 sec.22, T.69 N., R.31 W., Ringgold County, on left bank at downstream side of bridge on county highway, 2.2 mi (3.5 km) upstream from Turkey Creek, 4.6 mi (7.4 km) southwest of Diagonal, and 4.9 mi (7.9 km) downstream from Gard Creek.

DRAINAGE AREA.--217 mi² (562 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,095.27 ft (333.84 m) above mean sea level.

AVERAGE DISCHARGE.--6 years, 138 ft³/s (3,908 m³/s), 8.64 in/yr (219 mm/yr), 99,980 acre-ft/yr (123 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,420 ft³/s (182 m³/s) Oct. 12, gage height, 23.24 ft (7.084 m); minimum daily, 2.1 ft³/s (0.059 m³/s) Aug. 27.

Period of record: Maximum discharge, 6,420 ft³/s (182 m³/s) Oct. 12, 1973, gage height, 23.24 ft (7.084 m); minimum daily, 0.21 ft³/s (5.9 dm³/s) Jan. 14, 15, 1969.

Flood of June 1967 reached a stage of 23.16 ft (7.059 m), from floodmark by local resident, discharge not determined.

REMARKS.--Records good except those for winter period, which are fair.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	399	60	141	100	600	286	58	115	137	20	4.0	3.0
2	194	51	125	90	240	257	56	93	95	18	3.9	3.4
3	125	50	121	80	130	337	50	74	80	17	3.3	3.3
4	104	44	1,030	70	110	340	79	68	70	16	3.7	3.3
5	85	43	887	66	100	442	79	54	63	18	4.3	3.0
6	66	42	221	64	100	222	55	53	73	14	4.0	3.0
7	68	42	140	64	100	167	47	51	122	13	5.5	2.8
8	70	43	110	62	104	428	44	53	538	11	6.0	3.3
9	66	43	90	60	105	419	40	50	6,180	9.5	5.9	3.6
10	714	41	80	60	107	250	38	46	2,840	8.6	5.7	3.6
11	5,850	40	90	56	110	171	37	75	407	8.1	4.4	3.6
12	4,800	43	100	45	110	412	43	81	270	8.2	5.1	5.2
13	599	42	219	50	108	260	40	51	199	7.6	6.0	4.4
14	338	43	127	54	105	203	49	459	166	6.8	6.6	4.9
15	252	41	100	57	100	193	70	133	131	6.1	7.4	4.2
16	198	46	70	70	95	184	47	77	91	5.6	7.2	3.3
17	160	38	74	90	90	153	42	158	68	5.2	6.6	3.6
18	141	37	68	120	100	154	37	516	60	4.4	3.2	4.4
19	127	38	60	200	105	149	57	606	54	4.1	3.2	4.4
20	115	1,180	110	500	110	128	81	244	49	3.9	3.2	5.0
21	101	1,890	120	900	126	120	960	202	44	3.7	3.2	4.8
22	94	340	100	700	128	112	356	180	40	4.0	3.2	4.7
23	88	211	91	500	104	104	152	89	41	4.2	3.2	4.3
24	82	1,030	100	350	97	96	103	78	36	3.6	3.2	4.2
25	71	344	400	300	100	88	81	67	32	3.5	3.1	4.2
26	65	223	500	700	95	80	73	71	31	3.4	2.9	4.2
27	60	747	272	1,100	263	72	70	217	28	3.3	2.1	3.8
28	60	486	189	920	482	65	72	178	25	3.6	2.4	4.0
29	63	216	150	600	-----	68	372	577	24	3.4	2.4	3.9
30	55	169	170	500	-----	94	164	967	22	3.2	2.6	2.8
31	56	-----	130	700	-----	76	-----	661	-----	3.5	3.1	-----
TOTAL	15,266	7,663	6,185	9,228	4,124	6,130	3,452	6,344	12,016	244.5	130.6	116.2
MEAN	492	255	200	298	147	198	115	205	401	7.89	4.21	3.87
MAX	5,850	1,890	1,030	1,100	600	442	960	967	6,180	20	7.4	5.2
MIN	55	37	60	45	90	65	37	46	22	3.2	2.1	2.8
CFSM	2.27	1.18	.92	1.37	.68	.91	.53	.94	1.85	.04	.02	.02
IN.	2.62	1.31	1.06	1.58	.71	1.05	.59	1.09	2.06	.04	.02	.02
AC-FT	30,280	15,200	12,270	18,300	8,180	12,160	6,850	12,580	23,830	485	259	230

CAL YR 1973 TOTAL 113,364.7 MEAN 311 MAX 5,850 MIN 7.8 CFSM 1.43 IN 19.43 AC-FT 224,900
 WTR YR 1974 TOTAL 70,899.3 MEAN 194 MAX 6,180 MIN 2.1 CFSM .89 IN 12.15 AC-FT 140,600

PEAK DISCHARGE (BASE, 1,200 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-12	0515	23.24	6,420	4-21	1445	12.12	1,540
11-21	0200	16.47	3,040	5-30	2215	16.69	3,170
11-24	1245	12.61	1,680	6-9	0615	23.03	6,270
12-4	2200	13.86	2,060				

PLATTE RIVER BASIN

06819190 EAST FORK ONE HUNDRED AND TWO RIVER NEAR BEDFORD, IOWA

LOCATION.--Lat 40°38'01", long 94°44'41", in NE1/4 NE1/4 sec.9, T.67 N., R.34 W., Taylor County, on left bank at downstream side of bridge of county highway J55, 0.4 mi (0.6 km) upstream from Daugherty Creek, and 2.8 mi (4.5 km) southwest of junction of U.S. Highways 2 and 148 in Bedford.

DRAINAGE AREA.--92.1 mi² (239 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,057.51 ft (322.33 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1968, at datum 5.00 ft (1.52 m) higher.

AVERAGE DISCHARGE.--15 years, 51.5 ft³/s (1.46 m³/s), 7.59 in/yr (193 mm/yr), 37,310 acre-ft/yr (46.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 9,980 ft³/s (283 m³/s) Oct. 11, gage height, 20.72 ft (6.315 m); minimum daily, 0.16 ft³/s (0.005 m³/s) Sept. 21, 22, 24.

Period of record: Maximum discharge, 9,980 ft³/s (283 m³/s) Oct. 11, 1973, gage height, 20.72 ft (6.315 m); maximum gage height, 20.95 ft (6.386 m) Jan. 12, 1960, present datum; no flow at times in 1966-68, 1972.

REMARKS.--Records good except those for winter period, which are poor. Slight regulation at low flow by low dam used for water supply in Bedford.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	394	13	55	40	70	81	19	27	69	3.3	.38	.43
2	96	13	54	36	60	72	15	22	34	3.1	.43	.49
3	45	12	51	34	50	94	16	25	24	2.6	.37	.92
4	28	11	1,090	32	45	88	18	18	18	2.9	.34	.67
5	17	10	240	30	40	93	16	16	15	2.2	.34	.34
6	13	10	80	29	38	51	14	13	18	2.0	.43	.34
7	13	9.3	65	28	35	40	13	12	73	1.8	.54	.39
8	13	9.2	60	27	30	410	11	15	638	1.6	.56	.40
9	12	9.2	55	26	25	196	10	13	4,930	1.4	2.2	.34
10	3,270	8.6	50	25	35	113	10	11	261	1.3	1.9	.34
11	7,550	8.3	50	24	40	69	10	39	86	1.3	1.8	.37
12	881	8.1	60	23	44	170	14	22	53	1.3	1.5	2.0
13	156	8.3	120	22	42	81	12	13	44	1.2	.89	.99
14	83	8.3	55	21	34	57	17	33	36	1.0	1.7	.80
15	59	8.3	50	20	25	51	16	19	26	1.0	.91	.91
16	47	8.0	46	22	27	44	14	10	21	1.0	2.4	.78
17	39	7.8	44	50	36	36	15	926	20	1.0	1.9	.69
18	34	7.5	42	150	44	37	10	213	19	1.0	1.1	.44
19	30	7.1	40	300	38	33	9.2	103	18	.90	.72	.34
20	27	1,330	38	1,050	34	29	25	45	14	.90	.53	.25
21	26	690	36	576	54	25	446	28	12	.90	.49	.16
22	22	127	36	229	66	24	88	29	9.8	1.3	.50	.16
23	21	90	60	143	40	23	39	19	7.8	3.2	.66	.34
24	18	255	250	180	35	22	29	15	6.1	1.8	.69	.16
25	17	116	200	354	30	31	25	12	6.0	.62	.41	.25
26	16	89	150	655	40	26	23	13	5.4	.37	.34	.25
27	14	1,020	120	582	143	25	21	16	5.0	.34	.36	.25
28	14	235	96	189	172	25	23	22	4.5	.43	.34	.35
29	14	98	75	240	-----	25	85	103	4.3	.34	.34	.25
30	14	72	55	355	-----	29	44	943	3.7	.42	.34	.25
31	13	-----	45	300	-----	22	-----	994	-----	.44	.45	-----
TOTAL	12,996	4,299.0	3,468	5,792	1,372	2,122	1,107.2	3,789	6,481.6	42.96	25.86	14.65
MEAN	419	143	112	187	49.0	68.5	36.9	122	216	1.39	.83	.49
MAX	7,550	1,330	1,090	1,050	172	410	446	994	4,930	3.3	2.4	2.0
MIN	12	7.1	36	20	25	22	9.2	10	3.7	.34	.34	.16
CFSM	4.55	1.55	1.22	2.03	.53	.74	.40	1.32	2.35	.02	.009	.005
IN.	5.25	1.74	1.40	2.34	.55	.86	.45	1.53	2.62	.02	.01	.005
AC-FT	25,780	8,530	6,880	11,490	2,720	4,210	2,200	7,520	12,860	85	51	29
CAL YR 1973	TOTAL 58,007.96	MEAN 159	MAX 7,550	MIN .69	CFSM 1.73	IN 23.43	AC-FT 115,100					
WTR YR 1974	TOTAL 41,510.27	MEAN 114	MAX 7,550	MIN .16	CFSM 1.24	IN 16.77	AC-FT 82,340					

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	0100	20.72	9,980	5-17	0230	12.14	3,960
11-20	1345	10.35	2,800	5-30	1230	10.99	3,270
12-4	1230	9.76	2,540	6-9	0130	17.58	7,640

06897950 ELK CREEK NEAR DECATUR CITY, IOWA
(Hydrologic bench-mark station)

LOCATION (REVISED).--Lat 40°43'18", long 93°56'12", near the southeast corner sec.34, T.69 N., R.27 W., Decatur County, at right downstream corner of bridge on county highway, 1,000 ft (305 m) downstream from West Elk Creek, 5.2 mi (8.4 km) upstream from mouth, and 5.7 mi (9.2 km) southwest of Decatur City.

DRAINAGE AREA.--52.5 mi² (136 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 934.70 ft (284.90 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 33.9 ft³/s (0.96 m³/s), 8.77 in/yr (223 mm/yr), 24,560 acre-ft/yr (30.3 km³/yr).

EXTREMES.--Current year: Maximum discharge, 5,320 ft³/s (151 m³/s) Oct. 11, gage height, 13.60 ft (4.145 m); no flow for many days in August and September.

Period of record: Maximum discharge, 8,130 ft³/s (230 m³/s) Sept. 12, 1972, gage height, 15.41 ft (4.697 m) from rating curve extended above 5,300 ft³/s (150 m³/s) on basis of step-backward computation; no flow at times most years.

Flood of June 14, 1967, reached a stage of 18.35 ft (5.593 m), discharge, 15,000 ft³/s (425 m³/s), estimated from rating curve extended above 5,300 ft³/s (150 m³/s) on basis of step-backward computation. Flood of Aug. 6, 1959, reached a stage between 20.5 and 22.5 ft (6.25 and 6.86 m) 300 ft (91 m) downstream, from information by assistant county engineer, discharge not determined.

REMARKS.--Records good except those for winter period, which are poor. Records of chemical, biological and periodic suspended-sediment analyses for the current year are published in Part 2 of this report.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	59	8.2	12	9.0	40	21	9.0	27	4.7	1.6	.24	.10		
2	83	7.0	13	7.0	32	24	8.1	27	1.3	1.5	.17	.18		
3	50	5.9	12	6.0	22	27	12	27	.56	3.0	.09	.18		
4	41	5.9	626	5.0	15	46	28	27	.29	10	.07	.07		
5	28	5.9	77	15	14	39	19	13	.18	2.1	0	.02		
6	31	5.3	37	13	12	25	13	11	.32	1.5	.02	0		
7	36	7.2	30	5.6	9.6	21	12	11	1.3	1.3	.02	0		
8	28	6.4	27	10	9.0	198	8.5	7.6	20	1.2	.25	0		
9	23	5.5	23	10	9.5	57	8.7	4.9	1,700	1.0	.25	0		
10	289	4.7	13	6.0	10	34	8.6	4.0	300	.94	.41	0		
11	270	6.0	14	6.0	11	33	11	47	57	1.0	.25	0		
12	90	6.2	18	6.0	17	67	12	6.0	40	.96	.10	.41		
13	54	6.3	30	7.0	24	34	9.0	3.9	30	.78	1.1	.33		
14	40	5.7	12	8.4	15	27	12	5.7	26	.72	.86	.18		
15	30	5.8	11	10	18	28	9.9	6.4	21	.68	.41	.07		
16	25	4.3	9.5	12	16	22	9.6	2.7	15	.51	1.2	0		
17	21	4.4	9.0	15	17	20	7.8	15	12	.40	1.3	0		
18	18	4.3	8.5	30	21	21	7.5	26	10	.34	.56	0		
19	16	4.9	8.0	80	16	17	7.0	14	10	.27	.18	0		
20	14	506	7.0	520	15	15	85	5.9	8.8	.25	.10	0		
21	13	108	8.0	170	63	16	1,600	3.1	4.6	.27	0	0		
22	12	35	10	70	52	15	120	2.2	4.0	.50	0	0		
23	11	24	15	45	22	13	35	1.6	3.5	.39	0	0		
24	10	52	20	60	12	14	17	1.7	3.3	.33	0	0		
25	9.6	26	190	140	13	22	14	1.4	2.9	.33	0	0		
26	10	21	70	450	23	16	13	2.8	2.8	.25	0	0		
27	10	22	35	200	33	14	12	4.5	2.4	.25	0	0		
28	11	20	25	80	30	13	12	3.8	2.2	.32	0	0		
29	10	15	20	94	-----	13	52	19	2.0	.11	0	0		
30	9.2	14	13	100	-----	14	26	868	1.9	.01	0	0		
31	11	-----	11	72	-----	9.9	-----	142	-----	.06	.10	-----		
TOTAL	1,362.8	952.9	1,414.0	2,262.0	591.1	935.9	2,198.7	1,342.2	2,288.05	32.87	7.68	1.54		
MEAN	44.0	31.8	45.6	73.0	21.1	30.2	73.3	43.3	76.3	1.06	.25	.051		
MAX	289	506	626	520	63	198	1,600	868	1,700	10	1.3	.41		
MIN	9.2	4.3	7.0	5.0	9.0	9.9	7.0	1.4	.18	.01	0	0		
CFSM	.84	.61	.87	1.39	.40	.58	1.40	.82	1.45	.02	.005	.001		
IN.	.97	.68	1.00	1.60	.42	.66	1.56	.95	1.62	.02	.005	.001		
AC-FT	2,700	1,690	2,800	4,490	1,170	1,860	4,360	2,660	4,540	65	15	3.1		
CAL YR 1973	TOTAL	35,637.87	MEAN	97.6	MAX	3,000	MIN	.11	CFSM	1.86	IN	25.25	AC-FT	70,690
WTR YR 1974	TOTAL	13,389.74	MEAN	36.7	MAX	1,700	MIN	0	CFSM	.70	IN	9.49	AC-FT	26,560

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	0200	13.60	5,320	3-8	0630	6.05	598
11-20	1830	7.49	1,220	4-21	1000	12.50	4,170
12-4	1115	9.90	2,540	5-30	1400	12.47	4,150
1-20	--	--	* 1,000	6-9	--	--	* 4,600
1-26	--	--	* 1,300				

* About

GRAND RIVER BASIN

06898000 THOMPSON RIVER AT DAVIS CITY, IOWA

LOCATION.--Lat 40°38'25", long 93°48'29", in SE1/4 SE1/4 sec.35, T.68 N., R.26 W., Decatur County, on right bank 15 ft (5 m) downstream from bridge on U.S. Highway 69 at Davis City, 2.6 mi (4.2 km) upstream from Dickersons Branch, and 5.2 mi (8.4 km) upstream from Iowa-Missouri State line.

DRAINAGE AREA.--701 mi² (1,816 km²).

PERIOD OF RECORD.--May 1918 to July 1925, July 1941 to current year. Monthly discharge only for some periods, published in WSP 1310. Prior to October 1918, published as "Grand River".

GAGE.--Water-stage recorder. Datum of gage is 874.04 ft (266.41 m) above mean sea level. May 14, 1918, to July 2, 1925, July 18, 1941, to Feb. 24, 1942, nonrecording gage, and Feb. 25, 1942, to Feb. 8, 1967, water-stage recorder at same site at datum 2.00 ft (0.61 m) higher.

AVERAGE DISCHARGE.--39 years (1918-24, 1941-74), 371 ft³/s (10.5 m³/s), 7.19 in/yr (183 mm/yr), 268,800 acre-ft/yr (331 hm³/yr); median of yearly mean discharges, 310 ft³/s (8.8 m³/s) 6.0 in/yr (152 mm/yr) 225,000 acre-ft/yr (277 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 24,300 ft³/s (688 m³/s) June 10, gage height, 19.43 ft (5.922 m); minimum daily, 7.1 ft³/s (0.20 m³/s) Sept. 8.

Period of record: Maximum discharge, 24,300 ft³/s (688 m³/s) June 10, 1974, gage height, 19.43 ft (5.922 m), from rating curve extended above 17,000 ft³/s (481 m³/s) on basis of velocity-area study; minimum daily, 0.1 ft³/s (2.8 dm³/s) June 25, 1956.

Flood of Aug. 8, 1885, reached a stage of 22.8 ft (6.95 m), datum in use prior to Feb. 9, 1967, from floodmark, discharge, 30,000 ft³/s (850 m³/s), from rating curve extended as explained above.

REMARKS.-- Records good except those for winter period, which are poor.

REVISIONS (WATER YEARS).--WSP 1240: 1918, 1920-21 (M), 1922-24, 1925 (M), 1946-47 (M). WSP 1440: Drainage area. WSP 1710: 1957.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,260	221	396	500	2,100	1,240	282	1,440	697	93	20	14
2	1,120	217	357	400	900	956	233	614	425	85	20	16
3	719	199	337	540	500	893	215	473	331	105	20	15
4	544	180	1,910	400	350	1,150	362	400	283	312	20	15
5	405	168	3,680	250	300	1,750	614	340	249	133	20	15
6	335	163	1,870	230	300	1,360	502	298	245	156	20	14
7	337	159	815	220	310	792	375	279	308	97	20	15
8	314	160	450	210	310	1,150	301	283	409	74	26	14
9	295	160	355	200	320	2,200	251	277	5,310	66	25	13
10	407	156	300	190	320	1,240	225	276	17,700	60	24	13
11	11,600	150	340	170	330	810	216	382	15,200	56	24	13
12	12,900	148	390	150	330	861	225	427	3,920	52	25	18
13	13,200	152	460	160	320	1,050	232	433	965	51	37	17
14	9,970	155	600	170	299	735	235	899	708	55	48	14
15	4,660	151	460	180	299	558	241	1,480	575	51	30	15
16	970	147	350	230	273	502	249	454	456	46	34	19
17	680	137	300	300	280	468	267	923	378	40	48	12
18	552	132	260	400	310	405	217	2,300	327	38	36	14
19	488	125	230	700	430	377	199	2,490	299	34	44	12
20	432	865	290	1,600	412	347	191	2,050	270	33	53	11
21	388	3,110	350	2,800	394	311	3,810	865	244	31	39	10
22	351	2,510	400	2,400	702	285	2,870	550	217	30	32	9.7
23	325	1,010	350	1,500	450	266	2,030	638	192	28	24	9.4
24	308	733	320	1,000	250	224	788	438	169	27	21	8.4
25	286	1,660	1,500	900	160	209	531	335	154	25	22	8.0
26	267	936	2,000	2,200	250	256	440	288	141	24	19	7.6
27	248	617	1,100	3,700	472	297	395	1,060	128	24	16	7.2
28	233	1,070	800	3,000	877	285	385	1,260	118	24	16	7.3
29	225	684	600	1,900	-----	265	517	955	109	22	15	7.4
30	223	476	500	1,700	-----	274	2,260	2,880	101	20	14	7.1
31	225	-----	700	2,300	-----	286	-----	2,770	-----	20	15	-----
TOTAL	66,267	16,751	22,770	30,600	12,548	21,802	19,658	28,557	50,628	1,912	827	371.1
MEAN	2,138	558	735	987	448	703	655	921	1,688	61.7	26.7	12.4
MAX	13,200	3,110	3,680	3,700	2,100	2,200	3,810	2,880	17,700	312	53	19
MIN	223	125	230	150	160	209	191	276	101	20	14	7.1
CFSM	3.05	.80	1.05	1.41	.64	1.00	.93	1.31	2.41	.09	.04	.02
IN.	3.52	.89	1.21	1.62	.67	1.16	1.04	1.52	2.69	.10	.04	.02
AC-FT	131,400	33,230	45,160	60,700	24,890	43,240	38,990	56,640	100,400	3,790	1,640	736

CAL YR 1973 TOTAL 439,630.0 MEAN 1,204 MAX 13,200 MIN 74 CFSM 1.72 IN 23.33 AC-FT 872,000
WTR YR 1974 TOTAL 272,691.1 MEAN 747 MAX 17,700 MIN 7.1 CFSM 1.07 IN 14.47 AC-FT 540,900

PEAK DISCHARGE (BASE, 4,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	2030	14.21	14,200	5-30	1815	8.49	5,750
4-21	0845	8.27	5,530	6-10	1745	19.43	24,300

06898400 WELDON RIVER NEAR LEON, IOWA

LOCATION.--Lat 40°41'45", long 93°38'07", in NE1/4 NE1/4 sec.17, T.68 N., R.24 W., Decatur County, on left bank 10 ft (3 m) downstream from bridge on county highway A, 200 ft (61 m) upstream from unnamed creek, 1.3 mi (2.1 km) downstream from Brush Creek, and 6.5 mi (10.5 km) southeast of post office at Leon.

DRAINAGE AREA.--104 mi² (269 km²).

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 906.26 ft (276.23 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 75.4 ft³/s (2.14 m³/s), 9.85 in/yr (250 mm/yr), 54,630 acre-ft/yr (67.4 hm³/yr); median of yearly mean discharges, 51 ft³/s (1.44 m³/s), 6.7 in/yr (170 mm/yr), 36,900 acre-ft/yr (45.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 9,710 ft³/s (275 m³/s) Oct. 11, gage height, 21.45 ft (6.538 m), from floodmark, from rating extended as explained below; minimum daily, 0.17 ft³/s (0.005 m³/s) Sept. 30.
 Period of record: Maximum discharge, 48,600 ft³/s (1,376 m³/s) Aug. 6, 1959, gage height, 25.27 ft (7.702 m), from rating curve extended above 5,600 ft³/s (159 m³/s) on basis of contracted-opening and flow-over-embankment measurement at gage height 25.27 ft (7.702 m); no flow for several days in 1968.
 Stage and discharge of the flood of Aug. 6, 1959, are the greatest since at least 1919.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	465	16	4.4	25	250	70	22	31	76	.63	.82	.24
2	120	14	11	21	100	70	20	25	23	.44	1.1	1.1
3	330	12	44	20	40	91	22	27	12	347	1.3	.96
4	220	11	1,420	19	28	118	29	23	8.1	783	1.1	.58
5	89	11	500	19	24	135	37	21	6.0	35	1.1	.38
6	82	11	120	18	24	61	27	18	6.4	14	1.8	.38
7	93	11	60	17	24	38	23	21	180	8.1	2.3	.70
8	43	11	45	16	25	204	19	22	2,860	4.8	5.2	.82
9	48	12	40	15	26	126	17	18	2,580	3.7	4.4	.82
10	811	11	35	14	26	59	16	15	198	4.0	3.7	.82
11	7,530	11	42	13	25	66	17	32	54	3.7	5.2	.82
12	830	11	54	12	24	184	19	22	32	3.7	2.0	4.4
13	300	12	90	13	26	74	19	24	26	3.7	6.8	1.8
14	140	13	50	14	26	52	139	79	29	3.7	2.3	.96
15	91	12	40	15	22	49	57	28	22	3.7	1.3	.82
16	60	12	34	17	17	42	41	17	13	3.3	6.8	.82
17	45	11	28	20	15	36	33	45	12	2.6	2.3	.70
18	34	11	25	120	19	37	28	108	12	2.0	1.3	.62
19	30	11	22	270	24	30	25	127	9.5	1.8	1.1	.70
20	26	192	21	600	22	27	179	50	8.2	2.3	.96	.70
21	23	204	20	380	116	28	2,260	25	6.9	3.3	.58	.64
22	20	38	20	150	151	28	134	20	5.5	3.0	.70	.45
23	17	28	25	60	49	33	37	13	4.3	2.3	.38	.55
24	15	46	60	66	37	24	19	14	3.5	.96	.48	.48
25	14	30	150	150	63	22	11	13	2.9	1.1	.70	.48
26	13	28	200	320	59	20	9.3	51	2.4	.96	.48	.93
27	12	28	70	500	137	22	7.6	110	2.0	1.3	.38	.27
28	12	25	45	400	175	22	96	55	1.5	3.3	.30	.29
29	18	12	32	300	-----	27	90	134	1.1	.96	.38	.24
30	15	5.2	27	220	-----	32	47	1,610	.91	.38	.96	.17
31	15	-----	40	340	-----	26	-----	1,190	-----	.30	2.3	-----
TOTAL	11,561	860.2	3,374.4	4,164	1,574	1,853	3,499.9	3,988	6,198.21	1,249.03	60.52	23.64
MEAN	373	28.7	109	134	56.2	59.8	117	129	207	40.3	1.95	.79
MAX	7,530	204	1,420	600	250	204	2,260	1,610	2,860	783	6.8	4.4
MIN	12	5.2	4.4	12	15	20	7.6	13	.91	.30	.30	.17
CFSM	3.59	.28	1.05	1.29	.54	.58	1.13	1.24	1.99	.39	.02	.008
IN.	4.14	.31	1.21	1.49	.56	.66	1.25	1.43	2.22	.45	.02	.008
AC-FT	22,930	1,710	6,690	8,260	3,120	3,680	6,940	7,910	12,290	2,480	120	47
CAL YR 1973	TOTAL 70,905.51	MEAN 194	MAX 7,530	MIN .48	CFSM 1.87	IN 25.36	AC-FT 140,600					
WTR YR 1974	TOTAL 38,405.90	MEAN 105	MAX 7,530	MIN .17	CFSM 1.01	IN 13.74	AC-FT 76,180					

PEAK DISCHARGE (BASE, 4,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	--	21.45	9,710	5-30	1600	16.65	5,460
4-21	0730	15.61	4,770	6-9	0400	17.30	6,100

CHARITON RIVER BASIN

06903400 CHARITON RIVER NEAR CHARITON, IOWA

LOCATION.--Lat 40°57'12", long 93°15'37", in SW1/4 NE1/4 sec.15, T.71 N., R.21 W., Lucas County, on right bank 15 ft (5 m) downstream from bridge on county highway S43, 0.4 mi (0.6 km) downstream from Wolf Creek, and 5.0 mi (8.0 km) southeast of Chariton.

DRAINAGE AREA.--182 mi² (471 km²).

PERIOD OF RECORD.--October 1965 to current year. Occasional low-flow measurements, water years 1958-60, 1962, 1964.

GAGE.--Water-stage recorder. Datum of gage is 917.96 ft (279.79 m) above mean sea level (levels by U.S. Weather Bureau from a Corps of Engineers bench mark).

AVERAGE DISCHARGE.--9 years, 105 ft³/s (2.97 m³/s), 7.83 in/yr (199 mm/yr), 76,070 acre-ft/yr (93.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,300 ft³/s (178 m³/s) Oct. 12, gage height, 20.20 ft (6.157 m); minimum daily, 0.19 ft³/s (0.005 m³/s) July 2.

Period of record: Maximum discharge, 6,320 ft³/s (179 m³/s) Aug. 8, 1970, gage height, 20.15 ft (6.142 m); maximum gage height, 20.20 ft (6.157 m) Oct. 12, 1973; minimum daily discharge, 0.1 ft³/s (2.8 dm³/s) Sept. 28, Oct. 2-6, Nov. 5-7, 1966.

Flood in March 1960 reached a stage of about 23 ft (7.0 m), discharge, about 15,000 ft³/s (425 m³/s) and flood of June 5, 1947 reached a stage of 21.65 ft (6.599 m), from floodmark, discharge, 11,000 ft³/s (312 m³/s). A discharge of 0.08 ft³/s (2.3 dm³/s) was measured on Oct. 30, 1963.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	305	22	71	40	600	423	42	109	542	.30	.67	1.8
2	243	21	38	30	450	302	34	47	508	.19	.79	2.8
3	854	19	28	23	150	260	43	40	191	19	.80	2.8
4	969	17	454	19	100	300	108	33	51	976	.85	2.4
5	529	17	962	17	60	453	164	26	18	337	1.0	1.7
6	388	17	553	17	35	379	155	24	11	187	.87	1.5
7	160	17	596	18	25	228	99	24	95	32	.83	1.4
8	101	16	437	19	21	174	48	32	130	5.8	.93	1.3
9	76	18	158	21	19	263	30	30	1,750	2.9	1.9	1.3
10	432	16	70	24	18	271	25	26	1,580	1.3	2.8	1.1
11	2,860	16	45	23	20	170	24	38	1,050	.98	3.5	1.1
12	5,090	17	36	21	26	270	26	46	1,190	.86	3.1	3.6
13	2,610	18	177	20	34	239	28	43	1,310	.63	8.6	3.2
14	1,370	18	187	20	28	218	796	283	1,110	.61	8.5	2.4
15	783	17	120	20	25	146	456	166	626	.56	4.1	2.1
16	234	17	64	22	25	129	198	131	164	.48	3.7	1.6
17	152	16	33	28	28	87	112	499	62	.41	4.1	1.1
18	101	16	22	50	44	74	62	888	21	.38	2.7	.88
19	75	16	21	200	46	61	42	1,110	10	.41	1.9	.76
20	40	22	20	450	42	45	35	692	6.1	.37	1.3	.61
21	28	165	18	900	71	44	1,130	286	3.6	.36	1.0	.61
22	26	208	19	700	296	42	1,110	139	2.6	.47	1.0	.54
23	27	217	23	600	223	36	834	71	1.9	.46	1.1	.48
24	24	114	40	500	130	33	609	43	1.3	.36	1.3	.50
25	23	87	609	380	76	30	42	31	1.1	.41	1.3	.54
26	21	55	888	680	50	35	34	51	.8	.44	.97	.53
27	20	64	593	1,500	130	34	43	126	.7	.57	.99	.49
28	19	100	421	1,100	350	31	108	205	.6	.61	1.0	.41
29	20	102	265	1,100	-----	33	164	337	.5	.57	1.0	.40
30	20	97	150	1,150	-----	75	192	258	.5	.58	1.0	.41
31	22	-----	80	840	-----	68	-----	701	-----	.54	1.5	-----
TOTAL	17,622	1,562	7,198	10,532	3,122	4,953	6,793	6,535	10,438.7	1,572.55	65.10	40.36
MEAN	568	52.1	232	340	112	160	226	211	348	50.7	2.10	1.35
MAX	5,090	217	962	1,500	600	453	1,130	1,110	1,750	976	8.6	3.6
MIN	19	16	18	17	18	30	24	24	.50	.19	.67	.40
CFSM	3.12	.29	1.27	1.87	.62	.88	1.24	1.16	1.91	.28	.01	.007
IN.	3.60	.32	1.47	2.15	.64	1.01	1.39	1.34	2.13	.32	.01	.008
AC-FT	34,950	3,100	14,280	20,890	6,190	9,820	13,470	12,960	20,710	3,120	129	80

CAL YR 1973 TOTAL 115,306.00 MEAN 316 MAX 5,090 MIN 2.5 CFSM 1.74 IN 23.57 AC-FT 228,700
 WTR YR 1974 TOTAL 70,433.71 MEAN 193 MAX 5,090 MIN .19 CFSM 1.06 IN 14.40 AC-FT 139,700

PEAK DISCHARGE (BASE, 1,200 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-3	2200	15.98	1,230	4-21	2145	16.85	1,750
10-12	1215	20.20	6,300	5-18	2145	16.03	1,250
12-5	0345	15.95	1,220	6-9	2230	17.89	2,590
1-27	1445	17.55	2,220	6-13	2045	16.82	1,770

06903700 SOUTH FORK CHARITON RIVER NEAR PROMISE CITY, IOWA

LOCATION.--Lat 40°48'02", long 93°11'32", in SW1/4 SW1/4 sec.5, T.69 N., R.20 W., Wayne County, on right bank 20 ft (6 m) downstream from bridge on county highway S50, 1.3 mi (2.1 km) downstream from Jordan Creek and 4.3 mi (6.9 km) northwest of Promise City.

DRAINAGE AREA.--168 mi² (435 km²).

PERIOD OF RECORD.--October 1967 to current year. Occasional low-flow measurements, water years 1958-66, published as "near Bethlehem". Monthly discharge measurements for March 1965 to September 1967 available in files of Iowa City district office.

GAGE.--Water-stage recorder. Datum of gage is 913.70 ft (278.50 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--7 years, 105 ft³/s (2.97 m³/s), 8.49 in/yr (216 mm/yr), 76,070 acre-ft/yr (93.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,980 ft³/s (141 m³/s) Oct. 12, gage height, 19.35 ft (5.898 m); minimum daily, 0.25 ft³/s (0.007 m³/s) Sept. 24.
 Period of record: Maximum discharge, 7,660 ft³/s (217 m³/s) Aug. 8, 1970, gage height, 21.32 ft (6.498 m); minimum daily, 0.09 ft³/s (2.5 dm³/s) July 29-30, 1970.
 Flood of Sept. 21, 1965, reached a stage of 25.5 ft (7.77 m), from floodmarks, discharge not determined.

REMARKS.--Records good except those for winter period, which are poor.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	373	27	19	90	128	138	32	66	165	7.0	1.9	1.3
2	347	23	19	64	100	115	27	38	73	6.5	1.9	1.3
3	1,810	18	17	54	60	111	43	32	44	96	2.2	1.3
4	961	16	870	48	40	266	256	26	32	3,130	2.2	1.3
5	167	16	862	43	28	378	100	21	27	552	1.8	1.3
6	74	15	136	41	22	107	60	18	16	83	1.1	1.1
7	66	16	100	39	19	83	44	22	312	49	1.1	1.2
8	58	16	74	37	17	103	34	27	358	30	1.3	1.3
9	48	17	58	36	16	164	27	21	4,040	20	6.3	1.3
10	1,260	17	46	35	15	98	17	20	1,330	16	3.0	1.5
11	3,870	18	40	34	15	89	26	42	131	13	2.3	1.2
12	2,400	21	42	34	16	350	30	39	80	12	2.2	2.1
13	242	23	120	33	17	143	28	22	1,430	10	2.2	3.5
14	119	23	80	33	19	92	200	136	427	8.7	2.3	4.1
15	79	18	56	33	20	68	100	65	99	7.3	2.3	3.0
16	57	16	45	33	25	69	47	30	52	6.5	2.7	1.8
17	50	15	39	38	34	56	28	733	38	5.9	2.4	1.2
18	47	14	35	90	39	49	23	970	36	5.8	2.2	1.0
19	38	15	32	500	34	40	21	671	28	5.4	2.0	.76
20	32	37	30	900	32	38	21	168	24	5.1	1.5	.68
21	31	196	30	1,300	79	37	919	74	21	4.9	1.5	.52
22	27	72	33	500	324	31	178	45	17	4.6	1.5	.44
23	24	40	40	270	111	24	61	34	15	4.5	1.5	.34
24	20	36	60	300	79	23	38	35	14	3.7	1.3	.25
25	18	36	1,200	500	73	25	73	26	13	3.4	1.3	.46
26	18	32	988	1,400	98	31	98	47	11	3.1	1.3	.34
27	18	24	398	2,400	142	30	142	202	10	2.8	1.3	.52
28	18	27	235	380	145	30	145	103	9.1	3.0	1.3	.58
29	18	26	179	272	-----	32	326	360	8.5	2.7	1.1	.67
30	19	23	150	446	-----	54	118	845	7.8	1.9	1.1	.64
31	26	-----	120	409	-----	45	-----	2,010	-----	1.6	1.2	-----
TOTAL	12,335	893	6,153	10,392	1,747	2,919	3,262	6,948	8,868.4	4,105.4	59.3	37.00
MEAN	398	29.8	198	335	62.4	94.2	109	224	296	132	1.91	1.23
MAX	3,870	196	1,200	2,400	324	378	919	2,010	4,040	3,130	6.3	4.1
MIN	18	14	17	33	15	23	17	18	7.8	1.6	1.1	.25
CFSM	2.37	.18	1.18	1.99	.37	.56	.65	1.33	1.76	.79	.01	.007
IN.	2.73	.20	1.36	2.30	.39	.65	.72	1.54	1.96	.91	.01	.008
AC-FT	24,470	1,770	12,200	20,610	3,470	5,790	6,470	13,780	17,590	8,140	118	73
CAL YR 1973	TOTAL 96,726.20	MEAN 265	MAX 4,040	MIN 2.9	CFSM 1.58	IN 21.42	AC-FT 191,900					
WTR YR 1974	TOTAL 57,719.10	MEAN 158	MAX 4,040	MIN .25	CFSM .94	IN 12.78	AC-FT 114,500					

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-3	1015	15.13	2,900	5-31	0700	15.43	3,000
10-12	0400	19.35	4,980	6-9	1145	18.98	4,680
12-4	2245	12.49	2,030	6-13	1645	14.34	2,620
1-27	--	--	* 3,600	7-4	1630	16.80	3,540

* About

CHARITON RIVER BASIN

06903880 RATHBUN LAKE NEAR RATHBUN, IOWA

LOCATION.--Lat 40°49'30", long 92°53'33", in NW1/4 NE1/4 sec.35, T.70 N., R.18 W., Appanoose County, at control tower of Rathbun Dam, 1.8 mi (2.9 km) north of Rathbun and 3.9 mi (6.3 km) upstream from Walnut Creek and at mile 142.3 (229.0 km).

DRAINAGE AREA.--549 mi² (1,421 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum daily contents, 325,000 acre-ft (401 hm³) Oct. 18-20; maximum elevation, 913.28 ft (278.368 m) Oct. 19; minimum daily contents, 193,000 acre-ft (238 hm³) Mar. 11; minimum elevation, 902.82 ft (275.180 m) Mar. 11.

Period of record: Maximum daily contents, 402,000 acre-ft (496 hm³) May 8-10, 1973; maximum elevation, 918.15 ft (279.852 m) May 9, 1973; minimum daily contents, 100 acre-ft (0.123 hm³) Oct. 1-15, Nov. 17-21, 1969; minimum elevation, 855.40 ft (260.726 m) Oct. 6-10, 1969.

REMARKS.--Reservoir is formed by earthfill dam completed in 1969. Storage began in November 1969. Release is controlled by two hydraulically controlled slide gates, 6 ft (2 m) wide and 12 ft (4 m) high, into forechamber of an 11-ft (3 m) diameter horseshoe conduit through the dam. No dead storage. Maximum design discharge through gates is 5,000 ft³/s (142 m³/s). Uncontrolled notch spillway is concrete overflow section 500 ft (152 m) in length, located about 3,000 ft (914 m) west of the right abutment of the dam and provides emergency discharge into the adjacent drainage area of Little Walnut Creek. Uncontrolled notch spillway is at elevation 926 ft (282 m) above mean sea level, contents 552,000 acre-ft (681 hm³). Conservation pool level is at elevation 904.0 ft (275.54 m), contents 205,000 acre-ft (253 hm³). Reservoir is used for flood control, low-flow augmentation, conservation and recreation.

COOPERATION.--Records furnished by Corps of Engineers.

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

860	400	885	55,730
862	850	890	84,530
865	2,390	895	120,600
870	7,950	900	164,300
875	18,100	905	216,600
880	33,800	910	278,500
		915	351,000

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234,000	306,000	254,000	220,000	254,000	203,000	197,000	207,000	234,000	243,000	204,000	203,000
2	236,000	304,000	252,000	218,000	253,000	202,000	196,000	207,000	236,000	241,000	205,000	204,000
3	249,000	302,000	250,000	216,000	252,000	201,000	196,000	207,000	237,000	238,000	205,000	203,000
4	264,000	300,000	248,000	214,000	250,000	200,000	197,000	206,000	235,000	246,000	204,000	203,000
5	269,000	299,000	254,000	212,000	248,000	200,000	198,000	205,000	233,000	253,000	204,000	203,000
6	271,000	297,000	256,000	210,000	246,000	200,000	197,000	204,000	231,000	255,000	203,000	203,000
7	272,000	296,000	257,000	208,000	244,000	198,000	198,000	204,000	230,000	254,000	203,000	203,000
8	272,000	294,000	256,000	206,000	242,000	197,000	197,000	205,000	231,000	251,000	204,000	203,000
9	273,000	292,000	256,000	206,000	240,000	196,000	197,000	205,000	239,000	248,000	204,000	202,000
10	272,000	289,000	253,000	206,000	237,000	194,000	196,000	204,000	251,000	245,000	204,000	202,000
11	284,000	287,000	250,000	206,000	235,000	193,000	196,000	205,000	258,000	243,000	204,000	202,000
12	296,000	285,000	248,000	206,000	233,000	194,000	196,000	206,000	261,000	241,000	204,000	203,000
13	310,000	283,000	247,000	206,000	231,000	196,000	196,000	203,000	262,000	239,000	204,000	203,000
14	318,000	280,000	245,000	206,000	229,000	197,000	197,000	205,000	267,000	237,000	204,000	203,000
15	322,000	279,000	243,000	206,000	226,000	197,000	197,000	205,000	275,000	234,000	204,000	203,000
16	324,000	276,000	241,000	206,000	224,000	198,000	198,000	205,000	277,000	233,000	205,000	202,000
17	324,000	274,000	239,000	206,000	222,000	198,000	198,000	210,000	276,000	230,000	205,000	202,000
18	325,000	272,000	237,000	206,000	220,000	197,000	198,000	214,000	274,000	228,000	205,000	202,000
19	325,000	269,000	236,000	207,000	218,000	198,000	197,000	221,000	272,000	226,000	205,000	202,000
20	325,000	266,000	233,000	210,000	216,000	198,000	197,000	227,000	270,000	224,000	204,000	202,000
21	323,000	267,000	231,000	213,000	214,000	198,000	198,000	230,000	268,000	222,000	204,000	202,000
22	321,000	267,000	229,000	217,000	214,000	198,000	201,000	231,000	266,000	221,000	205,000	202,000
23	320,000	266,000	227,000	220,000	212,000	198,000	204,000	231,000	263,000	218,000	205,000	201,000
24	318,000	266,000	225,000	222,000	211,000	197,000	204,000	232,000	261,000	216,000	204,000	201,000
25	317,000	265,000	224,000	223,000	209,000	197,000	205,000	229,000	258,000	214,000	204,000	201,000
26	315,000	265,000	226,000	226,000	207,000	197,000	205,000	228,000	256,000	212,000	204,000	201,000
27	314,000	263,000	226,000	235,000	205,000	196,000	204,000	226,000	253,000	210,000	204,000	200,000
28	312,000	261,000	226,000	244,000	204,000	196,000	204,000	224,000	251,000	208,000	204,000	200,000
29	310,000	259,000	225,000	248,000	-----	196,000	206,000	226,000	248,000	206,000	204,000	200,000
30	309,000	257,000	224,000	250,000	-----	197,000	207,000	227,000	246,000	205,000	203,000	200,000
31	308,000	-----	222,000	253,000	-----	196,000	-----	230,000	-----	205,000	203,000	-----
MAX	325,000	306,000	257,000	253,000	254,000	203,000	207,000	232,000	277,000	255,000	205,000	204,000
MIN	234,000	257,000	222,000	206,000	204,000	193,000	196,000	203,000	230,000	205,000	203,000	200,000
+	912.09	908.32	905.49	908.02	903.86	903.16	904.12	906.14	907.44	903.95	903.83	903.55
*	+76,000	-51,000	-35,000	+31,000	-49,000	-8,000	+11,000	+23,000	+16,000	-41,000	-2,000	-3,000

CAL YR.....**+10,000
 WTR YR.....**+32,000

+ Elevation, in feet, at end of month
 * Change in contents, in acre-feet

06903900 CHARITON RIVER NEAR RATHBUN, IOWA

LOCATION.--Lat 40°49'22", long 92°53'22", in SE1/4 NE1/4 sec.35, T.70 N., R.18 W., Appanoose County, on left bank 600 ft (183 m) downstream from outlet of Rathbun Dam, 1.8 mi (2.9 km) north of Rathbun and 3.7 mi (6.0 km) upstream from Walnut Creek and at mile 142.1 (228.6 km).

DRAINAGE AREA.--549 mi² (1,421 km²).

PERIOD OF RECORD.--October 1956 to current year. Monthly discharge only for some periods, published in WSP 1730.

GAGE.--Water-stage recorder. Datum of gage is 847.92 ft (258.45 m) above mean sea level. Prior to Nov. 16, 1960, nonrecording gage and Nov. 17, 1960, to Sept. 30, 1969, recording gage, at site 3.1 mi (5.0 km) downstream at datum 4.65 ft (1.42 m) lower.

AVERAGE DISCHARGE.--18 years, 315 ft³/s (8.92 m³/s) 7.79 in/yr (198 mm/yr), 228,200 acre-ft/yr (281 hm³/yr); median of yearly mean discharges, 230 ft³/s (6.51 m³/s) 5.7 in/yr (145 mm/yr), 167,000 acre-ft/yr (206 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,880 ft³/s (53.2 m³/s) Oct. 3, gage height, 14.92 ft (4.548 m); minimum daily, 1.4 ft³/s (0.040 m³/s) May 7.
Period of record: Maximum discharge, 21,800 ft³/s (617 m³/s) Mar. 31, 1960, gage height, 25.3 ft (7.71 m), from floodmark, site and datum then in use; minimum daily, 0.1 ft³/s (2.8 dm³/s) Oct. 12-14, 17-24, 1957, Oct. 11, 1966.

REMARKS.--Records good. Flow regulated by Rathbun Reservoir since Nov. 21, 1969 (see sta. 06903880).

REVISIONS.--WSP 1560: Drainage area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	846	1,200	1,140	1,170	1,150	195	190	46	1,180	37	11
2	105	844	1,200	1,160	1,170	1,150	195	190	45	1,180	12	11
3	1,310	842	1,200	1,180	1,160	1,150	196	297	339	1,140	12	11
4	1,270	838	609	1,180	1,160	1,170	195	380	1,130	992	12	11
5	185	841	16	1,180	1,160	1,190	194	379	1,140	233	12	11
6	14	841	14	1,180	1,150	1,160	195	195	1,140	411	11	11
7	14	841	382	1,170	1,150	1,160	195	1.4	550	1,280	11	11
8	15	910	1,190	617	1,150	1,170	195	33	50	1,500	12	11
9	80	1,260	1,190	110	1,150	1,170	195	116	50	1,490	11	11
10	797	1,260	1,180	110	1,150	1,160	196	184	50	1,200	11	11
11	531	1,260	1,180	110	1,160	736	196	186	45	957	11	11
12	253	1,260	1,180	109	1,170	23	196	185	580	956	11	11
13	41	1,260	1,180	109	1,170	66	195	186	1,200	954	11	11
14	18	1,250	1,170	109	1,170	200	195	186	450	951	11	11
15	17	1,260	1,170	109	1,160	200	194	186	50	947	11	11
16	14	1,250	1,170	109	1,160	200	194	187	275	944	11	11
17	16	1,250	1,170	109	1,160	200	195	240	950	942	11	11
18	16	1,250	1,160	109	1,160	200	195	206	1,200	940	11	11
19	17	1,240	1,160	109	1,160	89	194	112	1,230	936	11	11
20	510	1,170	1,160	115	1,160	20	194	47	1,210	933	11	11
21	1,080	427	1,170	115	1,160	19	196	47	1,210	932	11	11
22	836	411	1,160	113	1,180	110	195	47	1,200	930	11	11
23	838	409	1,150	111	1,160	192	261	46	1,200	926	11	11
24	847	409	1,150	111	1,150	192	378	661	1,200	924	11	11
25	850	408	1,180	111	1,150	193	380	1,140	1,200	920	11	11
26	847	429	1,190	141	1,150	194	326	1,140	1,190	918	11	11
27	847	1,190	1,170	427	1,150	194	190	1,150	1,190	914	11	11
28	848	1,220	1,150	481	1,150	194	190	1,200	1,190	912	11	11
29	846	1,210	1,150	818	-----	194	192	1,230	1,190	480	11	11
30	845	1,210	1,140	952	-----	193	190	695	1,190	55	11	11
31	847	-----	1,140	1,190	-----	194	-----	55	-----	55	11	-----
TOTAL	14,768	29,096	32,631	14,694	32,450	15,433	6,397	11,097.4	23,690	28,032	372	330
MEAN	476	970	1,053	474	1,159	498	213	358	790	904	12.0	11.0
MAX	1,310	1,260	1,200	1,190	1,180	1,190	380	1,230	1,230	1,500	37	11
MIN	14	408	14	109	1,150	19	190	1.4	45	55	11	11
CFSM	.87	1.77	1.92	.86	2.11	.91	.39	.65	1.44	1.65	.02	.02
IN.	1.00	1.97	2.21	1.00	2.20	1.05	.43	.75	1.61	1.90	.03	.02
AC-FT	29,290	57,710	64,720	29,150	64,360	30,610	12,690	22,010	46,990	55,600	738	655

CAL YR 1973 TOTAL 351,355.8 MEAN 963 MAX 1,720 MIN 1.4 CFSM 1.75 IN 23.81 AC-FT 696,900
WTR YR 1974 TOTAL 208,990.4 MEAN 573 MAX 1,500 MIN 1.4 CFSM 1.04 IN 14.16 AC-FT 414,500

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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 either measurements at miscellaneous sites or supplemental low-flow measurements.

Records collected at partial-record 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. Discharge measurements made at miscellaneous sites for low flow and high flow are given in a third or fourth table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the period in which measurements were made for most water years at the same, or practically the same, site.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
MINNESOTA RIVER BASIN						
05317650	BLUE EARTH R NR LAKOTA, IOWA.	LAT 4330XX, LONG 9409XX, NEAR SE CORNER OF SEC. 31, T.100 N., R.27 W., KOSSUTH COUNTY, AT BRIDGE, 4 MILES NE OF LAKOTA.	64.6	1957-	09-25-74	.77
05317700	UNION SLOUGH OUTLET NR LAKOTA, IOWA.	LAT 4324XX, LONG 9407XX, NEAR S 1/4 CORNER OF SEC. 11, T.99 N., R.28 W., KOSSUTH COUNTY, AT BRIDGE, 2 MILES NW OF LAKOTA.	86.4	1957-	09-25-74	.76
05317810	WB BLUE EARTH R BL MINN.-IOWA STATE LINE. (REVISED)	LAT 4326XX, LONG 9404XX, NEAR W 1/4 CORNER OF SEC. 36, T.101 N., R.28 W., FARIHAULT COUNTY, AT BRIDGE, 9 MILES NW OF LAKOTA.	154	1957-	09-25-74	2.4
UPPER IOWA RIVER BASIN						
05387300	UPPER IOWA R AT CHESTER, IOWA.	LAT 4330XX, LONG 9222XX, IN SE 1/4 SEC. 10, T.100 N., R.13 W., HOWARD COUNTY, AT BRIDGE AT NORTH CITY LIMITS OF CHESTER.	141	1957-	10-01-74	20
05387400	UPPER IOWA R NR KENDALVILLE, IOWA.	LAT 4328XX, LONG 9202XX, NEAR CENTER OF SEC. 21, T.100 N., R.10 W., WINNESHIEK COUNTY, AT BRIDGE, 1 MILE NORTH OF KENDALVILLE.	273	1957-	10-01-74	62
05388100	CANOE CR NR DECORAH, IOWA	LAT 4321XX, LONG 9141XX, IN NE 1/4 SEC. 33, T.99 N., R.7 W., WINNESHIEK COUNTY, AT BRIDGE, 7 MILES NORTHEAST OF DECORAH.	58.9	1957-	10-01-74	23
05388300	BEAR CR NR HIGHLANDVILLE, IOWA.	LAT 4327XX, LONG 9137XX, IN SE 1/4 SEC. 25, T.100 N., R.7 W., WINNESHIEK COUNTY, AT BRIDGE, 3 MILES EAST OF HIGHLANDVILLE.	53.4	1957-	10-01-74	39
VILLAGE CREEK BASIN						
05388350	VILLAGE CR AT VILLAGE CREEK, IOWA.	LAT 4319XX, LONG 9114XX, IN NW 1/4 SEC. 18, T.98 N., R.3 W., ALLAMAKEE COUNTY, AT BRIDGE IN VILLAGE CREEK.	58.5	1957-	10-02-74	35
YELLOW RIVER BASIN						
05388800	YELLOW R AT BYRON, IOWA.	LAT 4310XX, LONG 9132XX, IN NE 1/4 SEC. 3, T.96 N., R.6 W., ALLAMAKEE COUNTY, AT BRIDGE, 0.5 MILE SOUTH OF BYRON.	59.5	1957-	10-02-74	12
05389000	YELLOW R AT ION, IOWA.	LAT 4307XX, LONG 9116XX, IN SW 1/4 SEC. 24, T.96 N., R.4 W., ALLAMAKEE COUNTY, AT BRIDGE, 7.5 MILES NORTHWEST OF HCGREGOR.	221	+1934-51. 1957-	10-03-74	71
TURKEY RIVER BASIN						
05411550	NB TURKEY R NR VERNON SPRINGS, IOWA.	LAT 4321XX, LONG 9211XX, IN SW 1/4 SEC. 31, T.99 N., R.11 W., HOWARD COUNTY, AT BRIDGE, 3 MILES WEST OF VERNON SPRINGS.	40.1	1957-	10-01-74	3.4

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
TURKEY RIVER BASIN--CONTINUED						
05411560	TURKEY R NR VERNON SPRINGS, IOWA	LAT 4320XX, LONG 9207XX, IN NW 1/4 SEC. 2, T.98 N., R.11 W., HOWARD COUNTY, AT BRIDGE, 2.5 MILES SOUTH OF VERNON SPRINGS.	87.0	1957-	10-01-74	7.3
05411620	L TURKEY R NR WAUCOMA, IOWA.	LAT 4301XX, LONG 9159XX, IN NW 1/4 SEC. 25, T.95 N., R.10 W., FAYETTE COUNTY, AT BRIDGE, 4 MILES SOUTHEAST OF WAUCOMA.	102.0	1957-	09-30-74	21
05411700	*CRANE CR NR LOURDES, IOWA.	LAT 4315XX, LONG 9219XX, IN NW 1/4 SEC. 6, T.97 N., R.12 W., HOWARD COUNTY, AT BRIDGE ON STATE HIGHWAY 272, 1 MILE SOUTHWEST OF LOURDES.	75.8	1957-	09-30-74	5.0
05411800	L TURKEY R NR ALPHA, IOWA.	LAT 4301XX, LONG 9157XX, IN SW 1/4 SEC. 30, T.95 N., R.9 W., FAYETTE COUNTY, AT BRIDGE, 3 MILES NORTHEAST OF ALPHA.	319	1957-	09-30-74	45
05412100	ROBERTS CR AT ST. OLAF, IOWA.	LAT 425549, LONG 912303, IN NW 1/4 SEC. 25, T.94 N., R.5 W., CLAYTON COUNTY, AT BRIDGE NEAR NORTH CITY LIMITS OF ST. OLAF.	70.7	1957-	09-30-74	6.3
05412150	ROBERTS CR AT ST. OLAF, IOWA.	LAT 425542, LONG 912301, IN SW 1/4 SEC. 25, T.94 N., R.5 W., CLAYTON COUNTY, AT BRIDGE NEAR EAST CITY LIMITS OF ST. OLAF.	101	1957-	09-30-74	9.7
05412200	VOLGA R NR FAYETTE, IOWA.	LAT 4249XX, LONG 9153XX, IN SW 1/4 SEC. 35, T.93 N., R.9 W., FAYETTE COUNTY, AT BRIDGE, 4.5 MILES SOUTHWEST OF FAYETTE.	53.0	1957-	09-30-74	5.0
05412300	L VOLGA R NR FAYETTE, IOWA.	LAT 4249XX, LONG 9153XX, NEAR S 1/4 CORNER OF SEC.35, T.93 N., R.9 W., FAYETTE COUNTY, AT BRIDGE, 4 MILES SOUTHWEST OF FAYETTE.	31.0	1957-	09-30-74	2.4
05412400	VOLGA R AT LITTLE- PORT, IOWA.	LAT 424514, LONG 912208, IN SE 1/4 SEC. 25, T.92 N., R.5 W., CLAYTON COUNTY, AT BRIDGE IN LITTLEPORT.	348	1957-	09-30-74	93
LITTLE MAQUOKETA RIVER BASIN						
05414450	*NF LITTLE MAQUOKETA NEAR RICKARDS- VILLE, IOWA.	LAT 423509, LONG 905120, NEAR NW CORNER SEC. 28, T.90 N., R.1 E., DUBUQUE COUNTY, AT BRIDGE, 1 MILE NORTHEAST OF RICKARDSVILLE.	21.6	1957-	09-30-74	2.3
MAQUOKETA RIVER BASIN						
05416300	MAQUOKETA R NR DUNDEE, IOWA.	LAT 423655, LONG 913344, IN SW 1/4 SEC. 9, T.90 N., R.6 W., DELAWARE COUNTY AT BRIDGE, 2.5 MILES NORTH OF DUNDEE.	61.1	1957-	09-30-74	15
05416400	SF MAQUOKETA R NR DUNDEE, IOWA.	LAT 423608, LONG 913513, IN SW 1/4 SEC. 17, T.90 N., R.6 W., DELAWARE COUNTY, AT BRIDGE, 2.5 MILES NORTHWEST OF DUNDEE.	54.8	1957-	09-30-74	9.5
05417540	PLUM CR NR EARLVILLE, IOWA.	LAT 422604, LONG 911358, IN NE 1/4 SEC. 18, T.88 N., R.3 W., DELAWARE COUNTY, AT BRIDGE, 4 MILES SOUTHEAST OF EARLVILLE.	65.7	1957-	10-01-74	28
05417560	MAQUOKETA R NR HOPKINTON, IOWA.	LAT 4222XX, LONG 9116XX, IN NE 1/4 SEC. 11, T.87 N., R.4 W., DELAWARE COUNTY, AT BRIDGE, 2 MILES NORTHWEST OF HOPKINTON.	454	1957-	10-01-74	137
05417580	BUCK CR NR HOPKINTON, IOWA.	LAT 4221XX, LONG 9117XX, IN SE 1/4 SEC. 10, T.87 N., R.4 W., DELAWARE COUNTY, AT BRIDGE, 2.5 MILES NORTHWEST OF HOPKINTON.	50.7	1957-	10-01-74	13
05417600	MAQUOKETA R NR SCOTCH GROVE, IOWA.	LAT 4212XX, LONG 9101XX, NEAR CENTER OF SEC.6, T.85 N., R.1 W., JONES COUNTY, AT BRIDGE ON STATE HIGHWAY 136, 6 MILES NORTHEAST OF SCOTCH GROVE.	704	1957-	09-30-74	246
05418100	NF MAQUOKETA R AT DYERSVILLE, IOWA.	LAT 422905, LONG 910726, IN NW 1/4 SEC. 31, T.89 N., R.2 W., DUBUQUE COUNTY, AT BRIDGE, IN DYERSVILLE.	80.2	1957-	09-30-74	37

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
HAQUOKETA RIVER BASIN--CONTINUED						
05418200	WHITWATER CR AT FILLMORE, IOWA.	LAT 421907, LONG 905526, IN NE 1/4 SEC. 26, T.87 N., R.1 W., DUBUQUE COUNTY, AT BRIDGE ON U.S. HIGHWAY 151, 0.5 MILE WEST OF FILLMORE.	91.9	1957-	10-01-74	36
05418300	LYTLE CR NR BERNARD, IOWA.	LAT 421757, LONG 904656, IN SE 1/4 SEC. 36, T.87 N., R.1 E., DUBUQUE COUNTY, AT BRIDGE, 2.5 MILES SOUTHEAST OF BERNARD.	62.7	1957-	10-01-74	35
05418350	LYTLE CR NR FULTON, IOWA.	LAT 4212XX, LONG 9045XX, NEAR CENTER OF SEC.5, T.85 N., R.2 E., JACKSON COUNTY, AT BRIDGE, 5 MILES NORTHWEST OF FULTON.	114	1957-	10-01-74	73
05418400	WF HAQUOKETA R NR FULTON, IOWA.	LAT 4211XX, LONG 9044XX, IN SE 1/4 SEC. 9, T.85 N., R.2 E., JACKSON COUNTY, AT BRIDGE, 3 MILES NORTHWEST OF FULTON.	499	1957-	10-01-74	254
05418650	DEEP CR NR CHARLOTTE, IOWA.	LAT 4200XX, LONG 9024XX, NEAR CENTER OF SEC.17, T.83 N., R.5 E., CLINTON COUNTY, AT BRIDGE, 4 MILES NORTHEAST OF CHARLOTTE.	67.7	1957-	10-01-74	11
05418700	DEEP CR NR PRESTON, IOWA.	LAT 4203XX, LONG 9026XX, NEAR N 1/4 CORNER OF SEC.31, T.84 N., R.5 E., JACKSON COUNTY, AT BRIDGE, 2 MILES WEST OF PRESTON.	91.9	1957-	10-01-74	19
ELK RIVER BASIN						
05420300	ELK R NR ALMONT, IOWA.	LAT 420039, LONG 901205, NEAR CENTER OF SEC.12, T.83 N., R.6 E., CLINTON COUNTY, AT BRIDGE, 2.5 MILES NORTH OF ALMONT.	55.9	1957-	10-01-74	26
WAPSIPINICON RIVER BASIN						
05420540	WAPSIPINICON R NR RICEVILLE, IOWA.	LAT 4320XX, LONG 9234XX, IN NE 1/4 SEC. 12, T.98 N., R.15 W., MITCHELL COUNTY, AT BRIDGE, 2.5 MILES SOUTH OF RICEVILLE.	72.3	1957-	10-01-74	10
05420580	WAPSIPINICON R NR IONIA, IOWA.	LAT 4301XX, LONG 9223XX, IN NW 1/4 SEC. 33, T.95 N., R.13 W., CHICKASAW COUNTY, AT BRIDGE, 4 MILES SOUTHEAST OF IONIA.	161	1957-	09-30-74	14
05420640*	LITTLE WAPSIPINICON R AT ELMA, IOWA.	LAT 4314XX, LONG 9227XX, IN NW 1/4 SEC. 12, T.97 N., R.14 W., HOWARD COUNTY, AT BRIDGE ON COUNTY ROAD A NEAR WEST CITY LIMITS OF ELMA.	37.3	1957-	09-30-74	4.4
75420660	WAPSIPINICON R NR NEW HAMPTON, IOWA	LAT 4259XX, LONG 9222XX, IN NW 1/4 SEC. 10, T.94 N., R.13 W., CHICKASAW COUNTY, AT BRIDGE, 5 MILES SOUTHWEST OF NEW HAMPTON.	291	1957-	09-30-74	26
05420680	WAPSIPINICON R NR TRIPOLI, IOWA.	LAT 4250XX, LONG 9215XX, IN SW 1/4 SEC. 27, T.93 N., R.12 W., BREMER COUNTY, AT BRIDGE ON STATE HIGHWAY 93, 2 MILES NORTH OF TRIPOLI.	343	1957-	10-01-74	34
05420700	EF WAPSIPINICON R NR FREDERICKSBURG, IOWA.	LAT 4301XX, LONG 9213XX, IN NW 1/4 SEC. 36, T.95 N., R.12 W., CHICKASAW COUNTY, AT BRIDGE, 3 MILES NORTH OF FREDERICKSBURG.	62.2	1957-	09-30-74	5.4
05420720	EF WAPSIPINICON R NR TRIPOLI, IOWA.	LAT 4251XX, LONG 9214XX, IN NW 1/4 SEC. 26, T.93 N., R.12 W., BREMER COUNTY, AT BRIDGE ON STATE HIGHWAY 93, 3 MILES NORTH OF TRIPOLI.	144	1957-	10-01-74	15
05420740	WAPSIPINICON R AT TRIPOLI, IOWA.	LAT 4248XX, LONG 9214XX, IN SW 1/4 SEC. 2, T.92 N., R.12 W., BREMER COUNTY, AT BRIDGE, 1.5 MILES EAST OF TRIPOLI.	498	1957-	10-01-74	35

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
WAPSIPINICON RIVER BASIN--CONTINUED						
05420800	CRANE CR NR DENVER, IOWA.	LAT 423832, LONG 921521, IN NW 1/4 SEC. 3, T.90 N., R.12 W., BLACK HAWK COUNTY, AT BRIDGE, 5 MILES SOUTHEAST OF DENVER.	63.6	1957-	10-01-74	.56
05420820	CRANE CR AT DUNKERTON, IOWA.	LAT 4234XX, LONG 9210XX, IN SW 1/4 SEC. 29, T.90 N., R.11 W., BLACK HAWK COUNTY, AT BRIDGE, NEAR WEST CITY LIMITS OF DUNKERTON.	101	1957-	09-30-74	.88
05420840	L WAPSIPINICON R NR WESTGATE, IOWA.	LAT 4247XX, LONG 9205XX, IN NE 1/4 SEC. 13, T.92 N., R.11 W., BREMER COUNTY, AT BRIDGE, 4.5 MILES NORTHWEST OF WESTGATE.	57.4	1957-	09-30-74	6.4
05420860	BUCK CR NR LITTLETON, IOWA.	LAT 4235XX, LONG 9203XX, NEAR CENTER OF SEC.29, T.90 N., R.10 W., BUCHANAN COUNTY, AT BRIDGE, 3 MILES NORTHWEST OF LITTLETON.	57.0	1957-	09-30-74	1.4
05420900	L WAPSIPINICON R AT LITTLETON, IOWA.	LAT 4233XX, LONG 9202XX, IN NE CORNER SEC.9, T.89 N., R.10 W., BUCHANAN COUNTY, AT BRIDGE, 0.5 MILE NORTH OF LITTLETON.	205	1957-	09-30-74	18
05420940	OTTER CR NR OTTERVILLE, IOWA.	LAT 4233XX, LONG 9157XX, NEAR SW CORNER OF SEC.5, T.89 N., R.9 W., BUCHANAN COUNTY, AT BRIDGE, 2 MILES NORTH OF OTTERVILLE.	101	1957-	09-30-74	20
05421500	WAPSIPINICON R AT STONE CITY, IOWA.	LAT 4207XX, LONG 9121XX, IN NE 1/4 SEC. 6, T.84 N., R.4 W., JONES COUNTY, AT BRIDGE, IN STONE CITY.	1324	+1903-14, 1957-	09-30-74	174
05421550*	BUFFALO CR ABOVE WINTHROP, IOWA.	LAT 4230XX, LONG 9144XX, NEAR NE CORNER SEC. 25, T.89 N., R. 8 W., BUCHANAN COUNTY, AT BRIDGE, 1.5 MILES NORTH-EAST OF WINTHROP.	68.2	1957-	09-30-74	6.7
05421700	BUFFALO CR NR STONE CITY, IOWA.	LAT 4208XX, LONG 9121XX, NEAR E 1/4 CORNER SEC.30, T.85 N., R.4 W., JONES COUNTY, AT BRIDGE, 2 MILES NORTH OF STONE CITY.	217	1957-	09-30-74	37
05421800	YANKEE RUN AT WHEATLAND, IOWA.	LAT 414934, LONG 905025, IN NE 1/4 SEC. 16, T.81 N., R.1 E., CLINTON COUNTY, AT BRIDGE, NEAR SOUTH CITY LIMITS OF WHEATLAND.	52.2	1957-	10-02-74	4.9
05421850	MUD CR NR PLAINVIEW, IOWA.	LAT 414202, LONG 904526, IN SW 1/4 SEC. 29, T.80 N., R.2 E., SCOTT COUNTY, AT BRIDGE, 2.5 MILES NORTHEAST OF PLAINVIEW.	109	1957	10-02-74	9.4
05421900	SILVER CR NR DE WITT, IOWA.	LAT 414709, LONG 903313, IN SE 1/4 SEC. 25, T.81 N., R.3 E., CLINTON COUNTY, AT BRIDGE, 2.5 MILES SOUTH OF DE WITT.	60.8	1957-	10-02-74	15
05422100	BROPHYS CR NR LOW MOOR, IOWA.	LAT 414856, LONG 902414, NEAR N 1/4 CORNER SEC.20, T.81 N., R.5 E., CLINTON COUNTY, AT BRIDGE, ON U. S. HIGHWAY 30, 3 MILES NW OF LOW MOOR.	72.8	1957-	10-01-74	18
IOWA RIVER BASIN						
05448300	WF IOWA R NR BRITT, IOWA.	LAT 4306XX, LONG 9345XX, NEAR CENTER OF SEC.25, T.96 N., R.25 W., HANCOCK COUNTY, AT BRIDGE ON U. S. HIGHWAY 18, 3 MILES EAST OF BRITT.	61.5	1957-	--	--
05448400*	WESTHAIN DRAINAGE DITCH 1 & 2 NR BRITT, IOWA.	LAT 4306XX, LONG 9347XX, IN SW 1/4 SEC. 27, T.96 N., R.25 W., HANCOCK COUNTY, AT BRIDGE ON U. S. HIGHWAY 18 NEAR EAST CITY LIMITS OF BRITT.	21.2	1958-	--	--
05451100	SF IOWA R NR ALDEN, IOWA.	LAT 4228XX, LONG 9327XX, NEAR NW CORNER OF SEC.5, T.88 N., R.22 W., HARDIN COUNTY, AT BRIDGE, 5 MILES SOUTHWEST OF ALDEN.	79.5	1957-	--	--

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
IOWA RIVER BASIN--CONTINUED						
05451150	TIPTON CR NR NEW PROVIDENCE, IOWA.	LAT 4220XX, LONG 9312XX, IN SW 1/4 SEC. 21, T.87 N., R.20 W., HARDIN COUNTY, AT BRIDGE, 3 MILES NORTHWEST OF NEW PROVIDENCE.	81.4	1957-	--	--
05451200	SF IOWA R NR NEW PROVIDENCE, IOWA.	LAT 4219XX, LONG 9310XX, NEAR N 1/4 CORNER SEC.27, T.87 N., R.20 W., HARDIN COUNTY, AT BRIDGE, 3 MILES NORTH OF NEW PROVIDENCE.	223	1957-	--	--
05451250	BEAVER CR NR ELDORA, IOWA.	LAT 4221XX, LONG 9308XX, NEAR CENTER OF SEC.13, T.87 N., R.20 W., HARDIN COUNTY, AT BRIDGE, 2 MILES SOUTHWEST OF ELDORA.	69.4	1957-	--	--
05451300	HONEY CR NR NEW PROVIDENCE, IOWA.	LAT 4216XX, LONG 9311XX, AT E 1/4 CORNER SEC.16, T.86 N., R.20 W., HARDIN COUNTY, AT BRIDGE, 1.5 MILES SOUTH OF NEW PROVIDENCE.	66.5	1957-	--	--
05451350	HONEY CR AT BANGOR, IOWA.	LAT 4210XX, LONG 9305XX, NEAR W 1/4 CORNER SEC.16, T.85 N., R.19 W., MARSHALL COUNTY, AT BRIDGE, 1 MILE EAST OF BANGOR.	95.6	1950-	--	--
05451400	MINERVA CR AT CLEMONS, IOWA.	LAT 4208XX, LONG 9309XX, NEAR CENTER OF SEC.35, T.85 N., R.20 W., MARSHALL COUNTY, AT BRIDGE, 1 MILE NORTHEAST OF CLEMONS.	69.6	1957-	--	--
05451450	MINERVA CR NR CLEMONS, IOWA.	LAT 4207XX, LONG 9305XX, NEAR CENTER OF SEC.5, T.84 N., R.19 W., MARSHALL COUNTY, AT BRIDGE, 3.5 MILES EAST OF CLEMONS.	148	1950-	--	--
05451600	LINN CR AT MARSHALLTOWN, IOWA.	LAT 420222, LONG 925440, IN SW 1/4 SEC. 35, T.84 N., R.18 W., MARSHALL COUNTY, AT BRIDGE ON STATE HIGHWAY 14 IN MARSHALLTOWN.	60.5	1957-	09-26-74	11
05451650	S TIMBER CR NR LE GRAND, IOWA.	LAT 4159XX, LONG 9250XX, IN SW 1/4 SEC. 21, T.83 N., R.17 W., MARSHALL COUNTY, AT BRIDGE, 4 MILES SOUTHWEST OF LE GRAND.	62.0	1957-	09-26-74	13
05451800	DEER CR AT TOLEDO, IOWA.	LAT 4159XX, LONG 9235XX, NEAR W 1/4 CORNER SEC.15, T.83 N., R.15 W., TAMA COUNTY, AT BRIDGE NEAR NORTHWEST CITY LIMITS OF TOLEDO.	76.4	1957-	09-27-74	24
05451930	SALT CR NR CLUTIER, IOWA.	LAT 4203XX, LONG 9222XX, NEAR E 1/4 CORNER SEC.33, T.84 N., R.13 W., TAMA COUNTY, AT BRIDGE, 3.5 MILES SOUTHWEST OF CLUTIER.	85.2	1957-	09-27-74	22
05451960	EB SALT CR NR ELBERON, IOWA.	LAT 4204XX, LONG 9220XX, NEAR E 1/4 CORNER SEC.27, T.84 N., R.13 W., TAMA COUNTY, AT BRIDGE, 4 MILES NORTHWEST OF ELBERON.	71.3	1957-	09-27-74	13
05452700	BEAR CR AT BROOKLYN, IOWA.	LAT 4145XX, LONG 9226XX, NEAR NE CORNER OF SEC.14, T.80 N., R.14 W., POWESHIEK COUNTY, AT BRIDGE, 1 MILE NORTH OF BROOKLYN.	77.9	1957-	09-26-74	9.4
05454200	CLEAR CR NR OXFORD, IOWA.	LAT 4143XX, LONG 9147XX, IN NE 1/4 SEC. 28, T.80 N., R.8 W., JOHNSON COUNTY, AT BRIDGE, 1 MILE SOUTHWEST OF OXFORD.	55.0	1957-	09-27-74	12
05455050	OLD MANS CR NR PARNELL, IOWA.	LAT 4136XX, LONG 9157XX, NEAR SW CORNER OF SEC.31, T.79 N., R.9 W., IOWA COUNTY, AT BRIDGE, 3 MILES NORTHEAST OF PARNELL.	81.2	1957-	09-26-74	13
05455100*	OLD MANS CR NR IOWA CITY, IOWA.	LAT 413623, LONG 913656, IN NW 1/4 SEC. 36, T.79 N., R.7 W., JOHNSON COUNTY, AT BRIDGE, 3 MILES SOUTHWEST OF IOWA CITY.	201	1957-	09-27-74	38

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
IOWA RIVER BASIN--CONTINUED						
05455200*	M ENGLISH R NR GUERNSEY, IOWA.	LAT 4138XX, LONG 9224XX, NEAR SW CORNER SEC. 17, T.79 N., R.13 W., POWESHIEK COUNTY, AT BRIDGE, 2.5 MILES WEST OF GUERNSEY.	68.7	1957-	09-26-74	6.2
05455250	M ENGLISH R NR NORTH ENGLISH, IOWA.	LAT 4133XX, LONG 9203XX, NEAR SW CORNER SEC.17, T.78 N., R.10 W., IOWA COUNTY, AT BRIDGE, 3.2 MILES NORTH-EAST OF NORTH ENGLISH.	221	1957-	09-26-74	26
05455260	M ENGLISH R NR NORTH ENGLISH, IOWA.	LAT 4132XX, LONG 9204XX, NEAR NE CORNER SEC.25, T.78 N., R.11 W., IOWA COUNTY, AT BRIDGE, 2 MILES NORTHEAST OF NORTH ENGLISH.	66.7	1957-	09-26-74	4.7
05455400	S ENGLISH R NR KESWICK, IOWA.	LAT 412813, LONG 921531, IN SW 1/4 SEC. 16, T.77 N., R.12 W., KEOKUK COUNTY, AT BRIDGE, 1.5 MILES NORTHWEST OF KESWICK.	66.2	1957-	09-26-74	4.7
05455450	S ENGLISH R NR KINROSS, IOWA.	LAT 4130XX, LONG 9157XX, IN NW 1/4 SEC. 7, T.77 N., R.9 W., WASHINGTON COUNTY, AT BRIDGE, 3 MILES NORTHEAST OF KINROSS.	125	1957-	09-26-74	9.2
05457300	OTTER CR NR OTRANTO, IOWA.	LAT 4328XX, LONG 9258XX, IN NW 1/4 SEC. 22, T.100 N., R.18 W., MITCHELL COUNTY, AT BRIDGE, 1.5 MILES NORTH-EAST OF OTRANTO.	60.3	1957-	--	--
05457350	CEDAR R AT OTRANTO, IOWA.	LAT 4327XX, LONG 9259XX, IN NW 1/4 SEC. 28, T.100 N., R.18 W., MITCHELL COUNTY, AT BRIDGE NEAR EAST CITY LIMITS OF OTRANTO.	656	1957-	--	--
05457400	DEER CR NR MELTONVILLE, IOWA.	LAT 4326XX, LONG 9305XX, IN SW 1/4 SEC. 27, T.100 N., R.19 W., WORTH COUNTY, AT BRIDGE, 2.5 MILES WEST OF MELTONVILLE.	67.5	1957-	--	--
05457450	DEER CR AT ST. ANSGAR, IOWA.	LAT 4323XX, LONG 9258XX, IN SW 1/4 SEC. 15, T.99 N., R.18 W., MITCHELL COUNTY, AT BRIDGE, 2.5 MILES NORTH-WEST OF ST. ANSGAR.	97.5	1957-	--	--
05457600	ROCK CR NR FLOYD, IOWA.	LAT 4313XX, LONG 9249XX, IN NW 1/4 SEC. 24, T.97 N., R.17 W., FLOYD COUNTY, AT BRIDGE, 6 MILES NORTHWEST OF FLOYD.	69.7	1957-	--	--
05457800	L CEDAR R NR STACEYVILLE, IOWA.	LAT 4328XX, LONG 9247XX, IN NE 1/4 SEC. 19, T.100 N., R.16 W., MITCHELL COUNTY, AT BRIDGE, 2 MILES NORTH OF STACEYVILLE.	77.3	1957-	--	--
05458400	QUARTER SECTION RUN NR DENVER, IOWA.	LAT 423951, LONG 922346, IN NE 1/4 SEC. 29, T.91 N., R.13 W., BREMER COUNTY, AT BRIDGE, 3 MILES SOUTHWEST OF DENVER.	83.5	1957-	--	--
05458550	BEAVERDAH CR NR ROCKWELL, IOWA.	LAT 4258XX, LONG 9315XX, NEAR EAST 1/4 CORNER SEC.18, T.94 N., R.20 W., CERRO GORDO COUNTY, AT BRIDGE, 3 MILES SOUTHWEST OF ROCKWELL.	72.4	1957-	--	--
05458600	BAILEY CR NR SHEFFIELD, IOWA.	LAT 4254XX, LONG 9316XX, IN NW 1/4 SEC. 1, T.93 N., R.21 W., FRANKLIN COUNTY, AT BRIDGE, 4 MILES NORTHWEST OF SHEFFIELD.	75.2	1957-	--	--
05458750	OTTER CR NR HANSELL, IOWA.	LAT 4246XX, LONG 9307XX, IN NW 1/4 SEC. 29, T.92 N., R.19 W., FRANKLIN COUNTY, AT BRIDGE, 1 MILE WEST OF HANSELL.	92.0	1957-	--	--
05458770	SQUAW CR NR HANSELL, IOWA.	LAT 4244XX, LONG 9307XX, NEAR CENTER OF SEC.32, T.92 N., R.19 W., FRANKLIN COUNTY, AT BRIDGE, 1.5 MILES SOUTH-WEST OF HANSELL.	24.2	1957-	--	--

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
IOWA RIVER BASIN--CONTINUED						
05458780	HARTGRAVE CR NR HANSELL, IOWA.	LAT 4244XX, LONG 9305XX, IN NW 1/4 SEC. 34, T.92 N., R.19 W., FRANKLIN COUNTY, AT BRIDGE, 1.5 MILES SOUTH-EAST OF HANSELL.	161	1957-	--	--
05458790	BOYLAN CR NR BRISTOW, IOWA.	LAT 4246XX, LONG 9256XX, IN NE 1/4 SEC. 23, T.92 N., R.18 W., BUTLER COUNTY, AT BRIDGE, 1 MILE WEST OF BRISTOW.	55.7	1957-	--	--
05458800	HAYNES CR NR HAMPTON, IOWA.	LAT 4241XX, LONG 9312XX, IN NW 1/4 SEC. 22, T.91 N., R.20 W., FRANKLIN COUNTY, AT BRIDGE ON U. S. HIGHWAY 65, 4 MILES SOUTH OF HAMPTON.	71.0	1957-	--	--
05458850	HAYNES CR NR DUMONT, IOWA.	LAT 4242XX, LONG 9258XX, IN SW 1/4 SEC. 15, T.91 N., R.18 W., BUTLER COUNTY, AT BRIDGE, 4 MILES SOUTH OF DUMONT.	121	1957-	--	--
05459050	LIME CR NR SCARVILLE, IOWA.	LAT 4327XX, LONG 9335XX, IN SW 1/4 SEC. 28, T.100 N., R.23 W., WINNEBAGO COUNTY, AT BRIDGE, 3.5 MILES SOUTH-EAST OF SCARVILLE.	113	1957-	--	--
05459200	WINNEBAGO R NR FOREST CITY, IOWA	LAT 4318XX, LONG 9339XX, IN NW 1/4 SEC. 23, T.98 N., R.24 W., WINNEBAGO COUNTY, AT BRIDGE, 2.5 MILES NORTH OF FOREST CITY.	205	1957-	--	--
05459300	WINNEBAGO R NR FERTILE, IOWA.	LAT 4315XX, LONG 9326XX, NEAR WEST 1/4 CORNER SEC.3, T.97 N., R.22 W., CERRO GORDO COUNTY, AT BRIDGE, 1.5 MILES SOUTHWEST OF FERTILE.	303	1957-	--	--
05459400	BEAVER CR NR FERTILE, IOWA.	LAT 4316XX, LONG 9327XX, IN SW 1/4 SEC. 28, T.98 N., R.22 W., WORTH COUNTY, AT BRIDGE, 2 MILES NORTHWEST OF FERTILE.	54.9	1957-	--	--
05460200	WILLOW CR AT MASON CITY, IOWA.	LAT 430946, LONG 931420, NEAR WEST 1/4 CORNER SEC.5, T.96 N., R.20 W., CERRO GORDO COUNTY, AT BRIDGE NEAR WEST CITY LIMITS OF MASON CITY.	86.0	1957-	--	--
05461100	COLD WATER CR NR GREENE, IOWA.	LAT 4253XX, LONG 9251XX, IN SW 1/4 SEC. 10, T.93 N., R.17 W., BUTLER COUNTY, AT BRIDGE, 2.5 MILES SOUTHWEST OF GREENE.	56.8	1957-	--	--
05461300	FLOOD CR NR ROCKFORD, IOWA.	LAT 4303XX, LONG 9251XX, IN NW 1/4 SEC. 15, T.95 N., R.17 W., FLOYD COUNTY, AT BRIDGE, 5 MILES EAST OF ROCKFORD.	59.3	1957-	--	--
05461400	FLOOD CR NR PACKARD, IOWA.	LAT 4253XX, LONG 9242XX, IN NE 1/4 SEC. 23, T.93 N., R.16 W., BUTLER COUNTY, AT BRIDGE, 2 MILES NORTHEAST OF PACKARD.	145	1957-	--	--
05462700	BEAVER CR NR ACKLEY, IOWA.	LAT 4234XX, LONG 9302XX, IN SW 1/4 SEC. 36, T.90 N., R.19 W., FRANKLIN COUNTY, AT BRIDGE NEAR EAST CITY LIMITS OF ACKLEY.	55.5	1957-	--	--
05462800	S BEAVER CR NR PARKERSBURG, IOWA.	LAT 4234XX, LONG 9249XX, IN SE 1/4 SEC. 35, T.90 N., R.17 W., BUTLER COUNTY, AT CULVERT, 2 MILES SOUTHWEST OF PARKERSBURG.	114	1957-	--	--
05463100	BLACK HAWK CR NR GRUNDY CENTER, IOWA.	LAT 4222XX, LONG 9244XX, NEAR E 1/4 CORNER SEC.8, T.87 N., R.16 W., GRUNDY COUNTY, AT BRIDGE, 2 MILES EAST OF GRUNDY CENTER.	71.0	1957-	--	--
05463200	MOSQUITO CR AT REINBECK, IOWA.	LAT 4220XX, LONG 9237XX, IN SE 1/4 SEC. 20, T.87 N., R.15 W., GRUNDY COUNTY, AT BRIDGE, 1 MILE WEST OF REINBECK.	24.0	1957-	--	--
05463300	BLACK HAWK CR AT REINBECK, IOWA.	LAT 4220XX, LONG 9236XX, NEAR E 1/4 CORNER SEC.21, T.87 N., R.15 W., GRUNDY COUNTY, AT BRIDGE, 1 MILE NORTH OF REINBECK.	135	1957-	--	--

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
IOWA RIVER BASIN--CONTINUED						
05463400	N BLACK HAWK CR AT DIKE, IOWA.	LAT 4227XX, LONG 9237XX, NEAR N 1/4 CORNER SEC.8, T.88 N., R.15 W., GRUNDY COUNTY, AT BRIDGE NEAR SOUTH-EAST CITY LIMITS OF DIKE.	76.3	1957-	--	--
05464050	MILLERS CR NR LA PORTE CITY, IOWA.	LAT 4223XX, LONG 9215XX, IN SE 1/4 SEC. 33, T.88 N., R.12 W., BLACK HAWK COUNTY, AT BRIDGE ON U. S. HIGHWAY 218, 6 MILES NW OF LA PORTE CITY.	54.8	1957-	09-26-74 10-21-74	3.9 12.1
05464100	WOLF CR NR BEAMAN, IOWA.	LAT 421247, LONG 924712, IN SW 1/4 SEC. 36, T.86 N., R.17 W., GRUNDY COUNTY, AT BRIDGE, 2 MILES SOUTHEAST OF BEAMAN.	63.2	1957-	09-26-74 10-21-74	7.8 13.1
05464150	TWELVE MILE CR NR BUCKINGHAM, IOWA.	LAT 4214XX, LONG 9226XX, IN SW 1/4 SEC. 24, T.86 N., R.14 W., TAMA COUNTY, AT BRIDGE, 1.5 MILES SOUTH OF BUCKINGHAM.	76.8	1957-	09-26-74 10-21-74	9.2 21.1
05464200	WOLF CR NR BUCKINGHAM, IOWA.	LAT 421533, LONG 922142, IN NE 1/4 SEC. 21, T.86 N., R.13 W., TAMA COUNTY, AT BRIDGE, 4.5 MILES SOUTHEAST OF BUCKINGHAM.	287	1957-	09-26-74 10-21-74	42 89.0
05464250	WOLF CR AT LA PORTE CITY, IOWA.	LAT 4219XX, LONG 9212XX, IN SW 1/4 SEC. 25, T.87 N., R.12 W., BLACK HAWK COUNTY, AT BRIDGE ON U.S. HIGHWAY 218 IN LA PORTE CITY.	327	1957-	09-26-74 10-21-74	54 93.8
05464300	SPRING CR NR LA PORTE CITY, IOWA.	LAT 4220XX, LONG 9206XX, IN NW 1/4 SEC. 23, T.87 N., R.11 W., BLACK HAWK COUNTY, AT BRIDGE, 5 MILES NORTHEAST OF LA PORTE CITY.	57.5	1957-	09-26-74 10-21-74	9.8 12.4
05464320	E BLUE CR NR CENTER POINT, IOWA.	LAT 421141, LONG 914828, IN NW 1/4 SEC. 8, T.85 N., R.8 W., LINN COUNTY, AT BRIDGE, 1 MILE WEST OF CENTER POINT.	27.1	1957-	06-02-72 09-26-74 10-21-74	11.4 3.2 5.63
05464350	BEAR CR AT SHELLSBURG, IOWA.	LAT 420539, LONG 915334, IN NW 1/4 SEC. 15, T.84 N., R.9 W., BENTON COUNTY, AT BRIDGE, 1 MILE WEST OF SHELLSBURG.	55.8	1957-	09-26-74 10-21-74	6.9 10.6
05464400	BEAR CR NR PALO, IOWA.	LAT 420455, LONG 914740, IN SE 1/4 SEC. 17, T.84 N., R.8 W., LINN COUNTY, AT BRIDGE, 1 MILE NORTH OF PALO.	95.9	1957-	06-02-72 09-26-74 10-21-74	42.2 14 16.4
05464460	OTTER CR NR CEDAR RAPIDS, IOWA.	LAT 420357, LONG 914427, IN SE 1/4 SEC. 24, T.84 N., R.8 W., LINN COUNTY, AT BRIDGE, 7 MILES NORTHWEST OF CEDAR RAPIDS.	65.1	1957-	06-02-72 09-26-74 10-21-74	32.3 8.2 11.0
05464550	PRAIRIE CR NR BLAIRSTOWN, IOWA.	LAT 415606, LONG 920751, NEAR NORTH 1/4 CORNER SEC.9, T.82 N., R.11 W., BENTON COUNTY, AT BRIDGE, 3 MILES NORTHWEST OF BLAIRSTOWN.	64.2	1957-	09-26-74	8.2
05464600	PRAIRIE CR AT NORWAY, IOWA.	LAT 415335, LONG 915543, NEAR SW CORNER SEC.19, T.82 N., R.9 W., BENTON COUNTY, AT BRIDGE, 1 MILE SOUTHWEST OF NORWAY.	126	1957-	09-26-74	25
05464650	PRAIRIE CR AT CEDAR RAPIDS, IOWA.	LAT 415549, LONG 914034, IN NW 1/4 SEC. 9, T.82 N., R.7 W., LINN COUNTY, AT BRIDGE, 3 MILES SOUTH OF CEDAR RAPIDS.	208	1957-	09-27-74	47
05464700	INDIAN CR AT CEDAR RAPIDS, IOWA.	LAT 415942, LONG 913703, IN SW 1/4 SEC. 13, T.83 N., R.7 W., LINN COUNTY, AT BRIDGE, NEAR NORTHEAST CITY LIMITS OF CEDAR RAPIDS.	72.0	1957-	09-27-74	8.3
05464750	BIG CR AT BERTRAM, IOWA.	LAT 415723, LONG 913135, NEAR EAST 1/4 CORNER SEC.34, T.83 N., R.6 W., LINN COUNTY, AT BRIDGE NEAR EAST CITY LIMITS OF BERTRAM.	81.2	1957-	09-27-74	35
05464800	ROCK CR AT ROCHESTER, IOWA.	LAT 414040, LONG 910952, IN NW 1/4 SEC. 2, T.79 N., R.3 W., CEDAR COUNTY, AT BRIDGE, 0.5 MILE NORTHWEST OF ROCHESTER.	63.4	1957-	09-26-74	10

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
IOWA RIVER BASIN--CONTINUED						
05464850	SUGAR CR NR BENNETT, IOWA.	LAT 414156, LONG 910243, NEAR S 1/4 CORNER OF SEC.26, T.80 N., R.2 W., CEDAR COUNTY, AT BRIDGE, 4.5 MILES SOUTHWEST OF BENNETT.	80.7	1957-	09-26-74	7.1
05464900	MUD CR NR WILTON, IOWA.	LAT 413445, LONG 910217, IN NW 1/4 SEC. 12, T.78 N., R.2 W., MUSCATINE COUNTY, AT BRIDGE, 1 MILE SOUTHWEST OF WILTON.	102	1957-	09-26-74	13
05464920	SUGAR CR NR MOSCOW, IOWA.	LAT 413400, LONG 910409, NEAR N 1/4 CORNER OF SEC.15, T.78 N., R.2 W., MUSCATINE COUNTY, AT BRIDGE, 1 MILE SOUTHEAST OF MOSCOW.	218	1957-	09-26-74	28
05464940	WAPSINOC CR AT WEST LIBERTY, IOWA.	LAT 413326, LONG 911519, IN SE 1/4 SEC. 13, T.78 N., R.4 W., MUSCATINE COUNTY, AT BRIDGE ON STATE HIGHWAY 76, 0.5 MILE SE OF WEST LIBERTY.	51.7	1957-	09-26-74	4.7
05464950	WB WAPSINOC CR AT WEST LIBERTY, IOWA.	LAT 413348, LONG 911613, NEAR E 1/4 CORNER OF SEC.14, T.78 N., R.4 W., MUSCATINE COUNTY, AT BRIDGE, 1 MILE SOUTH OF WEST LIBERTY.	52.5	1957-	09-26-74	7.7
05465200	LONG CR NR AINSWORTH, IOWA.	LAT 4116XX, LONG 9130XX, IN SE 1/4 SEC. 26, T.75 N., R.6 W., WASHINGTON COUNTY, AT BRIDGE, 2.5 MILES SOUTHEAST OF AINSWORTH.	68.4	1957-	09-27-74	0
05465300	LONG CR NR WAPELLO, IOWA.	LAT 4112XX, LONG 9117XX, NEAR SOUTH 1/4 CORNER SEC.23, T.74 N., R.4 W., LOUISA COUNTY, AT BRIDGE, 5 MILES NORTHWEST OF WAPELLO.	146	1957-	09-27-74	8.0
05465600	OTTER CR NR WAPELLO, IOWA.	LAT 410720, LONG 910900, NEAR CENTER OF SEC.13, T.73 N., R.3 W., LOUISA COUNTY, AT BRIDGE, 4 MILES SOUTHEAST OF WAPELLO.	64.7	1957-	09-27-74	10
FLINT RIVER BASIN						
05469700	FLINT R NR BURLINGTON, IOWA.	LAT 405200, LONG 911203, IN NE 1/4 SEC. 16, T.70 N., R.3 W., DES MOINES COUNTY, AT BRIDGE, 6 MILES NW OF BURLINGTON.	107	1958-	09-20-74	3.1
SKUNK RIVER BASIN						
05469800	S SKUNK R NR ELLSWORTH, IOWA.	LAT 4219XX, LONG 9335XX, NEAR N 1/4 CORNER OF SEC.36, T.87 N., R.24 W., HAMILTON COUNTY, AT BRIDGE ON STATE HIGHWAY 175, NEAR WEST CITY LIMITS OF ELLSWORTH.	54.9	1957-	09-20-74	2.7
05469850	MUD LAKE DRAINAGE DITCH 71 AT JEWELL, IOWA.	LAT 4219XX, LONG 9338XX, IN NW 1/4 SEC. 28, T.87 N., R.24 W., HAMILTON COUNTY, AT BRIDGE, 1 MILE NORTH OF JEWELL.	64.1	1957-	09-20-74	3.9
05469950	S SKUNK R AT RANDALL, IOWA.	LAT 4214XX, LONG 9335XX, IN NE 1/4 SEC. 25, T.86 N., R.24 W., HAMILTON COUNTY, AT BRIDGE, 1 MILE EAST OF RANDALL.	160	1957-	09-20-74	11
05470200	SQUAW CR NR STANHOPE, IOWA.	LAT 421234, LONG 934707, NEAR N 1/4 CORNER OF SEC.5, T.85 N., R.25 W., BOONE COUNTY, AT BRIDGE, 5 MILES SOUTH OF STANHOPE.	62.6	1957-	09-20-74	.75
05471050	S SKUNK R AT COLFAX, IOWA.	LAT 414055, LONG 931447, IN NW 1/4 SEC. 1, T.79 N., R.21 W., JASPER COUNTY, AT BRIDGE ON STATE HIGHWAY 117, AT NORTH CITY LIMITS OF COLFAX.	803	1957-	09-19-74	98
05471100	EB INDIAN CR NR NEVADA, IOWA.	LAT 4102XX, LONG 9322XX, NEAR N 1/4 CORNER OF SEC.2, T.83 N., R.22 W., STORY COUNTY, AT BRIDGE, 4 MILES NE OF NEVADA.	65.7	1957-	09-19-74	4.0
05471150	WB INDIAN CR NR IOWA CENTER, IOWA.	LAT 4156XX, LONG 9326XX, IN NW 1/4 SEC. 8, T.82 N., R.22 W., STORY COUNTY, AT BRIDGE, 2 MILES NW OF IOWA CENTER.	65.9	1957-	09-19-74	2.3

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
SKUNK RIVER BASIN--CONTINUED						
05471180	INDIAN CR NR IOWA CENTER, IOWA.	LAT 4155XX, LONG 9325XX, NEAR CENTER OF SEC.16, T.82 N., R.22 W., STORY COUNTY, AT BRIDGE, 1 MILE SW OF IOWA CENTER.	203	1957-	09-19-74	9.2
05471350	CLEAR CR NR HINGO, IOWA.	LAT 4147XX, LONG 9316XX, IN SW 1/4 SEC. 35, T.81 N., R.21 W., JASPER COUNTY, AT BRIDGE, 1 MILE NE OF HINGO.	84.1	1957-	09-19-74	6.4
05471400	ELK CR NR TAINTOR, IOWA.	LAT 4129XX, LONG 9251XX, IN NE 1/4 SEC. 7, T.77 N., R.17 W., MAHASKA COUNTY, AT BRIDGE, 6 MILES SW OF TAINTOR.	59.9	1957-	09-19-74	4.1
05472100	N SKUNK R NR NEWTON, IOWA.	LAT 4147XX, LONG 9302XX, IN NW 1/4 SEC. 35, T.81 N., R.19 W., JASPER COUNTY, AT BRIDGE, 6 MILES NORTH OF NEWTON.	101	1957-	09-19-74	12
05472300	N SKUNK R NR SEARSBORO, IOWA.	LAT 4132XX, LONG 9242XX, NEAR CENTER OF SEC.27, T.78 N., R.16 W., POWESHIEK COUNTY, AT BRIDGE, 3.5 MILES SOUTH OF SEARSBORO.	358	1957-	09-19-74	40
05472400	MIDDLE CR NR ROSE HILL, IOWA.	LAT 412042, LONG 922825, IN NE 1/4 SEC. 33, T.76 N., R.14 W., MAHASKA COUNTY, AT BRIDGE, 2 MILES NW OF ROSE HILL.	58.5	1957-	09-19-74	4.2
05472450	CEDAR CR NR SIGOURNEY, IOWA.	LAT 411842, LONG 921333, IN SE 1/4 SEC. 10, T.75 N., R.12 W., KEOKUK COUNTY, AT BRIDGE, 2 MILES SW OF SIGOURNEY.	92.5	1957-	09-19-74	4.2
05473000	SKUNK R AT COPPOCK, IOWA.	LAT 4110XX, LONG 9143XX, IN NE 1/4 SEC. 1, T.73 N., R.8 W., JEFFERSON COUNTY, AT BRIDGE ON STATE HIGHWAY 78, 0.5 MILE WEST OF COPPOCK.	2916	+1913-44. 1957-	09-20-74	354
05473020	EF CROOKED CR NR WINFIELD, IOWA.	LAT 4109XX, LONG 9126XX, IN NE 1/4 SEC. 9, T.73 N., R.5 W., HENRY COUNTY, AT BRIDGE, 2 MILES NORTH OF WINFIELD.	65.3	1958-	09-19-74	.56
05473050	CROOKED CR NR COPPOCK, IOWA.	LAT 4112XX, LONG 9142XX, IN NE 1/4 SEC. 30, T.74 N., R.7 W., WASHINGTON COUNTY, AT BRIDGE, 2 MILES NE OF COPPOCK.	259	1957-	09-20-74	12
05473100	WALNUT CR AT GERMANVILLE, IOWA.	LAT 4106XX, LONG 9146XX, IN SW 1/4 SEC. 27, T.73 N., R.8 W., WASHINGTON COUNTY, AT BRIDGE, 1 MILE WEST OF GERMANVILLE.	66.3	1957-	09-20-74	2.0
05473200	CEDAR CR NR HIGHLAND CENTER, IOWA.	LAT 410630, LONG 922158, IN SW 1/4 SEC. 21, T.73 N., R.13 W., WAPELLO COUNTY, AT BRIDGE, 1 MILE SW OF HIGHLAND CENTER.	73.6	1957-	09-19-74	4.2
05473250	COMPETINE CR BELOW FORKS NR BATAVIA IOWA.	LAT 4102XX, LONG 9207XX, IN NE 1/4 SEC. 21, T.72 N., R.11 W., JEFFERSON COUNTY, AT BRIDGE, 3 MILES NE OF BATAVIA.	68.8	1957-	09-20-74	.35
05473300*	CEDAR CR NR BATAVIA, IOWA.	LAT 4101XX, LONG 9207XX, IN NW 1/4 SEC. 27, T.72 N., R.11 W., JEFFERSON COUNTY, AT BRIDGE ON U.S. HIGHWAY 30, 2.5 MILES NE OF BATAVIA.	252	1957-	09-20-74	9.1
05473350	L CEDAR CR NR SALEN, IOWA.	LAT 4051XX, LONG 9141XX, IN SW 1/4 SEC. 17, T.70 N., R.7 W., HENRY COUNTY, AT BRIDGE, 4 MILES WEST OF SALEN.	55.0	1958-	09-19-74	.04
05473400	CEDAR CR NR OAKLAND HILLS, IOWA.	LAT 4055XX, LONG 9140XX, IN NW 1/4 SEC. 28, T.71 N., R.7 W., HENRY COUNTY, AT BRIDGE, 3 MILES WEST OF OAKLAND HILLS.	522	1958-	09-19-74	23
05473450	BIG CR AT MT. PLEASANT, IOWA.	LAT 4100XX, LONG 9132XX, IN NW 1/4 SEC. 34, T.72 N., R.6 W., HENRY COUNTY, AT BRIDGE, 3 MILES NE OF MT. PLEASANT.	58.0	1958-	09-19-74	0

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
DEVILS CREEK BASIN						
05474190	DEVILS CR NR VIELE, IOWA.	LAT 403703, LONG 912534, IN SW 1/4 SEC. 10, T.67 N., R.5 W., LEE COUNTY, AT BRIDGE, 1 MILE NE OF VIELE.	20.0	1958-	09-20-74	0
05474200	SUGAR CR NR FRANKLIN, IOWA.	LAT 403954, LONG 912839, IN NE 1/4 SEC. 30, T.68 N., R.5 W., LEE COUNTY, AT BRIDGE, 2 MILES EAST OF FRANKLIN.	75.6	1958-	09-20-74	1.2
05474300	SUGAR CR NR VIELE, IOWA.	LAT 403639, LONG 912624, IN SE 1/4 SEC. 9, T.67 N., R.5 W., LEE COUNTY, AT BRIDGE, 0.5 MILE WEST OF VIELE.	109	1958-	09-20-74	0
DES MOINES RIVER BASIN						
05476550	JACK CR NR RINGSTED, IOWA.	LAT 4316XX, LONG 9438XX, NEAR S 1/4 CORNER OF SEC.28, T.98 N., R.32 W., EMMET COUNTY, AT BRIDGE, 6 MILES SW OF RINGSTED.	74.8	1957-	09-26-74	0.08
05476600	SILVER CR NR EMMETTSBURG, IOWA.	LAT 4306XX, LONG 9443XX, NEAR N 1/4 CORNER SEC.34, T.96 N., R.33 W., PALO ALTO COUNTY, AT BRIDGE, 3 MILES SW OF EMMETTSBURG.	61.8	1957-	09-26-74	.99
05476650	CYLINDER CR NR RODMAN, IOWA.	LAT 4302XX, LONG 9434XX, NEAR S 1/4 CORNER SEC.13, T.95 N., R.32 W., PALO ALTO COUNTY, AT BRIDGE, 2.5 MILES NW OF RODMAN.	88.6	1957-	09-26-74	2.8
05476700	PRAIRIE CR NR WEST BEND, IOWA.	LAT 4255XX, LONG 9427XX, NEAR N 1/4 CORNER SEC.36, T.94 N., R.31 W., PALO ALTO COUNTY, AT BRIDGE, 2.5 MILES SW OF WEST BEND.	61.1	1957-	09-26-74	0
05476720	BEAVER CR NR ROLFE, IOWA.	LAT 4250XX, LONG 9428XX, NEAR CENTER OF SEC.35, T.93 N., R.31 W., POCAHONTAS COUNTY, AT BRIDGE, 3 MILES NE OF ROLFE.	62.2	1959-	09-24-74	.10
05476740	PILOT CR NR ROLFE, IOWA.	LAT 4249XX, LONG 9427XX, IN SE 1/4 SEC. 1, T.92 N., R.31 W., POCAHONTAS COUNTY, AT BRIDGE, 4 MILES EAST OF ROLFE.	97.0	1959-	09-24-74	2.0
05477600	EF DES MOINES R NR DOLLIVER, IOWA.	LAT 4328XX, LONG 9435XX, IN SW 1/4 SEC. 13, T.100 N., R.32 W., EMMET COUNTY, AT BRIDGE, 2 MILES NE OF DOLLIVER.	196	1957-	09-25-74	0
05477700	EF DES MOINES R NR SWEA CITY, IOWA.	LAT 4319XX, LONG 9425XX, NEAR CENTER OF SEC.8, T.98 N., R.30 W., KOSSUTH COUNTY, AT BRIDGE, 7 MILES SW OF SWEA CITY.	314	1957-	09-25-74	.58
05477800	MUD CR AT BANCROFT, IOWA.	LAT 4318XX, LONG 9412XX, NEAR CENTER OF SEC.19, T.98 N., R.28 W., KOSSUTH COUNTY, AT BRIDGE, 1 MILE EAST OF BANCROFT.	68.1	1957-	09-25-74	.42
05478050	BUFFALO CR NR TITONKA, IOWA.	LAT 4314XX, LONG 9359XX, IN NW 1/4 SEC. 12, T.97 N., R.27 W., KOSSUTH COUNTY, AT BRIDGE, 3 MILES EAST OF TITONKA.	47.9	1957-	09-25-74	.04
05478100	N BUFFALO CR NR BUFFALO CENTER, IOWA.	LAT 4319XX, LONG 9358XX, IN NW 1/4 SEC. 18, T.98 N., R.26 W., WINNEBAGO COUNTY, AT BRIDGE, 5 MILES SOUTH BUFFALO CENTER.	62.5	1957-	09-25-74	.96
05478150	BLACK CAT CR NR LONE ROCK, IOWA.	LAT 4312XX, LONG 9420XX, NEAR S 1/4 CORNER SEC.24, T.97 N., R.30 W., KOSSUTH COUNTY, AT BRIDGE, 2 MILES SW OF LONE ROCK.	58.2	1957-	09-26-74	.06
05478200	BLACK CAT CR NR ALGONA, IOWA.	LAT 4308XX, LONG 9414XX, NEAR S 1/4 CORNER SEC.11, T.96 N., R.29 W., KOSSUTH COUNTY, AT BRIDGE ON U. S. HIGHWAY 169, 5 MILES NORTH OF ALGONA.	112	1957-	09-26-74	0

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
DES MOINES RIVER BASIN--CONTINUED						
05478350	LOTTS CR NR WEST BEND, IOWA.	LAT 4358XX, LONG 9423XX, NEAR S 1/4 CORNER SEC.9, T.94 N., R.30 W., KOSSUTH COUNTY, AT BRIDGE, 3 MILES EAST OF WEST BEND.	66.2	1957-	09-26-74	1.3
05478400	LOTTS CR AT LIVERMORE, IOWA.	LAT 4252XX, LONG 9411XX, IN NE 1/4 SEC. 18, T.93 N., R.28 W., HUMBOLDT COUNTY, AT BRIDGE NEAR NW CITY LIMITS OF LIVERMORE.	165	1957-	09-25-74	2.0
05479600	LIZARD CR NR PALMER, IOWA	LAT 4239XX, LONG 9430XX, IN NW 1/4 SEC. 3, T.90 N., R.31 W., POCAHONTAS COUNTY, AT BRIDGE, 5 MILES NE OF PALMER.	66.4	1957-	09-24-74	1.3
05479800	NB LIZARD CR NR HAVELock, IOWA.	LAT 4248XX, LONG 9440XX, IN NE 1/4 SEC. 18, T.92 N., R.32 W., POCAHONTAS COUNTY, AT BRIDGE, 4 MILES SE OF HAVELock.	79.4	1957-	09-24-74	0.46
05479900	LIZARD CR NR GILMORE CITY, IOWA.	LAT 4238XX, LONG 9428XX, IN NW 1/4 SEC. 1, T.90 N., R.31 W., POCAHONTAS COUNTY, AT BRIDGE, 6 MILES SW OF GILMORE CITY.	219	1957-	09-24-74	1.3
05480100	SB LIZARD CR NR PALMER, IOWA.	LAT 4235XX, LONG 9432XX, IN SW 1/4 SEC. 29, T.90 N., R.31 W., POCAHONTAS COUNTY, AT BRIDGE, 4.5 MILES SE OF PALMER.	66.4	1957-	09-24-74	.10
05480300	SB LIZARD CR NR FORT DODGE, IOWA.	LAT 422950, LONG 941359, IN NE 1/4 SEC. 26, T.89 N., R.29 W., WEBSTER COUNTY, AT BRIDGE, 3 MILES WEST OF FORT DODGE.	154	1957-	09-24-74	1.9
05480620	BRUSHY CR NR HORER, IOWA.	LAT 4223XX, LONG 9359XX, IN SE 1/4 SEC. 34, T.88 N., R.27 W., WEBSTER COUNTY, AT BRIDGE, 3 MILES NW OF HORER.	88.5	1957-	09-24-74	.36
05480660	BOONE R NR KANAWHA, IOWA.	LAT 4255XX, LONG 9353XX, NEAR NORTH 1/4 CORNER SEC.35, T.94 N., R.26 W., HANCOCK COUNTY, AT BRIDGE, 4 MILES SW OF KANAWHA.	71.4	1957-	09-25-74	.74
05480700	BOONE R NR RENWICK, IOWA.	LAT 4253XX, LONG 9355XX, IN SW 1/4 SEC. 3, T.93 N., R.26 W., WRIGHT COUNTY, AT BRIDGE, 6 MILES NE OF RENWICK.	134	1957-	09-25-74	2.1
05480720	PRAIRIE CR NR LUVERNE, IOWA.	LAT 4257XX, LONG 9405XX, IN SW 1/4 SEC. 18, T.94 N., R.27 W., KOSSUTH COUNTY, AT BRIDGE, 3 MILES NORTH OF LUVERNE.	68.6	1957-	09-25-74	1.1
05480760	PRAIRIE CR NR RENWICK, IOWA.	LAT 4252XX, LONG 9359XX, IN NE 1/4 SEC. 23, T.93 N., R.27 W., HUMBOLDT COUNTY, AT BRIDGE, 3 MILES NW OF RENWICK.	118	1957-	09-25-74	.52
05480800	OTTER CR NR GOLDFIELD, IOWA.	LAT 4247XX, LONG 9353XX, IN NE 1/4 SEC. 15, T.92 N., R.26 W., WRIGHT COUNTY, AT BRIDGE, 4 MILES NE OF GOLDFIELD.	75.5	1957-	09-25-74	.35
05480820	BOONE R NR GOLDFIELD, IOWA.	LAT 4243XX, LONG 9357XX, NEAR CENTER OF SEC.5, T.91 N., R.26 W., WRIGHT COUNTY, AT BRIDGE, 1.5 MILES SW OF GOLDFIELD.	419	1957-	09-25-74	1.9
05480860	EAGLE CR NR EAGLE GROVE, IOWA.	LAT 4242XX, LONG 9349XX, IN SE 1/4 SEC. 8, T.91 N., R.25 W., WRIGHT COUNTY, AT BRIDGE, 5 MILES NE OF EAGLE GROVE.	62.8	1957-	09-25-74	.95
05480900	EAGLE CR NR WOOLSTOCK, IOWA.	LAT 4234XX, LONG 9351XX, NEAR CENTER OF SEC.36, T.90 N., R.26 W., WRIGHT COUNTY, AT BRIDGE, 0.5 MILE WEST OF WOOLSTOCK.	105	1957-	09-25-74	2.1
05480940	WHITE FOX CR NR WOOLSTOCK, IOWA.	LAT 4236XX, LONG 9345XX, IN SW 1/4 SEC. 13, T.90 N., R.25 W., WRIGHT COUNTY, AT BRIDGE, 5 MILES NE OF WOOLSTOCK.	62.0	1957-	09-25-74	2.3
05480980	WHITE FOX CR AT WEBSTER CITY, IOWA.	LAT 4230XX, LONG 9348XX, IN NW 1/4 SEC. 28, T.89 N., R.25 N., HAMILTON COUNTY, AT BRIDGE, 2 MILES NORTH OF WEBSTER CITY.	111	1957-	09-24-74	4.0

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
DES MOINES RIVER BASIN--CONTINUED						
05481600	BIG CR AT POLK CITY, IOWA. (DISCONTINUED)	LAT 4146XX, LONG 9342XX, IN SE 1/4 SEC. 1, T.80 N., R.25 W., POLK COUNTY, AT BRIDGE, 1 MILE SE OF POLK CITY.	91.4	1957-	--	--
05481700	BEAVER CR NR BEAVER, IOWA.	LAT 4202XX, LONG 9409XX, NEAR S 1/4 CORNER SEC.6, T.83 N., R.28 W., BOONE COUNTY, AT BRIDGE, 1 MILE SW OF BEAVER.	84.5	1957-	09-23-74	.76
05481800	BEAVER CR NR BERKLEY, IOWA.	LAT 4155XX, LONG 9406XX, IN NW 1/4 SEC. 15, T.82 N., R.28 W., BOONE COUNTY, AT BRIDGE, 2 MILES SOUTH OF BERKLEY.	175	1957-	09-23-74	1.6
05481900	BEAVER CR AT GRANGER, IOWA.	LAT 414539, LONG 935101, IN SW 1/4 SEC. 2, T.80 N., R.26 W., DALLAS COUNTY, AT BRIDGE, 1.5 MILES WEST OF GRANGER.	314	1957-	09-23-74	2.9
05482100	N RACCOON R NR REMBRANDT, IOWA.	LAT 4247XX, LONG 9506XX, IN NE 1/4 SEC. 21, T.92 N., R.36 W., BUENA VISTA COUNTY, AT BRIDGE, 5 MILES SE OF REMBRANDT.	77.4	1957-	09-23-74	.79
05482120	N RACCOON R NR TRUESDALE, IOWA.	LAT 4242XX, LONG 9505XX, IN NE 1/4 SEC. 15, T.91 N., R.36 W., BUENA VISTA COUNTY, AT BRIDGE, 6 MILES SE OF TRUESDALE.	164	1957-	09-23-74	2.2
05482180	L CEDAR CR NR FONDA, IOWA.	LAT 4237XX, LONG 9451XX, IN NW 1/4 SEC. 15, T.90 N., R.34 W., POCAHONTAS COUNTY, AT BRIDGE, 2 MILES NORTH OF FONDA.	83.5	1957-	09-23-74	.05
05482200	B CEDAR CR AT FONDA, IOWA.	LAT 4235XX, LONG 9451XX, IN SW 1/4 SEC. 22, T.90 N., R.34 W., POCAHONTAS COUNTY, AT BRIDGE ON STATE HIGHWAY 5, AT NORTH CITY LIMITS OF FONDA.	196	1957-	09-23-74	.69
05482220	B CEDAR CR AT SAC CITY, IOWA.	LAT 4224XX, LONG 9459XX, IN SE 1/4 SEC. 25, T.88 N., R.36 W., SAC COUNTY, AT BRIDGE, 1 MILE SE OF SAC CITY.	342	1957-	09-23-74	4.4
05482320	INDIAN CR NR LAKE VIEW, IOWA.	LAT 4220XX, LONG 9500XX, IN NW 1/4 SEC. 24, T.87 N., R.36 W., SAC COUNTY, AT BRIDGE, 4 MILES NE OF LAKE VIEW.	90.2	1957-	09-23-74	4.1
05482360	CAMP CR NR LYTTON, IOWA.	LAT 4223XX, LONG 9450XX, IN NW 1/4 SEC. 5, T.87 N., R.34 W., CALHOUN COUNTY, AT BRIDGE, 3 MILES SE OF LYTTON.	62.0	1957-	09-23-74	.14
05482380	CAMP CR NR LAKE CITY, IOWA.	LAT 4217XX, LONG 9450XX, IN NW 1/4 SEC. 5, T.86 N., R.34 W., CALHOUN COUNTY, AT BRIDGE, 5 MILES NW OF LAKE CITY.	147	1957-	09-23-74	.81
05482400	N RACCOON R NR LAKE CITY, IOWA.	LAT 4216XX, LONG 9450XX, NEAR E 1/4 CORNER SEC.17, T.86 N., R.34 W., CALHOUN COUNTY, AT BRIDGE ON STATE HIGHWAY 175, 4 MILES WEST OF LAKE CITY.	1003	1957-	09-23-74	36
05482410	LAKE CR NR ROCKWELL CITY, IOWA.	LAT 4224XX, LONG 9436XX, IN SW 1/4 SEC. 29, T.88 N., R.32 W., CALHOUN COUNTY, AT BRIDGE ON U.S. HIGHWAY 20, 1 MILE EAST OF ROCKWELL CITY.	71.5	1957-	09-23-74	.57
05482420	LAKE CR NR LAKE CITY, IOWA.	LAT 4216XX, LONG 9447XX, IN SW 1/4 SEC. 14, T.86 N., R.34 W., CALHOUN COUNTY, AT BRIDGE, 3 MILES WEST OF LAKE CITY.	128	1957-	09-23-74	1.1
05482440	PURGATORY CR NR LANESBORO, IOWA.	LAT 4210XX, LONG 9438XX, IN NE 1/4 SEC. 24, T.85 N., R.33 W., CARROLL COUNTY, AT BRIDGE, 3 MILES SE OF LANESBORO.	65.0	1957-	09-25-74	1.1
05482460	E CEDAR CR NR SOMERS, IOWA.	LAT 422207, LONG 942703, IN NW 1/4 SEC. 10, T.87 N., R.31 W., CALHOUN COUNTY, AT BRIDGE, 1 MILE SW OF SOMERS.	62.4	1957-	09-23-74	.19
05482480	CEDAR CR NR CHURDAN, IOWA.	LAT 4208XX, LONG 9435XX, NEAR S 1/4 CORNER SEC.28, T.85 N., R.32 W., GREENE COUNTY, AT BRIDGE, 5 MILES SW OF CHURDAN.	151	1957-	09-25-74	0

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
DES MOINES RIVER BASIN--CONTINUED						
05482700	HARDIN CR NR CHURDAN, IOWA.	LAT 4210XX, LONG 9426XX, IN SW 1/4 SEC. 14, T.85 N., R.31 W., GREENE COUNTY, AT BRIDGE, 2 MILES EAST OF CHURDAN.	74.0	1957-	09-23-74	.16
05483050	HARDIN CR NR JEFFERSON, IOWA.	LAT 4201XX, LONG 9420XX, IN NW 1/4 SEC. 10, T.83 N., R.30 W., GREENE COUNTY, AT BRIDGE, 2 MILES EAST OF JEFFERSON.	161	1957-	09-23-74	1.7
05483100	W BUTTRICK CR NR FARMHANVILLE, IOWA.	LAT 4213XX, LONG 9422XX, IN NW 1/4 SEC. 4, T.85 N., R.30 W., GREENE COUNTY, AT BRIDGE, 5 MILES SE OF FARMHANVILLE.	80.1	1957	09-23-74	.22
05483150	E BUTTRICK CR NR GRAND JUNCTION, IOWA.	LAT 4204XX, LONG 9416XX, IN NE 1/4 SEC. 30, T.84 N., R.29 W., GREENE COUNTY, AT BRIDGE, 2.5 MILES NW OF GRAND JUNCTION.	79.6	1957-	09-23-74	.53
05483200	BUTTRICK CR NR GRAND JUNCTION, IOWA.	LAT 4202XX, LONG 9417XX, AT S 1/4 CORNER SEC.36, T.84 N., R.30 W., GREENE COUNTY, AT BRIDGE, 2.5 MILES WEST OF GRAND JUNCTION.	202	1957-	09-23-74	.86
05483250	GREEN BRIER CR NR JAMAICA, IOWA.	LAT 4151XX, LONG 9417XX, NEAR CENTER OF SEC.1, T.81 N., R.30 W., GUTHRIE COUNTY, AT BRIDGE, 1.5 MILES NE OF JAMAICA.	65.8	1957-	09-23-74	.36
05483300	N RACCOON R NR PERRY, IOWA.	LAT 4150XX, LONG 9408XX, NEAR CENTER OF SEC.8, T.81 N., R.28 W., DALLAS COUNTY, AT BRIDGE ON STATE HIGHWAY 141, 1 MILE WEST OF PERRY.	2169	1957-	09-23-74	89
05483310	S RACCOON R NR GUTHRIE CENTER, IOWA.	LAT 4141XX, LONG 9432XX, IN SW 1/4 SEC. 36, T.80 N., R.32 W., GUTHRIE COUNTY, AT BRIDGE, 2 MILES NW OF GUTHRIE CENTER.	77.2	1957-	09-24-74	16
05483320	BRUSHY FORK CR NR DEDHAM, IOWA.	LAT 4147XX, LONG 9454XX, IN SE 1/4 SEC. 22, T.82 N., R.34 W., CARROLL COUNTY, AT BRIDGE, 2 MILES SE OF DEDHAM.	68.1	1957-	09-25-74	12
05483330	BRUSHY FORK CR NR GUTHRIE CENTER, IOWA.	LAT 4139XX, LONG 9427XX, NEAR CENTER OF SEC.15, T.79 N., R.31 W., GUTHRIE COUNTY, AT BRIDGE, 3.5 MILES SE OF GUTHRIE CENTER.	142	1957-	09-24-74	34
05483340	S RACCOON R NR MONTEITH, IOWA.	LAT 4138XX, LONG 9425XX, IN SE 1/4 SEC. 23, T.79 N., R.31 W., GUTHRIE COUNTY, AT BRIDGE, 0.5 MILE EAST OF MONTEITH.	267	1957-	09-24-74	57
05483350	N RACCOON R NR CARROLL, IOWA.	LAT 4203XX, LONG 9449XX, IN SE 1/4 SEC. 29, T.84 N., R.34 W., CARROLL COUNTY, AT BRIDGE, 2 MILES SE OF CARROLL.	74.3	1957-	09-25-74	10
05483360	N RACCOON R NR GLIDDEN, IOWA.	LAT 4203XX, LONG 9446XX, NEAR CENTER OF SEC.35, T.84 N., R.34 W., GREENE COUNTY, AT BRIDGE, 2.5 MILES SW OF GLIDDEN.	138	1957-	09-25-74	9.8
05483380	WILLOW CR NR SCRANTON, IOWA.	LAT 4154XX, LONG 9435XX, IN SW 1/4 SEC. 21, T.82 N., R.32 W., GREENE COUNTY, AT BRIDGE, 9 MILES SW OF SCRANTON.	51.8	1957-	09-25-74	1.0
05483400	WILLOW CR NR BAYARD, IOWA.	LAT 4149XX, LONG 9433XX, IN SE 1/4 SEC. 15, T.81 N., R.32 W., GUTHRIE COUNTY, AT BRIDGE, 2 MILES SOUTH OF BAYARD.	112	1957-	09-24-74	6.3
05483450	N RACCOON R NR BAYARD, IOWA.	LAT 4147XX, LONG 9430XX, IN SE 1/4 SEC. 31, T.81 N., R.31 W., GUTHRIE COUNTY, AT BRIDGE ON STATE HIGHWAY 25, 6 MILES SE OF BAYARD.	375	1957-	09-24-74	42
05483620	MOSQUITO CR NR LINDEN, IOWA.	LAT 4143XX, LONG 9415XX, NEAR S 1/4 CORNER SEC.200, T.80 N., R.29 W., DALLAS COUNTY, AT BRIDGE, 5 MILES NE OF LINDEN.	67.4	1957-	09-23-74	.14
05483640	MOSQUITO CR NR REDFIELD, IOWA.	LAT 4138XX, LONG 9413XX, IN NE 1/4 SEC. 27, T.79 N., R.29 W., DALLAS COUNTY, AT BRIDGE, 3 MILES NORTH OF REDFIELD.	110	1957-	09-24-74	.53

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
DES MOINES RIVER BASIN--CONTINUED						
05483660	M RACCOON R AT REDFIELD, IOWA.	LAT 4136XX, LONG 9413XX, NEAR W 1/4 CORNER SEC.4, T.78 N., R.29 W., DALLAS COUNTY, AT BRIDGE NEAR WEST CITY LIMITS OF REDFIELD.	609	1957-	09-24-74	48
05484200	PANTHER CR NR ADEL, IOWA.	LAT 4136XX, LONG 9406XX, NEAR N 1/4 CORNER SEC.5, T.78 N., R.28 W., DALLAS COUNTY, AT BRIDGE, 4 MILES SW OF ADEL.	56.0	1957-	09-24-74	1.1
05485600	FOURMILE CR NR ANKENY, IOWA.	LAT 414354, LONG 933421, NEAR S 1/4 CORNER SEC.18, T.80 N., R.23 W., POLK COUNTY, AT BRIDGE, 1.5 MILES EAST OF ANKENY.	59.3	1957-	09-23-74	.11
05485700	NORTH R NR EARLHAM, IOWA.	LAT 4124XX, LONG 9411XX, IN NE 1/4 SEC. 9, T.76 N., R.29 W., MADISON COUNTY, AT BRIDGE, 7 MILES SW OF EARLHAM.	68.9	1957-	09-24-74	.56
05485850	NB NORTH R NR WINTERSET, IOWA.	LAT 4126XX, LONG 9356XX, IN NE 1/4 SEC. 34, T.77 N., R.27 W., MADISON COUNTY, AT BRIDGE, 7 MILES NE OF WINTERSET.	74.7	1957-	09-24-74	.77
05485900	NORTH R NR WINTERSET, IOWA.	LAT 4126XX, LONG 9355XX, IN NW 1/4 SEC. 36, T.77 N., R.27 W., MADISON COUNTY, AT BRIDGE, 8 MILES NE OF WINTERSET.	203	1957-	09-24-74	2.0
05486100	MIDDLE R NR CASEY, IOWA.	LAT 4130XX, LONG 9429XX, IN SW 1/4 SEC. 36, T.78 N., R.32 W., GUTHRIE COUNTY, AT BRIDGE, 1.5 MILES EAST OF CASEY.	72.8	1957-	09-24-74	1.8
05486150	MIDDLE R AT MIDDLE RIVER, IOWA.	LAT 4120XX, LONG 9414XX, NEAR CENTER OF SEC.6, T.75 N., R.29 W., MADISON COUNTY, AT BRIDGE NEAR SOUTH CITY LIMITS OF MIDDLE RIVER.	164	1957-	09-24-74	3.3
05486300	CLANTON CR AT EAST PERU, IOWA.	LAT 4114XX, LONG 9355XX, IN NE 1/4 SEC. 11, T.74 N., R.27 W., MADISON COUNTY, AT BRIDGE, NEAR EAST CITY LIMITS OF EAST PERU.	84.5	1957-	09-24-74	.01
05486350	CLANTON CR NR MARTENSDALE, IOWA.	LAT 4121XX, LONG 9345XX, IN NE 1/4 SEC. 32, T.76 N., R.25 W., WARREN COUNTY, AT BRIDGE, 2 MILES SW OF MARTENSDALE.	159	1957-	09-23-74	1.0
05486400	MIDDLE R AT MARTENSDALE, IOWA.	LAT 4122XX, LONG 9344XX, IN SE 1/4 SEC. 21, T.76 N., R.25 W., WARREN COUNTY, AT BRIDGE ON STATE HIGHWAY 92, 0.5 MILE SE OF MARTENSDALE.	451	1957-	09-23-74	8.8
05486700	SOUTH R NR NEW VIRGINIA, IOWA.	LAT 4113XX, LONG 9344XX, IN NE 1/4 SEC. 16, T.74 N., R.25 W., WARREN COUNTY, AT BRIDGE, 2.5 MILES NORTH OF NEW VIRGINIA.	65.4	1957-	09-23-74	0
05486900	SQUAW CR NR JAMISON, IOWA.	LAT 4108XX, LONG 9344XX, IN NE 1/4 SEC. 16, T.73 N., R.25 W., CLARKE COUNTY, AT BRIDGE, 0.5 MILE NW OF JAMISON.	60.8	1957-	09-23-74	.007
05487100	SQUAW CR NR INDIANOLA, IOWA.	LAT 4118XX, LONG 9336XX, IN NE 1/4 SEC. 15, T.75 N., R.24 W., WARREN COUNTY, AT BRIDGE, 4 MILES SW OF INDIANOLA.	134	1957-	09-23-74	1.1
05487200	SOUTH R NR INDIANOLA, IOWA.	LAT 4120XX, LONG 9335XX, IN NE 1/4 SEC. 2, T.75 N., R.24 W., WARREN COUNTY, AT BRIDGE, 2 MILES SW OF INDIANOLA.	278	1957-	09-23-74	3.2
05487400	OTTER CR NR NORWOOD, IOWA.	LAT 4109XX, LONG 9332XX, IN SW 1/4 SEC. 5, T.73 N., R.23 W., LUCAS COUNTY, AT BRIDGE, 3 MILES NW OF NORWOOD.	102	1957-	09-23-74	0
05487450	OTTER CR NR MILO, IOWA.	LAT 411702, LONG 932909, IN NE 1/4 SEC. 22, T.75 N., R.23 W., WARREN COUNTY, AT BRIDGE ON STATE HIGHWAY 205, 2 MILES WEST OF MILO.	155	1957-	09-23-74	.74
05487700	WHITE BREAST CR NR WOODBURN, IOWA.	LAT 405836, LONG 933514, IN SE 1/4 SEC. 2, T.71 N., R.24 W., CLARKE COUNTY, AT BRIDGE, 2 MILES SOUTH OF WOODBURN.	82.9	1957-	09-24-74	0.05

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
DES MOINES RIVER BASIN--CONTINUED						
05487800*	WHITE BREAST CR AT LUCAS, IOWA.	LAT 4101XX, LONG 9328XX, IN NE 1/4 SEC. 23, T.72 N., R.23 W., LUCAS COUNTY, AT BRIDGE ON U.S. HIGHWAY 65, NEAR SOUTH CITY LIMITS OF LUCAS.	128	1957-	09-24-74	0.07
05487900	WHITE BREAST CR NR NEWBERN, IOWA.	LAT 4110XX, LONG 9321XX, IN SE 1/4 SEC. 35, T.74 N., R.22 W., WARREN COUNTY, AT BRIDGE, 2 MILES WEST OF NEWBERN.	243	1957-	09-23-74	.80
05488200	ENGLISH CR NR KNOXVILLE, IOWA.	LAT 411615, LONG 930526, NEAR CENTER OF SEC.30, T.75 N., R.19 W., MARION COUNTY, AT BRIDGE, 3 MILES SOUTH OF KNOXVILLE.	73.0	1957-	09-23-74	.05
05488300	ENGLISH CR NR HARVEY, IOWA.	LAT 4120XX, LONG 9257XX, NEAR E 1/4 CORNER SEC.5, T.75 N., R.18 W., MARION COUNTY, AT BRIDGE, 1.5 MILES NW OF HARVEY.	108	1957-	09-23-74	2.3
05488550	CEDAR CR AT MELROSE, IOWA.	LAT 4058XX, LONG 9303XX, IN SW 1/4 SEC. 4, T.71 N., R.19 W., MONROE COUNTY, AT BRIDGE NEAR SOUTH CITY LIMITS OF MELROSE.	23.9	1957-	09-24-74	.02
05488600	CEDAR CR NR ALBIA, IOWA.	LAT 4101XX, LONG 9253XX, IN NE 1/4 SEC. 26, T.72 N., R.18 W., MONROE COUNTY, AT BRIDGE ON U.S. HIGHWAY 34, 4 MILES WEST OF ALBIA.	102	1958-	09-24-74	.26
05488700	CEDAR CR NR LOVILIA, IOWA.	LAT 4107XX, LONG 9256XX, NEAR S 1/4 CORNER SEC.16, T.73 N., R.18 W., MONROE COUNTY, AT BRIDGE, 2 MILES SW OF LOVILIA.	211	1957-	09-23-74	2.1
05488800	N CEDAR CR NR LOVILIA, IOWA.	LAT 4109XX, LONG 9303XX, IN NE 1/4 SEC. 4, T.73 N., R.19 W., MONROE COUNTY, AT BRIDGE, 7.5 MILES NW OF LOVILIA.	61.3	1957-	09-23-74	.04
05488900	N CEDAR CR NR MARYSVILLE, IOWA.	LAT 4111XX, LONG 9301XX, IN SE 1/4 SEC. 26, T.74 N., R.19 W., MARION COUNTY, AT BRIDGE, 3 MILES WEST OF MARYSVILLE.	111	1958-	09-23-74	.18
05489300	N AVERY CR NR CHILLICOTHE, IOWA.	LAT 4106XX, LONG 9233XX, IN SE 1/4 SEC. 26, T.73 N., R.15 W., WAPELLO COUNTY, AT BRIDGE, 1 MILE NW OF CHILLICOTHE.	60.1	1957-	09-24-74	.43
05489400	S AVERY CR AT CHILLICOTHE, IOWA.	LAT 4105XX, LONG 9232XX, AT E 1/4 CORNER SEC.36, T.73 N., R.15 W., WAPELLO COUNTY, AT BRIDGE, NEAR SOUTH CITY LIMITS OF CHILLICOTHE.	51.6	1957-	09-24-74	.14
05489900	SOAP CR NR ASH GROVE, IOWA.	LAT 4051XX, LONG 9236XX, IN SW 1/4 SEC. 21, T.70 N., R.15 W., DAVIS COUNTY, AT BRIDGE, 3 MILES SW OF ASH GROVE.	97.3	1958-	09-24-74	1.1
05490100	SOAP CR NR FLORIS, IOWA.	LAT 405337, LONG 921553, NEAR CENTER OF SEC.5, T.70 N., R.12 W., DAVIS COUNTY, AT BRIDGE, 4 MILES NE OF FLORIS.	243	1958-	09-25-74	7.1
05490200	LICK CR AT KILBOURN, IOWA.	LAT 4048XX, LONG 9158XX, IN SW 1/4 SEC. 1, T.69 N., R.10 W., VAN BUREN COUNTY, AT BRIDGE NEAR EAST CITY LIMITS OF KILBOURN.	82.7	1958-	09-25-74	.36
05490300	CHEQUEST CR NR TROY, IOWA.	LAT 404717, LONG 921101, IN SE 1/4 SEC. 12, T.69 N., R.12 W., DAVIS COUNTY, AT BRIDGE, 3 MILES NE OF TROY.	85.0	1958-	09-25-74	.06
05490400	CHEQUEST CR NR PITTSBURG, IOWA.	LAT 404541, LONG 920057, NEAR CENTER OF SEC.21, T.69 N., R.10 W., DAVIS COUNTY, AT BRIDGE, 1.5 MILES NW OF PITTSBURG.	123	1958-	09-25-74	1.2
05490700	SUGAR CR NR CHARLESTON, IOWA.	LAT 4034XX, LONG 9134XX, IN NW 1/4 SEC. 33, T.67 N., R.6 W., LEE COUNTY, AT BRIDGE, 2 MILES SW OF CHARLESTON.	62.3	1958-	09-20-74	.06
FOX RIVER BASIN						
05494500	FOX R AT CANTRIL, IOWA.	LAT 4039XX, LONG 9203XX, IN SW 1/4 SEC. 30, T.68 N., R.10 W., VAN BUREN COUNTY, AT BRIDGE ON STATE HIGHWAY 2, 1 MILE NE OF CANTRIL.	161	+1941-51. 1958-	09-25-74	4.2

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
BIG SIOUX RIVER BASIN						
06483100	ROCK R NR ROCK RAPIDS, IOWA.	LAT 433001, LONG 961103, IN NE 1/4 SEC. 8, T.100 N., R.45 W., LYON COUNTY, AT BRIDGE, 5 MILES NORTH OF ROCK RAPIDS.	558	1958-	09-25-74	7.6
06483260	KANARANZI CR NR ROCK RAPIDS, IOWA.	LAT 4328XX, LONG 9609XX, IN SW 1/4 SEC. 22, T.100 N., R.45 W., LYON COUNTY, AT BRIDGE, 2 MILES NORTH OF ROCK RAPIDS.	203	1958-	09-25-74	1.6
06483280	TOM CR AT ROCK RAPIDS, IOWA.	LAT 4326XX, LONG 9609XX, IN SW 1/4 SEC. 34, T.100 N., R.45 W., LYON COUNTY, AT BRIDGE IN NORTHEAST CORNER OF ROCK RAPIDS.	61.9	1958-	09-25-74	.02
06483300	ROCK R BELOW ROCK RAPIDS, IOWA.	LAT 4324XX, LONG 9609XX, NEAR N 1/4 CORNER SEC.15, T.99 N., R.45 W., LYON COUNTY, AT BRIDGE, 2 MILES SOUTH OF ROCK RAPIDS.	859	1958-	09-25-74	8.2
06483320	MUD CR AT LESTER, IOWA.	LAT 4327XX, LONG 9620XX, IN NW 1/4 SEC. 36, T.100 N., R.47 W., LYON COUNTY, AT BRIDGE NEAR NORTHWEST CITY LIMITS OF LESTER.	63.7	1958-	09-25-74	.01
06483330	MUD CR NR DOON, IOWA.	LAT 4317XX, LONG 9615XX, IN NE 1/4 SEC. 27, T.98 N., R.46 W., LYON COUNTY, AT BRIDGE, 1.5 MILES NORTHWEST OF DOON.	138	1958-	09-25-74	.37
06483340	ROCK R NR DOON, IOWA.	LAT 4316XX, LONG 9615XX, IN NW 1/4 SEC. 35, T.98 N., R.46 W., LYON COUNTY, AT BRIDGE, 1 MILE SOUTHWEST OF DOON.	1050	1958-	09-25-74	9.7
06483360	L ROCK R NR LITTLE ROCK, IOWA.	LAT 433000, LONG 955057, IN N 1/2 SEC. 7, T.100 N., R.42 W., OSCEOLA COUNTY, AT BRIDGE, 4 MILES NORTHEAST OF LITTLE ROCK.	92.0	1958-	09-25-74	.18
06483380	L ROCK R AT LITTLE ROCK, IOWA.	LAT 4326XX, LONG 9554XX, IN NE 1/4 SEC. 3, T.99 N., R.43 W., LYON COUNTY, AT BRIDGE, 1 MILE SW OF LITTLE ROCK.	134	1958-	09-25-74	1.6
06483400	L ROCK R NR GEORGE, IOWA.	LAT 4319XX, LONG 9602XX, IN NE 1/4 SEC. 15, T.98 N., R.44 W., LYON COUNTY, AT BRIDGE, 2 MILES SOUTHWEST OF GEORGE.	199	1958-	09-25-74	3.0
06483460*	OTTER CR NR ASHTON, IOWA.	LAT 4320XX, LONG 9546XX, IN SE 1/4 SEC. 2, T.98 N., R.42 W., OSCEOLA COUNTY, AT BRIDGE, 2 MILES NORTHEAST OF ASHTON.	88.0	1958-	09-25-74	2.6
06483470	OTTER CR NR HATLOCK, IOWA.	LAT 4316XX, LONG 9555XX, NEAR W 1/4 CORNER SEC.34, T.98 N., R.43 W., LYON COUNTY, AT BRIDGE, 2 MILES NORTHEAST OF HATLOCK.	129	1958-	09-25-74	3.8
06483480	OTTER CR NR GEORGE, IOWA.	LAT 4317XX, LONG 9603XX, IN NW 1/4 SEC. 28, T.98 N., R.44 W., LYON COUNTY, AT BRIDGE, 5 MILES SOUTHWEST OF GEORGE.	208	1958-	09-25-74	4.9
06483490	L ROCK R NR DOON, IOWA.	LAT 4316XX, LONG 9614XX, NEAR W 1/4 CORNER SEC.36, T.98 N., R.46 W., LYON COUNTY, AT BRIDGE, 1 MILE SOUTH OF DOON.	474	1958-	09-25-74	8.2
06484100	SIXMILE CR NR HAWARDEN, IOWA.	LAT 4302XX, LONG 9624XX, IN NW 1/4 SEC. 28, T.95 N., R.47 W., SIOUX COUNTY, AT BRIDGE, 5 MILES NORTHEAST OF HAWARDEN.	68.8	1958-	09-25-74	1.1
06484150	SIXMILE CR NR CHATSWORTH, IOWA.	LAT 4256XX, LONG 9629XX, IN SW 1/4 SEC. 26, T.94 N., R.48 W., SIOUX COUNTY, AT BRIDGE, 1.5 MILES NORTHEAST OF CHATSWORTH.	104	1958-	09-25-74	3.1

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
BIG SIOUX RIVER BASIN--CONTINUED						
06484200	INDIAN CR NR CHATSWORTH, IOWA.	LAT 4253XX, LONG 9630XX, IN NW 1/4 SEC. 10, T.93 N., R.48 W., PLYMOUTH COUNTY, AT BRIDGE, 1.5 MILES SOUTH OF CHATSWORTH.	62.2	1957-	09-25-74	1.1
06485800	BROKEN KETTLE CR NR ADAVILLE, IOWA.	LAT 424320, LONG 962808, IN SE 1/4 SEC. 2, T.91 N., R.48 W., PLYMOUTH COUNTY, AT BRIDGE, 4 MILES SW OF ADAVILLE.	60.7	1957-	09-26-74	2.4
06485900	BROKEN KETTLE CR NR SIOUX CITY, IOWA.	LAT 423816, LONG 963028, IN SW 1/4 SEC. 3, T.90 N., R.48 W., PLYMOUTH COUNTY, AT BRIDGE, 9 MILES NORTHWEST OF SIOUX CITY.	97.4	1957-	09-26-74	2.9
FLOYD RIVER BASIN						
06600020	FLOYD R NR SHELDON, IOWA.	LAT 431219, LONG 954922, IN SW 1/4 SEC. 21, T.97 N., R.42 W., O BRIEN COUNTY, AT BRIDGE, 2 MILES NORTHEAST OF SHELDON.	64.0	1958-	09-26-74	2.8
06600040	L FLOYD R NR SHELDON, IOWA.	LAT 430925, LONG 955202, IN SE 1/4 SEC. 1, T.96 N., R.43 W., SIOUX COUNTY, AT BRIDGE, 2 MILES SOUTHWEST OF SHELDON.	59.3	1958-	09-26-74	4.2
06600060	FLOYD R BELOW SHELDON, IOWA.	LAT 430738, LONG 955327, IN N 1/2 SEC. 23, T.96 N., R.43 W., SIOUX COUNTY, AT BRIDGE, 4 MILES SOUTHWEST OF SHELDON.	165	1958-	08-17-72 10-16-72 09-11-73 07-24-74 08-06-74 09-26-74	11.6 4.93 11 4.97 2.26 8.16
06600120	DEEP CR NR OYENS, IOWA.	LAT 424926, LONG 960653, IN SW 1/4 SEC. 36, T.93 N., R.45 W., PLYMOUTH COUNTY, AT BRIDGE, 3 MILES NORTHWEST OF OYENS.	82.7	1957-	09-26-74	2.2
06600140	WILLOW CR NR OYENS, IOWA.	LAT 424942, LONG 960654, NEAR W 1/4 CORNER SEC.36, T.93 N., R.45 W., PLYMOUTH COUNTY, AT BRIDGE, 3 MILES NORTHWEST OF OYENS.	65.2	1957-	09-26-74	.48
06600160	DEEP CR AT LE MARS, IOWA.	LAT 424815, LONG 960928, IN NE 1/4 SEC. 9, T.92 N., R.45 W., PLYMOUTH COUNTY, AT BRIDGE NEAR NORTH CITY LIMITS OF LE MARS.	156	1957-	09-26-74	3.2
06600180	FLOYD R AT LE MARS, IOWA.	LAT 424802, LONG 961026, IN NW 1/4 SEC. 9, T.92 N., R.45 W., PLYMOUTH COUNTY, AT BRIDGE NEAR NORTH CITY LIMITS OF LE MARS.	478	1958-	09-26-74	18
06600200	FLOYD R NR MERRILL, IOWA.	LAT 424459, LONG 961232, IN NW 1/4 SEC. 31, T.92 N., R.45 W., PLYMOUTH COUNTY, AT BRIDGE, 3 MILES NORTHEAST OF MERRILL.	489	1957-	09-26-74	22
06600250	WB FLOYD R NR MIDDLEBURG, IOWA.	LAT 430649, LONG 960452, IN NE 1/4 SEC. 30, T.96 N., R.44 W., SIOUX COUNTY, AT BRIDGE, 1 MILE WEST OF MIDDLEBURG.	59.7	1958-	09-25-74	.08
06600400	WB FLOYD R NR MERRILL, IOWA.	LAT 424459, LONG 961426, IN NE 1/4 SEC. 35, T.92 N., R.46 W., PLYMOUTH COUNTY, AT BRIDGE, 2 MILES NORTH OF MERRILL.	232	1957-	09-26-74	6.9

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS	
					DATE	DISCHARGE (CFS)
MONONA-HARRISON DITCH BASIN						
06601500	BIG WHISKEY SLOUGH NR KINGSLEY, IOWA.	LAT 4240XX, LONG 9552XX, NEAR S 1/4 CORNER SEC.25, T.91 N., R.43 W., PLYMOUTH COUNTY, AT BRIDGE, 7 MILES NORTHEAST OF KINGSLEY.	55.3	1957-	10-02-74	2.3
06601600	WF L SIOUX R NR FIELDING, IOWA.	LAT 4239XX, LONG 9552XX, IN NW 1/4 SEC. 1, T.90 N., R.43 W., PLYMOUTH COUNTY, AT BRIDGE, 4 MILES SOUTHWEST OF FIELDING.	135	1957-	10-02-74	6.2
06601700	WF L SIOUX R NR KINGSLEY, IOWA.	LAT 4235XX, LONG 9600XX, IN NW 1/4 SEC. 25, T.90 N., R.44 W., PLYMOUTH COUNTY, AT BRIDGE, 1 MILE WEST OF KINGSLEY.	219	1957-	10-02-74	11
06601800	MUD CR AT NOVILLE, IOWA.	LAT 422928, LONG 960524, IN SW 1/4 SEC. 30, T.89 N., R.44 W., WOODBURY COUNTY, AT BRIDGE, 1 MILE WEST OF NOVILLE.	68.7	1957-	10-02-74	.65
06601900	WF L SIOUX R AT NOVILLE, IOWA.	LAT 422830, LONG 960439, IN SE 1/4 SEC. 31, T.89 N., R.44 W., WOODBURY COUNTY, AT BRIDGE ON U. S. HIGHWAY 20, 0.5 MILE SOUTHWEST OF NOVILLE.	344	1957-	10-02-74	14
06602200	ELLIOT CR NR BRONSON, IOWA.	LAT 422353, LONG 961405, IN NE 1/4 SEC. 31, T.88 N., R.46 W., WOODBURY COUNTY, AT BRIDGE, 1.5 MILES SOUTHWEST OF BRONSON.	58.6	1957-	10-02-74	.62
06602250	BIG WHISKEY CR NR BRONSON, IOWA.	LAT 422404, LONG 961429, IN NE 1/4 SEC. 31, T.88 N., R.46 W., WOODBURY COUNTY, AT BRIDGE, 1.5 MILES SOUTHWEST OF BRONSON.	62.4	1957-	10-02-74	.96
06602300	WOLF CR NR HOLLY SPRINGS, IOWA.	LAT 421806, LONG 960110, IN SW 1/4 SEC. 31, T.87 N., R.44 W., WOODBURY COUNTY, AT BRIDGE, 4 MILES NORTHEAST OF HOLLY SPRINGS.	99.2	1957-	10-02-74	6.0
LITTLE SIOUX RIVER BASIN						
06603600	L SIOUX R NR MONTGOMERY, IOWA.	LAT 4326XX, LONG 9515XX, IN NE 1/4 SEC. 6, T.99 N., R.37 W., DICKINSON COUNTY, AT BRIDGE ON STATE HIGHWAY 9, 2.5 MILES SW OF MONTGOMERY.	118	1958-	10-01-74	.26
06603700	WF L SIOUX R NR LAKE PARK, IOWA.	LAT 4329XX, LONG 9517XX, NEAR N 1/4 CORNER SEC.13, T.100 N., R.38 W., DICKINSON COUNTY, AT BRIDGE, 3 MILES NE OF LAKE PARK.	116	1958-	10-01-74	0
06603800	WF L SIOUX R NR MONTGOMERY, IOWA.	LAT 4325XX, LONG 9516XX, IN SW 1/4 SEC. 6, T.99 N., R.37 W., DICKINSON COUNTY, AT BRIDGE, 4 MILES SW OF MONTGOMERY.	173	1958-	10-01-74	.39
06603900	L SIOUX R NR MILFORD, IOWA.	LAT 4319XX, LONG 9511XX, NEAR CENTER OF SEC.11, T.98 N., R.37 W., DICKINSON COUNTY, AT BRIDGE, 1.5 MILES SW OF MILFORD.	333	1958-	10-02-74	.90
06604300	MILFORD C (REVISED) AT ARNOLDS PARK, IOWA.	LAT 4322XX, LONG 9508XX, IN NE 1/4 SEC. 29, T.99 N., R.36 W., DICKINSON COUNTY, AT BRIDGE IN ARNOLDS PARK.	125	1958-	10-02-74	0
06604500	OCHEYEDAN R NR BIGELOW, MINN.	LAT 4327XX, LONG 9537XX, IN SE 1/4 SEC. 24, T.100 N., R.41 W., OSCOLA COUNTY, AT BRIDGE IN IOWA, 4.5 MILES SE OF BIGELOW.	68.7	1958-	10-01-74	.04

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
LITTLE SIOUX RIVER BASIN--CONTINUED						
06604600	L OCHEYEDAN R NR MAY CITY, IOWA.	LAT 4317XX, LONG 9528XX, IN NE 1/4 SEC. 29, T.98 N., R.39 W., OSCEOLA COUNTY, AT BRIDGE, 3 MILES SOUTH OF MAY CITY.	54.2	1958-	10-01-74	1.5
06604700	OCHEYEDAN R NR MAY CITY, IOWA.	LAT 4316XX, LONG 9527XX, NEAR N 1/4 CORNER SEC.34, T.98 N., R.39 W., OSCEOLA COUNTY, AT BRIDGE, 4 MILES SE OF MAY CITY.	226	1958-	10-01-74	8.6
06604800	STONEY CR NR FOSTORIA, IOWA.	LAT 4314XX, LONG 9520XX, IN NW 1/4 SEC. 10, T.97 N., R.38 W., CLAY COUNTY, AT BRIDGE, 9 MILES WEST OF FOSTORIA.	65.4	1958-	10-02-74	1.5
06604900	STONEY CR NR EVERLY, IOWA.	LAT 430922, LONG 951458, IN NE 1/4 SEC. 7, T.96 N., R.37 W., CLAY COUNTY, AT BRIDGE, 4 MILES SE OF EVERLY.	81.6	1958-	10-02-74	2.1
06605000	OCHEYEDAN R NR SPENCER, IOWA.	LAT 430744, LONG 951237, IN SW 1/4 SEC. 15, T.96 N., R.37 W., CLAY COUNTY, AT BRIDGE, 3 MILES SW OF SPENCER.	426	1958-	10-02-74	12
06605100	L SIOUX R AT SPENCER, IOWA.	LAT 430813, LONG 950839, IN N 1/2 SEC. 18, T.96 N., R.36 W., CLAY COUNTY, AT BRIDGE ON U.S. HIGHWAY 18 AND 71, IN SPENCER.	990	*1936-42. 1957-	10-02-74	24
06605200	BIG MUDDY CR NR LANGDON, IOWA.	LAT 431149, LONG 950411, IN NW 1/4 SEC. 26, T.97 N., R.36 W., CLAY COUNTY, AT BRIDGE, 1.5 MILES SE OF LANGDON.	59.7	1957-	10-02-74	1.1
06605300	BIG MUDDY CR NR SPENCER, IOWA.	LAT 430828, LONG 950514, IN NW 1/4 SEC. 15, T.96 N., R.36 W., CLAY COUNTY, AT BRIDGE, 3 MILES EAST OF SPENCER.	102	1957-	10-02-74	2.4
06605400	PICKEREL RUN NR SPENCER, IOWA.	LAT 4312XX, LONG 9458XX, IN NW 1/4 SEC. 27, T.97 N., R.35 W., CLAY COUNTY, AT BRIDGE, 9 MILES WE OF SPENCER.	75.7	1957-	10-02-74	0
06605500	LOST ISLAND OUTLET NR DICKENS, IOWA.	LAT 430707, LONG 950158, AT W 1/4 CORNER SEC.19, T.96 N., R.35 W., CLAY COUNTY, AT BRIDGE, 1 MILE SOUTH OF DICKENS.	151	1957-	10-02-74	2.7
06605700	WILLOW CR NR ROSSI, IOWA.	LAT 4259XX, LONG 9510XX, IN SE 1/4 SEC. 4, T.94 N., R.37 W., CLAY COUNTY, AT BRIDGE, 2 MILES SE OF ROSSI.	62.6	1957-	10-02-74	0
06605800	WILLOW CR NR GREENVILLE, IOWA.	LAT 4259XX, LONG 9509XX, NEAR CENTER OF SEC.7, T.94 N., R.36 W., CLAY COUNTY, AT BRIDGE, 3 MILES SOUTH OF GREENVILLE.	90.3	1957-	10-02-74	1.0
06605900	WATERMAN CR NR HARTLEY, IOWA.	LAT 4305XX, LONG 9527XX, IN NE 1/4 SEC. 4, T.95 N., R.39 W., O'BRIEN COUNTY, AT BRIDGE, 6.5 MILES SE OF HARTLEY.	58.4	1958-	10-03-74	.91
06606000	WATERMAN CR NR SUTHERLAND, IOWA.	LAT 4257XX, LONG 9525XX, NEAR CENTER OF SEC.23, T.94 N., R.39 W., O'BRIEN COUNTY, 4.5 MILES SE OF SUTHERLAND.	139	1958-	10-03-74	4.4
06606100	L SIOUX R NR SUTHERLAND, IOWA.	LAT 4256XX, LONG 9525XX, IN NW 1/4 SEC. 26, T.94 N., R.39 W., O'BRIEN COUNTY, AT BRIDGE, 5 MILES SE OF SUTHERLAND.	1803	1958-	10-03-74	44
06606200	HILL CR NR PAULINA, IOWA.	LAT 430134, LONG 954237, NEAR N 1/4 CORNER SEC.29, T.95 N., R.41 W., O'BRIEN COUNTY, AT BRIDGE, 3 MILES NW OF PAULINA.	61.6	1958-	10-03-74	0
06606300	HILL CR NR CHEROKEE, IOWA.	LAT 4247XX, LONG 9533XX, NEAR CENTER OF SEC.15, T.92 N., R.40 W., CHEROKEE COUNTY, AT BRIDGE, ON U.S. HIGHWAY 59, 2 MILES NORTH OF CHEROKEE.	292	1958-	10-03-74	.32
06606400	L SIOUX R AT CHEROKEE, IOWA.	LAT 4245XX, LONG 9532XX, IN E 1/2 SEC. 26, T.92 N., T.40 W., CHEROKEE EAST CITY LIMITS OF CHEROKEE.	2173	1958-	10-03-74	75

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
LITTLE SIOUX RIVER BASIN--CONTINUED						
06606500	PIERSON CR NR CORRECTIONVILLE, IOWA.	LAT 4229XX, LONG 9548XX, IN NE 1/4 SEC. 33, T.89 N., R.42 W., WOODBURY COUNTY, AT BRIDGE, 1 MILE NW OF CORRECTIONVILLE.	55.1	1957-	10-02-74	3.5
06606800	MAPLE R NR AURELIA, IOWA.	LAT 4243XX, LONG 9529XX, IN NW 1/4 SEC. 8, T.91 N., R.39 W., CHEROKEE COUNTY, AT BRIDGE, 2 MILES NW OF AURELIA.	85.2	1958-	10-03-74	1.4
06606900	MAPLE R NR IDA GROVE, IOWA.	LAT 422155, LONG 952727, IN NW 1/4 SEC. 12, T.87 N., R.40 W., IDA COUNTY, AT BRIDGE, 1 MILE NE OF IDA GROVE.	364	1957-	10-01-74	30
06607100	ODEBOLT CR AT IDA GROVE, IOWA.	LAT 422049, LONG 952803, NEAR CENTER OF SEC.14, T.87 N., R.40 W., IDA COUNTY, AT BRIDGE IN IDA GROVE.	61.1	1957-	10-01-74	7.6
06607400	MAPLE R NR TURIN, IOWA.	LAT 4201XX, LONG 9558XX, IN SW 1/4 SEC. 10, T.83 N., R.44 W., MONONA COUNTY, AT BRIDGE, 1 MILE SE OF TURIN.	741	1957-	10-01-74	90
SOLDIER RIVER BASIN						
06608300	SOLDIER R NR RICKETTS, IOWA.	LAT 4212XX, LONG 9535XX, IN SW 1/4 SEC. 1, T.85 N., R.41 W., CRAWFORD COUNTY, AT BRIDGE, 5 MILES NORTH OF RICKETTS.	90.5	1959-	10-01-74	15
06608350	SOLDIER R NR UTE, IOWA.	LAT 4203XX, LONG 9543XX, IN SE 1/4 SEC. 34, T.84 N., R.42 W., MONONA COUNTY, AT BRIDGE ON STATE HIGHWAY 183, 1 MILE SW OF UTE.	155	1957-	10-01-74	25
06608400	E SOLDIER R NR UTE IOWA.	LAT 4203XX, LONG 9542XX, IN SW 1/4 SEC. 35, T.84 N., R.42 W., MONROE COUNTY, AT BRIDGE NEAR SW CITY LIMITS OF UTE.	97.8	1957-	10-01-74	12
ALLEN DITCH BASIN						
06609220	ALLEN DITCH NR LOVELAND, IOWA.	LAT 4129XX, LONG 9555XX, IN NE 1/4 SEC. 17, T.77 N., R.44 W., POTTAWATOMIE COUNTY, AT BRIDGE, 2 MILES SW OF LOVELAND.	92.1	1957-	10-03-74	2.5
BOYER RIVER BASIN						
06609260	BOYER R NR EARLY, IOWA.	LAT 4228XX, LONG 9511XX, IN NE 1/4 SEC. 6, T.88 N., R.37 W., SAC COUNTY, AT BRIDGE ON U.S. HIGHWAY 20, 2 MILES NW OF EARLY.	67.5	1957-	10-01-74	4.2
06609300	E BOYER R AT VAIL, IOWA.	LAT 4204XX, LONG 9512XX, IN E 1/2 SEC. 30, T.84 N., R.37 W., CRAWFORD COUNTY, AT BRIDGE NEAR EAST CITY LIMITS OF VAIL.	65.4	1957-	10-01-74	11
06609350	E BOYER R AT DENISON, IOWA.	LAT 4201XX, LONG 9522XX, IN SE 1/4 SEC. 10, T.83 N., R.39 W., CRAWFORD COUNTY, AT BRIDGE ON U.S. HIGHWAY 30, NEAR WEST CITY LIMITS OF DENISON.	130	1957-	10-01-74	24
06609400	BOYER R NR DENISON, IOWA.	LAT 4200XX, LONG 9523XX, IN NE 1/4 SEC. 16, T.83 N., R.39 W., CRAWFORD COUNTY, AT BRIDGE, 2 MILES SW OF DENISON.	517	1957-	10-01-74	66
06609550	BOYER R NR MISSOURI VALLEY, IOWA.	LAT 4131XX, LONG 9554XX, IN SE 1/4 SEC. 28, T.78 N., R.44 W., HARRISON COUNTY, AT BRIDGE, 2 MILES SOUTH OF MISSOURI VALLEY.	1081	1957-	10-03-74	123
06609580	WILLOW CR NR WOODBINE, IOWA.	LAT 4148XX, LONG 9545XX, IN NE 1/4 SEC. 29, T.81 N., R.42 W., HARRISON COUNTY, AT BRIDGE, 5.5 MILES NW OF WOODBINE.	67.0	1957-	10-02-74	7.5
06609670	BOYER R NR LOVELAND, IOWA.	LAT 412758, LONG 955437, IN CENTER OF SEC.4, T.77 N., R.44 W., POTTAWATOMIE COUNTY, AT BRIDGE, 1 MILE WEST OF LOVELAND.	1084	1957-	10-03-74	131

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
PIGEON CREEK BASIN						
06609900	PIGEON CR EAST OF LOVELAND, IOWA.	LAT 412838, LONG 954213, IN SW 1/4 SEC. 8, T.77 N., R.42 W., POTTAWATOMIE COUNTY, AT BRIDGE, 10 MILES SE OF LOVELAND.	66.6	1957-	--	--
06609950	PIGEON CR NR CRESCENT, IOWA.	LAT 411947, LONG 955319, IN NE 1/4 SEC. 3, T.75 N., R.44 W., POTTAWATOMIE COUNTY, AT BRIDGE, 3 MILES SW OF CRESCENT.	163	1957-	--	--
MOSQUITO CREEK BASIN						
06610550	MOSQUITO CR AT PORTSMOUTH, IOWA.	LAT 4139XX, LONG 9531XX, IN SW 1/4 SEC. 16, T.79 N., R.40 W., SHELBY COUNTY, AT BRIDGE ON STATE HIGHWAY 64, NEAR EAST CITY LIMITS OF PORTSMOUTH.	63.9	1957-	--	--
06610600*	MOSQUITO CR AT NEOLA, IOWA.	LAT 412709, LONG 953637, IN NE 1/4 SEC. 19, T.77 N., R.42 W., POTTAWATOMIE COUNTY, AT BRIDGE ON COUNTY ROAD S, 0.5 MILE SOUTH OF NEOLA.	131	1957-	--	--
06610650	MOSQUITO CR NR COUNCIL BLUFFS, IOWA.	LAT 411609, LONG 954822, IN E 1/2 SEC. 29, T.75 N., R.43 W., POTTAWATOMIE COUNTY, AT BRIDGE, 3 MILES EAST OF COUNCIL BLUFFS.	211	1957-	--	--
KEG CREEK BASIN						
06805700	KEG CR AT MINDEN, IOWA.	LAT 412757, LONG 953215, IN SE 1/4 SEC. 15, T.77 N., R.41 W., POTTAWATOMIE COUNTY, AT BRIDGE, AT EAST CITY LIMITS OF MINDEN.	59.6	1957-	--	--
06805800	KEG CR NR DUMFRIES, IOWA.	LAT 411120, LONG 954059, IN NW 1/4 SEC. 28, T.74 N., R.42 W., POTTAWATOMIE COUNTY, AT BRIDGE, 3 MILES NE OF DUMFRIES.	131	1957-	--	--
06805900	KEG CR NR GLENWOOD, IOWA.	LAT 410056, LONG 954559, IN NE 1/4 SEC. 27, T.72 N., R.43 W., HILLS COUNTY, AT BRIDGE, 2 MILES SW OF GLENWOOD.	190	1957-	--	--
NISHNABOTNA RIVER BASIN						
06807260	W NISHNABOTNA R NR MANNING, IOWA.	LAT 4153XX, LONG 9505XX, IN NW 1/4 SEC. 31, T.82 N., R.26 W., CARROLL COUNTY, AT BRIDGE, 3 MILES SW OF MANNING.	58.6	1957-	--	--
06807280	WF W NISHNABOTNA R NR MANILLA, IOWA.	LAT 4152XX, LONG 9515XX, NEAR W 1/4 CORNER SEC.35, T.82 N., R.38 W., CRAWFORD COUNTY, AT BRIDGE, 1 MILE SOUTH OF MANILLA.	64.2	1960-	--	--
06807300	WF W NISHNABOTNA R AT HARLAN, IOWA.	LAT 4140XX, LONG 9518XX, IN NE 1/4 SEC. 7, T.79 N., R.38 W., SHELBY COUNTY, AT BRIDGE NEAR NE CITY LIMITS OF HARLAN.	146	1957-	--	--
06807320	W NISHNABOTNA R AT HARLAN, IOWA.	LAT 4138XX, LONG 9518XX, IN NE 1/4 SEC. 19, T.79 N., R.38 W., SHELBY COUNTY, AT BRIDGE ON STATE HIGHWAY 64, NEAR EAST CITY LIMITS OF HARLAN.	316	1957-	--	--
06807340	W NISHNABOTNA R AT AVOCA, IOWA.	LAT 412810, LONG 952114, IN NE 1/4 SEC. 17, T.77 N., R.39 W., POTTAWATOMIE COUNTY, AT BRIDGE ON STATE HIGHWAY 83, NEAR WEST CITY LIMITS OF AVOCA.	357	1957-	--	--

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
NISHNABOTNA RIVER BASIN--CONTINUED						
06807360	EB W NISHNABOTNA R NR RED LINE, IOWA.	LAT 4144XX, LONG 9506XX, IN NE 1/4 SEC. 13, T.80 N., R.37 W., SHELBY COUNTY, AT BRIDGE ON STATE HIGHWAY 64, 3 NE OF RED LINE.	70.3	1957-	--	--
06807380	EB W NISHNABOTNA R NR JACKSONVILLE, IOWA.	LAT 4139XX, LONG 9514XX, IN NE 1/4 SEC. 23, T.79 N., R.38 W., SHELBY COUNTY, AT BRIDGE, 4 MILES WEST OF JACKSONVILLE.	151	1957-	--	--
06807400	EB W NISHNABOTNA R AT AVOCA, IOWA.	LAT 412835, LONG 951947, IN NE 1/4 SEC. 16, T.77 N., R.39 W., POTTAWATOMIE COUNTY, AT BRIDGE ON STATE HIGHWAY 83 IN AVOCA.	223	1957-	--	--
06807420	GRAYBILL CR NR MACEDONIA, IOWA.	LAT 4111XX, LONG 9523XX, IN SE 1/4 SEC. 25, T.74 N., R.40 W., POTTAWATOMIE COUNTY, AT BRIDGE, 2 MILES SE OF MACEDONIA.	52.1	1957-	--	--
06807440	FARN CR NR MACEDONIA, IOWA.	LAT 4110XX, LONG 9523XX, IN SE 1/4 SEC. 36, T.74 N., R.40 W., POTTAWATOMIE COUNTY, AT BRIDGE, 3 MILES SE OF MACEDONIA.	104	1957-	--	--
06807480	INDIAN CR NR HASTINGS, IOWA.	LAT 410151, LONG 953004, IN SE 1/4 SEC. 13, T.72 N., R.41 W., MILLS COUNTY, AT BRIDGE, 0.5 MILE NORTH OF HASTINGS.	67.9	1957-	--	--
06807500	W NISHNABOTNA R AT WHITE CLOUD, IOWA.	LAT 405914, LONG 953140, IN NW 1/4 SEC. 2, T.71 N., R.41 W., MILLS COUNTY, AT BRIDGE, 0.5 MILE NW OF WHITE CLOUD.	967	1918-24 1957-	--	--
06807550	W NISHNABOTNA R NR MALVERN, IOWA.	LAT 405730, LONG 953322, IN NW 1/4 SEC. 15, T.71 N., R.41 W., MILLS COUNTY, AT BRIDGE, 3.5 MILES SE OF MALVERN.	974	1957-	--	--
06807600	SILVER CR NR AVOCA, IOWA.	LAT 412507, LONG 952653, IN NE 1/4 SEC. 4, T.76 N., R.40 W., POTTAWATOMIE COUNTY, AT BRIDGE, 7 MILES SW OF AVOCA.	59.2	1957-	--	--
06807650	SILVER CR NR TREYNOR, IOWA.	LAT 411042, LONG 953434, IN SW 1/4 SEC. 28, T.74 N., R.41 W., POTTAWATOMIE COUNTY, AT BRIDGE, 4 MILES SE OF TREYNOR.	115	1957-	--	--
06807800	S SILVER CR NR TREYNOR, IOWA.	LAT 411041, LONG 953600, IN SE 1/4 SEC. 30, T.74 N., R.41 W., POTTAWATOMIE COUNTY, AT BRIDGE, 4 MILES SOUTH OF TREYNOR.	74.3	1957-	--	--
06807900	SILVER CR NR MALVERN, IOWA.	LAT 405656, LONG 953420, IN SW 1/4 SEC. 16, T.71 N., R.41 W., MILLS COUNTY, AT BRIDGE, 4 MILES SOUTH OF MALVERN.	282	1957-	--	--
06808600	WALNUT CR NR GRISWOLD, IOWA.	LAT 4117XX, LONG 9513XX, IN NW 1/4 SEC. 22, T.74 N., R.38 W., POTTAWATOMIE COUNTY, AT BRIDGE, 5 MILES NW OF GRISWOLD.	61.3	1957-	--	--
06808700	WALNUT CR NR HAWTHORNE, IOWA.	LAT 4058XX, LONG 9522XX, IN NW 1/4 SEC. 17, T.71 N., R.39 W., MONTGOMERY COUNTY, AT BRIDGE, 3 MILES SW OF HAWTHORNE.	140	1957-	--	--
06808800	WALNUT CR NR RANDOLPH, IOWA.	LAT 404739, LONG 953325, NEAR E 1/4 CORNER SEC.9, T.69 N., R.41 W., FREMONT COUNTY, AT BRIDGE, 5.5 MILES SOUTH OF RANDOLPH.	222	1957-	--	--
06808850	E NISHNABOTNA R NR AUDUBON, IOWA.	LAT 4147XX, LONG 9451XX, IN NW 1/4 SEC. 6, T.80 N., R.34 W., AUDUBON COUNTY, AT BRIDGE, 5 MILES NE OF AUDUBON.	66.7	1957-	--	--
06808900	E NISHNABOTNA R AT EKIRA, IOWA.	LAT 4135XX, LONG 9454XX, IN NW 1/4 SEC. 4, T.78 N., R.35 W., AUDUBON COUNTY, AT BRIDGE AT WEST CITY LIMITS OF EKIRA.	195	1957-	--	--

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
NISHNABOTNA RIVER BASIN--CONTINUED						
06809050	DAVIDS CR AT EXIRA, IOWA.	LAT 4135XX, LONG 9453XX, IN NE 1/4 SEC. 4, T.78 N., R.35 W., AUDUBON COUNTY, AT BRIDGE NEAR EAST CITY LIMITS OF EXIRA.	56.7	1957-	--	--
06809100	TROUBLESOME CR NR WIOTA, IOWA.	LAT 4130XX, LONG 9451XX, IN NW 1/4 SEC. 2, T.77 N., R.35 W., CASS COUNTY, AT BRIDGE, 7.5 MILES NE OF WIOTA.	68.4	1957-	--	--
06809150	TROUBLESOME CR NR ATLANTIC, IOWA.	LAT 4125XX, LONG 9458XX, IN NE 1/4 SEC. 3, T.76 N., R.36 W., CASS COUNTY, AT BRIDGE, 2 MILES NE OF ATLANTIC.	128	1957-	--	--
06809200	E NISHNABOTNA R AT ATLANTIC, IOWA.	LAT 4124XX, LONG 9502XX, IN SE 1/4 SEC.6, T.76 N., R.36 W., CASS COUNTY, AT BRIDGE ON STATE HIGHWAY 83, NEAR WEST CITY LIMITS OF ATLANTIC.	382	1957-	--	--
06809250	TURKEY CR EAST OF ATLANTIC, IOWA.	LAT 4123XX, LONG 9455XX, IN SE 1/4 SEC. 7, T.76 N., R.35 W., CASS COUNTY, AT BRIDGE, 5 MILES SE OF ATLANTIC.	69.5	1957-	--	--
06809300	TURKEY CR NR ATLANTIC, IOWA.	LAT 4119XX, LONG 9404XX, NEAR CENTER OF SEC.2, T.75 N., R.37 W., CASS COUNTY, AT BRIDGE, 6 MILES SW OF ATLANTIC.	133	1957-	--	--
06809330	E NISHNABOTNA R NR LEWIS, IOWA.	LAT 4119XX, LONG 9505XX, IN NE 1/4 SEC. 10, T.75 N., R.37 W., CASS COUNTY, AT BRIDGE ON U.S. HIGHWAY 6, 1 MILE NORTH OF LEWIS.	574	1957-	--	--
06809350	INDIAN CR NR ELKHORN, IOWA.	LAT 4133XX, LONG 9508XX, IN N 1/2 SEC. 20, T.78 N., R.37 W., SHELBY COUNTY, AT BRIDGE, 5 MILES SW OF ELKHORN.	67.4	1957-	--	--
06809400	INDIAN CR NR LEWIS, IOWA.	LAT 4118XX, LONG 9508XX, IN SW 1/4 SEC. 8, T.75 N., R.37 W., CASS COUNTY, AT BRIDGE, 2 MILES WEST OF LEWIS.	183	1957-	--	--
06809450	E NISHNABOTNA R NR GRISWOLD, IOWA.	LAT 4117XX, LONG 9508XX, IN SE 1/4 SEC. 18, T.75 N., R.37 W., CASS COUNTY, AT BRIDGE ON STATE HIGHWAY 48, 4 MILES NORTH OF GRISWOLD.	778	1957-	--	--
06809800	E NISHNABOTNA R NR FARRAGUT, IOWA.	LAT 4045XX, LONG 9529XX, IN SE 1/4 SEC. 30, T.69 N., R.40 W., FREMONT COUNTY, AT BRIDGE ON STATE HIGHWAY 174, 1.5 MILES NORTH OF FARRAGUT.	1082	1957-	--	--
TARKIO RIVER BASIN						
06811860	TARKIO R NR COBURG, IOWA.	LAT 4054XX, LONG 9508XX, IN NW 1/4 SEC. 5, T.70 N., R.37 W., PAGE COUNTY, AT BRIDGE, 6 MILES SE OF COBURG.	66.6	1957-	09-24-74	.51
06811880	E TARKIO CR NR YORKTOWN, IOWA.	LAT 4043XX, LONG 9512XX, IN SW 1/4 SEC. 10, T.68 N., R.38 W., PAGE COUNTY, AT BRIDGE, 2.5 MILES SW OF YORKTOWN.	58.0	1957-	09-23-74	1.1
06811900	TARKIO R NR YORKTOWN, IOWA.	LAT 4043XX, LONG 9513XX, IN N 1/2 SEC. 16, T.68 N., R.38 W., PAGE COUNTY, AT BRIDGE, 3 MILES SW OF YORKTOWN.	155	1957-	09-23-74	2.4
06812000	TARKIO R AT BLANCHARD, IOWA.	LAT 4036XX, LONG 9514XX, IN NE 1/4 SEC. 29, T.67 N., R.38 W., PAGE COUNTY, AT BRIDGE, 1 MILE NORTH OF BLANCHARD.	200	+1934-40. 1957-	09-23-74	4.6
06812300	W TARKIO CR NR COIN, IOWA.	LAT 4041XX, LONG 9518XX, NEAR S 1/2 CORNER SEC.22, T.68 N., R.39 W., PAGE COUNTY, AT BRIDGE, 4 MILES NW OF COIN.	66.9	1957-	09-23-74	.95
06812400	W TARKIO CR NR NORTHBORO, IOWA.	LAT 4035XX, LONG 9521XX, IN SW 1/4 SEC. 29, T.67 N., R.39 W., PAGE COUNTY, AT BRIDGE, 3.5 MILES SW OF NORTHBORO.	87.7	1957-	09-23-74	4.4

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS		
					DATE	DISCHARGE (CFS)	
NODAWAY RIVER BASIN							
06816300	W NODAWAY R NR CUMBERLAND, IOWA.	LAT 4112XX, LONG 9452XX, IN SW 1/4 SEC. 15, T.74 N., R.35 W., CASS COUNTY, AT BRIDGE, 4 MILES SOUTH OF CUMBERLAND.	65.1	1957-	09-24-74	1.0	
06816350	SEVENMILE CR NR LYMAN, IOWA.	LAT 4115XX, LONG 9459XX, IN SE 1/4 SEC. 33, T.75 N., R.36 W., CASS COUNTY, AT BRIDGE ON U.S. HIGHWAY 71, 1.5 MILES NORTH OF LYMAN.	60.8	1957-	09-24-74	4.0	
06816400	SEVENMILE CR NR HORTON HILL, IOWA.	LAT 4106XX, LONG 9500XX, IN NW 1/4 SEC. 33, T.73 N., R.36 W., MONTGOMERY COUNTY, AT BRIDGE, 1 MILE NW OF HORTON HILL.	124	1957-	09-24-74	20	
06816550	W NODAWAY R NR VILLISCA, IOWA.	LAT 4055XX, LONG 9500XX, NEAR CENTER OF SEC.28, T.71 N., R.36 W., MONTGOMERY COUNTY, AT BRIDGE NEAR WEST CITY LIMITS OF VILLISCA.	344	1957-	09-24-74	26	
06816600	N NODAWAY R NR BRIDGEWATER, IOWA.	LAT 4110XX, LONG 9439XX, IN NE 1/4 SEC. 33, T.74 N., R.33 W., ADAIR COUNTY, AT BRIDGE, 5 MILES SE OF BRIDGEWATER.	89.3	1957-	09-24-74	.62	
06816700	WF N NODAWAY R NR FONTANELLE, IOWA.	LAT 4119XX, LONG 9439XX, NEAR CENTER OF SEC.4, T.75 N., R.33 W., ADAIR COUNTY, AT BRIDGE, 5 MILES NW OF FONTANELLE.	67.9	1957-	09-24-74	.55	
06816800	WF N NODAWAY R NR BRIDGEWATER, IOWA.	LAT 4111XX, LONG 9439XX, NEAR CENTER OF SEC.28, T.74 N., R.33 W., ADAIR COUNTY, AT BRIDGE, 4.5 MILES SOUTH OF BRIDGEWATER.	128	1957-	09-24-74	2.7	
06816900	N NODAWAY R NR VILLISCA, IOWA.	LAT 4055XX, LONG 9459XX, IN NW 1/4 SEC. 34, T.71 N., R.36 W., MONTGOMERY COUNTY, AT BRIDGE ON U.S. HIGHWAY 71, 1 MILE SOUTH OF VILLISCA.	341	1957-	09-24-74	10	
06817050	E NODAWAY R NR WILLIAMSON, IOWA.	LAT 4106XX, LONG 9433XX, IN NW 1/4 SEC. 28, T.73 N., R.32 W., ADAMS COUNTY, AT BRIDGE, 3 MILES SE OF WILLIAMSON.	54.2	1957-	09-23-74	0	
06817100	E NODAWAY R NR SHABBAUGH, IOWA.	LAT 4038XX, LONG 9501XX, IN NE 1/4 SEC. 6, T.67 N., R.36 W., PAGE COUNTY, AT BRIDGE, 2 MILES SE OF SHABBAUGH.	333	1957-	09-23-74	5.8	
06817200	NODAWAY R NR BRADDYVILLE, IOWA.	LAT 4037XX, LONG 9501XX, NEAR CENTER OF SEC.18, T.67 N., R.36 W., PAGE COUNTY, AT BRIDGE, 3 MILES NORTH OF BRADDYVILLE.	1135	1957-	09-23-74	47	
PLATTE RIVER BASIN							
06818600	PLATTE R NR KENT, IOWA.	LAT 4057XX, LONG 9429XX, IN SW 1/4 SEC. 13, T.71 N., R.32 W., AT BRIDGE, 2 MILES WEST OF KENT.	77.9	1957-	09-23-74	1.1	
06818650	E PLATTE R NR KNOWLTON, IOWA.	LAT 4054XX, LONG 9426XX, IN NW 1/4 SEC. 4, T.70 N., R.31 W., RINGGOLD COUNTY, AT BRIDGE, 7 MILES NW OF KNOWLTON.	66.8	1957-	09-23-74	.01	
06818700	PLATTE R NR KNOWLTON, IOWA.	LAT 4052XX, LONG 9426XX, IN NW 1/4 SEC. 16, T.70 N., R.31 W., RINGGOLD COUNTY, AT BRIDGE, 6 MILES NW OF KNOWLTON.	179	1959-	09-23-74	.42	
06819100	WB 102 R NR GRAVITY, IOWA.	LAT 4049XX, LONG 9449XX, IN SE 1/4 SEC. 31, T.70 N., R.34 W., TAYLOR COUNTY, AT BRIDGE, 5 MILES NW OF GRAVITY.	52.2	1957-	09-23-74	0	
06819120	WB 102 R BELOW NB NR GRAVITY, IOWA.	LAT 4048XX, LONG 9449XX, IN NW 1/4 SEC. 7, T.69 N., R.34 W., TAYLOR COUNTY, AT BRIDGE, 4.5 MILES NW OF GRAVITY.	106	1957-	09-23-74	.005	
06819140	WB 102 R NR NEW MARKET, IOWA.	LAT 4044XX, LONG 9451XX, IN SW 1/4 SEC. 35, T.69 N., R.35 W., TAYLOR COUNTY, AT BRIDGE, 2.75 MILES EAST OF NEW MARKET.	123	1957-	09-23-74	.36	
06819150	WF 102 R NR NEW MARKET, IOWA.	LAT 4043XX, LONG 9451XX, IN NW 1/4 SEC. 10, T.68 N., R.35 W., TAYLOR COUNTY, AT BRIDGE, 3 MILES SE OF NEW MARKET.	183	1957-	09-23-74	.61	
06819180	EF 102 R NR BEDFORD, IOWA.	LAT 4044XX, LONG 9439XX, IN NE 1/4 SEC. 4, T.68 N., R.33 W., TAYLOR COUNTY, AT BRIDGE, 3 MILES NE OF BEDFORD.	60.4	1957-	09-23-74	0	
06819195	WF 102 R NR BEDFORD, IOWA.	LAT 4035XX, LONG 9449XX, IN NE 1/4 SEC. 26, T.67 N., R.35 W., TAYLOR COUNTY, AT BRIDGE, 7 MILES SW OF BEDFORD.	59.8	1957-	09-23-74	.007	

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	MEASUREMENTS DATE	DISCHARGE (CFS)
GRAND RIVER BASIN						
06896100	GRAND R AT KNOWLTON, IOWA.	LAT 4050XX, LONG 9420XX, IN SE 1/4 SEC. 29, T.70 N., R.30 W., RINGGOLD COUNTY, AT BRIDGE NEAR EAST CITY LIMITS OF KNOWLTON.	67.5	1957-	09-24-74	0.10
06896150	GRAND R NR BLOCKTON, IOWA.	LAT 4037XX, LONG 9425XX, IN SW 1/4 SEC. 10, T.67 N., R.31 W., RINGGOLD COUNTY, AT BRIDGE, 3.5 MILES EAST OF BLOCKTON.	207	1957-	09-24-74	2.7
06896200	EF GRAND R NR MT. AYR, IOWA.	LAT 4043XX, LONG 9410XX, IN SE 1/4 SEC. 3, T.68 N., R.29 W., RINGGOLD COUNTY, AT BRIDGE ON STATE HIGHWAY 2, 3 MILES EAST OF MT. AYR.	64.7	1957-	09-24-74	.04
06896250	EF GRAND R SOUTH OF MT. AYR, IOWA.	LAT 4035XX, LONG 9414XX, IN SW 1/4 SEC. 19, T.67 N., R.29 W., RINGGOLD COUNTY, AT BRIDGE, 9 MILES SOUTH OF MT. AYR.	95.9	1957-	09-24-74	.05
06897770	THOMPSON R NR HEBRON, IOWA.	LAT 4114XX, LONG 9416XX, IN SW 1/4 SEC. 1, T.74 N., R.30 W., ADAIR COUNTY, AT BRIDGE, 2 MILES SE OF HEBRON.	80.0	1957-	09-23-74	.23
06897800	THREEMILE CR NR APTON, IOWA.	LAT 4102XX, LONG 9408XX, NEAR CENTER OF SEC.13, T.72 N., R.29 W., ADAIR COUNTY, AT BRIDGE 3 MILES EAST OF APTON.	54.8	1957-	09-23-74	.04
06897820	THOMPSON R NR APTON, IOWA.	LAT 4102XX, LONG 9406XX, IN SW 1/4 SEC. 17, T.72 N., R.28 W., UNION COUNTY, AT BRIDGE ON U.S. HIGHWAY 34 AND 169, 5 MILES EAST OF APTON.	231	1957-	09-23-74	1.2
06897880	TWELVEMILE CR NR ARISPE, IOWA.	LAT 4056XX, LONG 9406XX, IN SE 1/4 SEC. 17, T.71 N., R.28 W., UNION COUNTY, AT BRIDGE, 6 MILES EAST OF ARISPE.	68.0	1957-	09-23-74	.05
06897900	THOMPSON R NR GRAND RIVER, IOWA.	LAT 4052XX, LONG 9358XX, IN NE 1/4 SEC. 16, T.70 N., R.27 W., DECATUR COUNTY, AT BRIDGE, 3.5 MILES NORTH OF GRAND RIVER.	401	1957-	09-24-74	2.4
06897940	LONG CR NE VAN WERT, IOWA.	LAT 4049XX, LONG 9352XX, IN NE 1/4 SEC. 32, T.70 N., R.26 W., DECATUR COUNTY, AT BRIDGE, 5 MILES SE OF VAN WERT.	117	1957-	09-24-74	.04
06898300	WELDON R EAST OF LEON, IOWA.	LAT 404518, LONG 933805, IN SE 1/4 SEC. 20, T.69 N., R.24 W., DECATUR COUNTY, AT BRIDGE ON STATE HIGHWAY 2, 6 MILES EAST OF LEON.	72.4	1957-	09-25-74	.11
06898450	WELDON R NR PLEASANTON, IOWA.	LAT 403540, LONG 933620, IN NW 1/4 SEC. 22, T.67 N., R.24 W., DECATUR COUNTY, AT BRIDGE, 7 MILES EAST OF PLEASANTON.	228	1957-	09-25-74	1.6
06898470	LITTLE R NR LEON, IOWA.	LAT 403936, LONG 934459, IN SE 1/4 SEC. 29, T.68 N., R.25 W., DECATUR COUNTY, AT BRIDGE, 6 MILES SOUTH OF LEON.	69.2	1957-	09-25-74	.05
CHARITON RIVER BASIN						
06903300	CHARITON R NR DERBY, IOWA.	LAT 4057XX, LONG 9328XX, IN NW 1/4 SEC. 13, T.71 N., R.23 W., LUCAS COUNTY, AT BRIDGE, 1.5 MILES NORTH OF DERBY.	71.0	1957-	09-24-74	.01
06903350	WOLF CR NR CHARITON, IOWA.	LAT 4056XX, LONG 9316XX, IN SE 1/4 SEC. 16, T.71 N., R.21 W., LUCAS COUNTY, AT BRIDGE, 5 MILES SE OF CHARITON.	65.0	1957-	09-24-74	.02
06903600	SF CHARITON R NR CAMBRIA, IOWA.	LAT 4049XX, LONG 9323XX, IN NW 1/4 SEC. 3, T.69 N., R.22 W., WAYNE COUNTY, AT BRIDGE, 2 MILES SOUTH OF CAMBRIA.	58.0	1957-	09-24-74	-.02
06903650	SF CHARITON R NR CORYDON, IOWA.	LAT 4049XX, LONG 9319XX, IN NW 1/4 SEC. 6, T.69 N., R.21 W., AT BRIDGE ON STATE HIGHWAY 14, 4 MILES NORTH OF CORYDON.	68.1	1957-	09-24-74	.04
06904150	SHOAL CR NR CINCINNATI, IOWA.	LAT 4037XX, LONG 9252XX, IN SW 1/4 SEC. 6, T.67 N., R.17 W., APPANOOSE COUNTY, AT BRIDGE, 3 MILES EAST OF CINCINNATI.	56.6	1958-	09-24-74	.04

* Operated as a continuous-record gaging station
 * Also a crest-stage partial-record station

Note.--The period of low-flow measurements occurred during a stable base flow period extending into October which is within the 1975 water year. For the convenience of the user, the October measurements are also put in the 1974 report. Several low-flow partial-record stations were not measured this year. These static also included in this table to provide a complete listing of all low-flow partial-record stations currently operated by the Iowa District.

Crest-stage partial-record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage 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 up to the current year for which the annual maximum has been determined.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1974

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	ANNUAL MAXIMUM		
					DATE	GAGE HEIGHT (FEET)	DIS-CHARGE (CFS)
UPPER IOWA RIVER BASIN							
05388310	WATERLOO CR NR DORCHESTER, IOWA.	LAT 4327XX, LONG 9130XX, IN NW 1/4 SEC. 25, T.100 N., R.6 W., ALLAMAKEE COUNTY, ON STATE HIGHWAY 76, 1.4 MILES SOUTH OF DORCHESTER.	43.6	1966-	06-09-74	700.85	(+)
WEXFORD CREEK BASIN							
05388400	WEXFORD CR NR HARPERS FERRY, IOWA.	LAT 4316XX, LONG 9108XX, IN SE 1/4 SEC. 25, T.98 N., R.3 W., ALLAMAKEE COUNTY, AT BRIDGE, 5 MILES NORTH OF HARPERS FERRY.	11.9	1953-	1974	A	(+)
PAINT CREEK BASIN							
05388600	PAINT CR NR WATERVILLE, IOWA.	LAT 4311XX, LONG 9116XX, NEAR CENTER SEC.36, T.97 N., R.4 W., ALLAMAKEE COUNTY, AT BRIDGE, 3 MILES SOUTH-EAST OF WATERVILLE.	56.0	1953-	06-20-74	19.24	19,000
05388700	LITTLE PAINT CR TR NR WATERVILLE, IOWA.	LAT 4314XX, LONG 9115XX, IN SE 1/4 SEC. 1, T.97 N., R.4 W., ALLAMAKEE COUNTY, AT CULVERT, 3.5 MILES NORTHEAST OF WATERVILLE.	1.09	1953-	04-03-74	3.73	270
TURKEY RIVER BASIN							
05411530	NB TURKEY R NR CRESCC, IOWA.	LAT 4322XX, LONG 9213XX, IN NW 1/4 SEC. 25, T.99 N., R.12 W., HOWARD COUNTY, AT BRIDGE ON STATE HIGHWAY 9, ABOUT 5 MILES WEST OF CRESCC.	19.5	1966-	1974	A	(+)
05411650	CRANE CR TR NR SARATOGA, IOWA.	LAT 4322XX, LONG 9223XX, NEAR SOUTHEAST CORNER OF SEC.21, T.99 N., R.13 W., HOWARD COUNTY, AT BRIDGE ON STATE HWY 9, 1 MILE EAST OF SARATOGA.	4.06	1953-	06-04-74	6.21	1,500
05411700	CRANE CR NR LOURDES, IOWA.	LAT 4315XX, LONG 9219XX, IN NW 1/4 SEC. 6, T.97 N., R.12 W., HOWARD COUNTY, AT BRIDGE ON STATE HIGHWAY 272, 1 MILE SW OF LOURDES.	75.8	1951-	06-04-74	13.71	7,700
LITTLE MAQUOKETA RIVER BASIN							
05414350	LITTLE MAQUOKETA R NEAR GRAF, IOWA.	LAT 423009, LONG 905150, IN SE 1/4 SEC. 20, T.89 N., R.1 E., DUBUQUE COUNTY, AT BRIDGE, 300 FEET DOWNSTREAM FROM ILLINOIS CENTRAL RR BRIDGE, 0.5 MILE NE OF GRAF.	39.6	1951-	05-21-74	9.85	2,350
05414400	MF LITTLE MAQUOKETA R NEAR RICKARDSVILLE, IOWA.	LAT 423338, LONG 905135, IN SE 1/4 SEC. 32, T.90 N., R.1 E., DUBUQUE COUNTY, AT BRIDGE, 2 MILES SOUTHEAST OF RICKARDSVILLE.	30.2	1951-	08-30-56 11-13-56 1974	14.80 14.94 C	610 ^B 640 ^B --
05414450	MF LITTLE MAQUOKETA R NEAR RICKARDSVILLE, IOWA.	LAT 423509, LONG 905120, NEAR NW CORNER SEC. 28, T.90 N., R.1 E., DUBUQUE COUNTY, AT BRIDGE, 1 MILE NE OF RICKARDSVILLE.	21.6	1951-	05-21-74	8.84	1,750
05414600	LITTLE MAQUOKETA R TR AT DUBUQUE, IOWA.	LAT 423233, LONG 904138, NEAR NW CORNER SEC.11, T.89 N., R.2 E., DUBUQUE COUNTY, AT BRIDGE ON STATE HIGHWAY 386 NR NORTH CITY LIMITS OF DUBUQUE.	1.54	1951-	06-22-74	12.26	340

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	DATE	ANNUAL MAXIMUM	
						GAGE HEIGHT (FEET)	DIS-CHARGE (CFS)
MAQUOKETA RIVER BASIN							
05417530	PLUM CR AT EARLVILLE, IOWA.	LAT 422813, LONG 911453, IN NE 1/4 SEC. 1, T.88 N., R.4 W., DELAWARE COUNTY, AT BRIDGE ON U.S. HIGHWAY 20, 1.5 MILES SOUTHEAST OF EARLVILLE.	41.1	1966-	06-21-74	88.75	2,800
05417590	KITTY CR NR LANGWORTHY, IOWA.	LAT 4212XX, LONG 9112XX, IN NW 1/4 SEC. 4, T.85 N., R.3 W., JONES COUNTY, AT BRIDGE ON U.S. HIGHWAY 151, ABOUT 1 MILE NE OF LANGWORTHY.	14.4	1966-	05-29-74	87.85	1,500
WAPSIPINICON RIVER BASIN							
05420600	LITTLE WAPSIPINICON TR NR RICEVILLE, IOWA.	LAT 4321XX, LONG 9229XX, NEAR S 1/4 CORNER SEC.27, T.59 N., R.14 W., HOWARD COUNTY, AT CULVERT, 3.5 MILES EAST OF RICEVILLE.	0.90	1953-	06- -74	4.96	470
05420620	LITTLE WAPSIPINICON R NR ACME, IOWA.	LAT 4320XX, LONG 9229XX, AT N 1/4 CORNER SEC. 10, T.98 N., R.14 W., HOWARD COUNTY, AT BRIDGE ON CO. ROAD D, 1 MILE NORTH OF ACME.	7.76	1953-	06-04-74	8.83	1,900
05420640*	LITTLE WAPSIPINICON R AT ELMA, IOWA.	LAT 4314XX, LONG 9227XX, IN NW 1/4 SEC. 12, T.97 N., R.14 W., HOWARD COUNTY, AT BRIDGE ON COUNTY ROAD A, NEAR WEST CITY LIMITS OF ELMA.	37.3	1953-	06-04-74	11.21	2,600
05420650	LITTLE WAPSIPINICON R NR NEW HAMPTON, IOWA.	LAT 4304XX, LONG 9224XX, IN NW 1/4 SEC. 9, T.95 N., R.13 W., CHICKASAW COUNTY AT BRIDGE ON U.S. HIGHWAY 18, 4 MILES WEST OF NEW HAMPTON.	95.0	1966-	06-04-74	88.15	4,800
05420690	EF WAPSIPINICON R NR NEW HAMPTON, IOWA.	LAT 4305XX, LONG 9218XX, IN SE 1/4 SEC. 31, T.96 N., R.12 W., CHICKASAW CO. AT BRIDGE ON U.S. HIGHWAY 63, 2 MILES NORTH OF NEW HAMPTON.	30.3	1966-	06-09-74	85.16	2,600
05420850	LITTLE WAPSIPINICON R NR ORAN, IOWA.	LAT 4243XX, LONG 9202XX, IN NE 1/4 SEC. 8, T.91 N., R.10 W., FAYETTE COUNTY, AT BRIDGE ON STATE HIGHWAY 3, 2 MILES NE OF ORAN.	94.1	1966-	06-09-74	88.07	1,800
05420855	BUCK CR NR ORAN, IOWA.	LAT 424253, LONG 920733, IN NE 1/4 SEC. 10, T.91 N., R.11 W., BREMER COUNTY, AT BRIDGE ON STATE HIGHWAY 3, 2.5 MILES NW OF ORAN.	37.9	1966-	06-09-74	87.98	530
05421100	PINE CR TR NR WINTHROP, IOWA.	LAT 4229XX, LONG 9147XX, IN SW 1/4 SEC. 27, T.89 N., R.8 W., BUCHANAN COUNTY, AT CULVERT, 1.4 MILES NORTH OF U.S. HIGHWAY 20 AND 2.5 MILES NW OF WINTHROP.	0.334	1953-	06-22-74	8.17	270
05421200	PINE CR NR WINTHROP, IOWA.	LAT 4228XX, LONG 9147XX, IN SW 1/4 SEC. 34, T.89 N., R.8 W., BUCHANAN COUNTY, AT RR BRIDGE, 500 FT UPSTREAM FROM U.S. HIGHWAY 20 AND 2.5 MILES NW OF WINTHROP.	28.3	1950-	03-03-74	12.83	800
05421300	PINE CR TR NO. 2 AT WINTHROP, IOWA.	LAT 4228XX, LONG 9144XX, AT N 1/4 CORNER SEC. 2, T.88 N., R.8 W., BUCHANAN COUNTY, AT CULVERT ON U.S. HIGHWAY 20 NEAR WEST CITY LIMITS OF WINTHROP.	0.704	1953-	06-22-74	6.64	140
05421550*	BUFFALO CR ABOVE WINTHROP, IOWA.	LAT 4230XX, LONG 9144XX, NEAR NE CORNER SEC. 25, T.89 N., R. 8 W., BUCHANAN COUNTY, AT BRIDGE, 1.5 MILES NE OF WINTHROP.	68.2	1957-	03-03-74	16.63	900
05421600	BUFFALO CR NR WINTHROP, IOWA.	LAT 4228XX, LONG 9143XX, IN NE 1/4 SEC. 1, T.88 N., R.8 W., BUCHANAN COUNTY, AT BRIDGE ON U.S. HIGHWAY 20, 1 MILE EAST OF WINTHROP.	71.4	1953-	06-22-74	88.45	1,900
05421890	SILVER CR AT WELTON, IOWA.	LAT 4155XX, LONG 9036XX, IN NW 1/4 SEC. 15, T.82 N., R.3 E., CLINTON COUNTY, AT BRIDGE ON U.S. HIGHWAY 61 AT NORTH EDGE OF WELTON.	9.03	1966-	05-17-74	89.77	(*)

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	ANNUAL MAXIMUM		
					DATE	GAGE HEIGHT (FEET)	DISCHARGE (CFS)
IOWA RIVER BASIN							
05448400*	WESTMAIN DRAINAGE DITCH 1 & 2 NR BRITT, IOWA.	LAT 4306XX, LONG 9347XX, IN SW 1/4 SEC. 27, T.96 N., R.25 W., HANCOCK COUNTY, AT BRIDGE ON U.S. HIGHWAY 18 NEAR EAST CITY LIMITS OF BRITT.	21.2	1966-	1974	A	(+)
05448600	EB IOWA R ABOVE HAYFIELD, IOWA.	LAT 4309XX, LONG 9341XX, NEAR S 1/4 CORNER SEC. 4, T.96 N., R.24 W., HANCOCK COUNTY, AT BRIDGE, 1.5 MILES SE OF HAYFIELD.	2.23	1953-	1974	A	(+)
05448700	EB IOWA R NR HAYFIELD, IOWA.	LAT 4311XX, LONG 9339XX, IN NW 1/4 SEC. 35, T.97 N., R.24 W., HANCOCK COUNTY, AT BRIDGE, 2 MILES EAST OF HAYFIELD.	7.94	1952-	1974	A	(+)
05448800	EB IOWA R NR GARNER, IOWA.	LAT 4306XX, LONG 9337XX, NEAR CENTER SEC. 25, T.96 N., R.24 W., HANCOCK COUNTY, AT BRIDGE ON U.S. HIGHWAY 18, 1.2 MILES WEST OF GARNER.	45.1	1952-	1974	A	(+)
05448900	EB IOWA R TR NR GARNER, IOWA.	LAT 4306XX, LONG 9340XX, NEAR CENTER SEC. 27, T.96 N., R.24 W., HANCOCK COUNTY, AT CULVERT ON U.S. HWY 18, 2.1 MILES WEST OF GARNER.	5.98	1952-	1974	A	(+)
05451955	STEIN CR NR CLUTIER, IOWA.	LAT 420446, LONG 921800, IN NE 1/4 SEC. 24, T.84 N., R.13 W., TAMA COUNTY, AT BRIDGE ON STATE HIGHWAY 318, 5 MILES EAST OF CLUTIER.	23.4	1971-	05-28-74	74.48	2,200
05453200	PRICE CR AT ANANA, IOWA.	LAT 4148XX, LONG 9153XX, IN SE 1/4 SEC. 22, T.81 N., R.9 W., IOWA COUNTY, AT BRIDGE ON STATE HIGHWAY 149, NEAR NORTH EDGE OF ANANA.	29.1	1966-	08-12-74	86.16	3,700
05453600	RAPID CR BELOW HORSE, IOWA.	LAT 414345, LONG 912538, NEAR NE CORNER SEC. 21, T.80 N., R.5 W., JOHNSON COUNTY, AT BRIDGE, 1.5 MILES SE OF HORSE.	8.12	1951-	05-16-74	22.74	1,400
05453700	RAPID CR TR NO. 4 NR OASIS, IOWA.	LAT 414253, LONG 912452, NEAR S 1/4 CORNER SEC. 22, T.80 N., R.5 W., JOHNSON COUNTY, AT CULVERT, 2 MILES NW OF OASIS.	1.95	1951-	04-28-74	16.76	330
05453750	RAPID CR SW OF HORSE, IOWA.	LAT 414323, LONG 912616, IN W 1/2 SEC. 21, T.80 N., R.5 W., JOHNSON COUNTY, AT BRIDGE, 2 MILES SOUTHWEST OF HORSE.	15.2	1951-	05-29-74	27.32	2,200
05453850	RAPID CR TR NO. 3 NR OASIS, IOWA.	LAT 414233, LONG 912714, NEAR CENTER OF SEC. 29, T.80 N., R.5 W., JOHNSON COUNTY, AT BRIDGE, 3.5 MILES WEST OF OASIS.	1.62	1951-	04-28-74	22.05	370
05453900	RAPID CR TR NR OASIS, IOWA.	LAT 414114, LONG 912637, NEAR SW CORNER SEC. 33, T.80 N., R.5 W., JOHNSON COUNTY, AT BRIDGE, 3 MILES SW OF OASIS.	.97	1951-	04-28-74	15.28	460
05453950	RAPID CR TR NR IOWA CITY, IOWA.	LAT 414156, LONG 912839, IN NW 1/4 SEC. 31, T.80 N., R.5 W., JOHNSON COUNTY, AT BRIDGE, 4 MILES NE OF IOWA CITY.	3.43	1951-	04-28-74	24.69	690
05455100*	OLD MANS CR NR IOWA CITY, IOWA.	LAT 413623, LONG 913656, IN NW 1/4 SEC. 36, T.79 N., R.7 W., JOHNSON COUNTY, AT BRIDGE, 3 MILES SOUTHWEST OF IOWA CITY.	201	1950-64, 1965-	05-17-74	13.95	4,700
05455140	N ENGLISH R NR MONTEZUMA, IOWA.	LAT 413845, LONG 923420, IN SW 1/4 SEC. 14, T.79 N., R.15 W., POWESHIEK CO., AT BRIDGE, 5.0 MILES NORTHWEST OF MONTEZUMA.	31.0	1972-	05-28-74	26.97	(+)

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	DATE	ANNUAL MAXIMUM	
						GAGE HEIGHT (FEET)	DISCHARGE (CFS)
IOWA RIVER BASIN--CONTINUED							
05455200*	ENGLISH R NR GUERNSEY, IOWA.	LAT 4138XX, LONG 9224XX, NEAR SW CORNER SEC. 17, T.79 N., R.13 W., POWESHIEK COUNTY, AT BRIDGE, 2.2 MILES WEST OF GUERNSEY.	68.7	1953-	05-28-74	13.72	4,400
05455210	ENGLISH R AT GUERNSEY, IOWA.	LAT 4138XX, LONG 9221XX, IN NW 1/4 SEC. 22, T.79 N., R.13 W., POWESHIEK CO., AT BRIDGE ON STATE HIGHWAY 21, 1 MILE SW OF GUERNSEY.	81.5	1960, 1966-	05-28-74	85.66	5,000
05455230	DEEP R AT DEEP RIVER, IOWA.	LAT 4135XX, LONG 9221XX, IN SW 1/4 SEC. 3, T.78 N., R.13 W., POWESHIEK CO., AT BRIDGE ON STATE HIGHWAY 21, 1 MILE NE OF DEEP RIVER.	30.5	1960, 1966-	04-29-74	83.28	5,000
05455280	S ENGLISH R TR NR BARNES CITY, IOWA.	LAT 4133XX, LONG 9228XX, NEAR NE CORNER SEC. 21, T.78 N., R.14 W., POWESHIEK COUNTY, AT BRIDGE, 3 MILES NORTH OF BARNES CITY.	2.51	1953-	05-01-74	8.98	620
05455300	S ENGLISH R NR BARNES CITY, IOWA.	LAT 4131XX, LONG 9228XX, NEAR NW CORNER SEC. 34, T.78 N., R.14 W., POWESHIEK COUNTY, AT BRIDGE, 1 MILE NORTH OF BARNES CITY.	11.5	1953-	04-29-74	12.84	1,100
05455350	S ENGLISH R TR NO.2 NR MONTEZUMA, IOWA.	LAT 4134XX, LONG 9227XX, NEAR SW CORNER SEC. 11, T.78 N., R.14 W., POWESHIEK COUNTY, AT BOX CULVERT, 4 MILES SE OF MONTEZUMA.	0.523	1953-	05-28-74	13.53	340
05455550	BULGERS RUN NR RIVERSIDE, IOWA.	LAT 4129XX, LONG 9138XX, IN SE 1/4 SEC. 11, T.77 N., R.7 W., WASHINGTON CO., AT BRIDGE ON STATE HIGHWAY 22, 2.5 MILES WEST OF RIVERSIDE.	6.31	1965-	05-07-74	88.13	2,350
05457440	DEER CR NR CARPENTER, IOWA.	LAT 4325XX, LONG 9259XX, IN NE 1/4 SEC. 8, T.99 N., R.18 W., MITCHELL COUNTY, AT BRIDGE ON STATE HIGHWAY 105, 1.5 MILES EAST OF CARPENTER.	91.6	1966-	1974	A	(+)
05458560	BEAVERDAM CR NR SHEFFIELD, IOWA.	LAT 4256XX, LONG 9312XX, IN NW 1/4 SEC. 27, T.94 N., R.20 W., CERRO GORDO CO. AT BRIDGE ON U.S. HIGHWAY 65, 3 MILES NORTH OF SHEFFIELD.	123	1966-	1974	A	(+)
05459010	ELK CR AT KENSSETT, IOWA.	LAT 4322XX, LONG 9313XX, IN NE 1/4 SEC. 28, T.99 N., R.20 W., WORTH COUNTY, AT BRIDGE ON U.S. HIGHWAY 65, 1 MILE NORTH OF KENSSETT.	58.1	1966-	1974	A	(+)
05459490	SPRING CR NR MASON CITY, IOWA.	LAT 431248, LONG 931238, IN SE 1/4 SEC. 16, T.97 N., R.20 W., CERRO GORDO CO. AT BRIDGE ON U.S. HIGHWAY 65, 4 MILES NORTH OF MASON CITY.	29.3	1966-	1974	A	(+)
05460100	WILLOW CR NR MASON CITY, IOWA.	LAT 4309XX, LONG 9316XX, IN NE 1/4 SEC. 12, T.96 N., R.21 W., CERRO GORDO CO. AT BRIDGE ON U.S. HIGHWAY 18, 3.5 MILES WEST OF MASON CITY.	78.6	1966-	1974	A	(+)
05462750	BEAVER CR TR NR APLINGTON, IOWA.	LAT 4235XX, LONG 9251XX, IN NW 1/4 SEC. 27, T.90 N., R.17 W., BUTLER COUNTY, AT BRIDGE ON U.S. HIGHWAY 20, 2 MILES EAST OF APLINGTON.	11.6	1966-	06-22-74	94.00	860
05463090	BLACK HAWK CR AT GRUNDY CENTER, IOWA.	LAT 4222XX, LONG 9246XX, IN NW 1/4 SEC. 7, T.87 N., R.16 W., GRUNDY COUNTY, AT BRIDGE ON STATE HIGHWAY 14, AT NORTH EDGE OF GRUNDY CENTER.	56.9	1966-	06-22-74	87.72	1,950
05464145	TWELVE MILE CR NR TRAEER, IOWA.	LAT 421350, LONG 922756, IN SE 1/4 SEC. 27, T.86 N., R.14 W., TAMA COUNTY, AT BRIDGE ON U.S. HIGHWAY 63, 2.5 MILES NORTH OF TRAEER.	43.8	1966-	05-28-74	86.71	(+)
05464310	PRATT CR NR GARRISON, IOWA.	LAT 421053, LONG 921110, IN SE 1/4 SEC. 12, T.85 N., R.12 W., BENTON COUNTY, AT BRIDGE ON U.S. HIGHWAY 218, 3.5 MILES NW OF GARRISON.	23.4	1966-	05-28-74	90.70	(+)

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	DATE	ANNUAL MAXIMUM	
						GAGE HEIGHT (FEET)	DIS-CHARGE (CFS)
IOWA RIVER BASIN--CONTINUED							
05464318	E BLUE CR AT CENTER POINT, IOWA.	LAT 421244, LONG 914721, IN SW 1/4 SEC. 33, T.86 N., R.8 W., LINN COUNTY, AT BRIDGE ON STATE HIGHWAY 150, 1.5 MILES NORTH OF CENTER POINT.	17.6	1966-	1974	A	(+)
05464560	PRAIRIE CR AT BLAIRSTOWN, IOWA.	LAT 415442, LONG 920503, IN SW 1/4 SEC. 13, T.82 N., R.11 W., BENTON COUNTY, AT BRIDGE ON STATE HIGHWAY 82, AT NORTH EDGE OF BLAIRSTOWN.	87.0	1966-	05-16-74	84.63	2,900
05464880	OTTER CR AT WILTON, IOWA.	LAT 413617, LONG 910208, IN NE 1/4 SEC. 35, T.79 N., R.2 W., CEDAR COUNTY, AT BRIDGE ON STATE HIGHWAY 38, 1.5 MILES NW OF WILTON.	10.7	1966-	05-05-74	87.22	1,900
05465150	NF LONG CR AT AINSWORTH, IOWA.	LAT 4117XX, LONG 9132XX, IN SW 1/4 SEC. 22, T.75 N., R.6 W., WASHINGTON CO., AT BRIDGE ON U.S. HIGHWAY 218, 1 MILE SE OF AINSWORTH.	30.2	1951, 1965-	04-30-74	88.31	650
SKUNK RIVER BASIN							
05469860	MUD LAKE DRAINAGE DITCH 71 IN JEWELL, IOWA.	LAT 4219XX, LONG 9338XX, IN SW 1/4 SEC. 27, T.87 N., R.24 W., HAMILTON CO., AT BRIDGE ON U.S. HIGHWAY 69 IN JEWELL.	65.4	1966-	06-09-74	85.64	490
05469990	KEIGLEY BR NR STORY CITY, IOWA.	LAT 4209XX, LONG 9337XX, IN NW 1/4 SEC. 26, T.85 N., R.24 W., STORY COUNTY, AT BRIDGE ON U.S. HIGHWAY 69, 3 MILES SOUTH OF STORY CITY.	31.0	1966-	08-08-74	89.06	610
05472090	N SKUNK R NR BAXTER, IOWA.	LAT 4149XX, LONG 9304XX, IN NE 1/4 SEC. 21, T.81 N., R.19 W., JASPER COUNTY, AT BRIDGE ON STATE HIGHWAY 223, 4.5 MILES EAST OF BAXTER.	52.2	1966-	06-09-74	83.60	(+)
05472290	SUGAR CR NR SEARSBORO, IOWA.	LAT 4134XX, LONG 9244XX, IN SE 1/4 SEC. 7, T.78 N., R.16 W., POWESBIEK CO., AT BRIDGE ON STATE HIGHWAY 225, 1.8 MILES WEST OF SEARSBORO.	52.7	1966-	04-29-74	92.40	2,000
05472390	MIDDLE CR NR LACEY, IOWA.	LAT 4125XX, LONG 9239XX, IN NE 1/4 SEC. 1, T.76 N., R.16 W., HASKA COUNTY, AT BRIDGE ON U.S. HIGHWAY 63, 1.5 MILES NW OF LACEY.	23.0	1966-	05- -74	86.89	1,200
05472445	ROCK CH AT SIGOURNEY, IOWA.	LAT 412012, LONG 921320, IN NE 1/4 SEC. 3, T.75 N., R.12 W., KEOKUK COUNTY, AT BRIDGE ON STATE HIGHWAY 92, NEAR WEST EDGE OF SIGOURNEY.	26.3	1966-	04-28-74	90.03	2,000
05473300	*CEDAR CR NR BATAVIA, IOWA.	LAT 4101XX, LONG 9207XX, IN SW 1/4 SEC. 27, T.72 N., R.11 W., JEFFERSON CO., AT BRIDGE ON U.S. HIGHWAY 34, 2.5 MILES NE OF BATAVIA.	252	1966-	05-19-74	82.34	6,100
DES MOINES RIVER BASIN							
05480930	WHITE FOX CR AT CLARION, IOWA.	LAT 4244XX, LONG 9342XX, IN NW 1/4 SEC. 5, T.91 N., R.24 W., WRIGHT COUNTY, AT BRIDGE ON STATE HIGHWAY 3, 1.5 MILES EAST OF CLARION.	13.3	1966-	1974	A	(+)
05481510	BLUFF CR AT PILOT HOUND, IOWA.	LAT 4210XX, LONG 9401XX, IN NW 1/4 SEC. 20, T.85 N., R.27 W., BOONE COUNTY, AT BRIDGE ON STATE HIGHWAY 329, AT NW EDGE OF PILOT HOUND.	23.5	1966-	1974	A	(+)
05481680	BEAVER CR AT BEAVER, IOWA.	LAT 4202XX, LONG 9409XX, IN NE 1/4 SEC. 6, T.83 N., R.28 W., BOONE COUNTY, AT BRIDGE ON U.S. HIGHWAY 30, AT SW EDGE OF BEAVER.	38.5	1966-	05-28-74	89.07	810
05481690	W BEAVER CR AT GRAND JUNCTION, IOWA.	LAT 4202XX, LONG 9413XX, IN NE 1/4 SEC. 3, T.83 N., R.29 W., GREENE COUNTY, AT BRIDGE ON U.S. HIGHWAY 30, NEAR EAST EDGE OF GRAND JUNCTION.	12.6	1966-	05-28-74	87.57	285

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	DATE	ANNUAL MAXIMUM	
						GAGE HEIGHT (FEET)	DISCHARGE (CFS)
DES MOINES RIVER BASIN--CONTINUED							
05482600	HARDIN CR AT FARNHAMVILLE, IOWA.	LAT 421601, LONG 942510, NEAR NE CORNER SEC. 14, T.86 N., R.31 W., CALHOUN CO., AT BRIDGE ON STATE HIGHWAY 175, NEAR WEST CITY LIMITS OF FARNHAMVILLE.	43.7	1952-	1974	A	(+)
05482800	HAPPY RUN AT CHURDAN, IOWA.	LAT 4210XX, LONG 9430XX, NEAR SW CORNER SEC. 17, T.85 W., R.31 W., GREENE CO. AT BRIDGE NEAR WEST CITY LIMITS OF CHURDAN.	7.58	1952-	1974	A	(+)
05482900	HARDIN CR NR FARLIN, IOWA.	LAT 4206XX, LONG 9426XX, NEAR N 1/4 CORNER SEC. 14, T.84 N., R.31 W., GREENE COUNTY, AT BRIDGE, 1.5 MILES NE OF FARLIN.	101	1951-	05-28-74	9.79	700
05483318	BRUSHY FORK CR NR TEMPLETON, IOWA.	LAT 4157XX, LONG 9453XX, IN NW 1/4 SEC. 1, T.82 N., R.35 W., CARROLL COUNTY, AT BRIDGE ON U.S. HIGHWAY 71, 4 MILES NE OF TEMPLETON.	45.0	1966-	06-23-74	--	(+)
05483349	M RACCOON R TR AT CARROLL, IOWA.	LAT 4203XX, LONG 9453XX, IN NW 1/4 SEC. 36, T.84 N., R.35 W., CARROLL COUNTY, AT BRIDGE ON U.S. HIGHWAY 71, 1.5 MILES SOUTH OF CARROLL.	6.58	1966-	1974	A	(+)
05487300	S OTTER CR BELOW HIGHWAY 34 NR WOODBURN, IOWA.	LAT 4102XX, LONG 9339XX, NEAR SE CORNER SEC. 18, T.72 N., R.24 W., CLARKE CO. AT BRIDGE DOWNSTREAM FROM U.S. HWY 34, 3 MILES NW OF WOODBURN.	2.26	1953-	10-11-73	11.73	(+)
05487350	S OTTER CR TR NR WOODBURN, IOWA.	LAT 4103XX, LONG 9336XX, NEAR SW CORNER SEC. 11, T.72 N., R.24 W., CLARKE CO. AT BRIDGE, 2 MILES NORTH OF WOODBURN.	0.71	1955-	06-09-74	9.54	(+)
05487600	S WHITE BREAST CR NR OSCEOLA, IOWA.	LAT 405736, LONG 934128, NEAR SW CORNER SEC. 12, T.71 N., R.25 W., CLARKE COUNTY, AT BRIDGE, 6 MILES SE OF OSCEOLA.	28.0	1953-	10-11-73	13.51	3,400
05487800	*WHITE BREAST CR AT LUCAS, IOWA.	LAT 4101XX, LONG 9328XX, IN NE 1/4 SEC. 23, T.72 N., R.23 W., LUCAS COUNTY, AT BRIDGE ON U.S. HIGHWAY 65, NEAR SOUTH CITY LIMITS OF LUCAS.	128	1953-	10-11-73	17.51	12,500
05488620	COAL CR NR ALBIA, IOWA.	LAT 4101XX, LONG 9251XX, IN SW 1/4 SEC. 20, T.72 N., R.17 W., MONROE COUNTY, AT BRIDGE ON U.S. HIGHWAY 34, 2 MILES SW OF ALBIA.	13.5	1966-	06-09-74	81.92	(+)
05489150	L HUCKLEBERRY CR AT OSKALOOSA, IOWA.	LAT 4116XX, LONG 9238XX, IN SE 1/4 SEC. 25, T.75 N., R.16 W., MAHASKA COUNTY, AT BRIDGE ON STATE HIGHWAY 137, AT SOUTH EDGE OF OSKALOOSA.	9.12	1966-	05-19-74	87.20	570
05489350	S AVERY CR NR BLAKESBURG, IOWA.	LAT 4101XX, LONG 9237XX, IN SE 1/4 SEC. 19, T.72 N., R.15 W., WAPELLO COUNTY, AT BRIDGE ON U.S. HIGHWAY 34, 3.5 MILES NORTH OF BLAKESBURG.	33.1	1965-	05-19-74	85.39	6,200
05489490	BEAR CR AT OTTUMWA, IOWA.	LAT 410043, LONG 922754, IN NW 1/4 SEC. 27, T.72 N., R.14 W., WAPELLO COUNTY, AT BRIDGE ON U.S. HIGHWAY 34, NEAR WEST EDGE OF OTTUMWA.	22.9	1965-	05-19-74	88.54	2,400
FOX RIVER BASIN							
05494100	S FOX CR TR NR WEST GROVE, IOWA.	LAT 4044XX, LONG 9238XX, NEAR S 1/4 CORNER SEC. 31, T.69 N., R.15 W., DAVIS CO., AT CULVERT ON STATE HIGHWAY 2, 3.5 MILES WEST OF WEST GROVE.	0.55	1953-	06-09-74	8.84	(+)
05494110	S FOX CR NR WEST GROVE, IOWA.	LAT 4044XX, LONG 9236XX, IN SE 1/4 SEC. 32, T.69 N., R.15 W., DAVIS COUNTY, AT BRIDGE ON STATE HIGHWAY 2, 2.4 MILES WEST OF WEST GROVE.	12.2	1965-	07-03-74	88.18	(+)

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	ANNUAL MAXIMUM		
					DATE	GAGE HEIGHT (FEET)	DISCHARGE (CFS)
WYACONDA RIVER BASIN							
05495600	S WYACONDA R NR WEST GROVE, IOWA.	LAT 4043XX, LONG 9230XX, NEAR NW CORNER SEC. 5, T.68 N., R.14 W., DAVIS CO., AT BRIDGE, 2.5 MILES EAST OF WEST GROVE.	4.69	1953-	1974	A	(+)
BIG SIOUX RIVER BASIN							
06483410	OTTER CR NORTH OF SIBLEY, IOWA.	LAT 4328XX, LONG 9544XX, AT NE CORNER SEC. 25, T.100 N., R.42 W., OSCEOLA CO., AT BRIDGE ON COUNTY ROAD H, 4 MILES NORTH OF SIBLEY.	11.9	1952-	1974	A	(+)
06483420	SCHUTTE CR NR SIBLEY, IOWA.	LAT 4328XX, LONG 9547XX, NEAR NW CORNER SEC. 23, T.100 N., R.42 W., OSCEOLA COUNTY, AT CULVERT, 6 MILES SW OF SIBLEY.	1.43	1952-	1974	C	(+)
06483430	OTTER CR AT SIBLEY, IOWA.	LAT 4324XX, LONG 9546XX, NEAR N 1/4 CORNER SEC. 14, T.99 N., R.42 W., OSCEOLA CO., AT BRIDGE, 1 MILE NW OF SIBLEY.	29.9	1952-	1974	A	(+)
06483440	DAWSON CR NR SIBLEY, IOWA.	LAT 4323XX, LONG 9543XX, NEAR NW CORNER SEC. 20, T.99 N., R.41 W., OSCEOLA CO., AT CULVERT ON COUNTY ROAD D, 2 MILES SE OF SIBLEY.	4.35	1952-	06-22-74	4.72	(+)
06483450	HAGNER CR NR ASHTON, IOWA.	LAT 4321XX, LONG 9546XX, ON SOUTH LINE SEC. 35, T.99 N., R.42 W., OSCEOLA COUNTY, AT BRIDGE, 3 MILES NE OF ASHTON.	7.09	1952-	1974	C	(+)
06483460	*OTTER CR NR ASHTON, IOWA.	LAT 4320XX, LONG 9546XX, IN SE 1/4 SEC. 2, T.98 N., R.42 W., OSCEOLA COUNTY, AT BRIDGE, 2 MILES NORTHEAST OF ASHTON.	88.0	1952-	1974	A	(+)
06483495	BURR OAK CR NR PERKINS, IOWA.	LAT 431443, LONG 961038, IN SE 1/4 SEC. 5, T.97 N., R.45 W., SIOUX CO., AT BRIDGE ON U.S. HIGHWAY 75, 4 MILES NORTH OF PERKINS.	30.9	1966-	06-22-74	83.57	(+)
PERRY CREEK BASIN							
06599800	PERRY CR NR MERRILL, IOWA.	LAT 424316, LONG 962033, IN NW 1/4 SEC. 12, T.91 N., R.47 W., PLYMOUTH CO., AT BRIDGE ON COUNTY ROAD H, 5 MILES WEST OF MERRILL.	8.17	1953-	06-22-74	4.77	(+)
06599950	PERRY CR NR HINTON, IOWA.	LAT 423757, LONG 962213, NEAR W 1/4 CORNER SEC. 11, T.90 N., R.47 W., PLYMOUTH CO., AT BRIDGE ON STATE HWY H, 4 MILES WEST OF HINTON.	30.8	1953-	1974	C	(+)
FLOYD RIVER BASIN							
06600030	L FLOYD R NR SANBORN, IOWA.	LAT 431110, LONG 954330, IN NE 1/4 SEC. 31, T.97 N., R.41 W., O BRIEN CO., AT BRIDGE ON U.S. HIGHWAY 18, 3.5 MILES WEST OF SANBORN.	8.44	1966-	08-21-74	86.97	(+)
06600080	WILLOW CR AT HOSPERS, IOWA.	LAT 430438, LONG 955416, IN NE 1/4 SEC. 3, T.95 N., R.43 W., SIOUX CO., AT BRIDGE ON STATE HIGHWAY 60, AT NORTH EDGE OF HOSPERS.	37.9	1966-	06-22-74	86.91	(+)
MONONA-HARRISON DITCH BASIN							
06601480	BIG WHISKEY SLOUGH NR REMSEN, IOWA.	LAT 4248XX, LONG 9553XX, IN NW 1/4 SEC. 11, T.92 N., R.43 W., PLYMOUTH CO., AT BRIDGE ON STATE HIGHWAY 3, 4.2 MILES EAST OF REMSEN.	12.9	1966-	1974	A	(+)
06602190	ELLIOTT CR AT LAWTON, IOWA.	LAT 422830, LONG 961122, IN NW 1/4 SEC. 3, T.88 N., R.46 W., WOODBURY CO., AT BRIDGE ON U.S. HIGHWAY 20, AT WEST EDGE OF LAWTON.	34.8	1966-	1974	A	(+)
06602240	BIG WHISKEY CR NR LAWTON, IOWA.	LAT 422830, LONG 961501, IN NW 1/4 SEC. 6, T.88 N., R.46 W., WOODBURY CO., AT BRIDGE ON U.S. HIGHWAY 20, 3.5 MILES WEST OF LAWTON.	51.3	1966-	1974	A	(+)

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	DATE	ANNUAL MAXIMUM GAGE HEIGHT (FEET)	DISCHARGE (CFS)
LITTLE SIOUX RIVER BASIN							
06604510	OCHEYEDAN R NR OCHEYEDAN, IOWA.	LAT 4326XX, LONG 9537XX, IN NE 1/4 SEC. 6, T.99 N., R.40 W., CSCEGIA CO., AT BRIDGE ON STATE HIGHWAY 9, 4 MILES NW OF OCHEYEDAN.	73.5	1966-	1974	A	(+)
06605340	PRAIRIE CR NR SPENCER, IOWA.	LAT 430516, LONG 950940, IN SE 1/4 SEC. 36, T.96 N., R.37 W., CLAY COUNTY, AT BRIDGE ON U.S. HIGHWAY 71, 4 MILES SOUTH OF SPENCER.	22.3	1966-	1974	A	(+)
06605750	WILLOW CR NR CORNELL, IOWA.	LAT 4243XX, LONG 9510XX, IN SE 1/4 SEC. 12, T.94 N., R.37 W., CLAY COUNTY, AT BRIDGE ON U.S. HIGHWAY 71, 2 MILES NW OF CORNELL.	78.6	1966-	05-15-74	87.48	800
06605890	WATERMAN CR AT HARTLEY, IOWA.	LAT 431106, LONG 953043, IN NE 1/4 SEC. 36, T.97 N., R.40 W., O BRIEN CO., AT BRIDGE ON U.S. HIGHWAY 18, 1.8 MILES WEST OF HARTLEY.	28.7	1966-	06-22-74	84.21	(+)
06606790	MAPLE CR NR ALTA, IOWA.	LAT 4245XX, LONG 9522XX, IN NE 1/4 SEC. 31, T.92 N., R.38 W., BUENA VISTA CO. AT BRIDGE ON STATE HIGHWAY 3, 6 MILES NW OF ALTA.	15.5	1966-	07-07-74	86.90	310
06607197	WILSEY CR AT MAPLETON, IOWA.	LAT 4210XX, LONG 9545XX, IN SE 1/4 SEC. 14, T.85 N., R.43 W., MONONA CO., AT BRIDGE ON STATE HIGHWAY 141, 1.2 MILES NW OF MAPLETON.	18.4	1966-	05-18-74	77.76	(+)
SOLDIER RIVER BASIN							
06608450	JORDAN CR AT MOORHEAD, IOWA.	LAT 4155XX, LONG 9552XX, IN NW 1/4 SEC. 16, T.82 N., R.43 W., MONONA CO., AT BRIDGE ON STATE HIGHWAY 183, AT SW CORNER OF MOORHEAD.	30.1	1966-	1974	A	(+)
BOYER RIVER BASIN							
06609560	WILLOW CR NR SOLDIER, IOWA.	LAT 4155XX, LONG 9542XX, IN NW 1/4 SEC. 14, T.82 N., R.42 W., MONONA CO., AT BRIDGE ON STATE HIGHWAY 37, 6 MILES SE OF SOLDIER.	29.1	1966-	05-19-74	71.57	(+)
MOSQUITO CREEK BASIN							
06610510	MOSER CR NR EARLING, IOWA.	LAT 4147XX, LONG 9527XX, IN NE 1/4 SEC. 1, T.80 N., R.40 W., SHELBY CO., AT BRIDGE ON STATE HIGHWAY 37, 1.5 MILES WEST OF EARLING.	21.6	1966-	05-16-74	77.08	(+)
06610600	MOSQUITO CR AT NEOLA, IOWA.	LAT 412709, LONG 953637, IN NE 1/4 SEC. 19, T.77 N., R.42 W., POTTAWATTAMIE CO., AT BRIDGE ON COUNTY ROAD S, 0.5 MILE SOUTH OF NEOLA.	131	1966-	05-16-74	16.89	(+)
NISHNABOTNA RIVER BASIN							
06807418	GRAYBILL CR NR CARSON, IOWA.	LAT 4114XX, LONG 9523XX, IN NW 1/4 SEC. 7, T.74 N., R.39 W., POTTAWATTAMIE CO., AT BRIDGE ON STATE HIGHWAY 92, 2 MILES EAST OF CARSON.	45.9	1966-	1974	A	(+)
06807470	INDIAN CR NR EMERSON, IOWA.	LAT 4102XX, LONG 9523XX, IN NW 1/4 SEC. 19, T.72 N., R.39 W., MONTGOMERY CO., AT BRIDGE ON U.S. HIGHWAY 34, 1 MILE EAST OF EMERSON.	37.3	1966-	05-30-74	85.78	510
06807720	M SILVER CR NR AVOCA, IOWA.	LAT 4128j3, LONG 952806, NEAR N 1/4 CORNER SEC. 17, T.77 N., R.40 W., POTTAWATTAMIE CO., AT BRIDGE ON STATE HIGHWAY 83, 7 MILES SOUTH OF AVOCA.	3.21	1955-	1974	A	(+)
06807760	M SILVER CR NR OAKLAND, IOWA.	LAT 411928, LONG 953319, NEAR E 1/4 CORNER SEC. 4, T.75 N., R.41 W., POTTAWATTAMIE CO., AT BRIDGE, 8.5 MILES NW OF OAKLAND.	25.7	1953-	05-19-74	5.38	360

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1974--CONTINUED

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (SQ MI)	PERIOD OF RECORD	DATE	ANNUAL MAXIMUM	
						GAGE HEIGHT (FEET)	DIS-CHARGE (CFS)
NISHNABOTNA RIVER BASIN--CONTINUED							
06807780	M SILVER CR AT TREYNOR, IOWA.	LAT 411437, LONG 953653, NEAR NE CORNER SEC. 1, T.74 N., R.42 W., POTTAWATTAMIE CO., AT BRIDGE ON COUNTY ROAD F, 1 MILE NORTH OF TREYNOR.	42.7	1953-	1974	A	(*)
06808880	BLUEGRASS CR AT AUDUBON, IOWA.	LAT 4143XX, LONG 9456XX, IN NW 1/4 SEC. 28, T.80 N., R.35 W., AUDUBON CO., AT BRIDGE ON U.S. HIGHWAY 71, NEAR SOUTH EDGE OF AUDUBON.	15.4	1966-	1974	A	(*)
TARKIO RIVER BASIN							
06811760	TARKIO R NR ELLIOT, IOWA.	LAT 4106XX, LONG 9506XX, NEAR NE CORNER SEC. 28, T.73 N., R.37 W., MONTGOMERY COUNTY, AT BRIDGE, 4.5 MILES SE OF ELLIOT.	10.7	1952-	1974	A	(*)
06811800	E TARKIO CR NR STANTON, IOWA.	LAT 4105XX, LONG 9506XX, IN W 1/2 SEC. 34, T.73 N., R.37 W., MONTGOMERY CO., AT BRIDGE, 7 MILES NORTH OF STANTON.	4.66	1952-	1974	A	(*)
06811820	TARKIO R TR NR STANTON, IOWA.	LAT 4103XX, LONG 9506XX, NEAR NE CORNER SEC. 16, T.72 N., R.37 W., MONTGOMERY COUNTY, AT BOX CULVERT, 4 MILES NORTH OF STANTON.	0.67	1952-	1974	A	(*)
06811875	SNAKE CR NR YORKTOWN, IOWA.	LAT 4045XX, LONG 9508XX, IN NW 1/4 SEC. 32, T.69 N., R.37 W., PAGE COUNTY, AT BRIDGE ON STATE HIGHWAY 2, 1.5 MILES NE OF YORKTOWN.	9.10	1966-	06-09-74	94.00	(*)
NODAWAY RIVER BASIN							
06816290	W NODAWAY R AT HASSENA, IOWA.	LAT 4115XX, LONG 9445XX, IN SE 1/4 SEC. 33, T.75 N., R.34 W., CASS COUNTY, AT BRIDGE ON STATE HIGHWAY 148, AT SE CORNER OF HASSENA.	23.4	1966-	1974	A	(*)
PLATTE RIVER BASIN							
06818598	PLATTE R NR STRINGTOWN, IOWA.	LAT 4059XX, LONG 9430XX, IN SE 1/4 SEC. 2, T.71 N., R.32 W., ADAMS COUNTY, AT BRIDGE ON U.S. HIGHWAY 34, 3.8 MILES EAST OF STRINGTOWN.	51.7	1966-	10-11-73	92.09	3,800
06819110	MB 102 R NR GRAVITY, IOWA.	LAT 4050XX, LONG 9444XX, IN SE 1/4 SEC. 27, T.70 N., R.34 W., TAYLOR COUNTY, AT BRIDGE ON STATE HIGHWAY 148, 4.8 MILES NORTH OF GRAVITY.	33.5	1966-	06-09-74	82.94	3,000
CHARITON RIVER BASIN							
06903980	CHARITON R NR UDELL, IOWA.	LAT 404653, LONG 925012, IN NE 1/4 SEC. 17, T.69 N., R.17 W., APPANOCSE CO., AT BRIDGE, 5.0 MILES WEST OF UDELL.	631	1972-	10-05-73	857.58	5,000
06903990	COOPER CR AT CENTERVILLE, IOWA.	LAT 404502, LONG 925136, IN NW 1/4 SEC. 30, T.69 N., R.17 W., APPANOCSE CO., AT BRIDGE ON STATE HIGHWAY 5, AT NORTH EDGE OF CENTERVILLE.	47.8	1966-	10-03-73	76.32	3,500
06904040	CHARITON R AT COAL CITY, IOWA.	LAT 403535, LONG 924240, IN NE 1/4 SEC. 20, T.67 N., R.16 W., APPANOCSE CO., AT BRIDGE IN COAL CITY.	816	1972-	10-05-73	822.77	5,100

- * Also a low-flow partial-record station.
 + Discharge not determined.
 A Peak stage did not reach bottom of gage.
 B Revised.
 C Gage removed during bridge construction.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1974

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Upper Iowa River basin						
Upper Iowa River	Mississippi River	NW1/4 sec.1, T.99 N., R.6 W., Allamakee County, at bridge on State Highway 76, 0.2 mile (0.3 km) above Bear Creek, and 3.5 mi (5.6 km) south of Dorchester, Iowa.	700	1937-73	10-02-73	1,140
					11-06-73	320
					04-18-74	1,170
					05-30-74	1,010
					07-08-74	695
	08-20-74	364				
Bear Creek	Upper Iowa River	NE1/4 sec.2, T.99 N., R.6 W., Allamakee County, at bridge on State Highway 76, 3.0 mi (4.8 km) south of Dorchester, Iowa.	118	1941-73	10-02-73	97.3
					11-06-73	87.5
					04-18-74	108
					05-30-74	105
					07-08-74	111
	08-20-74	104				
Skunk River basin						
S Skunk River	Skunk River	NW1/4 sec.1, T.79 N., R.21 W., Jasper County, at bridge on State Highway 117 in Colfax, Iowa.	803	1972	06-11-74	5,700
S Skunk River	Skunk River	NW1/4 sec.29, T.79 N., R.19 W., Jasper County, at bridge on State Highway 14, about 5 mi (8 km) southwest of Newton, Iowa.	1,281	1968, 1972	10-15-73	3,850
Floyd River basin						
Floyd River	Missouri River	NE1/4 SE1/4 sec.34, T.96 N., R.43 W., Sioux County, 200 ft (61 m) upstream from unnamed slough, near gravel pit, and 1.1 mi (1.8 km) north of Hospers, Iowa.	173		08-17-72	15.9
					10-16-72	5.53
					09-11-73	--
					07-24-74	5.87
					08-06-74	3.43
	09-26-74	10.3				

SEEPAGE INVESTIGATIONS

Discharge measurements were made during the 1971, 1972 and 1975 water years on streams in the area of Project IA 72-021C, Carbonate Terrane Hydrology. The reach on the Wapsipinicon River extends from Tripoli to Stone City and that on the Cedar River from Waterloo to Cedar Rapids. The measurements were made during periods of constant base flow of the stream and may be compared with streamflow data for the same date as published for regular gaging stations and low-flow partial-record stations in the same area.

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Wapsipinicon River basin						
Pine Creek	Wapsipinicon River	SW1/4 sec.21, T.88 N., R.8 W.	49		09-01-71	0.0
Sand Creek	Wapsipinicon River	E1/2 sec.15, T.87 N., R.8 W.	19		09-01-71	.017
Wapsipinicon River	Mississippi River	E1/2 sec.5, T.86 N., R.7 W.	1,220		09-01-71	79.8
Wapsipinicon River	Mississippi River	Center sec.3, T.85 N., R.6 W.	1,260		09-01-71	99.6

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1974--Continued
Seepage investigations--Continued

Stream	Tributary to	Location	area (sq mi)	Measured	Measurements	Discharge (cfs)
				Drainage (water years)	previously Date	
Iowa River basin						
Elk Creek	Cedar River	North line sec.34, T.89 N., R.12 W.	31.4		10-21-74	5.21
Poyner Creek	Cedar River	N1/2 sec.10, T.88 N., R.12 W.	17		10-21-74	1.44
Cedar River	Iowa River	SW1/4 SW1/4 sec.23, T.88 N., R.12 W.	5,234		10-21-74	1,050
Indian Creek	Cedar River	North line sec.25, T.88 N., R.12 W.	23		10-21-74	3.26
Cedar River	Iowa River	S1/2 sec.19, T.87 N., R.11 W.	5,360		10-21-74	1,220
Rock Creek	Cedar River	Worth line sec.5, T.86 N., R.11 W.	32.2		10-21-74	11.1
Line Creek	Cedar River	East line sec.33, T.87 N., R.10 W.	41		10-21-74	6.20
Bear Creek	Cedar River	Center sec.21, T.86 N., R.10 W.	61		10-21-74	8.90
Pratt Creek	Cedar River	East line sec.36, T.86 N., R.11 W.	49		10-21-74	14.7
Hinkle Creek	Cedar River	SE1/4 sec.17, T.85 N., R.10 W.	30		10-21-74	5.45
Cedar River	Iowa River	SW1/4 sec.16, T.85 N., R.10 W.	6,040		10-21-74	1,640
Prairie Creek	Cedar River	SW1/4 sec.10, T.85 N., R.10 W.	20		10-21-74	3.96
Mud Creek	Cedar River	SW1/4 SW1/4 sec.22, T.85 N., R.10 W.	45		10-21-74	9.51
Blue Creek	Cedar River	NE1/4 SE1/4 sec.7, T.85 N., R.8 W.	63		09-02-71 06-02-72	4.87 26.2
Cedar River	Iowa River	E1/2 sec.20, T.85 N., R.8 W.	6,210		09-02-71 10-21-74	913 1,410
Dry Creek	Cedar River	NW1/4 NE1/4 sec.21, T.84 N., R.8 W.	27		09-02-71 06-02-72 10-21-74	1.18 13.6 3.38
Cedar River	Iowa River	NE1/4 NE1/4 sec.33, T.84 N., R.8 W.	6,380		09-02-71 10-21-74	988 1,430
Morgan Creek	Cedar River	Center sec.14, T.83 N., R.8 W.	27		09-02-71 06-02-72 10-21-74	.893 12.6 3.83

Discharge measurements were made during the 1974 water year, on Oct. 2, on the Little Sioux River to study channel gains and losses. A previous study was made Oct. 7, 1971, on a reach 20.8 mi (33.5 km) in length that extends from the Minnesota-Iowa state line to a county bridge 1.5 mi (2.4 km) southwest of Milford, Iowa. This study is of a portion of that reach and referenced to the same river mileage. The measurements were made during a period of constant base flow of the stream.

River mile	Stream	Location	Time	Discharge
195.0	Little Sioux River	SE1/4 sec.17, T.99 N., R.37 W.	0930	0.217
193.9	Little Sioux River	SE1/4 sec.20, T.99 N., R.37 W.	1010	.226
191.8	Little Sioux River	SW1/4 sec.33, T.99 N., R.37 W.	1115	.227
189.7	Little Sioux River	SW1/4 sec.3, T.98 N., R.37 W.	1210	.796
186.9	Little Sioux River	SE1/4 sec.16, T.98 N., R.37 W.	1445	0.0

DISCONTINUED GAGING STATIONS

The following stream-gaging stations have been discontinued in Iowa. Continuous daily streamflow records were collected and published for the period of record shown for each station.

Discontinued gaging stations

Station name	Station number	Drainage area (sq mi)	Period of record
Upper Iowa River near Decorah, Iowa.	05388000	568	1913-14; 1919-27; 1933-51.
Paint Creek at Waterville, Iowa.	05388500	42.8	1952-73.
Yellow River at Ion, Iowa.	05389000	221	1934-51.
Mississippi River at Clayton, Iowa.	05411500	79,200	1930-36.
Turkey River at Spillville, Iowa.	05411600	177	1956-73.
Turkey River at Elkader, Iowa.	05412000	891	1932-42.
Maquoketa River near Manchester, Iowa.	05417000	305	1933-73.
Maquoketa River near Delhi, Iowa.	05417500	347	1933-40.
Maquoketa River above North Fork Maquoketa River near Maquoketa, Iowa.	05418000	938	1913-14.
Wapsipinicon River at Stone City, Iowa.	05421500	1,324	1903-14.
West Branch (West Fork) Iowa River near Klemme, Iowa.	05448500	112	1948-58.
Iowa River near Iowa Falls, Iowa.	05450000	665	1911-14.
Upper Pine Lake at Eldora, Iowa.	05450500	14.9	1936-70.
Lower Pine Lake at Eldora, Iowa.	05451000	15.9	1936-70.
Iowa River near Belle Plaine, Iowa.	05452500	2,455	1939-59.
Lake Macbride near Solon, Iowa.	05453500	27.0	1936-71.
Old Mans Creek near Iowa City, Iowa.	05455100	201	1950-64.
Cedar River at Mitchell, Iowa.	05457500	826	1933-42.
Shell Rock River at Marble Rock (Greene), Iowa.	05460500	1,318	1933-53.
Shell Rock River at Greene, Iowa.	05461000	1,357	1933-42.
Shell Rock River near Clarksville, Iowa.	05461500	1,626	1915-27; 1932-34.
Fourmile Creek near Lincoln, Iowa.	05464130	13.78	1963-67; 1969-74.
Half Mile Creek near Gladbrook, Iowa.	05464133	1.33	1962-67; 1969-74.
Fourmile Creek near Traer, Iowa.	05464137	19.51	1962-74.
Lake Keomah near Oskaloosa, Iowa.	05472000	3.06	1936-71.
Skunk River at Coppock, Iowa.	05473000	2,916	1913-44.
East Fork Des Moines River near Burt, Iowa.	05478000	146	1971-74.
East Fork Des Moines River near Hardy, Iowa.	05478500	1,268	1940-54.
Des Moines River near Fort Dodge, Iowa.	05479500	3,753	1911-13.
Des Moines River near Boone, Iowa.	05481500	5,511	1920-68.
Des Moines River at Des Moines, Iowa.	05482000	6,245	1905-06; 1915-61.
Springbrook Lake near Guthrie Center, Iowa.	05483500	5.18	1936-71.
Raccoon River at Des Moines, Iowa.	05485000	3,590	1902-03.
Lake Ahquabi near Indianola, Iowa.	05487000	4.93	1936-71.
White Breast Creek near Knoxville, Iowa.	05488000	380	1945-62.
Lake Wapello near Drakesville, Iowa.	05490000	7.75	1936-71.
Sugar Creek near Keokuk, Iowa.	05491000	105	1922-31; 1958-73.
Fox River at Bloomfield, Iowa.	05494300	87.7	1957-73.
Fox River at Cantril, Iowa.	05494500	161	1940-51.
Rock River at Rock Rapids, Iowa.	06483270	788	1959-74.
Dry Creek at Hawarden, Iowa.	06484000	48.4	1948-69.
Perry Creek at 38th Street, Sioux City, Iowa.	06600000	65.1	1945-69.
West Fork ditch at Holly Springs, Iowa.	06602000	399	1939-69.
Loon Creek near Orleans, Iowa.	06603920	31	1971-74.
Spirit Lake outlet at Orleans, Iowa.	06604100	75.6	1971-74.
Milford Creek at Milford, Iowa.	06604400	146	1971-74.
Little Sioux River near Spencer, Iowa.	06605100	990	1936-42.
Little Sioux River at Gillett Grove, Iowa.	06605600	1,334	1958-73.
Little Sioux River near Kennebeck, Iowa.	06606700	2,738	1939-69.
Maple River at Turin, Iowa.	06607300	725	1939-41.
Little Sioux River near Blencoe (Turin), Iowa.	06607510	4,470	1939-42.
Steer Creek near Magnolia, Iowa.	06609200	9.26	1963-69.
Thompson Creek near Woodbine, Iowa.	06609590	6.97	1963-69.
Waubonsie Creek near Bartlett, Iowa.	06806000	30.4	1946-69.
West Nishnabotna River at (near) White Cloud, Iowa.	06807500	967	1918-24.
Mule Creek near Malvern, Iowa.	06808000	10.6	1954-69.
David's Creek near Hamlin, Iowa.	06809000	26.0	1952-73.
Tarkio River (East Tarkio Creek) at Blanchard, Iowa.	06812000	200	1934-40.
West Nodaway River at Villisca, Iowa.	06816500	342	1918-25.
Honey Creek near Russell, Iowa.	06903500	13.2	1952-62.
Chariton River near Centerville, Iowa.	06904000	708	1938-59.

PART 2. WATER QUALITY RECORDS

05387500 UPPER IOWA RIVER AT DECORAH, IOWA

LOCATION.--Lat 43°18'19", long 91°47'48", in NE1/4 SW1/4 sec.16, T.98 N., R.8 W., Winneshiek County, at gaging station on right bank 1,200 ft (366 m) upstream from bridge on U.S. Highway 52, 1,500 ft (457 m) downstream from Dry Run cutoff, and 3.0 mi (4.8 km) upstream from Trout Run.

DRAINAGE AREA.--511 mi² (1,323 km²).

PERIOD OF RECORD.--Water temperatures: October 1962 to September 1964, October 1965 to current year.
Sediment records: October 1962 to December 1967.

EXTREMES.--Current year: Water temperatures: Maximum, 28.0°C July 19, 20, 22; minimum, freezing point on many days during winter months.

Period of record: Water temperatures: Maximum, 32.0°C Aug. 23, 1968; minimum, freezing point on many days during winter months each year.

REMARKS.--Temperature recorder installed on Apr. 12, 1967.

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.0	14.5	8.5	6.5	1.5	0.5	0.5	0.5	0.5	0.5	1.0	0.5
2	16.0	15.0	8.5	6.5	2.0	1.0	0.5	0.5	0.5	0.5	1.0	0.0
3	16.5	15.0	7.0	6.0	3.0	3.0	0.5	0.5	0.5	0.5	1.5	0.0
4	16.5	14.0	6.0	5.0	3.0	0.0	0.5	0.5	1.0	0.5	3.0	1.5
5	14.5	13.5	5.0	2.0	0.0	0.0	0.5	0.5	0.5	0.5	4.0	3.0
6	14.0	13.0	3.0	1.5	0.0	0.0	0.5	0.5	0.5	0.5	4.0	3.5
7	13.5	13.0	3.5	3.0	0.0	0.0	0.5	0.5	1.0	0.5	4.0	3.0
8	15.5	13.5	3.0	1.0	0.0	0.0	0.5	0.5	0.5	0.5	4.0	4.0
9	17.0	15.5	1.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	4.5	4.0
10	17.0	16.5	1.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	5.0	4.0
11	17.0	16.0	3.0	1.0	0.0	0.0	0.5	0.5	0.5	0.5	4.5	4.5
12	17.0	14.5	5.5	3.0	0.0	0.0	0.5	0.5	0.5	0.5	6.0	4.0
13	14.5	13.5	6.5	5.0	0.0	0.0	0.5	0.5	0.5	0.5	6.5	5.0
14	14.5	12.0	5.5	5.0	0.0	0.0	0.5	0.0	0.5	0.5	6.0	5.0
15	14.0	12.0	5.5	5.0	0.0	0.0	0.0	0.0	0.5	0.5	5.5	4.5
16	12.0	10.5	5.0	4.0	0.0	0.0	0.0	0.0	0.5	0.5	5.0	4.5
17	10.5	10.0	4.5	3.5	0.0	0.0	0.0	0.0	1.0	0.5	5.5	4.0
18	11.5	9.5	5.5	4.0	0.0	0.0	0.0	0.0	0.5	0.5	5.5	5.0
19	12.0	10.0	5.0	4.0	0.0	0.0	0.0	0.0	1.0	0.5	6.0	4.0
20	11.5	9.5	6.5	4.5	0.0	0.0	0.0	0.0	1.0	0.5	5.0	4.0
21	11.5	9.5	6.5	5.5	0.0	0.0	0.5	0.0	0.5	0.5	4.5	3.0
22	13.5	10.0	5.0	4.5	0.0	0.0	0.5	0.5	1.0	0.5	4.0	3.0
23	14.0	11.5	4.5	3.5	0.0	0.0	0.5	0.5	1.0	0.5	3.5	1.5
24	14.5	12.0	4.0	3.5	0.0	0.0	0.5	0.5	1.0	0.5	2.0	1.5
25	14.0	12.0	4.0	4.0	0.0	0.0	0.5	0.5	1.0	0.5	4.5	1.5
26	13.0	10.5	4.0	3.5	0.0	0.0	0.5	0.5	1.0	0.5	6.5	4.5
27	11.0	9.5	4.5	4.0	0.0	0.0	0.5	0.5	1.0	0.5	6.5	5.5
28	9.5	8.5	4.0	2.0	0.0	0.0	0.5	0.5	0.5	0.5	6.0	5.0
29	9.5	8.0	2.0	1.0	0.0	0.0	0.5	0.5	---	---	5.0	4.0
30	9.5	7.0	2.0	1.5	0.5	0.0	0.5	0.5	---	---	6.0	4.0
31	9.5	8.5	---	---	0.5	0.5	0.5	0.5	---	---	5.5	5.0
MONTH	17.0	7.0	8.5	0.0	3.0	0.0	0.5	0.0	1.0	0.5	6.5	0.0

UPPER IOWA RIVER BASIN

05387500 UPPER IOWA RIVER AT DECORAH, IOWA--CONTINUED

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.5	5.0	17.0	13.5	18.5	15.5	20.0	18.0	22.0	20.0	18.0	15.5
2	6.5	4.5	17.0	14.5	19.5	15.0	23.5	19.0	21.0	19.5	19.0	15.0
3	7.0	6.0	18.0	14.5	19.5	16.0	24.5	21.0	20.0	19.0	18.0	13.5
4	6.0	4.5	16.5	13.5	18.5	16.5	24.5	21.5	22.0	17.0	18.5	13.5
5	6.0	4.0	16.0	14.0	20.0	17.0	24.0	20.0	23.5	19.0	17.0	14.0
6	8.0	5.5	15.5	11.0	19.5	19.0	24.5	20.5	24.5	19.5	16.5	13.5
7	9.0	8.0	14.0	10.0	19.0	16.0	25.5	20.5	24.0	20.0	18.5	15.0
8	8.5	6.0	10.0	9.5	16.5	14.5	27.0	22.0	23.5	20.0	21.0	15.5
9	10.0	7.0	9.0	8.5	17.0	15.5	24.0	23.5	23.5	20.5	21.5	18.0
10	10.0	9.0	10.5	9.0	17.0	16.0	23.5	21.0	22.0	21.0	21.0	19.0
11	10.0	9.5	12.0	10.5	17.0	15.5	21.0	20.0	21.5	20.0	21.5	19.5
12	10.0	9.5	12.0	11.0	18.0	15.0	23.5	19.0	23.0	19.0	20.5	16.0
13	10.0	9.5	11.0	9.5	18.5	15.5	26.5	21.0	23.5	19.0	16.0	14.0
14	10.0	8.0	10.0	9.0	19.5	16.0	26.5	24.0	23.5	20.0	17.0	11.5
15	9.5	6.5	11.5	10.0	18.0	16.0	26.0	21.5	24.0	21.0	19.0	14.0
16	11.0	8.0	13.0	11.0	16.0	14.5	25.0	21.0	24.5	21.5	19.0	14.0
17	12.0	9.0	14.5	12.0	16.0	13.0	24.5	21.0	23.5	20.0	20.0	15.0
18	14.0	11.0	14.5	12.0	18.0	14.5	25.0	22.0	24.5	19.0	19.5	15.5
19	13.5	10.0	14.5	11.5	18.0	16.5	28.0	22.0	26.0	20.5	20.0	16.5
20	13.5	11.5	17.0	14.0	20.0	16.5	28.0	23.5	26.5	21.5	18.5	15.0
21	13.5	12.0	20.0	16.5	19.5	18.5	27.0	23.5	26.5	23.0	15.0	13.5
22	12.0	9.0	19.5	17.0	20.0	19.0	28.0	23.5	25.5	22.0	14.5	10.0
23	10.0	8.0	19.0	18.0	19.5	17.0	27.0	23.0	24.0	19.5	11.0	9.5
24	11.5	8.0	17.0	15.5	19.0	15.5	26.5	23.5	23.5	19.0	14.0	10.0
25	15.0	10.5	14.5	12.0	19.0	15.5	23.5	22.0	23.5	19.0	16.5	11.5
26	17.0	13.0	15.5	13.5	19.5	16.0	24.5	21.0	26.0	20.5	18.5	13.5
27	19.0	15.5	15.5	14.5	20.0	16.5	23.5	20.5	24.5	21.0	16.5	15.0
28	19.5	16.5	15.5	14.5	21.0	17.0	25.0	20.0	22.0	18.5	16.0	13.5
29	18.5	16.5	18.0	15.0	20.0	18.5	22.0	20.0	22.0	18.5	16.0	12.0
30	17.0	14.0	18.0	16.0	21.0	18.0	23.5	19.0	21.5	17.0	14.0	10.0
31	---	---	19.0	15.0	---	---	23.5	19.0	21.0	16.5	---	---
MONTH	19.5	4.0	20.0	8.5	21.0	13.0	28.0	18.0	26.5	16.5	21.5	9.5
YEAR	28.0	0.0										

DATE	DIS- CHARGE (CFS) (00000)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (000005)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
OCT.. 1973				
02... 794		350	7.5	17.0
NOV..				
04... 213		410	8.0	4.0
DEC..				
10... 211		420	8.2	.0
JAN.. 1974				
21... 188		510	8.9	.5
MAR..				
06... 2400		--	--	4.0
APR..				
19... 666		530	8.2	10.0
MAY..				
31... 566		940	7.4	15.0
JULY				
09... 347		--	--	23.0
AUG..				
19... 147		--	--	25.0

05454500 IOWA RIVER AT IOWA CITY, IOWA

LOCATION.--Lat 41°39'24", long 91°32'27", in SE1/4 SE1/4 sec.9, T.79 N., R.6 W., Johnson County, at Benton Street bridge at Iowa City, 0.5 mi (0.8 km) downstream from gaging station, 0.3 mi (0.5 km) upstream from Ralston Creek, 4.1 mi (6.6 km) downstream from Clear Creek and at mile 73.7 (118.6 km).

DRAINAGE AREA.--3,271 mi² (8,472 km²).

PERIOD OF RECORD.--Chemical analysis: September 1906 to September 1907, January 1944 to September 1954.
Water temperatures: January 1944 to current year.
Sediment records: October 1943 to current year.

EXTREMES.--Current year: Specific conductance: Maximum daily, 670 micromhos Jan. 16, 17; minimum daily, 130 micromhos May 17.
Water temperatures: Maximum, 27.5°C July 17, 23; minimum, freezing point on many days during winter months.
Sediment concentrations: Maximum daily, 7,540 mg/l May 17; minimum daily, 5 mg/l Jan. 17.
Sediment discharge: Maximum daily, 159,000 tons (144,000 tonnes) May 17; minimum daily, 12 tons (11 tonnes) Jan. 17.

Period of record: Specific conductance: Maximum daily, 710 micromhos Oct. 16, 1972; minimum daily, 150 micromhos May 17, 1974.
Water temperatures: Maximum, 32.0°C July 19, 1957, Aug. 24, 25, 1959, June 27, 1971; minimum, freezing point on many days during winter months each year.
Sediment concentrations: Maximum daily, 7,800 mg/l June 13, 1953; minimum daily, 2 mg/l Dec. 16, 18, 20, 21, 27, 1963.
Sediment discharge: Maximum daily, 177,000 tons (161,000 tonnes) May 23, 1944; minimum daily, 0.9 ton (0.82 tonne) Dec. 16, 1963.

REMARKS.--Diurnal fluctuation at low stages caused by powerplant upstream. Flow regulated by Coralville Lake (sta. 05453510) 9.6 mi (15.4 km) upstream from Iowa City since Sept. 17, 1958. Flow affected by ice Jan. 7-16.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	420	---	---	---	300	430	520	440	---	400	440	---
2	440	470	---	---	---	---	550	520	---	400	440	---
3	430	---	560	580	---	---	540	420	290	430	---	420
4	450	---	560	570	310	380	550	---	320	---	---	450
5	---	470	---	---	320	390	550	---	---	---	450	440
6	---	530	590	---	280	380	---	---	340	---	460	480
7	---	510	610	560	300	380	---	540	360	---	460	---
8	490	500	---	560	460	400	530	550	---	410	460	---
9	---	520	---	---	---	---	580	---	---	420	---	480
10	540	---	600	600	---	---	560	530	370	420	---	480
11	540	---	560	590	560	390	550	---	---	---	---	480
12	---	570	650	---	570	470	---	---	380	---	370	470
13	---	520	620	---	530	490	---	540	380	---	380	450
14	530	580	---	650	570	520	---	---	380	---	400	---
15	---	---	---	650	---	530	500	440	---	450	450	---
16	540	---	---	670	---	---	490	330	---	---	440	470
17	500	---	600	670	---	---	550	130	390	470	---	470
18	600	---	600	570	---	590	550	---	---	---	---	460
19	580	550	560	---	400	600	---	---	300	470	---	460
20	---	580	600	---	400	620	---	340	---	---	310	460
21	---	590	580	600	440	540	---	---	420	---	260	---
22	---	---	---	630	440	560	570	---	---	460	300	---
23	570	---	---	600	---	---	570	---	---	460	300	450
24	550	---	---	540	---	---	580	---	410	440	---	450
25	520	---	---	570	420	470	570	---	370	---	---	450
26	510	600	600	---	420	470	570	---	---	---	310	---
27	---	540	580	---	430	460	440	---	380	---	310	450
28	---	530	650	350	---	515	---	280	380	---	310	---
29	510	570	---	380	---	---	420	180	---	440	330	---
30	490	520	---	390	---	---	---	260	---	440	350	450
31	460	---	---	---	---	---	---	290	---	460	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	670	MIN	130	MEAN	475						

IOWA RIVER BASIN

05454500 IOWA RIVER AT IOWA CITY, IOWA--CONTINUED

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.5	---	---	---	0.0	2.0	8.0	18.0	---	19.5	24.5	---
2	17.0	8.0	---	---	---	---	11.0	18.0	---	19.5	24.5	---
3	18.5	---	5.0	1.0	---	---	11.0	17.0	18.5	20.0	---	21.0
4	19.0	---	4.5	0.0	0.0	2.0	8.0	---	20.5	---	---	21.0
5	---	7.0	---	---	0.0	2.0	9.0	---	---	---	23.5	21.0
6	---	8.5	0.5	---	0.0	2.0	---	---	20.0	---	22.0	21.0
7	---	8.5	1.5	0.0	1.0	3.0	---	15.0	19.0	---	23.5	---
8	16.5	5.5	---	0.0	0.0	8.0	9.0	12.0	---	23.0	21.5	---
9	---	5.5	---	---	---	---	9.0	12.5	---	26.0	---	21.0
10	18.0	---	---	0.0	---	---	11.0	13.0	19.0	24.5	---	21.0
11	19.5	---	---	0.0	2.0	6.0	11.0	---	19.0	---	---	21.0
12	---	9.0	1.0	---	2.0	6.0	---	---	18.0	---	22.0	20.0
13	---	9.0	0.0	---	1.0	6.0	---	13.0	---	---	23.5	16.0
14	18.5	8.0	---	2.0	0.0	6.0	---	---	19.0	---	23.5	---
15	---	---	---	3.0	---	6.0	12.0	---	---	26.5	24.5	---
16	15.5	---	---	4.0	---	---	12.0	18.0	---	---	23.5	21.0
17	16.0	---	0.0	1.0	---	---	13.0	14.5	18.0	27.5	---	21.0
18	16.0	---	3.0	3.0	---	6.0	16.0	---	19.0	---	---	20.0
19	16.0	7.0	3.0	---	2.0	4.0	---	---	19.0	26.5	---	20.0
20	---	6.5	3.0	---	3.0	5.0	---	---	---	---	24.5	19.0
21	---	4.5	1.0	2.0	2.0	3.0	---	---	19.0	---	24.5	---
22	---	---	---	1.0	0.0	4.0	15.0	---	---	25.5	24.0	---
23	15.5	---	---	0.0	---	---	11.0	---	---	27.5	24.0	16.5
24	15.5	---	---	1.0	---	---	14.0	---	18.5	26.5	---	17.0
25	14.0	---	---	3.0	0.0	4.0	14.0	---	18.5	---	---	16.5
26	16.5	5.5	7.0	---	1.0	4.0	19.0	---	---	---	24.5	---
27	---	5.5	3.0	---	3.0	6.0	---	---	19.0	---	23.5	16.5
28	---	5.5	3.0	1.0	---	5.0	---	---	19.5	---	23.5	---
29	12.0	6.5	---	1.0	---	---	18.0	19.0	---	26.0	23.5	---
30	13.5	4.5	---	3.0	---	---	16.0	18.0	---	25.5	23.5	14.5
31	13.0	---	---	---	---	---	---	16.5	---	25.5	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	27.5	MIN	0.0	MEAN	12.0						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3500	139	1310	1170	60	190	2480	20	134
2	3060	77	640	1080	85	248	2090	22	124
3	2800	60	454	1080	99	289	1680	28	127
4	2720	93	683	1080	86	251	1830	30	148
5	2320	74	464	1080	62	181	2340	34	215
6	2320	51	319	1060	71	207	2730	46	339
7	2060	45	253	1060	71	207	2850	33	254
8	1790	42	203	1080	70	204	2490	22	148
9	1530	41	169	1040	58	163	2470	20	133
10	1260	49	167	952	42	108	2420	23	150
11	1500	65	263	952	35	90	2410	28	182
12	1980	87	465	952	35	90	2420	30	196
13	3120	114	960	942	49	125	2390	21	136
14	3820	147	1520	946	53	135	2370	17	109
15	4000	222	2400	946	51	130	2350	16	102
16	3980	264	2840	946	49	125	2320	14	88
17	3920	119	1260	940	48	122	1700	12	55
18	3500	62	586	940	46	117	1090	16	47
19	2510	52	352	934	42	106	1080	23	67
20	1900	51	262	970	37	97	1070	18	52
21	1740	49	230	1170	40	126	1100	18	53
22	1740	47	221	1310	72	255	1180	23	73
23	1740	44	207	1370	86	318	1270	28	96
24	1740	48	226	1670	79	356	1280	33	114
25	1740	45	211	1860	57	289	1420	44	169
26	1670	49	221	1960	32	171	1840	61	303
27	1530	52	215	2220	33	198	2300	41	255
28	1520	52	213	2380	30	193	2590	18	126
29	1470	104	413	2490	33	222	2720	20	147
30	1390	115	432	2490	26	175	2710	24	176
31	1280	77	266	--	--	--	2880	29	226
TOTAL	71190	--	18425	39150	--	5488	63870	--	4544

05454500 IOWA RIVER AT IOWA CITY, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2930	33	261	5840	90	1420	3640	117	1150
2	2540	30	206	6320	101	1720	3790	125	1280
3	1640	16	71	6190	121	2020	4130	141	1570
4	1160	16	50	6100	121	1990	5380	263	3820
5	914	16	39	5850	110	1740	6380	241	4150
6	896	15	36	5080	83	1140	6100	183	3010
7	900	15	36	3740	57	576	6200	224	3750
8	900	12	29	2900	44	345	6350	188	3220
9	900	13	32	1760	40	190	6450	183	3190
10	900	22	53	1000	36	97	6320	184	3140
11	900	11	27	1320	31	110	6330	167	2850
12	900	29	70	1870	29	146	6470	68	1190
13	900	25	61	2240	142	859	6410	75	1300
14	900	15	36	2010	139	754	6120	72	1190
15	900	8	19	2200	121	719	5050	67	914
16	900	7	17	2190	101	597	4260	76	874
17	911	5	12	2320	85	532	4630	100	1250
18	948	49	125	2640	114	813	4490	53	643
19	1070	86	248	2550	84	578	3790	55	563
20	1750	103	487	2510	55	373	2960	53	424
21	2610	199	1400	2700	76	554	2950	54	430
22	3000	68	551	3430	363	3360	2960	43	344
23	3360	39	354	3490	189	1780	2650	39	279
24	3530	39	372	3400	133	1220	2300	37	230
25	3530	23	219	3330	239	2150	2230	60	361
26	3670	49	486	3060	144	1190	2230	61	367
27	4850	224	2930	3030	253	2070	2100	60	340
28	4860	111	1280	3430	258	2390	1830	65	321
29	3980	55	591	--	--	--	1930	76	396
30	4470	229	2760	--	--	--	2990	256	2070
31	5970	231	3720	--	--	--	3520	170	1620
TOTAL	66989	--	16578	92500	--	31433	132940	--	46236
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3390	87	796	1440	105	408	10200	167	4600
2	2960	87	695	2320	171	1070	10200	185	5090
3	2640	138	984	4140	253	2830	10200	192	5290
4	3120	312	2630	4320	176	2050	10100	149	4060
5	3950	169	1800	4260	137	1580	10000	126	3400
6	4080	147	1620	4250	118	1350	9980	101	2720
7	4050	137	1500	4540	128	1570	10900	273	8030
8	4010	122	1320	4570	149	1840	10500	250	7090
9	3960	87	930	4380	142	1680	11200	248	7500
10	3910	94	992	4260	81	932	10400	145	4070
11	3860	128	1330	4230	57	651	10000	97	2620
12	3170	105	899	4040	51	556	9930	85	2280
13	2820	90	685	4390	1050	12400	9890	115	3070
14	4560	342	4210	5050	2960	40400	9900	84	2250
15	5050	196	2670	2090	850	4800	9930	70	1880
16	4800	148	1920	4720	4680	79300	9930	69	1850
17	4330	138	1610	7610	7540	159000	9920	87	2330
18	3540	109	1040	5090	5570	76500	9890	152	4060
19	2830	87	665	2770	1870	14000	10100	98	2670
20	2860	78	602	1730	280	1310	9920	65	1740
21	3170	184	1570	1960	277	1470	10000	92	2480
22	3260	164	1450	3650	364	3630	11100	246	7370
23	3280	130	1150	4360	385	4550	10800	209	6090
24	3390	116	1060	4540	374	4580	9950	93	2500
25	3360	93	844	4540	358	4390	9820	81	2150
26	3450	116	1080	4630	354	4430	9830	75	1990
27	3320	114	1020	4640	344	4310	9920	78	2090
28	3310	500	4470	5480	860	12700	9900	80	2140
29	4570	1610	22500	9060	2750	67300	9910	80	2140
30	1980	250	1340	10400	770	21600	9890	70	1870
31	--	--	--	10400	180	5050	--	--	--
TOTAL	107000	--	65382	143920	--	538237	304210	--	107420

IOWA RIVER BASIN

05454500 IOWA RIVER AT IOWA CITY, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	9860	64	1700	2240	84	508	4410	101	1200
2	9790	55	1450	2230	91	548	4370	97	1140
3	9800	81	2140	2420	112	732	3830	95	982
4	9920	97	2600	2750	117	869	3210	81	702
5	9780	107	2830	2720	86	632	3170	73	625
6	9660	113	2950	2470	90	600	2700	67	488
7	9420	113	2870	1970	87	463	2140	70	404
8	8790	89	2110	1640	87	385	2110	73	416
9	7940	72	1540	1550	422	1770	2080	70	393
10	7920	61	1300	2040	700	3860	2070	67	374
11	8130	62	1360	1420	365	1400	1870	68	343
12	7590	60	1230	2810	955	7250	1290	69	240
13	6860	59	1090	3650	1120	11000	857	115	266
14	6280	50	848	4050	802	8770	777	126	264
15	6210	49	822	4540	468	5740	764	90	186
16	6140	57	945	5120	742	10300	794	64	137
17	6080	66	1080	5150	690	9590	756	55	112
18	6020	75	1220	4790	335	4330	841	52	118
19	5940	81	1300	4730	287	3670	930	61	153
20	5880	79	1250	4830	252	3290	925	59	147
21	5570	460	6920	4760	197	2530	917	55	136
22	5630	1200	18200	5080	256	3510	914	54	133
23	5050	165	2250	4680	152	1920	911	50	123
24	4950	92	1230	4610	117	1460	912	54	133
25	4860	87	1140	4560	112	1380	909	54	133
26	4170	84	946	4520	110	1340	793	52	111
27	3050	81	667	4470	102	1230	659	40	71
28	2310	77	480	4520	103	1260	669	35	63
29	2270	77	472	4580	105	1300	664	32	57
30	2240	94	569	4530	105	1280	656	30	53
31	2220	85	509	4470	102	1230	--	--	--
TOTAL	200330	--	66018	113900	--	94147	47898	--	9703

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 1383897
 TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 1003611

DATE	TEMPERATURE (DEG C) (00010)	NUMBER OF SAMPLING POINTS (00063)	INSTANTANEOUS DISCHARGE (CFS) (00061)	SUSPENDED SEDIMENT CONCENTRATION (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL
						DIAM. % FINER THAN .002 MM (70337)	DIAM. % FINER THAN .004 MM (70338)	DIAM. % FINER THAN .008 MM (70339)	DIAM. % FINER THAN .016 MM (70340)	DIAM. % FINER THAN .062 MM (70342)	DIAM. % FINER THAN .125 MM (70343)	DIAM. % FINER THAN .250 MM (70344)
MAR. 28...	5.0	3	1930	--	--	--	--	--	--	--	--	--
APR. 29...	18.0	--	4250	1560	17900	47	53	56	75	99	--	--
MAY 09...	12.5	4	4250	--	--	--	--	--	--	--	--	--
16...	18.0	--	6500	5200	91300	35	42	55	69	99	--	--
17...	14.5	--	9330	8790	221000	57	72	81	90	98	--	--
29...	19.0	--	10000	2730	73700	43	52	66	78	94	--	--
JULY 29...	26.0	4	2400	--	--	--	--	--	--	--	--	--
SEP. 13...	16.0	4	830	--	--	--	--	--	--	--	--	--
DATE	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	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)
MAR. 28...	--	--	--	--	--	0	16	54	71	88	97	100
APR. 29...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 09...	--	--	--	2	4	11	47	78	87	95	100	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 29...	--	--	--	0	1	13	65	88	92	95	100	--
SEP. 13...	--	--	--	--	0	2	32	65	68	71	72	100

05455000 RALSTON CREEK AT IOWA CITY, IOWA

LOCATION.--Lat 41°39'50", long 91°30'48", in SE1/4 NW1/4 sec.11, T.79 N., R.6 W., Johnson County, at gaging station at bridge on Rochester Avenue, Iowa City, and 2.2 mi (3.5 km) upstream from mouth.

DRAINAGE AREA.--3.01 mi² (7.80 km²).

PERIOD OF RECORD.--Specific conductance: April 1968 to current year.

Water temperatures: October 1960 to current year.

Sediment records: April 1952 to current year.

EXTREMES.--Current year: Specific conductance: Maximum daily, 8,000 micromhos Dec. 24; minimum daily, 200 micromhos July 10.

Water temperatures: Maximum, 30.0°C July 6; minimum, freezing point on many days during winter months.

Sediment concentrations: Maximum daily, 4,550 mg/l May 18; minimum daily, 5 mg/l Dec. 1.

Sediment discharge: Maximum daily, 1,580 tons (1,430 tonnes) May 18; minimum daily, 0.01 ton (0.009 tonne) Dec. 1.

Period of record: Specific conductance: Maximum daily, 8,000 micromhos Dec. 24, 1973; minimum daily, 170 micromhos July 17, 1972.

Water temperatures: Maximum, 31.0°C July 21, 1968; minimum, freezing point on many days during winter months each year.

Sediment concentration: Maximum daily, 8,700 mg/l May 23, 1966; minimum daily, no flow on many days in 1953-59, 1963-68, 1971.

Sediment discharge: Maximum daily, 4,300 tons (3,900 tonnes) May 23, 1966; minimum daily, 0 ton (0.00 tonne) on many days in 1953-59, 1963-68, 1971, 1972.

REMARKS.--Flow affected by ice Dec. 6-24, Dec. 29 to Jan. 22, Feb. 1-13, 23-26.

REVISIONS (WATER YEARS).--WRD Iowa 1967: 1965-66.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	590	600	580	460	510	480	510	480	400	420	400	440
2	560	630	600	440	550	480	510	---	400	420	400	420
3	640	600	630	430	500	510	490	460	410	420	420	420
4	610	600	390	450	470	---	420	470	420	400	420	420
5	620	580	680	480	440	560	540	460	390	400	410	420
6	630	600	670	490	580	510	490	540	420	410	420	410
7	620	600	660	430	510	490	460	530	330	390	400	410
8	630	600	670	420	470	550	440	560	370	500	400	480
9	600	580	680	540	650	500	440	550	380	470	380	440
10	600	590	650	470	460	490	440	480	360	200	350	430
11	580	630	680	460	810	500	460	470	390	450	350	440
12	600	620	710	490	640	590	450	480	490	440	340	400
13	530	630	680	430	540	550	440	350	430	400	360	560
14	480	630	700	440	500	480	340	520	400	400	390	500
15	480	630	700	850	500	480	540	530	390	420	390	480
16	460	600	680	1420	500	480	460	265	380	410	340	480
17	550	620	690	700	540	460	440	325	400	410	380	500
18	550	600	680	700	530	500	430	380	400	420	390	500
19	500	600	670	630	520	490	450	500	440	420	400	500
20	500	600	840	270	500	520	470	520	400	420	340	480
21	490	620	680	420	550	470	460	540	410	420	390	460
22	560	660	670	990	650	460	460	---	380	440	380	460
23	480	650	680	800	560	490	440	520	370	440	380	470
24	600	650	8000	630	550	510	450	500	340	440	400	500
25	620	650	720	440	520	490	450	500	400	420	400	500
26	640	530	700	420	630	510	470	530	340	410	380	460
27	580	610	680	310	590	480	460	500	---	430	390	480
28	490	570	490	570	540	490	460	290	350	460	400	500
29	600	600	520	540	---	500	410	200	440	380	400	500
30	580	580	460	390	---	580	500	520	---	400	400	510
31	560	---	500	500	---	460	---	410	---	400	420	---
MONTH	565	609	882	549	547	502	459	461	394	415	388	466
YEAR	MAX	8000	MIN	200	MEAN	521						

IOWA RIVER BASIN

05455000 RALSTON CREEK AT IOWA CITY, IOWA--CONTINUED

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	12.0	1.0	1.0	2.0	5.0	7.0	11.0	16.0	24.0	18.0	17.0
2	23.5	12.0	0.5	1.5	2.0	8.5	5.0	---	16.5	23.0	20.0	14.5
3	23.5	10.0	0.5	0.5	2.5	11.0	9.5	11.0	21.0	24.0	15.5	16.0
4	21.0	10.5	1.5	0.5	2.0	5.0	6.5	11.0	21.0	21.0	17.5	13.0
5	21.0	10.0	0.5	2.0	2.0	8.0	4.0	11.0	20.5	19.0	18.0	16.0
6	21.0	9.5	0.0	2.0	2.0	12.0	3.0	10.0	18.5	30.0	21.0	15.5
7	20.5	9.5	0.0	1.0	1.0	10.0	7.0	9.0	18.0	19.0	24.0	16.0
8	20.0	9.0	0.0	1.0	2.5	10.5	7.0	10.0	17.5	28.0	22.0	18.0
9	20.0	9.0	0.0	0.5	2.0	8.5	7.0	10.0	18.5	28.5	22.0	17.0
10	20.0	9.5	0.0	0.5	1.5	7.0	7.0	14.0	18.0	23.5	21.0	16.5
11	20.5	9.5	0.0	0.5	3.0	6.0	11.0	15.0	18.5	23.0	20.0	22.0
12	20.5	7.0	0.0	0.5	3.0	9.0	13.0	11.5	19.0	27.0	21.0	16.5
13	21.0	5.0	0.0	1.0	3.0	3.0	8.0	12.0	14.0	26.0	23.0	13.0
14	21.0	5.5	0.0	1.0	2.0	3.0	13.0	15.0	17.5	25.5	20.0	13.0
15	21.0	4.5	0.0	1.0	2.0	5.0	9.0	12.0	16.0	26.5	20.0	16.0
16	21.0	5.0	0.0	3.0	2.5	5.0	9.0	14.0	15.0	26.0	21.0	16.0
17	21.5	4.5	0.0	3.5	4.5	6.0	8.0	13.0	19.0	26.0	20.5	19.0
18	21.0	5.0	0.0	3.0	4.0	4.5	8.0	15.0	21.5	28.5	22.0	18.0
19	22.0	4.5	0.0	4.0	6.0	5.0	8.0	13.0	20.0	27.0	24.0	19.0
20	22.0	7.0	0.0	3.0	3.0	2.5	13.0	14.5	24.0	27.0	25.0	15.0
21	21.0	4.5	0.0	4.0	4.0	3.5	13.5	16.0	22.0	27.0	24.0	8.0
22	21.5	4.0	0.0	4.0	2.0	3.5	15.5	14.0	17.0	25.0	22.0	9.0
23	20.0	3.5	0.0	4.0	2.0	1.0	13.0	14.0	21.0	21.0	21.0	14.0
24	18.5	3.5	0.0	4.0	2.0	1.5	13.5	12.0	17.0	20.0	20.5	17.0
25	16.0	2.0	0.0	4.0	2.0	1.0	9.0	12.0	19.0	21.0	20.5	17.0
26	15.5	2.0	0.0	3.0	3.0	4.5	14.0	14.0	18.0	20.0	22.0	15.0
27	15.0	1.5	0.0	3.0	5.0	6.5	16.0	13.0	17.0	25.0	23.0	15.0
28	13.5	1.5	0.5	2.0	2.5	6.5	12.0	15.0	17.0	28.0	17.0	16.0
29	13.0	1.0	1.5	4.0	---	6.0	13.0	17.5	18.0	20.0	18.0	16.0
30	13.0	1.0	0.5	2.0	---	4.0	12.0	16.0	19.0	18.5	17.0	12.0
31	14.5	---	1.0	2.0	---	6.5	---	17.5	---	24.0	19.5	---
MONTH	19.5	6.0	0.0	2.0	2.5	6.0	10.0	13.0	18.5	24.5	20.5	15.5
YEAR	MAX	30.0	MIN	0.0	MEAN	11.5						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2.8	85	.64	.66	70	.12	1.1	5	.01
2	2.0	42	.23	.56	76	.11	1.3	15	.05
3	1.6	70	.30	.55	43	.06	1.3	101	.35
4	1.2	78	.25	.57	34	.05	6.6	435	9.4
5	1.0	36	.10	.54	34	.05	3.4	339	3.1
6	1.0	12	.03	.58	61	.10	1.9	150	.77
7	1.0	17	.05	.63	76	.13	1.5	80	.32
8	.97	16	.04	.66	40	.07	1.4	50	.19
9	.92	21	.05	.64	20	.03	1.3	21	.07
10	.99	30	.08	.65	52	.09	1.2	33	.11
11	1.1	27	.08	.79	212	.45	1.2	35	.11
12	.92	35	.09	.87	75	.18	1.2	20	.06
13	.79	48	.10	.94	87	.22	1.3	202	.71
14	.86	68	.16	.96	41	.11	1.2	215	.70
15	1.1	68	.20	.99	10	.03	1.1	188	.56
16	.54	71	.10	.85	15	.03	1.0	167	.45
17	.46	62	.08	.91	12	.03	.94	173	.44
18	.47	51	.06	.91	11	.03	.90	152	.37
19	.46	53	.07	.86	11	.03	.88	107	.25
20	.44	72	.09	1.3	30	.11	.86	71	.16
21	.45	73	.09	1.0	34	.09	.84	27	.06
22	.46	52	.06	.73	18	.04	.88	33	.08
23	.48	27	.03	.69	12	.02	.94	56	.14
24	.51	13	.02	1.4	169	.64	1.0	494	1.3
25	.55	28	.04	.83	89	.20	1.8	450	2.2
26	.56	22	.03	.82	68	.15	2.4	151	.98
27	.56	26	.04	.91	85	.21	2.7	83	.61
28	.52	75	.11	1.1	55	.16	2.5	35	.24
29	.58	47	.07	1.0	22	.06	1.8	42	.20
30	.60	79	.13	1.1	11	.03	1.5	20	.08
31	.74	64	.13	--	--	--	1.3	26	.09
TOTAL	26.63	--	3.55	25.00	--	3.63	49.24	--	24.16

05455000 RALSTON CREEK AT IOWA CITY, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.1	28	.08	4.5	51	.62	3.0	69	.56
2	1.1	20	.06	2.3	38	.24	3.5	83	.78
3	1.2	23	.07	1.7	48	.22	5.1	94	1.3
4	1.3	34	.12	1.4	52	.20	8.1	1280	28
5	1.3	15	.05	1.3	43	.15	6.9	125	2.3
6	1.4	26	.10	1.2	57	.18	5.1	64	.88
7	1.4	37	.14	1.1	35	.10	4.0	43	.46
8	1.5	21	.09	1.0	27	.07	3.9	49	.52
9	1.5	14	.06	.94	35	.09	3.6	43	.42
10	1.1	19	.06	1.0	37	.10	3.0	30	.24
11	.90	23	.06	1.5	122	.49	3.2	28	.24
12	.80	31	.07	5.0	142	1.9	5.4	73	1.1
13	1.1	38	.11	4.0	92	.99	4.0	75	.81
14	1.1	48	.14	1.8	36	.17	3.5	62	.59
15	1.0	33	.09	1.6	26	.11	3.3	45	.40
16	.94	36	.09	3.0	60	.49	2.9	34	.27
17	.90	38	.09	4.2	71	.81	2.5	24	.16
18	1.2	50	.16	4.6	61	.76	2.6	28	.20
19	1.8	70	.34	3.4	40	.37	2.2	25	.15
20	20	595	32	2.7	42	.31	2.0	41	.22
21	6.0	285	4.6	4.2	168	1.9	2.0	31	.17
22	4.0	100	1.1	6.5	218	3.8	2.0	19	.10
23	3.0	35	.28	2.5	41	.28	1.5	41	.17
24	2.8	120	.91	2.0	16	.09	1.4	43	.16
25	3.6	528	5.1	1.8	16	.08	1.7	42	.19
26	22	798	47	2.3	71	.44	1.7	32	.15
27	16	450	19	9.7	435	11	1.6	37	.16
28	6.1	68	1.1	5.3	220	3.1	1.5	47	.19
29	4.8	171	2.2	--	--	--	4.5	610	7.4
30	20	1690	91	--	--	--	6.3	220	3.7
31	8.1	370	8.1	--	--	--	3.8	56	.57
TOTAL	139.04	--	214.37	82.54	--	29.06	105.8	--	52.56
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3.5	52	.49	6.8	110	2.0	4.9	42	.56
2	3.1	57	.48	5.9	75	1.2	4.4	78	.93
3	17	890	41	4.5	47	.57	3.7	128	1.3
4	19	770	40	3.7	38	.38	3.1	86	.72
5	7.0	210	4.0	3.5	46	.43	2.7	50	.36
6	5.1	114	1.6	3.4	84	.77	2.6	66	.46
7	4.5	99	1.2	8.1	283	6.2	38	1060	200
8	3.5	51	.48	7.5	190	3.8	7.0	95	1.8
9	3.4	43	.39	4.8	64	.83	17	761	52
10	3.0	53	.43	3.7	34	.34	6.1	71	1.2
11	4.2	53	.60	6.3	359	7.4	4.0	42	.45
12	3.4	56	.51	4.3	68	.79	3.2	31	.27
13	4.2	440	5.0	16	511	52	3.2	51	.44
14	26	1860	199	24	698	91	3.1	35	.29
15	6.6	225	4.0	7.7	120	2.5	2.6	48	.34
16	4.9	62	.82	80	2930	1310	2.3	46	.29
17	4.2	72	.82	85	2710	1050	2.2	51	.30
18	3.8	40	.41	75	4550	1580	3.3	85	.76
19	3.4	32	.29	19	270	14	5.2	104	1.5
20	3.3	33	.29	13	116	4.1	2.6	55	.39
21	5.6	280	4.2	10	71	1.9	2.2	41	.24
22	3.2	40	.35	11	64	1.9	16	352	15
23	2.7	34	.25	7.1	46	.88	4.2	80	.91
24	2.4	51	.33	5.9	34	.54	3.2	53	.46
25	2.3	80	.50	5.3	30	.43	2.7	58	.42
26	2.3	50	.31	7.7	61	1.3	2.4	55	.36
27	2.3	47	.29	6.5	38	.67	2.2	51	.30
28	48	1870	242	22	2060	195	2.1	55	.31
29	34	1750	161	50	2460	837	2.0	69	.37
30	9.9	370	9.9	9.5	89	2.3	1.8	77	.37
31	--	--	--	5.9	46	.73	--	--	--
TOTAL	245.8	--	720.94	523.1	--	5170.96	160.0	--	283.10

IOWA RIVER BASIN

05455000 RALSTON CREEK AT IOWA CITY, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.5	36	.15	1.4	144	.54	.89	82	.20
2	1.5	47	.14	1.5	149	.60	1.1	100	.30
3	1.4	93	.35	1.3	179	.63	1.1	47	.14
4	1.7	49	.22	1.2	153	.50	.96	48	.12
5	1.3	30	.11	.96	132	.34	.89	38	.09
6	1.7	51	.17	1.0	115	.31	.89	58	.14
7	1.4	36	.14	.89	88	.21	.96	39	.10
8	1.4	18	.07	.95	277	.71	.79	42	.09
9	1.3	29	.10	4.6	532	11	.89	70	.17
10	2.7	169	1.2	7.8	1050	27	.99	90	.24
11	3.5	188	1.8	1.4	402	1.5	.96	47	.12
12	1.7	88	.40	36	1320	258	4.0	597	11
13	1.4	51	.19	8.0	440	9.5	1.3	89	.31
14	1.3	70	.25	2.7	160	1.2	.92	50	.12
15	1.3	62	.22	1.9	202	1.0	.85	107	.25
16	1.5	55	.22	14	638	24	.82	54	.12
17	.96	79	.20	4.0	242	2.6	.92	36	.09
18	.96	82	.21	2.6	162	1.1	.96	22	.06
19	.92	62	.15	1.9	72	.37	.96	52	.13
20	1.2	52	.17	3.6	595	5.8	.82	45	.10
21	.85	34	.08	8.4	345	7.8	.82	80	.18
22	7.4	214	4.3	7.5	470	9.5	.79	127	.27
23	1.5	84	.34	3.2	142	1.2	.82	44	.10
24	1.1	75	.22	2.3	125	.78	.79	32	.07
25	.89	79	.19	1.9	102	.52	.76	53	.11
26	1.1	64	.19	1.8	135	.66	.77	56	.12
27	1.1	39	.12	1.4	272	1.0	.77	76	.16
28	.92	124	.31	1.3	115	.40	.96	96	.25
29	.85	185	.42	1.2	88	.29	1.0	40	.11
30	.82	165	.37	1.1	85	.25	.96	56	.15
31	.86	134	.31	1.1	105	.31	--	--	--
TOTAL	47.53	--	13.34	128.90	--	369.62	30.41	--	15.41

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

1563.99

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

6900.72

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TEMPERATURE (DEG C) (00010)	NUMBER OF SAMPLING POINTS (00063)	INSTANTANEOUS DISCHARGE (CFS) (00061)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	
						% FINER THAN .002 MM (70337)	% FINER THAN .004 MM (70338)	% FINER THAN .008 MM (70339)	% FINER THAN .016 MM (70340)	% FINER THAN .062 MM (70342)	% FINER THAN .125 MM (70343)	% FINER THAN .250 MM (70344)
MAR. 04...	3.0	--	12	2260	73	29	34	41	57	99	--	--
APR. 14...	9.0	--	31	2190	183	31	41	48	61	99	--	--
MAY 16...	13.0	--	314	12000	10200	26	31	42	62	98	--	--
16...	14.5	--	236	7770	4950	30	38	48	64	98	99	100
16...	14.5	--	226	7920	4830	31	39	49	63	98	99	100
17...	13.5	--	80	2320	501	28	30	37	49	97	99	100
29...	17.5	--	62	4960	830	37	46	57	73	99	--	--

05463050 CEDAR RIVER AT CEDAR FALLS, IOWA

LOCATION.--Lat 42°32'20", long 92°26'58", in NW1/4 NE1/4 sec.12, T.89 N., R.14 W., Black Hawk County, at bridge on U.S. Highway 20 at Cedar Falls, 1.1 mi (1.8 km) upstream from Dry Run, and at mile 196.0 (315.4 km) above mouth of Iowa River.

DRAINAGE AREA.--4,734 mi² (12,261 km²).

PERIOD OF RECORD.--Chemical analyses: February 1974 to current year.
Water temperatures: February 1974 to current year.
Biological analyses: February 1974 to current year.

REMARKS.--Water discharge estimated on basis of records at gaging station 8.1 mi (13.0 km) downstream at Waterloo. No significant inflow between gaging station and sampling site. Additional chemical and biological data analyzed by EPA laboratories for the same sampling dates and available through STORET computer storage upon approval from that agency.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	ALKA- LILITY AS CAC03 (MG/L) (00410)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
FEB.							
21...	4700	171	0	140	410	8.2	.5
MAR.							
08...	15000	154	0	126	380	7.5	3.5
22...	5500	257	0	211	340	8.5	2.0
APR.							
03...	5650	222	0	182	570	8.3	7.5
16...	9000	222	0	182	570	8.3	9.5
30...	4400	222	0	182	580	8.2	16.0
MAY							
13...	9200	188	0	154	490	7.7	11.0
28...	6400	222	0	182	600	7.3	18.0
JUNE							
12...	26500	154	0	126	360	7.4	18.0
24...	14000	171	0	140	420	7.2	20.0
JULY							
08...	3300	223	0	183	566	7.5	26.0
23...	2350	205	0	168	520	7.6	26.0
AUG.							
05...	1800	205	0	168	530	7.8	20.5
19...	1880	222	0	182	460	7.5	23.5
SEP.							
03...	1160	205	0	168	520	8.7	15.0
16...	1200	205	0	168	500	8.4	16.5

DATE	AIR TEMPER- ATURE (DEG C) (00020)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	PER- CENT SATUR- ATION (00301)	CARBON DIOXIDE (CO2) (MG/L) (00405)	FECAL COLI- FORM (COL. PER 100 ML) (31616)
FEB.						
21...	1.0	8	12.0	83	1.7	600
MAR.						
08...	2.0	30	12.4	72	7.8	550
22...	-2.5	7	12.3	89	1.3	500
APR.						
03...	9.5	30	12.4	103	1.8	525
16...	17.0	10	9.2	82	1.8	420
30...	18.0	15	11.0	110	2.2	180
MAY						
13...	6.5	80	11.0	99	6.0	950
28...	200	30	9.4	99	18	--
JUNE						
12...	21.0	140	9.6	101	9.8	1700
24...	21.5	180	9.1	99	17	4200
JULY						
08...	33.0	40	8.4	95	11	550
23...	31.0	20	8.1	99	8.2	570
AUG.						
05...	25.0	15	9.1	99	5.2	200
19...	27.0	16	8.5	99	11	390
SEP.						
03...	16.0	10	10.3	101	.7	410
16...	23.0	15	9.7	99	1.3	300

IOWA RIVER BASIN

05464020 CEDAR RIVER NEAR GILBERTVILLE, IOWA

LOCATION.--Lat 42°24'54", long 92°13'00", in SW1/4 SW1/4 sec.23, T.88 N., R.12 W., Black Hawk County, at bridge on county highway D38 at Gilbertville, 1.4 mi (2.2 km) upstream from Indian Creek, and at mile 176.5 (284.0 km) above mouth of Iowa River.

DRAINAGE AREA.--5,234 mi² (13,556 km²).

PERIOD OF RECORD.--Chemical analyses: October 1970; February 1974 to current year.

Water temperatures: February 1974 to current year.

Biological analyses: February 1974 to current year.

REMARKS.--Water discharge estimated on basis of records at gaging station 11.4 mi (18.3 km) upstream at Waterloo. No significant inflow between gaging station and sampling site. Additional chemical and biological data analyzed by EPA laboratories for the same sampling dates and available through STORET computer storage upon approval from that agency.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	BICAR- BONATE (MC03) (00440)	CAR- BONATE (C03) (00445)	ALKA- LINITY AS CAC03 (MG/L) (00410)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
FEB.							
21...	4700	171	0	140	410	8.2	1.0
MAR.							
08...	15000	154	0	126	370	7.3	3.5
22...	5500	240	0	197	330	8.3	3.0
APR.							
03...	5650	240	0	197	580	8.5	8.0
16...	9000	222	0	182	580	8.4	10.0
30...	4400	240	0	197	560	8.3	18.0
MAY							
13...	9200	188	0	154	500	7.9	11.0
28...	6400	240	0	197	590	7.4	20.0
JUNE							
12...	26500	137	0	112	300	7.3	17.0
24...	14000	137	0	112	340	6.7	19.5
JULY							
08...	3300	240	0	197	566	7.7	26.0
23...	2350	222	0	182	520	7.6	26.0
AUG.							
05...	1800	222	0	182	530	7.8	24.5
19...	1880	222	0	182	440	7.5	24.0
SEP.							
03...	1160	188	0	154	490	8.3	16.5

DATE	AIR TEMPER- ATURE (DEG C) (00020)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	PER- CENT SATUR- ATION (00301)	CARBON DIOXIDE (C02) (MG/L) (00405)	FECAL COLI- FORM (COL. PER 100 ML) (31616)
FEB.						
21...	1.5	8	11.4	80	1.7	600
MAR.						
08...	3.5	30	12.4	73	12	700
22...	-1.0	10	12.2	90	1.9	830
APR.						
03...	10.0	20	12.4	104	1.2	1200
16...	14.0	--	9.2	83	1.4	1000
30...	18.0	20	12.0	126	1.9	340
MAY						
13...	7.5	80	11.1	100	3.8	950
28...	17.5	30	9.4	102	15	--
JUNE						
12...	20.0	180	9.7	100	11	2800
24...	21.0	220	9.5	102	44	6800
JULY						
08...	33.0	30	8.3	94	7.7	540
23...	30.0	20	8.1	99	8.9	2200
AUG.						
05...	20.0	17	8.6	101	5.6	280
19...	26.5	20	8.5	100	11	780
SEP.						
03...	16.0	12	9.4	96	1.5	850

05464130 FOURHILE CREEK NEAR LINCOLN, IOWA

LOCATION.--Lat 42°13'32", long 92°36'39", in SW1/4 sec.28, T.86 N., R.15 W., Tama County, 10 ft (3 m) upstream from gaging station on bridge on county highway, 1 mi (1.6 km) upstream from Half Mile Creek and 4.7 mi (7.6 km) southeast of Lincoln.

DRAINAGE AREA.--13.78 mi² (35.7 km²).

PERIOD OF RECORD.--Specific conductance: October 1969 to September 1974, partial-record station, (discontinued).
Water temperatures: October 1969 to September 1974, partial-record station, (discontinued).
Sediment records: October 1969 to September 1974 (discontinued).

EXTREMES.--Current year: Sediment concentrations: Maximum daily, 3,600 mg/l May 18; minimum daily, 35 mg/l Aug. 27.
Sediment discharge: Maximum daily, 2,750 tons (2,490 tonnes) June 22; minimum daily, 0.21 ton (0.19 tonne) Sept. 9, 10.

Period of record: Sediment concentrations: Maximum daily, 7,800 mg/l June 14, 1972; minimum daily, 15 mg/l July 5-7, 1970.
Sediment discharge: Maximum daily, 5,980 tons (5,430 tonnes) July 4, 1973; minimum daily, 0.03 ton (0.027 tonne) Aug. 30, 31, Sept. 1, 2, 1970.

REMARKS.--Flow affected by ice Dec. 29 to Jan. 16, Jan. 20, Jan. 29 to Feb. 25, Mar. 1-12.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	500	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	520	---	---	---	530	---	---	---
4	---	---	---	450	---	350	---	---	---	---	---	---
5	---	450	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	430	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	510	---	---	---	---	---	---	---	380	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	460	---	---	500	520	---	---	---	---
12	580	---	---	---	160	510	---	---	---	---	---	---
13	---	---	---	---	360	---	---	---	---	---	---	---
14	---	450	---	---	---	---	---	---	480	510	---	---
15	---	480	---	---	---	---	---	---	---	---	---	---
16	---	---	450	---	---	---	---	---	460	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	500	---	480	510	---	450	---	---	510
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	510	---	---	---	---	510	440	---	---	500
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	470	---	---	---	---	---	---	400	---	---	---
23	---	---	---	---	470	---	530	---	490	---	---	---
24	---	---	---	---	---	---	---	---	500	---	---	---
25	410	---	---	510	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	500	---	440	---
27	---	---	---	---	420	---	---	---	---	---	---	---
28	---	---	410	---	---	---	520	---	470	---	---	---
29	---	440	---	---	---	480	---	---	---	---	---	530
30	---	---	---	360	---	---	---	520	460	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	580	MIN	160	MEAN	466						

IOWA RIVER BASIN

05464130 FOURMILE CREEK NEAR LINCOLN, IOWA--CONTINUED

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	5.0	---	---	---	---	---	---
3	---	---	---	---	0.0	---	---	---	20.5	---	---	---
4	---	---	---	0.0	---	4.0	---	---	---	---	---	---
5	---	12.0	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	3.0	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	24.5	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	0.0	---	---	10.0	13.0	---	---	---	---
12	14.5	---	---	---	1.0	6.0	---	---	---	---	---	---
13	---	---	---	---	0.0	---	---	---	---	---	---	---
14	---	11.5	---	---	---	---	---	---	20.0	24.5	---	---
15	---	7.5	---	---	---	---	---	---	---	---	---	---
16	---	---	0.0	---	---	---	---	---	15.0	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	17.0
18	---	---	---	0.0	---	3.0	15.0	---	22.0	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	0.0	---	---	---	---	17.0	22.0	---	---	18.0
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	7.0	---	---	---	---	---	---	19.0	---	---	---
23	---	---	---	---	0.0	---	4.5	---	15.0	---	---	---
24	---	---	---	---	---	---	---	---	21.0	---	---	---
25	20.5	---	---	0.0	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	21.0	---	25.5	---
27	---	---	---	---	0.0	---	---	---	---	---	---	---
28	---	---	3.0	---	---	---	17.0	---	23.0	---	---	---
29	---	3.5	---	---	---	5.0	---	---	---	---	---	17.0
30	---	---	---	1.0	---	---	---	17.0	23.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	25.5	MIN	0.0	MEAN	11.0						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8.2	155	3.4	4.7	144	1.8	5.7	59	.91
2	7.4	147	2.9	5.0	149	2.0	5.8	53	.83
3	7.0	142	2.7	4.7	158	2.0	5.3	46	.66
4	8.6	137	3.2	4.7	174	2.2	24	216	14
5	7.3	132	2.6	4.8	188	2.4	23	151	9.4
6	6.7	127	2.3	4.7	194	2.5	17	126	5.8
7	6.4	122	2.1	4.6	192	2.4	15	114	4.6
8	6.2	118	2.0	4.5	184	2.2	13	105	3.7
9	5.9	113	1.8	4.3	175	2.0	12	98	3.2
10	6.6	108	1.9	4.2	164	1.9	14	89	3.4
11	20	350	14	4.3	151	1.8	9.8	82	2.2
12	12	189	6.1	4.3	137	1.6	9.2	73	1.8
13	9.7	166	4.3	4.4	123	1.5	8.8	66	1.6
14	8.1	164	3.6	3.8	108	1.1	8.0	57	1.2
15	7.2	162	3.1	3.5	60	.57	7.6	49	1.0
16	6.6	160	2.9	3.3	46	.41	7.3	42	.83
17	6.2	154	2.6	3.5	45	.43	7.3	42	.83
18	6.1	156	2.6	3.4	44	.40	7.1	43	.82
19	5.7	153	2.4	3.3	42	.37	5.9	44	.70
20	5.4	152	2.2	7.0	112	2.1	7.6	91	1.9
21	5.3	149	2.1	11	190	5.6	6.7	72	1.3
22	5.0	144	2.0	7.1	124	2.4	6.7	56	1.0
23	4.9	148	2.0	6.2	112	1.9	6.7	53	.96
24	4.8	147	1.9	8.4	105	2.4	7.6	59	1.2
25	4.7	147	1.9	7.6	98	2.0	17	182	8.4
26	4.7	147	1.9	7.1	92	1.8	15	186	7.5
27	4.6	146	1.8	6.7	85	1.5	11	115	3.4
28	4.9	146	1.9	6.4	78	1.3	9.5	101	2.6
29	4.8	145	1.9	5.9	72	1.1	8.8	99	2.4
30	4.8	145	1.9	5.7	65	1.0	8.2	100	2.2
31	4.7	144	1.8	--	--	--	7.6	101	2.1
TOTAL	210.5	--	94.8	159.1	--	52.68	318.2	--	92.44

05464130 FOURMILE CREEK NEAR LINCOLN, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7.1	102	2.0	13	430	15	24	675	44
2	6.5	102	1.8	9.0	425	10	90	2290	556
3	6.0	103	1.7	7.8	410	8.6	50	1370	185
4	5.6	104	1.6	6.6	380	6.8	40	1080	117
5	5.5	100	1.5	6.0	360	5.8	24	500	32
6	5.2	89	1.2	5.5	320	4.8	20	400	22
7	5.0	81	1.1	5.0	290	3.9	20	320	17
8	4.9	75	.99	4.8	250	3.2	20	280	15
9	4.8	72	.93	4.6	220	2.7	20	230	12
10	4.7	70	.89	4.5	200	2.4	19	192	9.8
11	4.6	67	.83	7.2	650	13	18	182	8.8
12	4.7	63	.80	35	2090	198	17	178	8.2
13	4.7	60	.76	15	580	23	15	174	7.0
14	4.7	57	.72	5.5	127	1.9	14	170	6.4
15	4.8	54	.70	4.5	109	1.3	13	166	5.8
16	4.8	51	.66	7.0	145	2.7	11	162	4.8
17	4.9	46	.61	17	237	11	11	158	4.7
18	5.2	42	.59	36	243	24	10	154	4.2
19	5.0	39	.53	9.5	197	5.1	9.6	150	3.9
20	5.4	387	56	8.0	174	3.8	9.1	146	3.6
21	4.1	430	48	13	161	5.7	9.2	142	3.5
22	15	197	8.0	6.0	156	2.5	8.5	129	3.0
23	10	152	4.1	6.6	153	2.7	8.8	102	2.4
24	8.4	123	2.8	7.4	152	3.0	11	90	2.7
25	8.0	93	2.0	7.6	148	3.0	16	84	3.6
26	9.5	112	2.9	7.8	146	3.1	6.9	81	1.5
27	17	215	9.9	9.2	205	5.1	6.9	79	1.5
28	11	100	3.0	19	525	27	7.0	76	1.4
29	17	211	9.7	--	--	--	8.1	73	1.6
30	70	1770	335	--	--	--	12	70	2.3
31	45	1300	158	--	--	--	11	68	2.0
TOTAL	404.6	--	659.31	288.1	--	399.1	560.1	--	1092.7
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	10	65	1.8	7.4	42	.84	17	228	10
2	9.5	62	1.6	7.2	39	.76	16	189	8.2
3	17	214	9.8	6.7	37	.67	15	152	6.2
4	20	317	17	6.6	38	.68	15	127	5.1
5	17	291	13	6.4	40	.69	15	121	4.9
6	15	279	11	6.3	41	.70	14	118	4.5
7	13	270	9.5	9.2	150	3.7	14	117	4.4
8	12	260	8.4	11	207	6.1	14	115	4.3
9	11	250	7.4	9.6	157	4.1	368	1920	1910
10	10	240	6.5	9.6	132	3.4	89	1140	274
11	11	231	6.9	11	109	3.2	52	650	91
12	11	215	6.4	10	99	2.7	42	450	51
13	10	190	5.1	16	289	12	36	325	32
14	13	165	5.8	19	253	13	33	275	25
15	12	143	4.6	17	207	9.5	30	215	17
16	11	125	3.7	55	2010	298	27	170	12
17	11	107	3.2	33	1750	156	25	150	10
18	10	87	2.3	108	3600	1050	23	161	10
19	9.6	76	2.0	56	980	148	23	260	16
20	9.3	68	1.7	41	410	45	22	205	12
21	11	59	1.8	33	300	27	21	168	9.5
22	10	51	1.4	29	258	20	380	2680	2750
23	9.9	43	1.1	25	237	16	56	1070	162
24	9.5	41	1.1	22	216	13	39	640	67
25	9.2	38	.94	20	194	10	33	515	46
26	9.2	37	.92	20	172	9.3	29	400	31
27	9.4	43	1.1	19	152	7.8	26	320	22
28	8.3	48	1.1	29	349	27	23	265	16
29	8.0	49	1.1	22	346	21	21	238	13
30	7.6	46	.94	20	307	17	20	224	12
31	--	--	--	18	267	13	--	--	--
TOTAL	334.5	--	139.20	703.0	--	1940.14	1538	--	5636.1

IOWA RIVER BASIN

05464130 FOURMILE CREEK NEAR LINCOLN, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	18	220	11	6.3	68	1.2	2.4	72	.47
2	17	215	9.9	5.7	64	.98	2.8	97	.73
3	17	250	11	5.5	60	.89	2.6	92	.65
4	87	1570	369	5.2	58	.81	2.4	75	.49
5	24	698	45	4.7	55	.70	2.2	65	.39
6	20	600	32	4.5	51	.62	2.2	53	.31
7	18	480	23	4.2	49	.56	2.2	45	.27
8	16	370	16	4.1	44	.49	2.0	40	.22
9	15	275	11	4.4	42	.50	1.7	45	.21
10	76	550	113	19	385	20	1.6	49	.21
11	27	750	55	11	195	5.8	1.6	51	.22
12	18	460	22	8.7	153	3.6	2.1	61	.35
13	15	330	13	6.8	145	2.7	1.8	109	.53
14	14	185	7.0	6.6	137	2.4	1.6	103	.44
15	12	177	5.7	6.3	129	2.2	1.6	89	.38
16	11	169	5.0	6.3	120	2.0	1.6	90	.39
17	11	160	4.8	6.1	112	1.8	1.7	90	.41
18	9.9	154	4.1	5.7	102	1.6	1.7	86	.39
19	9.6	145	3.8	5.1	92	1.3	1.7	76	.35
20	9.3	138	3.5	4.6	83	1.0	1.7	71	.33
21	9.1	130	3.2	4.3	73	.85	1.8	68	.33
22	8.4	120	2.7	3.9	65	.68	1.8	60	.29
23	7.5	114	2.3	3.4	60	.55	1.8	55	.27
24	7.0	105	2.0	3.2	53	.46	1.8	53	.26
25	6.5	100	1.8	3.0	43	.35	1.8	55	.27
26	6.2	95	1.6	2.9	36	.28	1.8	57	.28
27	5.9	90	1.4	2.6	35	.25	1.8	58	.28
28	5.9	87	1.4	2.6	38	.27	2.9	180	1.4
29	5.3	81	1.2	2.5	38	.26	2.3	175	1.1
30	4.9	77	1.0	2.5	38	.26	1.9	76	.39
31	4.6	71	.88	2.5	43	.29	--	--	--
TOTAL	516.1	--	784.28	164.2	--	55.65	58.9	--	12.61

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

5255.3

10959.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TEMPERATURE (DEG C)	NUMBER OF SAMPLING POINTS (00063)	INSTANTANEOUS DISCHARGE (CFS) (00061)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT DISCHARGE (T/DAY) (80155)	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	
						DIAM. % FINER THAN .002 MM (70337)	DIAM. % FINER THAN .004 MM (70338)	DIAM. % FINER THAN .008 MM (70339)	DIAM. % FINER THAN .016 MM (70340)	DIAM. % FINER THAN .062 MM (70342)	DIAM. % FINER THAN .125 MM (70343)	DIAM. % FINER THAN .250 MM (70344)
MAP. 02...	5.0	--	218	3860	2270	20	28	35	50	95	98	100

05464133 HALF MILE CREEK NEAR GLADBROOK, IOWA

LOCATION.--Lat 42°12'40", long 92°36'39", in SW1/4 sec.33, T.86 N., R.15 W., Tama County, 10 ft (3 m) upstream from gaging station on bridge on county highway, 0.8 mi (1.3 km) upstream from mouth, and 5.3 mi (8.5 km) northeast of Gladbrook.

DRAINAGE AREA.--1.33 mi² (3.44 km²).

PERIOD OF RECORD.--Specific conductance: October 1969 to September 1974, partial-record station, (discontinued).
Water temperatures: October 1969 to September 1974, partial-record station, (discontinued).
Sediment records: October 1969 to September 1974 (discontinued).

EXTREMES.--Current year: Sediment concentrations: Maximum daily, 2,240 mg/l Feb. 12; minimum daily, 20 mg/l Dec. 17, 18.

Sediment discharge: Maximum daily, 68 tons (62 tonnes) June 9; minimum daily, 0.01 ton (0.009 tonne) Aug. 27 to Sept. 11, Sept. 26, 27.

Period of record: Sediment concentrations: Maximum daily, 3,250 mg/l Apr. 16, 1972; minimum daily, no flow for Sept. 29 to Oct. 20, Oct. 22-26, 1971.

Sediment discharge: Maximum daily, 93 tons (84 tonnes) Mar. 2, 1970; minimum daily, 0 ton (0.00 tonne) on many days in 1970, 1971, and 1972.

REMARKS.--Flow affected by ice Dec. 6-18, 24-31, Jan. 18-22, 26, 29, Feb. 11-28.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	440	---	---	---	---	---	---	---	---	---	---	---
2	---	---	410	---	---	140	---	---	---	---	---	---
3	---	---	---	---	450	---	---	---	470	---	---	---
4	---	---	---	380	---	370	---	---	---	---	---	---
5	---	430	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	470	---	---	---	---	---	---	---	440	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	440	---	---	430	460	---	---	---	---
12	500	---	---	---	160	440	---	---	---	---	---	---
13	---	---	---	---	410	---	---	---	---	---	---	---
14	---	390	---	---	---	---	---	---	400	430	---	---
15	---	480	---	---	---	---	---	---	---	---	---	---
16	---	---	420	---	---	---	---	---	390	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	420
18	---	---	---	460	---	320	460	---	370	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	440	---	---	---	---	460	370	---	---	460
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	380	---	---	---	---	---	---	435	---	---	---
23	---	---	---	---	430	---	460	---	460	---	---	---
24	---	---	---	---	---	---	---	---	420	---	---	---
25	370	---	---	370	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	410	---	400	---
27	---	---	---	---	240	---	---	---	---	---	---	---
28	---	---	350	---	---	---	---	---	400	---	---	---
29	---	380	---	---	---	420	---	---	---	---	---	480
30	---	---	---	310	---	---	---	460	390	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	500	MIN	140	MEAN	405						

IOWA RIVER BASIN

05464133 HALF MILE CREEK NEAR GLADBROOK, IOWA--CONTINUED

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	---	---	---	---	---	---	---	---	---	---	---
2	---	---	3.0	---	---	5.0	---	---	---	---	---	---
3	---	---	---	---	0.0	---	---	---	22.0	---	---	---
4	---	---	---	0.0	---	4.0	---	---	---	---	---	---
5	---	11.0	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	24.5	---	---	---	---	---	---	---	18.0	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	0.0	---	---	11.0	12.0	---	---	---	---
12	15.0	---	---	---	0.0	6.0	---	---	---	---	---	---
13	---	---	---	---	0.0	---	---	---	---	---	---	---
14	---	11.0	---	---	---	---	---	---	18.0	27.0	---	---
15	---	7.5	---	---	---	---	---	---	---	---	---	---
16	---	---	0.0	---	---	---	---	---	15.0	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	16.5
18	---	---	---	0.0	---	3.0	12.0	---	21.0	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	0.0	---	---	---	---	15.0	19.0	---	---	18.0
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	6.0	---	---	---	---	---	---	16.0	---	---	---
23	---	---	---	---	0.0	---	6.0	---	17.0	---	---	---
24	---	---	---	---	---	---	---	---	20.0	---	---	---
25	20.0	---	---	0.0	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	20.0	---	26.0	---
27	---	---	---	---	0.0	---	---	---	---	---	---	---
28	---	---	4.0	---	---	---	---	---	20.0	---	---	---
29	---	3.0	---	---	---	5.0	---	---	---	---	---	16.0
30	---	---	---	1.0	---	---	---	15.0	21.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	27.0	MIN	0.0	MEAN	11.0						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.73	61	.12	.37	71	.07	.47	47	.06
2	.66	43	.08	.37	70	.07	.50	49	.07
3	.56	42	.06	.37	69	.07	.46	47	.06
4	.50	42	.06	.37	68	.07	2.7	242	1.8
5	.42	41	.05	.37	67	.07	2.0	236	1.3
6	.37	41	.04	.35	66	.06	1.3	159	.56
7	.35	41	.04	.35	65	.06	.90	122	.30
8	.32	40	.03	.34	65	.06	.72	98	.19
9	.32	40	.03	.33	64	.06	.66	82	.15
10	.47	58	.07	.32	63	.05	.60	69	.11
11	1.5	124	.50	.32	62	.05	.56	57	.09
12	.77	78	.16	.31	61	.05	.54	47	.07
13	.63	76	.13	.32	60	.05	.51	38	.05
14	.54	76	.11	.37	193	.19	.49	32	.04
15	.48	76	.10	.27	151	.11	.47	25	.03
16	.46	76	.09	.21	88	.05	.46	21	.03
17	.44	77	.09	.22	71	.04	.45	20	.02
18	.42	77	.09	.21	68	.04	.46	20	.02
19	.40	77	.08	.20	66	.04	.47	42	.05
20	.39	77	.08	1.3	226	.79	.52	55	.08
21	.38	76	.08	.95	254	.65	.50	54	.07
22	.37	75	.07	.57	179	.28	.49	44	.06
23	.36	75	.07	.51	148	.20	.47	39	.05
24	.36	75	.07	.86	124	.29	.50	31	.04
25	.34	75	.07	.70	100	.19	.56	31	.05
26	.34	75	.07	.60	78	.13	.62	57	.10
27	.34	75	.07	.56	61	.09	.66	95	.17
28	.35	75	.07	.52	48	.07	.70	126	.24
29	.35	74	.07	.50	46	.06	.70	126	.24
30	.35	73	.07	.48	45	.06	.60	122	.20
31	.35	72	.07	--	--	--	.45	119	.14
TOTAL	14.62	--	2.79	13.52	--	4.07	21.49	--	6.44

05464133 HALF MILE CREEK NEAR GLADSBROOK, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.34	110	.10	.96	77	.20	1.3	320	1.1
2	.30	102	.08	.67	73	.13	5.2	1260	18
3	.30	96	.08	.47	72	.09	2.2	600	3.6
4	.28	89	.07	.41	69	.08	2.8	380	2.9
5	.28	82	.06	.39	68	.07	2.3	330	2.0
6	.28	74	.06	.35	66	.06	1.9	200	1.0
7	.28	68	.05	.32	64	.06	1.8	87	.42
8	.27	64	.05	.31	63	.05	1.9	57	.29
9	.27	59	.04	.29	62	.05	2.2	52	.31
10	.27	50	.04	.28	60	.05	2.0	51	.28
11	.27	44	.03	.50	940	1.3	1.7	50	.23
12	.26	35	.02	1.5	2240	9.1	1.4	50	.19
13	.26	32	.02	.80	130	.28	1.3	57	.20
14	.26	30	.02	.30	79	.06	1.2	73	.24
15	.26	25	.02	.29	79	.06	1.1	87	.26
16	.25	24	.02	.60	77	.12	1.0	103	.28
17	.27	22	.02	.80	76	.16	.92	117	.29
18	.32	85	.07	.66	74	.13	.88	126	.30
19	.40	113	.12	.45	74	.09	.84	127	.29
20	3.5	222	2.1	.40	82	.09	.78	126	.27
21	1.5	156	.63	.60	94	.15	.76	125	.26
22	1.0	99	.27	.23	106	.07	.71	125	.24
23	.63	72	.12	.30	112	.09	.71	124	.24
24	.48	51	.07	.34	109	.10	.66	124	.22
25	.49	35	.05	.37	98	.10	.64	123	.21
26	.66	43	.08	.40	85	.09	.62	123	.21
27	.90	58	.14	.45	500	.61	.60	123	.20
28	.80	49	.11	.80	820	1.8	.59	122	.19
29	1.3	56	.20	--	--	--	.64	129	.22
30	7.1	173	3.3	--	--	--	.77	201	.42
31	1.6	98	.42	--	--	--	.82	198	.44
TOTAL	25.38	--	8.46	14.24	--	15.24	42.24	--	35.30
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.86	162	.38	.57	26	.04	1.4	60	.23
2	.88	138	.33	.56	25	.04	1.4	47	.18
3	1.1	194	.58	.53	25	.04	1.2	42	.14
4	1.8	311	1.5	.55	24	.04	1.3	40	.14
5	2.2	194	1.2	.53	24	.03	1.2	38	.12
6	2.1	167	.95	.52	23	.03	1.2	37	.12
7	2.0	154	.83	1.1	125	.37	1.3	36	.13
8	1.7	142	.65	.96	133	.34	1.2	42	.14
9	1.6	129	.56	.80	111	.24	23	1100	68
10	1.4	121	.46	.77	108	.22	8.8	410	9.7
11	1.3	181	.64	.97	122	.32	6.1	162	2.7
12	1.2	214	.69	.80	77	.17	4.9	117	1.5
13	1.2	138	.45	2.6	201	1.4	4.3	93	1.1
14	1.4	185	.70	2.2	133	.79	3.9	78	.82
15	1.5	169	.68	1.6	89	.38	3.7	68	.68
16	1.4	111	.42	6.8	705	13	3.6	61	.59
17	1.3	95	.33	3.0	300	2.4	3.4	56	.51
18	1.1	83	.25	5.8	900	14	3.2	52	.45
19	1.1	72	.21	2.8	265	2.0	3.2	51	.44
20	.97	61	.16	2.9	130	1.0	3.2	51	.44
21	1.1	50	.15	2.7	109	.79	3.2	51	.44
22	1.2	38	.12	2.2	93	.55	18	1090	53
23	.89	29	.07	1.8	78	.38	5.2	360	5.1
24	.68	27	.05	1.7	72	.33	4.3	274	3.2
25	.65	27	.05	1.6	68	.29	3.8	170	1.7
26	.63	27	.05	1.6	63	.27	3.2	132	1.1
27	.62	27	.05	1.5	59	.24	3.1	110	.92
28	.67	27	.05	1.8	140	.68	3.1	97	.81
29	.69	26	.05	1.7	121	.56	3.1	83	.69
30	.60	26	.04	1.6	101	.44	3.1	68	.57
31	--	--	--	1.5	81	.33	--	--	--
TOTAL	35.84	--	12.65	56.06	--	41.71	131.6	--	155.66

IOWA RIVER BASIN

05464133 HALF MILE CREEK NEAR GLADBROOK, IOWA--CONTIHED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3.0	61	.49	.92	35	.09	.10	47	.01
2	3.1	57	.48	.92	34	.08	.09	47	.01
3	3.1	53	.44	.89	33	.08	.09	46	.01
4	6.0	170	2.8	.89	32	.08	.09	44	.01
5	3.3	122	1.1	.91	32	.08	.12	45	.01
6	3.3	114	1.0	.89	33	.08	.11	46	.01
7	3.3	107	.95	.89	34	.08	.10	47	.01
8	3.2	99	.86	.87	35	.08	.09	48	.01
9	3.2	91	.79	.87	36	.08	.09	47	.01
10	4.7	82	1.0	1.5	188	.76	.09	48	.01
11	1.9	74	.38	.77	153	.32	.09	55	.01
12	1.8	67	.33	.73	133	.26	.20	206	.11
13	1.2	61	.20	.66	116	.21	.13	213	.07
14	1.1	53	.16	.60	92	.15	.11	205	.06
15	1.0	51	.14	.56	73	.11	.11	205	.06
16	1.0	49	.13	.52	69	.10	.10	207	.06
17	1.0	47	.13	.45	66	.08	.10	210	.06
18	1.0	46	.12	.40	64	.07	.09	201	.05
19	1.1	44	.13	.37	62	.06	.09	185	.04
20	1.0	42	.11	.32	61	.05	.09	166	.04
21	1.0	39	.11	.30	59	.05	.10	147	.04
22	1.0	38	.10	.24	57	.04	.10	107	.03
23	1.0	38	.10	.22	56	.03	.11	83	.02
24	1.0	37	.10	.20	54	.03	.11	67	.02
25	.97	37	.10	.17	50	.02	.11	57	.02
26	.97	37	.10	.15	50	.02	.11	47	.01
27	.97	36	.09	.11	50	.01	.12	45	.01
28	.94	36	.09	.11	50	.01	.30	180	.15
29	.94	36	.09	.11	49	.01	.19	125	.06
30	.94	35	.09	.11	49	.01	.16	73	.03
31	.92	35	.09	.10	48	.01	--	--	--
TOTAL	58.95	--	12.80	16.75	--	3.14	3.49	--	1.05
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									434.18
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									299.31

05464137 FOURMILE CREEK NEAR TRAEER, IOWA

LOCATION.--Lat 42°12'07", long 92°33'44", near center of sec.2, T.85 N., R.15 W., Tama County, 10 ft (3 m) upstream from gaging station on bridge on county highway T69, 2 mi (3.2 km) upstream from mouth, and 5.0 mi (8.0 km) northwest of Traer.

DRAINAGE AREA.--19.51 mi² (50.5 km²).

PERIOD OF RECORD.--Specific conductance: October 1969 to September 1974, partial-record station, (discontinued).
Water temperatures: October 1969 to September 1974, partial-record station, (discontinued).
Sediment records: October 1969 to September 1974 (discontinued).

EXTREMES.--Current year: Sediment concentrations: Maximum daily, 4,160 mg/l June 22; minimum daily, 33 mg/l Apr. 23.
Sediment discharge: Maximum daily, 5,120 tons (4,640 tonnes) June 22; minimum daily, 0.11 ton (0.10 tonne) Sept. 27.

Period of record: Sediment concentrations: Maximum daily, 4,160 mg/l June 22, 1974; minimum daily, 23 mg/l May 2, 6-8, 1970.
Sediment discharge: Maximum daily, 5,120 tons (4,640 tonnes) June 22, 1974; minimum daily, 0.03 ton (0.027 tonne) Oct. 9, 1971.

REMARKS.--Flow affected by ice Dec. 31 to Jan. 14, Feb. 1-25.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	500	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	220	---	---	---	---	---	430
3	---	---	---	---	500	---	---	---	510	---	---	---
4	---	---	---	440	---	320	---	---	---	---	410	---
5	---	440	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	460	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	530	---	---	---	---	---	---	---	380	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	430	---	---	470	490	---	480	---	---
12	550	---	---	---	260	490	---	---	---	---	---	460
13	---	---	---	---	280	---	---	---	---	---	---	---
14	---	460	---	---	---	---	---	---	480	490	---	---
15	---	480	---	---	---	---	---	---	---	---	---	---
16	---	---	450	---	---	---	---	---	470	---	---	---
17	---	---	---	---	---	---	---	---	---	440	---	550
18	---	---	---	510	---	410	490	---	450	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	460	---	---	---	---	500	460	---	---	480
21	---	---	---	---	---	---	---	---	---	---	440	---
22	---	400	---	---	---	---	---	---	320	---	---	---
23	---	---	---	---	450	---	510	---	460	---	---	---
24	---	---	---	---	---	---	470	---	500	---	---	---
25	500	---	---	520	---	---	---	---	---	420	---	---
26	---	---	---	---	---	---	---	---	470	---	440	---
27	---	---	---	---	450	---	---	---	---	---	---	---
28	---	---	400	---	---	---	440	---	450	---	---	---
29	---	460	---	---	---	420	---	---	---	---	---	500
30	---	---	---	340	---	---	---	510	420	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	550	MIN	220	MEAN	449						

IOWA RIVER BASIN

05464137 FOURMILE CREEK NEAR TRAER, IOWA--CONTINUED

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	5.0	---	---	---	---	---	15.0
3	---	---	---	---	0.0	---	---	---	21.5	---	---	---
4	---	---	---	0.0	---	4.0	---	---	---	---	17.0	---
5	---	12.0	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	2.0	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	25.5	---	---	---	---	---	---	---	21.0	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	0.0	---	---	10.0	13.0	---	23.0	---	---
12	15.0	---	---	---	1.0	3.0	---	---	---	---	---	12.0
13	---	---	---	---	0.0	---	---	---	---	---	---	---
14	---	12.0	---	---	---	---	---	---	22.0	23.5	---	---
15	---	6.0	---	---	---	---	---	---	---	---	---	---
16	---	---	0.0	---	---	---	---	---	16.0	---	---	---
17	---	---	---	---	---	---	---	---	---	28.0	---	19.0
18	---	---	---	0.0	---	2.0	14.0	---	23.0	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	0.0	---	---	---	---	19.5	23.0	---	---	19.0
21	---	---	---	---	---	---	---	---	---	---	25.0	---
22	---	8.0	---	---	---	---	---	---	19.0	---	---	---
23	---	---	---	---	0.0	---	4.0	---	15.0	---	---	---
24	---	---	---	---	---	---	18.0	---	22.0	---	---	---
25	21.0	---	---	0.0	---	---	---	---	---	32.0	---	---
26	---	---	---	---	---	---	---	---	23.0	---	24.0	---
27	---	---	---	---	0.0	---	---	---	---	---	---	---
28	---	---	2.0	---	---	---	17.0	---	23.0	---	---	---
29	---	1.5	---	---	---	4.0	---	---	---	---	---	17.0
30	---	---	---	1.0	---	---	---	17.0	25.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	32.0	MIN	0.0	MEAN	13.0						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	12	122	4.0	5.3	175	2.5	7.8	122	2.6
2	9.9	117	3.1	5.2	164	2.3	8.1	113	2.5
3	8.9	108	2.6	4.9	146	1.9	7.8	101	2.1
4	11	152	4.5	4.9	129	1.7	25	275	19
5	8.7	125	2.9	4.7	112	1.4	25	215	15
6	8.1	117	2.6	4.7	106	1.3	18	146	7.1
7	7.8	109	2.3	4.8	105	1.4	15	128	5.2
8	7.4	102	2.0	4.6	105	1.3	14	121	4.6
9	7.0	94	1.8	4.5	107	1.3	13	112	3.9
10	7.5	111	2.2	4.3	108	1.3	11	116	3.4
11	23	386	24	4.6	109	1.4	12	100	3.2
12	17	209	9.6	4.3	110	1.3	11	92	2.7
13	13	191	6.7	4.3	111	1.3	10	87	2.3
14	11	186	5.5	4.6	121	1.5	9.5	83	2.1
15	10	182	4.9	4.6	86	1.1	9.2	78	1.9
16	9.0	177	4.3	4.2	70	.79	8.2	92	2.0
17	8.6	169	3.9	4.0	68	.73	9.5	88	2.3
18	8.2	177	3.9	4.2	66	.75	9.0	80	1.9
19	7.7	178	3.7	4.0	61	.66	7.4	93	1.9
20	7.2	181	3.5	7.4	152	3.0	8.2	109	2.4
21	7.0	183	3.5	14	291	11	8.6	117	2.7
22	7.3	193	3.8	9.5	184	4.7	8.4	108	2.4
23	6.6	207	3.7	8.5	173	4.0	8.3	99	2.2
24	6.3	221	3.8	12	167	5.4	9.7	107	2.8
25	6.1	234	3.9	10	162	4.4	22	273	16
26	5.9	131	2.1	9.5	156	4.0	19	294	15
27	5.8	224	3.5	9.0	151	3.7	14	227	8.6
28	5.8	216	3.4	8.9	147	3.5	12	203	6.6
29	5.5	209	3.1	8.6	141	3.3	11	188	5.6
30	5.4	200	2.9	8.2	131	2.9	9.8	175	4.6
31	5.4	187	2.7	--	--	--	9.3	161	4.0
TOTAL	270.1	--	134.4	192.3	--	75.83	370.8	--	158.6

05464137 FOURMILE CREEK NEAR TRAEER, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8.6	147	3.4	15	180	7.3	26	470	33
2	8.1	135	3.0	11	120	3.6	99	2900	775
3	7.6	121	2.5	9.0	70	1.7	54	2450	357
4	7.1	110	2.1	8.6	60	1.4	48	1380	179
5	6.7	100	1.8	8.2	57	1.3	27	350	26
6	6.4	92	1.6	7.8	55	1.2	23	211	13
7	6.0	84	1.4	7.5	53	1.1	23	197	12
8	5.8	75	1.2	7.3	50	.99	23	202	13
9	5.8	66	1.0	7.1	46	.88	23	198	12
10	5.7	62	.95	7.0	43	.81	22	182	11
11	5.4	58	.85	9.0	360	8.7	21	167	9.5
12	5.7	55	.85	42	1970	223	22	188	11
13	6.0	51	.83	20	620	33	21	182	10
14	6.3	48	.82	8.6	158	3.7	19	174	8.9
15	6.5	44	.77	7.0	117	2.2	18	166	8.1
16	6.7	44	.80	10	112	3.0	16	158	6.8
17	6.8	60	1.1	20	222	12	15	148	6.0
18	7.1	65	1.2	40	570	62	14	139	5.3
19	7.8	65	1.4	12	309	10	13	135	4.7
20	62	539	90	10	237	6.4	12	133	4.3
21	49	532	70	16	267	12	13	130	4.6
22	21	333	19	6.6	229	4.1	11	128	3.8
23	14	262	9.9	8.0	238	5.1	10	127	3.4
24	12	190	6.2	9.0	170	4.1	10	124	3.3
25	11	125	3.7	8.6	148	3.4	10	122	3.3
26	14	121	4.6	9.0	139	3.4	9.7	118	3.1
27	28	455	34	12	203	6.6	9.6	114	3.0
28	15	220	8.9	24	290	19	9.8	108	2.9
29	21	270	15	--	--	--	11	136	4.0
30	83	1280	287	--	--	--	16	286	12
31	49	520	69	--	--	--	14	204	7.7
TOTAL	505.1	--	644.87	360.3	--	441.98	663.1	--	1556.7
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	14	181	6.8	11	61	1.8	22	238	14
2	13	157	5.5	11	60	1.8	21	231	13
3	21	302	17	10	59	1.6	20	227	12
4	25	237	16	10	57	1.5	19	220	11
5	21	178	10	10	56	1.5	18	208	10
6	19	163	8.4	9.8	53	1.4	18	198	9.6
7	17	148	6.8	14	170	6.4	19	184	9.4
8	15	132	5.3	16	197	8.5	18	192	9.3
9	15	122	4.9	14	167	6.3	235	2410	2000
10	14	119	4.5	14	152	5.7	72	1130	220
11	15	172	7.0	15	137	5.5	45	430	52
12	16	155	6.7	14	126	4.8	38	322	33
13	14	130	4.9	22	770	46	35	279	26
14	17	213	9.8	27	750	55	34	248	23
15	16	175	7.6	22	340	20	31	217	18
16	15	149	6.0	51	1800	248	30	190	15
17	14	132	5.0	35	620	59	29	172	13
18	13	113	4.0	82	2400	531	28	167	13
19	13	96	3.4	46	630	78	27	220	16
20	13	78	2.7	37	440	44	26	192	13
21	15	63	2.6	35	333	31	25	172	12
22	14	47	1.8	32	304	26	300	4160	5120
23	13	33	1.2	28	275	21	48	1130	146
24	12	47	1.5	26	247	17	37	590	59
25	12	58	1.9	25	217	15	33	427	38
26	12	61	2.0	25	184	12	31	331	28
27	11	62	1.8	24	162	10	29	270	21
28	12	63	2.0	30	278	23	28	241	18
29	12	62	2.0	26	257	18	26	213	15
30	11	62	1.8	25	249	17	24	178	12
31	--	--	--	23	242	15	--	--	--
TOTAL	444	--	160.9	769.8	--	1332.8	1366	--	7999.3

IOWA RIVER BASIN

05464137 FOURMILE CREEK NEAR TRAEER, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	24	140	9.1	10	232	6.3	3.2	70	.60
2	22	109	6.5	7.2	153	3.0	3.5	65	.61
3	22	90	5.3	8.3	158	3.5	3.1	61	.51
4	60	1550	251	8.1	125	2.7	2.9	62	.49
5	29	210	16	7.1	115	2.2	2.7	63	.46
6	27	150	11	6.8	110	2.0	2.6	68	.48
7	25	146	9.9	6.3	102	1.7	2.6	63	.44
8	23	140	8.7	6.0	95	1.5	2.3	55	.34
9	22	132	7.8	6.6	211	3.8	2.1	57	.32
10	38	690	71	22	540	32	2.0	60	.32
11	34	1010	93	14	247	9.3	2.0	59	.32
12	22	338	20	11	181	5.4	3.0	131	1.1
13	20	232	13	9.5	147	3.8	2.5	105	.71
14	18	198	9.6	8.9	142	3.4	2.1	99	.56
15	16	180	7.8	8.1	141	3.1	1.8	96	.47
16	15	160	6.5	7.8	140	2.9	1.5	91	.37
17	14	140	5.3	7.8	138	2.9	1.5	85	.34
18	13	130	4.6	7.4	133	2.7	1.4	72	.27
19	13	128	4.5	6.6	132	2.4	1.2	62	.20
20	12	123	4.0	6.1	129	2.1	1.2	50	.16
21	12	118	3.8	5.6	123	1.9	1.2	48	.16
22	12	110	3.6	5.2	111	1.6	1.0	50	.14
23	11	103	3.1	4.8	100	1.3	1.2	52	.17
24	9.5	100	2.6	4.6	88	1.1	1.2	58	.19
25	9.2	92	2.3	4.4	77	.91	1.2	40	.13
26	9.3	97	2.4	4.2	64	.73	1.2	42	.14
27	8.7	91	2.1	3.8	63	.65	1.0	41	.11
28	8.7	114	2.7	3.6	65	.63	2.0	190	1.0
29	7.7	120	2.5	3.5	66	.62	3.1	169	1.4
30	7.2	130	2.5	3.4	60	.55	2.0	69	.37
31	6.9	115	2.1	3.3	59	.53	--	--	--
TOTAL	571.2	--	594.3	222.0	--	107.22	60.3	--	12.88
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									5795.0
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									13219.78

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TEMPERATURE (DEG C) (00010)	NUMBER OF SAMPLING POINTS (00063)	INSTANTANEOUS DISCHARGE (CFS) (00061)	SUSPENDED SEDIMENT CHARGE (MG/L) (80154)	SUSPENDED SEDIMENT CHARGE (T/DAY) (80155)	SUS-SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .008 MM (70339)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)
JUNE 22...	19.0	--	104	3670	1030	47	49	52	79	100	--	--

05464450 CEDAR RIVER NEAR PALO, IOWA

LOCATION.--Lat 42°03'09", long 91°46'16", in NE1/4 NE1/4 sec.33, T.84 N., R.8 W., Linn County, at bridge on county highway E36, 1.2 mi (1.9 km) upstream from Otter Creek, 1.5 mi (2.4 km) southeast of Palo, 2.4 mi (3.9 km) downstream from Bear Creek, and at mile 124.2 (199.8 km) above mouth of Iowa River.

DRAINAGE AREA.--6,380 mi² (16,524 km²).

PERIOD OF RECORD.--Chemical analyses: February 1974 to current year.

Water temperatures: February 1974 to current year.

Biological analyses: February 1974 to current year.

REMARKS.--Water discharge estimated on basis of records at gaging station 11.5 mi (18.5 km) downstream at Cedar Rapids. No significant inflow between gaging station and sampling site. Additional chemical and biological data analyzed by EPA laboratories for the same sampling dates and available through STORET computer storage upon approval from that agency.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	INSTANTANEOUS DISCHARGE (CFS) (00061)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CaCO3 (MG/L) (00410)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)
FEB.							
21...	4600	188	0	154	400	8.1	1.0
MAR.							
08...	16400	154	0	126	350	7.4	4.0
22...	6900	240	0	197	340	8.2	3.0
APR.							
03...	6400	240	0	197	580	8.4	8.0
16...	10000	240	0	197	600	8.3	9.5
30...	5800	206	0	169	580	8.2	16.5
MAY							
13...	6500	206	0	169	540	8.0	12.0
28...	10600	206	0	169	460	7.3	17.0
JUNE							
12...	26500	120	0	98	290	7.2	17.0
24...	20800	153	0	125	340	6.7	19.5
JULY							
08...	5300	240	0	197	820	7.4	26.0
23...	3600	205	0	168	530	7.7	26.5
AUG.							
05...	2740	188	0	154	490	7.4	20.0
19...	3080	106	0	87	490	7.6	24.0
SEP.							
03...	1860	188	0	154	460	8.4	17.0
16...	1590	154	0	126	410	8.5	17.5

DATE	AIR TEMPERATURE (DEG C) (00020)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	PERCENT SATURATION (00301)	CARBON DIOXIDE (CO2) (MG/L) (00405)	FECAL COLIFORM (COL. PER 100 ML) (31616)
FEB.						
21...	1.0	10	11.0	78	2.4	600
MAR.						
08...	6.0	30	11.6	87	9.8	300
22...	2.0	20	12.1	90	2.4	830
APR.						
03...	9.0	30	12.3	102	1.5	925
16...	7.5	20	9.4	84	1.9	1400
30...	11.0	30	10.0	102	2.1	950
MAY						
13...	9.5	20	11.0	102	3.3	150
28...	18.5	50	9.9	102	17	--
JUNE						
12...	18.0	200	9.8	101	12	6000
24...	20.0	220	9.4	101	49	7400
JULY						
08...	33.0	60	6.6	80	15	1500
23...	24.0	25	8.2	100	6.5	390
AUG.						
05...	23.0	25	9.1	99	12	520
19...	25.0	9	8.6	101	4.3	1400
SEP.						
03...	11.0	10	9.5	98	1.2	580
16...	15.0	15	9.7	100	.8	440

IOWA RIVER BASIN

05464700 CEDAR RIVER NEAR BERTRAM, IOWA

LOCATION.--Lat 41°56'02", long 91°32'54", in SE1/4 NW1/4 sec.9, T.82 N., R.6 W., Linn County, at bridge on U.S. Highway 30, 0.2 mi (0.3 km) downstream from Big Creek, 1.7 mi (2.7 km) southwest of Bertram, and at mile 103.1 (165.9 km) above mouth of Iowa River.

DRAINAGE AREA.--6,955 mi² (18,013 km²).

PERIOD OF RECORD.--Chemical analyses: February 1974 to current year.

Water temperatures: February 1974 to current year.

Biological analyses: February 1974 to current year.

REMARKS.--Water discharge estimated on basis of records at gaging station 9.6 mi (15.4 km) upstream at Cedar Rapids. No significant inflow between gaging station and sampling site. Additional chemical and biological data analyzed by EPA laboratories for the same sampling dates and available through STORET computer storage upon approval from that agency.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	INSTANTANEOUS DISCHARGE (CFS) (00061)	BICARBONATE (HC03) (MG/L) (00440)	CARBONATE (C03) (MG/L) (00445)	ALKALINITY AS CAC03 (MG/L) (00410)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)
FEB.							
21...	4600	188	0	154	460	8.1	2.0
MAR.							
08...	16400	171	0	140	400	7.1	6.0
22...	6900	222	0	182	320	8.1	3.0
APR.							
03...	6400	240	0	197	530	8.2	9.5
16...	10000	206	0	169	560	8.4	9.5
30...	5800	206	0	169	580	8.1	15.0
MAY							
13...	6500	206	0	169	540	8.0	12.0
28...	10600	206	0	169	500	7.3	16.5
JUNE							
12...	26500	137	0	112	370	7.2	17.0
24...	20800	137	0	112	320	6.9	19.0
JULY							
08...	5300	205	0	168	800	7.3	27.5
23...	3600	222	0	182	560	7.4	27.0
AUG.							
05...	2740	188	0	154	500	7.2	20.0
19...	3080	206	0	169	540	7.3	24.0
SEP.							
03...	1860	205	0	168	520	8.6	17.0
16...	1590	171	0	140	460	8.4	18.0

DATE	AIR TEMPERATURE (DEG C) (00020)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	PERCENT SATURATION (00301)	CARBON DIOXIDE (C02) (MG/L) (00405)	FECAL COLIFORM (COL. PER 100 ML) (31616)
FEB.						
21...	1.0	20	10.8	78	2.4	25500
MAR.						
08...	5.5	50	11.0	86	22	450
22...	2.0	20	12.0	89	2.8	10400
APR.						
03...	16.0	30	11.9	104	2.4	21200
16...	5.5	30	9.4	84	1.3	7200
30...	8.0	80	11.2	110	2.6	37000
MAY						
13...	9.0	20	10.9	101	3.3	300
28...	18.0	60	10.1	103	17	--
JUNE						
12...	17.5	200	9.6	99	14	11800
24...	17.5	210	9.5	101	28	12000
JULY						
08...	37.0	60	6.9	78	16	60000
23...	21.5	30	8.0	99	14	51200
AUG.						
05...	20.0	20	9.2	100	19	900
19...	23.0	8	8.6	101	17	1200
SEP.						
03...	8.5	9	9.2	95	.8	11000
16...	13.5	20	9.1	96	1.1	41000

05481650 DES MOINES RIVER NEAR SAYLORVILLE, IOWA

LOCATION.--Lat 41°40'50", long 93°40'07", near center of sec.5, T.79 N., R.24 W., Polk County, near center of sec.5, T.79 N) upstream from gaging station, 2.0 mi (3.2 km) west of Saylorville, 2.1 mi (3.4 km) downstream from Rock Creek, 2.4 mi (3.9 km) upstream from Beaver Creek, and at mile 211.6 (340.5 km).

DRAINAGE AREA.--5,841 mi² (15,128 km²).

PERIOD OF RECORD.--Specific conductance: December 1967 to September 1971, October 1971 to current year (partial-record station).

Water temperatures: October 1961 to September 1971, October 1971 to current year (partial-record station).

Sediment records: October 1961 to current year.

EXTREMES.--Current year: Sediment concentrations: Maximum daily, 3,100 mg/l June 23; minimum daily, 38 mg/l Jan. 13.

Sediment discharge: Maximum daily, 99,200 tons (90,000 tonnes) June 24; minimum daily, 29 tons (26 tonnes) Sept. 30.

Period of record: Specific conductance (1967-71): Maximum daily, 1,350 micromhos Jan. 19-21, 1968; minimum daily, 90 micromhos Feb. 19, 1971.

Water temperatures (1967-71): Maximum, 36.0°C June 29, 1971; minimum, freezing point on many days during winter months each year. Sediment concentrations: Maximum daily, 5,400 mg/l May 14, 1970; minimum daily, 1 mg/l Jan. 8, 1965.

Sediment discharge: Maximum daily, 148,000 tons (134,000 tonnes) June 12, 1966; minimum daily, 1 ton (0.91 tonne) Jan. 8, 1965, Feb. 8-12, 23, 1967.

REMARKS.--Flow affected by ice Dec. 4 to Feb. 19, Feb. 23-28.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	550	---	600	540	710	680	580	---	---	---	590	570
2	600	---	600	540	650	680	590	---	---	---	590	560
3	600	---	600	540	650	---	600	650	---	---	---	570
4	630	---	---	560	660	540	580	---	---	---	---	580
5	630	---	590	---	670	---	600	---	---	---	580	580
6	---	---	---	600	780	630	---	---	---	---	550	---
7	---	---	590	570	---	640	---	---	---	---	540	590
8	520	---	---	570	650	660	580	---	---	---	---	580
9	520	---	---	570	710	680	---	---	500	---	550	580
10	---	---	590	570	800	680	570	---	510	---	530	560
11	595	---	750	---	720	540	570	---	---	---	540	570
12	550	---	580	---	---	530	570	---	540	---	540	560
13	520	600	610	700	---	550	560	---	---	---	550	560
14	490	595	---	630	760	550	---	450	550	---	500	560
15	490	560	600	610	760	550	580	560	---	570	520	590
16	510	---	650	630	---	---	590	560	560	---	520	600
17	500	---	---	630	720	---	600	520	570	---	---	---
18	500	---	660	---	---	550	620	500	560	---	530	600
19	500	---	630	---	600	570	700	---	590	---	530	---
20	---	---	580	580	530	550	---	500	540	---	540	600
21	---	---	---	590	520	530	---	---	540	---	520	610
22	---	---	---	---	570	---	630	530	---	---	---	620
23	530	---	620	600	---	---	570	530	---	---	540	620
24	540	---	630	680	---	---	590	530	---	---	540	640
25	540	620	---	650	620	650	600	---	---	---	---	640
26	530	600	---	---	640	540	680	---	530	---	550	650
27	550	570	---	650	670	550	---	520	---	550	560	650
28	---	---	---	680	670	570	600	530	---	550	580	650
29	540	---	---	660	---	570	590	---	---	560	580	650
30	---	---	---	650	---	560	630	---	---	550	600	650
31	---	---	---	660	---	---	---	540	---	580	590	---
MONTH	---	---	---	---	---	---	---	---	---	---	550	600
YEAR	MAX	800	MIN.	450	MEAN	588						

DES MOINES RIVER BASIN

05481650 DES MOINES RIVER NEAR SAYLORVILLE, IOWA--CONTINUED

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	5.5	---	1.0	2.0	9.0	---	---	---	22.5	18.0
2	---	---	5.5	---	0.5	2.0	9.0	---	---	---	23.0	18.0
3	---	---	5.0	---	0.0	---	10.0	18.0	---	---	---	17.0
4	---	---	1.5	---	0.0	2.0	10.0	---	---	---	---	18.0
5	---	---	1.5	---	0.0	---	7.5	---	---	---	22.0	19.0
6	---	---	---	---	0.0	7.0	---	---	---	---	22.5	---
7	---	---	4.0	---	---	5.0	---	---	---	---	23.5	18.0
8	---	---	---	---	0.0	6.0	8.0	---	---	---	---	24.0
9	---	---	---	---	0.0	6.0	---	---	19.0	---	21.5	24.0
10	---	---	0.0	---	0.0	6.0	10.0	---	19.0	---	23.0	24.5
11	18.0	---	0.0	---	1.0	6.5	10.0	---	---	---	25.0	23.0
12	---	---	0.0	---	---	7.5	10.0	---	19.0	---	26.5	16.0
13	---	---	0.0	---	---	7.5	10.0	---	---	---	25.0	16.0
14	---	9.0	---	---	2.0	6.0	---	13.0	21.0	---	23.0	18.0
15	---	8.0	0.0	---	2.0	6.0	9.0	13.0	---	29.0	24.0	20.5
16	---	---	0.0	---	---	---	9.0	---	19.5	---	24.0	22.5
17	---	---	---	---	4.0	---	11.0	13.5	20.5	---	---	---
18	---	---	0.0	---	---	3.0	12.0	14.0	21.5	---	25.5	23.0
19	---	---	0.0	---	4.0	3.0	12.0	---	21.0	---	27.0	---
20	---	---	0.0	---	2.0	3.0	---	17.0	24.5	---	25.5	19.0
21	---	---	---	---	1.5	3.0	13.0	---	25.0	---	28.5	17.0
22	---	---	---	---	1.5	---	13.0	19.5	---	---	---	17.0
23	---	---	2.0	2.0	---	---	12.0	19.0	---	---	26.0	17.0
24	---	---	3.0	2.0	---	---	12.0	18.5	---	---	24.5	17.5
25	---	6.5	---	3.0	1.0	3.5	13.0	---	---	---	---	20.0
26	---	7.0	---	---	2.0	4.0	13.0	---	21.0	---	28.0	20.0
27	---	6.5	---	3.0	2.0	4.0	---	17.0	---	29.0	26.0	19.0
28	---	---	---	3.0	1.0	7.0	17.0	18.5	---	---	26.0	24.0
29	---	---	---	2.0	---	7.0	18.0	---	---	---	28.0	20.0
30	---	---	---	4.0	---	7.5	19.0	---	---	---	27.0	19.0
31	---	---	---	2.0	---	---	---	20.0	---	23.0	20.0	---
MONTH	---	---	---	---	---	---	11.5	---	---	---	24.0	19.0
YEAR	MAX	29.0	MIN	0.0	MEAN	12.5						

DATE	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	BICARBONATE (MG/L) (00440)	CARBONATE (MG/L) (00445)	ALKALINITY AS CAC03 (MG/L) (00410)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)
FEB. 26...	2990	240	0	197	600	7.8	.0
MAR. 12...	4560	292	0	239	560	8.4	4.0
26...	2460	325	0	267	760	8.4	3.0
APR. 10...	5360	325	0	267	710	8.4	9.5
23...	8900	291	0	239	740	8.2	11.0
MAY 07...	3200	223	0	183	680	7.8	14.5
21...	11000	291	0	239	700	7.3	17.0
JUNE 05...	3800	274	0	225	770	7.8	20.5
18...	5200	291	0	239	770	8.8	19.0
JULY 02...	4440	274	0	225	740	7.9	24.0
16...	1940	205	0	168	520	7.9	26.0
31...	1000	205	0	168	340	7.9	23.0
AUG. 14...	654	155	0	127	520	7.4	21.0
28...	470	171	0	140	590	7.6	24.0
SEP. 10...	480	171	0	140	390	7.6	23.0
25...	213	205	0	168	540	8.0	14.0

DES MOINES RIVER BASIN

05481650 DES MOINES RIVER NEAR SAYLORVILLE, IOWA--CONTINUED

DATE	AIR TEMPERATURE (DEG C) (00020)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	PERCENT SATURATION (00301)	CARBON DIOXIDE (CO2) (MG/L) (00405)	FECAL COLIFORM (COL. PER 100 ML) (31616)
FEB. 26...	2.5	10	17.8	126	6.1	50
MAR. 12...	2.0	40	12.1	95	1.9	482
MAR. 26...	3.0	30	12.8	95	2.1	482
APR. 10...	11.0	40	11.4	104	2.1	96
APR. 23...	11.0	100	14.3	127	2.9	2200
MAY 07...	8.0	25	11.3	113	5.7	80
MAY 21...	24.0	110	9.7	104	23	1200
JUNE 05...	23.0	40	10.1	110	6.9	221
JUNE 18...	19.0	45	10.6	115	.7	420
JULY 02...	31.0	120	9.5	111	5.5	410
JULY 16...	27.0	45	9.2	112	4.1	300
JULY 31...	18.0	45	8.5	100	4.1	840
AUG. 14...	19.0	20	8.4	92	9.9	70
AUG. 28...	14.0	25	8.0	96	6.9	53
SEP. 10...	26.0	21	8.1	93	6.9	55
SEP. 25...	10.0	20	9.3	92	3.3	24

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	12300	542	18000	2510	198	1340	6540	200	3530
2	12000	379	12300	2520	190	1290	6090	260	4280
3	10200	310	8540	2500	180	1220	5700	371	5710
4	8410	350	7950	2320	171	1070	5400	230	3350
5	6870	329	6100	2200	162	962	5200	160	2250
6	5760	303	4710	2120	153	876	4500	159	1930
7	5270	306	4350	2050	142	786	3700	398	3980
8	4640	360	4510	2000	132	713	2800	392	2960
9	4540	409	5010	1940	124	650	2700	410	2990
10	4910	418	5540	1890	117	597	2850	257	1980
11	7490	970	19600	1810	105	513	2700	94	685
12	10200	1050	28900	1760	92	437	2450	139	919
13	11500	765	23800	1740	82	385	2400	125	810
14	11400	515	15900	1770	87	416	2300	128	795
15	9730	802	21100	1850	105	524	2300	131	814
16	8120	844	18500	1870	178	899	2400	115	745
17	6660	569	10200	2010	275	1490	2300	93	578
18	5820	489	7680	2250	390	2370	2200	88	523
19	5210	448	6300	2540	530	3630	2300	89	553
20	4720	441	5620	2910	678	5330	2450	175	1160
21	4350	442	5190	3680	813	8080	2350	250	1590
22	4010	444	4810	5890	915	14600	2200	227	1350
23	3740	444	4480	8720	958	22600	2100	84	476
24	3510	399	3780	9810	893	23700	2150	89	517
25	3340	339	3060	9790	722	19100	2300	103	640
26	3230	286	2490	9260	471	11800	2450	107	708
27	3080	251	2090	8880	312	7480	2600	112	786
28	2930	228	1800	8200	257	5690	2800	117	885
29	2810	220	1670	7790	225	4730	3000	122	988
30	2710	217	1590	7130	207	3980	3100	127	1060
31	2620	207	1460	--	--	--	3300	127	1130
TOTAL	192080	--	267030	121710	--	147258	97630	--	50672

DES MOINES RIVER BASIN

05481650 DES MOINES RIVER NEAR SAYLORVILLE, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3000	125	1010	1700	175	803	2960	260	2080
2	2700	125	911	1600	153	661	3060	160	1320
3	2600	63	442	1500	119	482	4030	700	7620
4	2550	90	620	1400	144	544	8980	2260	54800
5	2500	130	878	1450	121	474	8850	1350	32300
6	2500	153	1030	1500	126	510	7420	560	11200
7	2450	161	1070	1600	157	678	6190	880	14700
8	2400	101	654	1650	173	771	5460	795	11700
9	2350	105	666	1700	189	868	4990	567	7640
10	2300	102	633	1600	144	622	4600	455	5650
11	2300	80	497	1450	144	564	4420	472	5630
12	2300	59	366	1250	156	527	4650	560	7030
13	2300	38	236	1200	130	421	5270	815	11600
14	2300	61	379	1250	128	432	5810	685	13900
15	2300	100	621	1350	113	412	5910	928	14800
16	2300	94	584	1400	160	605	5660	902	13800
17	2300	85	528	1500	328	1330	5220	820	11600
18	2200	110	653	1600	770	3330	4860	700	9190
19	2100	106	601	2900	1360	10600	4480	558	6750
20	1900	118	605	4420	565	6740	4120	580	6450
21	1800	145	705	4850	750	9820	3680	522	5190
22	1650	119	530	4860	980	12900	3390	401	3670
23	1500	106	429	4100	882	9760	3160	330	2820
24	1500	117	474	3500	602	5690	2950	280	2230
25	1550	117	490	3100	308	2580	2670	232	1670
26	1500	109	441	2950	280	2230	2320	290	1820
27	1500	148	599	2950	325	2590	2480	280	1870
28	1500	150	608	3000	280	2270	2820	298	2270
29	1550	121	506	--	--	--	2670	281	2030
30	1650	166	740	--	--	--	2620	240	1700
31	1750	180	851	--	--	--	2590	221	1550
TOTAL	65100	--	19357	63330	--	79214	138290	--	276580
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2590	229	1600	4230	487	5560	4980	470	6320
2	2580	262	1830	4000	458	4950	4690	360	4560
3	2670	312	2250	3780	428	4370	4400	300	3560
4	3560	710	6820	3610	418	4070	4340	270	3160
5	4870	1100	14500	3460	416	3890	4090	260	2870
6	6370	1280	22000	2980	602	4840	4280	700	8090
7	6520	1340	23600	3260	515	4530	4720	720	9180
8	6180	1240	20700	3210	445	3860	4860	670	8790
9	5720	1060	16400	3200	440	3800	7610	1880	38600
10	5340	852	12300	3130	435	3680	10400	2000	56200
11	5090	613	8420	3170	425	3640	8740	570	13500
12	4980	514	6910	3290	480	4260	8320	970	21800
13	4980	622	8360	3930	695	7370	7630	1000	20600
14	5450	845	12400	6820	1320	24300	7590	765	15700
15	6370	973	16700	7700	1490	31000	7020	650	12300
16	6770	982	17900	8080	2150	46900	6380	605	10400
17	6750	800	14600	8980	1780	43200	5370	703	10200
18	6540	710	12500	11800	1040	33100	5360	601	8700
19	6220	530	8900	15200	2000	82100	6010	1360	22100
20	6030	340	5540	12700	1020	35000	6080	760	12500
21	7870	1830	41300	10800	460	13400	5720	510	7880
22	9090	1120	27500	9730	1420	37300	5560	560	8410
23	8140	1180	25900	8590	950	22000	10500	3100	87900
24	6990	860	16200	7630	770	15900	12500	2940	99200
25	6190	720	12000	6790	760	13900	13300	1510	54200
26	5610	478	7240	6880	1010	18800	12100	530	17300
27	5200	335	4700	6510	740	13000	9050	390	9530
28	4960	440	5890	7020	2600	52200	7130	372	7160
29	4890	655	8650	6630	2090	37400	6040	357	5820
30	4530	545	6670	5760	1140	17700	5290	338	4830
31	--	--	--	5200	650	9130	--	--	--
TOTAL	169050	--	390280	198070	--	605150	210060	--	591360

DES MOINES RIVER BASIN

05484500 RACCOON RIVER AT VAN METER, IOWA

LOCATION.--Lat 41°32'02", long 93°56'59", in SW1/4 SW1/4 sec.22, T.78 N., R.27 W., Dallas County, at bridge on county highway R16, 0.3 mi (0.5 km) northeast of Van Meter, 1.2 mi (1.9 km) downstream from confluence of North and South Raccoon River, and 30 mi (48.3 km) upstream from mouth.

DRAINAGE AREA.--3,441 mi² (8.912 km²).

PERIOD OF RECORD.--Chemical analyses: February 1974 to current year. Partial-record station December 1968 to September 1973.

Water temperatures: February 1974 to current year. Partial-record station September 1968 to September 1973.

Biological analyses: February 1974 to current year.

REMARKS.--Additional chemical and biological data analyzed by EPA laboratories for the same sampling dates and available through STORET computer storage upon approval from that agency.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	ALKA- LINITY AS CACO3 (MG/L) (00410)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
FEB.							
26...	2840	308	0	253	690	8.1	.0
MAR.							
12...	3800	308	0	253	660	8.1	5.0
26...	2200	300	0	246	600	8.4	3.0
APR.							
10...	3400	325	0	267	770	8.4	9.5
23...	5200	274	0	225	550	8.2	11.0
MAY							
07...	2200	274	0	225	680	7.8	13.0
21...	16500	206	0	169	530	7.3	18.0
JUNE							
05...	3380	257	0	211	650	7.9	20.5
18...	3410	291	0	239	660	8.7	19.0
JULY							
02...	2230	291	0	239	700	7.7	24.0
16...	980	257	0	211	585	8.0	26.0
31...	490	205	0	168	310	7.8	21.0
AUG.							
14...	550	223	0	183	550	7.8	20.0
28...	375	188	0	154	540	7.6	20.0
SEP.							
10...	330	215	0	176	390	7.9	23.0
25...	180	222	0	182	580	7.8	15.0

DATE	AIR TEMPER- ATURE (DEG C) (00020)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	PER- CENT SATUR- ATION (00301)	CARBON DIOXIDE (CO2) (MG/L) (00405)	FECAL COLI- FORM (COL. PER 100 ML) (31616)
FEB.						
26...	3.5	20	16.4	116	3.9	150
MAR.						
12...	4.5	60	12.4	101	3.9	1130
26...	7.0	30	10.4	77	1.9	210
APR.						
10...	16.0	60	10.9	99	2.1	174
23...	8.0	100	14.0	126	2.8	2600
MAY						
07...	6.5	25	10.9	106	6.9	505
21...	24.0	200	9.3	102	17	8900
JUNE						
05...	23.0	50	9.2	102	5.2	720
18...	19.5	60	11.8	128	.9	670
JULY						
02...	29.5	140	8.4	98	9.3	560
16...	29.0	20	9.6	117	4.1	350
31...	19.0	20	8.5	99	5.2	1200
AUG.						
14...	23.5	35	8.8	95	5.7	2200
28...	17.0	25	8.5	94	7.6	540
SEP.						
10...	26.0	15	8.7	100	4.3	180
25...	13.0	12	10.5	106	5.6	260

05485520 DES MOINES RIVER BELOW DES MOINES, IOWA

LOCATION.--Lat 41°33'03", long 93°31'29", in NE1/4 NE1/4 sec.20, T.78 N., R.23 W., Polk County, at bridge on State Highway 5 near east edge of Des Moines, 0.2 mi (0.3 km) downstream from unnamed stream, 1.4 mi (2.3 km) upstream from Fourmile Creek, and at mile 195.9 (315.2 km).

DRAINAGE AREA.--9,901 mi² (25,644 km²).

PERIOD OF RECORD.--Chemical analyses: October 1970; February 1974 to current year.

Water temperatures: February 1974 to current year.

Biological analyses: February 1974 to current year.

REMARKS.--Water discharge estimated on basis of records at gaging station 4.8 mi (7.7 km) upstream at SE 14th Street, Des Moines. No significant inflow between gaging station and sampling site. Additional chemical and biological data analyzed by EPA laboratories for the same sampling dates and available through STOBET computer storage upon approval from that agency.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	BICAR- BONATE (MG/L) (00440)	CAR- BONATE (MG/L) (00445)	ALKA- LINITY AS CAC03 (MG/L) (00410)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
FEB.							
26...	5920	291	0	239	700	8.3	.5
MAR.							
12...	9500	308	0	253	660	8.4	5.5
26...	4740	325	0	267	260	8.4	4.0
APR.							
10...	10100	325	0	267	820	8.4	10.0
23...	15500	257	0	211	760	8.4	11.0
MAY							
07...	5800	240	0	197	740	7.6	14.0
21...	33000	188	0	154	520	7.3	18.0
JUNE							
05...	8400	274	0	225	730	7.7	21.0
18...	9800	308	0	253	770	8.6	19.5
JULY							
02...	8270	325	0	267	740	7.8	25.0
16...	4420	223	0	183	690	7.9	27.0
31...	2900	171	0	140	400	7.8	23.0
AUG.							
14...	2270	155	0	127	580	7.5	23.0
28...	960	188	0	154	590	7.4	24.0
SEP.							
10...	600	215	0	176	450	7.5	23.0
25...	488	205	0	168	690	7.4	14.5

DATE	AIR TEMPER- ATURE (DEG C) (00020)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	PER- CENT SATUR- ATION (00301)	CARBON DIOXIDE (MG/L) (00405)	FECAL COLI- FORM (COL. PER 100 ML) (31616)
FEB.						
26...	4.5	20	16.1	114	2.3	700
MAR.						
12...	7.0	60	11.0	90	2.0	4850
26...	7.0	30	14.0	107	2.1	1200
APR.						
10...	16.0	40	11.0	100	2.1	320
23...	8.0	100	12.7	114	1.6	5100
MAY						
07...	7.0	45	11.4	113	9.6	5600
21...	25.0	200	8.8	95	15	5000
JUNE						
05...	26.0	50	9.1	103	8.7	3800
18...	22.0	50	12.0	132	1.2	830
JULY						
02...	36.5	120	8.5	101	8.2	2400
16...	32.0	50	9.8	121	4.5	1600
31...	21.0	15	8.1	96	4.3	980
AUG.						
14...	24.0	20	7.7	87	7.8	2100
28...	23.0	10	7.2	87	12	1400
SEP.						
10...	26.0	18	6.8	78	11	1100
25...	15.0	20	8.7	87	13	740

MISSOURI RIVER MAIN STEM

06486000 MISSOURI RIVER AT SIOUX CITY, IOWA
(National Stream Quality Accounting Network Station)

LOCATION.--Lat 42°29'10", long 96°24'47", in NW1/4 SE1/4 sec.16, T.29 N., R.9 E., sixth principal meridian, Dakota County, Nebraska, at bridge on U.S. Highway 77 at Sioux City, 2.0 mi (3.2 km) downstream from Big Sioux River, and at mile 732.3 (1,178.3 km).

DRAINAGE AREA.--314,600 mi² (814,814 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: January 1974 to current year.

Specific conductance: October 1972 to current year (partial-record station).

Water temperatures: October 1971 to current year (partial-record station).

Sediment records: October 1971 to current year. October 1954 to September 1971 (daily sediment discharge only) in reports of Corps of Engineers.

Biological analyses: May 1974 to current year.

EXTREMES.--Current year: Sediment concentrations: Maximum daily, 1,020 mg/l Feb. 13; minimum daily, 87 mg/l Nov. 7.

Sediment discharge: Maximum daily, 81,500 tons (73,900 tonnes) Mar. 23; minimum daily, 4,300 tons (3,900 tonnes) Mar. 14.

Period of record: Sediment concentrations: Maximum daily, 1,620 mg/l Nov. 20, 1972; minimum daily, 87 mg/l Nov. 7, 1973.

Sediment discharge: Maximum daily, 222,000 tons (201,000 tonnes) Nov. 20, 1972; minimum daily, 4,300 tons (3,900 tonnes) Mar. 14, 1974.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	750	---	---	---	---	---
2	800	850	---	---	---	---	---	---	---	---	680	---
3	---	---	---	---	---	---	---	---	720	520	---	---
4	---	---	---	---	---	670	---	---	---	---	---	---
5	690	---	---	---	---	---	730	---	---	---	---	---
6	---	700	---	---	700	---	---	---	700	---	740	720
7	---	---	---	---	---	---	---	720	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	740	700	---	---	---	---	760	---	---	680	720	---
10	---	---	---	---	---	---	---	720	---	---	---	720
11	---	---	---	---	---	---	---	---	710	---	---	---
12	700	700	---	---	---	---	760	---	---	690	---	---
13	---	---	---	---	680	670	---	700	---	---	730	710
14	---	---	---	---	---	---	---	---	720	---	---	---
15	---	700	---	---	---	---	---	---	---	---	---	---
16	750	---	---	---	---	---	730	---	---	700	740	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	700	---	---	---
19	720	800	---	---	730	770	730	---	---	700	---	---
20	---	---	---	---	---	---	---	730	---	---	730	710
21	---	---	---	---	---	---	---	---	730	---	---	---
22	---	---	---	---	---	---	740	---	---	---	---	---
23	700	---	---	---	---	---	---	---	---	730	740	710
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	800	---	---	640	---	---	---
26	690	700	740	---	700	---	730	---	---	730	---	---
27	---	---	---	---	---	---	---	---	---	---	730	710
28	---	---	---	---	---	---	---	---	730	---	---	---
29	700	700	---	770	---	720	---	720	---	---	---	---
30	---	---	---	---	---	---	730	---	---	700	710	710
31	---	---	---	---	---	---	---	710	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	850	MIN	520	MEAN	718						

MISSOURI RIVER MAIN STEM

06486000 MISSOURI RIVER AT SIOUX CITY, IOWA--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	TOTAL IRON (FF) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL CAL- CIUM (CA) (MG/L) (00916)	TOTAL MAG- NE- SIUM (MG) (MG/L) (00927)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	TOTAL SODIUM (NA) (MG/L) (00929)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	TOTAL PO- TAS- SIUM (K) (MG/L) (00937)
JULY												
08...	34600	--	0	730	--	17	--	--	22	--	75	--
22...	35500	6.3	0	2400	--	17	--	--	--	--	--	--
30...	37600	--	--	--	--	--	--	--	--	--	--	--
AUG.												
02...	37300	--	--	--	--	--	--	--	--	--	--	--
05...	37500	--	40	1600	--	24	--	--	22	--	79	--
16...	34700	--	--	--	--	--	--	--	--	--	--	--
19...	34000	7.2	0	640	--	17	--	--	--	--	--	--
SEP.												
03...	32800	7.0	20	930	20	10	--	--	22	--	68	--
03...	32800	--	--	--	--	--	--	--	--	--	--	--
16...	35200	7.9	30	880	--	500	--	--	--	--	--	--
17...	34200	--	--	--	--	--	--	--	--	--	--	--
30...	35700	8.1	0	1100	--	0	--	--	22	--	65	--
DATE	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	ALKA- LINITY AS CAC03 (MG/L) (00410)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	AMMONIA NITRO- GEN (N) (MG/L) (00610)	ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L) (00625)	TOTAL NITRO- GEN (N) (MG/L) (00600)
OCT.												
02...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
NOV.												
02...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
DEC.												
26...	--	--	--	--	--	--	--	--	--	--	--	--
JAN.												
29...	5.7	191	0	157	200	10	.4	.27	--	--	.16	.43
29...	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
06...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	5.7	196	0	161	200	9.1	.5	.23	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
04...	6.6	184	0	151	180	8.5	.4	.24	--	--	.21	.45
04...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	.15	.06	.30	.36	.51
19...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
APR.												
01...	--	--	--	--	--	--	--	.12	.03	.40	.43	.55
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	.15	.01	.27	.28	.43
29...	--	--	--	--	--	--	--	.07	.01	.31	.32	.39
MAY												
03...	--	--	--	--	--	--	--	--	--	--	--	--
13...	5.1	188	2	158	220	9.0	.4	.01	.00	.31	.31	.32
17...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	.02	.02	.36	.38	.40
JUNE												
06...	--	--	--	--	--	--	--	--	--	--	--	--
10...	5.0	185	0	152	200	11	.5	.06	.00	.48	.48	.54
24...	--	188	0	154	--	--	--	.08	.01	.58	.59	.67
25...	--	--	--	--	--	--	--	--	--	--	--	--
JULY												
03...	--	--	--	--	--	--	--	--	--	--	--	--
08...	6.0	188	0	154	220	11	.6	.04	.00	.40	.40	.44
22...	--	188	0	154	--	--	--	.02	.00	.41	.41	.43
30...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
02...	--	--	--	--	--	--	--	--	--	--	--	--
05...	5.4	188	0	154	220	16	.4	.03	.00	.60	.60	.63
16...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	0	--	--	--	--	.01	.00	.70	.70	.71
SEP.												
03...	5.5	191	5	165	210	9.9	.6	.06	.01	.60	.61	.67
03...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	.02	.00	.34	.34	.36
17...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	202	0	166	210	9.4	.7	.00	.00	.31	.31	.31

06486000 MISSOURI RIVER AT SIOUX CITY, IOWA--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CW) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)
APR.											
01...	--	2	0	--	--	--	3	--	0	--	--
01...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
15...	--	0	--	--	--	--	--	--	--	--	--
29...	--	0	0	--	--	--	6	--	1	--	--
MAY											
03...	--	--	--	--	--	--	--	--	--	--	--
13...	--	0	0	--	--	--	5	--	4	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
28...	--	0	0	--	--	--	10	--	1	--	--
JUNE											
06...	--	--	--	--	--	--	--	--	--	--	--
10...	3	2	1	4	4	6	6	40	1	5	2
24...	--	1	3	--	--	--	5	--	1	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JULY											
03...	--	--	--	--	--	--	--	--	--	--	--
08...	--	5	0	--	--	--	4	--	20	--	--
22...	--	6	1	--	--	--	5	--	10	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
02...	--	--	--	--	--	--	--	--	--	--	--
05...	--	1	1	--	--	--	10	--	8	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
19...	--	2	1	--	--	--	5	--	8	--	--
SEP.											
03...	3	1	1	16	0	9	0	12	1	2	1
03...	--	--	--	--	--	--	--	--	--	--	--
16...	--	0	2	--	--	--	2	--	2	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
30...	--	1	1	--	--	--	3	--	2	--	--

DATE	DIS- SOLVED SILVER (AG) (UG/L) (01075)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
MAR.			
14...	3	--	10
APR.			
01...	--	--	0
15...	--	--	60
29...	0	--	10
MAY			
13...	0	--	10
28...	0	--	20
JUNE			
10...	2	50	6
24...	0	--	10
JULY			
08...	0	--	0
22...	0	--	8
AUG.			
05...	0	--	10
19...	0	--	20
SEP.			
03...	0	0	8
16...	0	--	10
30...	0	--	30

MISSOURI RIVER MAIN STEM

06486000 MISSOURI RIVER AT SIOUX CITY, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	32500	461	40500	32500	407	35700	18900	118	6020
2	32500	350	30700	31600	320	27300	18900	115	5870
3	32200	352	30600	31000	260	21800	18900	110	5610
4	31600	383	32700	31300	199	16800	18700	105	5300
5	31300	382	32300	31000	120	10000	18500	100	5000
6	31300	364	30800	31000	90	7530	17600	211	10000
7	31300	340	28700	31000	87	7280	17800	230	11100
8	31000	308	25800	31000	88	7370	19200	280	14500
9	31600	335	28600	31000	89	7450	18900	260	13300
10	34600	632	59000	31000	88	7370	17900	225	10900
11	32200	524	45600	31300	96	8110	18100	220	10800
12	26600	384	27600	31300	104	8790	19800	278	14900
13	27000	430	31300	31300	130	11000	19200	269	13900
14	24800	310	20800	31600	177	15100	18100	240	11700
15	24400	232	15300	31600	248	21200	17600	212	10100
16	24600	228	15100	31300	245	20700	18100	249	12200
17	24600	197	13100	30700	226	18700	17800	233	11200
18	24800	205	13700	30400	250	20500	18900	302	15400
19	24800	170	11400	30400	322	26400	19700	387	20600
20	24800	151	10100	31600	353	30100	18100	323	15800
21	24800	150	10000	31600	360	30700	18100	330	16100
22	24600	147	9760	30700	355	29400	18900	341	17400
23	24600	142	9430	30700	337	27900	20200	427	23300
24	25100	140	9490	31000	300	25100	18700	370	18700
25	25800	183	12700	29000	264	20700	18700	350	17700
26	26300	160	11400	26000	210	14700	18700	340	17200
27	25800	125	8710	22800	171	10500	18500	331	16500
28	25800	111	7730	19800	148	7910	18200	317	15600
29	25600	110	7600	19300	130	6770	17800	303	14600
30	27600	201	15000	19000	120	6160	17300	308	14400
31	31600	373	31800	--	--	--	17000	277	12700
TOTAL	866100	--	677320	883800	--	509040	572800	--	408400
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	17300	255	11900	18400	401	19900	19700	165	8780
2	16500	317	14100	18900	467	23800	20200	160	8730
3	16200	309	13500	19800	502	26800	21000	245	13900
4	16000	328	14200	17600	268	12700	21400	590	34100
5	16000	330	14300	17600	142	6750	20800	503	28200
6	16000	342	14800	20400	130	7160	20600	452	25100
7	16000	352	15200	19300	110	5730	20800	421	23600
8	16000	332	14300	19800	298	15900	21000	399	22600
9	14500	331	13000	20000	475	25700	20800	371	20800
10	13000	237	8320	20000	550	29700	20000	309	16700
11	13000	221	7760	20600	778	43300	19700	264	14000
12	13500	195	7110	21000	920	52200	19800	220	11800
13	13500	219	7980	21400	1020	58900	20400	170	9360
14	14000	289	10900	20000	640	34600	18100	88	4300
15	17000	473	21700	19200	425	22000	18900	118	6020
16	21800	597	35100	19500	315	16600	18700	110	5550
17	22000	640	38000	20000	270	14600	18500	93	4650
18	21800	620	36500	21400	380	22000	18900	107	5460
19	20400	581	30900	14300	375	19500	20800	125	7020
20	19000	500	25700	14900	335	17100	25100	390	26400
21	19500	520	27400	19000	295	15100	27600	530	39500
22	19300	462	24100	14000	250	12800	31300	738	62400
23	19300	428	22300	14000	245	12600	32800	920	81500
24	19500	418	22000	18700	172	8680	30700	888	73600
25	20000	409	22100	14300	260	13500	31300	937	79200
26	20600	428	23800	14300	430	22400	31000	840	70300
27	20800	438	24500	19000	250	12800	31000	712	59600
28	20200	380	20700	19800	225	12000	31300	579	48900
29	20400	380	20900	--	--	--	30700	463	38400
30	21200	427	24400	--	--	--	30400	448	36800
31	22000	495	24400	--	--	--	30100	457	37100
TOTAL	556300	--	416970	544200	--	584820	743400	--	924370

06486000 MISSOURI RIVER AT SIOUX CITY, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	APRIL			MAY			JUNE			
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	30700	447	37100	30100	370	30100	31600	192	16400	
2	30100	340	27600	30100	382	31000	34000	374	34300	
3	31000	290	24300	30700	369	30600	31600	302	25800	
4	32200	239	20800	29800	330	26600	29000	247	19300	
5	30400	210	17200	28400	120	9200	31000	228	19100	
6	30700	220	18200	29500	102	8120	31300	206	17400	
7	31600	320	27300	31600	119	10200	30700	179	14800	
8	31900	374	32200	29500	101	8040	30700	170	14100	
9	31900	385	33200	29500	99	7890	32200	237	20600	
10	32500	430	37700	30700	124	10300	32800	332	29400	
11	31600	472	40300	30700	91	7540	30700	274	22700	
12	31600	511	43600	27800	130	9760	29800	230	18500	
13	30700	434	36000	29500	234	18600	30400	225	18500	
14	30700	383	31700	30700	318	26400	30400	216	17700	
15	30100	330	26800	30100	353	28700	30700	220	18200	
16	30400	265	21800	31000	377	31600	32200	238	20700	
17	31000	326	27300	31000	378	31600	34000	270	24800	
18	31300	390	33000	32500	380	33300	31600	235	20100	
19	31300	402	34000	32200	372	32300	33100	242	21600	
20	31000	408	34100	28700	173	13400	32500	232	20400	
21	30700	409	33900	24600	150	9960	31900	222	19100	
22	31600	396	33800	27000	149	10900	34300	297	27500	
23	29500	280	22300	30100	359	29200	40000	512	55300	
24	30100	220	17900	32800	434	38400	36100	377	36700	
25	30400	260	21300	32800	455	40300	30700	237	19600	
26	30700	281	23300	34300	467	43200	32500	269	23600	
27	31300	303	25600	32500	360	31600	32800	273	24200	
28	31600	355	30300	32500	265	23300	31300	227	19200	
29	28400	281	21500	32200	204	17700	33100	262	23400	
30	31000	285	23900	30100	145	11800	35200	393	37400	
31	--	--	--	31600	148	12600	--	--	--	
TOTAL	928000	--	858000	944600	--	674210	968200	--	700400	
DAY	JULY			AUGUST			SEPTEMBER			
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	33100	400	35700	38800	311	32600	33700	340	30900	
2	33400	407	36700	37300	137	13800	34300	292	27000	
3	33100	409	36600	37000	130	13000	33700	265	24100	
4	33100	405	36200	37000	248	24800	33700	260	23700	
5	34300	420	38900	37000	348	34800	34000	300	27500	
6	34000	390	35800	37000	402	40200	34000	302	27700	
7	34300	363	33600	37300	310	31200	34000	289	26500	
8	34600	321	30000	37600	190	19300	34300	330	30600	
9	34600	287	26800	38800	247	25900	34600	360	33600	
10	34900	311	29300	38500	350	36400	34600	329	30700	
11	35500	302	28900	38200	300	30900	35200	340	32300	
12	34900	201	18900	38500	285	29600	36700	465	46100	
13	34600	180	16800	38200	288	29700	36100	409	39900	
14	34300	203	18800	37600	322	32700	34000	348	31900	
15	34300	172	15900	37000	350	35000	34300	334	30900	
16	35200	200	19000	35500	340	32600	34300	352	32600	
17	37600	379	38500	34000	278	25500	34900	359	33800	
18	37300	328	33000	33400	192	17300	34600	350	32700	
19	37000	270	27000	33400	152	13700	34900	365	34400	
20	37000	241	24100	34000	280	25700	34600	359	33500	
21	37000	250	25000	33700	376	34200	34300	340	31500	
22	36400	198	19500	33700	558	50800	35200	375	35600	
23	36400	147	14400	33100	540	48300	36400	351	34500	
24	37800	169	16900	33400	488	44000	36100	448	43700	
25	37300	153	15400	33100	441	39400	35800	523	50600	
26	37000	113	11300	32800	395	35000	35800	660	63800	
27	36700	106	10500	32800	340	30100	35800	772	74600	
28	37000	177	17700	32800	268	23700	36100	755	73600	
29	37000	282	28200	32500	189	16600	35500	693	66400	
30	36700	309	30600	33400	199	17900	35200	621	59000	
31	37000	318	31800	33700	426	38800	--	--	--	
TOTAL	1102600	--	801800	1101100	--	923500	1046700	--	1163700	
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)										10259800
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)										8842530

06601200 MISSOURI RIVER AT DECATUR, NEBRASKA

LOCATION.--Lat 42°00'26", long 96°14'29", NE1/4 SW1/4 sec. 36, T.24 N., R.10 E., Burt County, at bridge on State Highway 175 and 51 at Decatur, Nebraska, 6.0 mi (9.7 km) west of Onawa, Iowa and at mile 691.0 (1,111.8 km).

DRAINAGE AREA.--316,160 mi² (818,850 km²).

PERIOD OF RECORD.--Chemical analyses: March 1974 to current year.

Water temperatures: March 1974 to current year.

Biological analyses: March 1974 to current year.

REMARKS.--Water discharge estimated on basis of records at gaging station 41.3 mi (66.4 km) upstream at Siour City. No significant inflow between gaging station and sampling site. Additional chemical and biological data analyzed by EPA laboratories for the same sampling dates and available through STORET computer storage upon approval from that agency. Records of daily gage heights available in subdistrict office, USGS, Council Bluffs, Iowa.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	ALKA- LINITY AS CACO3 (MG/L) (00410)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
MAR.							
04...	19800	205	0	168	660	8.0	6.0
18...	19800	178	0	146	750	8.3	4.5
APR.							
01...	29000	188	0	154	710	8.2	6.0
15...	30400	171	0	140	790	8.0	6.5
29...	28300	154	0	126	750	8.3	15.0
MAY							
13...	29600	188	0	154	705	8.2	13.5
28...	30600	188	17	183	710	8.7	20.5
JUNE							
10...	32100	170	0	139	710	8.1	17.5
24...	34800	188	0	154	690	7.7	20.0
JULY							
08...	32000	154	0	126	705	8.2	27.5
22...	35400	154	0	126	750	7.9	27.5
AUG.							
05...	35100	188	17	183	760	8.4	22.5
19...	33200	188	0	154	750	8.0	25.0
SEP.							
03...	31400	154	17	155	720	8.5	19.0
16...	33300	205	0	168	745	8.1	19.0
30...	34300	205	0	168	700	7.9	13.0

DATE	AIR TEMPER- ATURE (DEG C) (00020)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	PER- CENT SATUR- ATION (00301)	CARBON DIOXIDE (CO2) (MG/L) (00405)	FECAL COLI- FORM (COL. PER 100 ML) (31616)
MAR.						
04...	5.0	20	10.4	87	3.3	2900
18...	3.0	30	11.8	95	1.4	4900
APR.						
01...	4.0	20	11.9	100	1.9	3300
15...	5.0	20	11.2	95	2.7	2200
29...	16.0	20	10.6	107	1.2	3300
MAY						
13...	12.5	20	10.2	103	1.9	4000
28...	25.0	10	9.4	109	.7	1200
JUNE						
10...	12.5	150	9.1	99	2.2	16000
24...	18.5	86	7.6	89	6.0	11000
JULY						
08...	34.5	9	8.6	112	1.6	1500
22...	30.0	7	8.4	109	3.1	1000
AUG.						
05...	24.0	15	8.6	101	1.4	3200
19...	26.0	15	8.6	107	3.0	3800
SEP.						
03...	17.0	15	9.0	99	1.0	3100
16...	21.0	20	9.4	103	2.6	2500
30...	4.0	10	10.0	96	4.1	2800

LITTLE SIOUX RIVER BASIN

06603920 LOON CREEK NEAR ORLEANS, IOWA

LOCATION.--Lat 43°31'16", long 95°06'05", in NW1/4 SE1/4 sec. 25, T.101 N., R.36 W., Jackson County, Minnesota, on left bank at downstream side of bridge on county highway, 100 ft (30 m) downstream from outlet structure of Loon Lake and 5.5 mi (8.8 km) north of Orleans.

DRAINAGE AREA.--31 mi² (80.3 km²).

PERIOD OF RECORD.--Chemical analysis: May 1971 to September 1974 (discontinued).
Water temperatures: May 1971 to September 1974 (discontinued).

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
DEC., 1973				
10...	12	590	7.7	.5
JAN., 1974				
15...	4.2	690	7.2	1.5
FEB.				
25...	5.1	690	7.4	1.0
APR.				
02...	11	500	8.3	3.5
MAY				
15...	13	510	--	9.0
JUNE				
03...	15	390	--	20.5
25...	13	440	--	25.0

06604000 SPIRIT LAKE NEAR ORLEANS, IOWA

LOCATION.--Lat 43a12812", long 95°07'25", in NE1/4 NW1/4 sec.20, T.100 N., R.36 W., Dickinson County, at gaging station, 2.3 mi (3.7 km) upstream from lake outlet, and 2.3 mi (3.7 km) northwest of Orleans.

DRAINAGE AREA.--75.6 mi² (196 km²).

PERIOD OF RECORD.--Water temperatures: November 1968 to current year.

EXTREMES.--Current year: Water temperatures: Maximum, 25.5°C July 25; minimum, 1.5 Dec. 5 to Feb. 25.

Period of record: Water temperatures: Maximum, 25.5°C July 25-27, 1974; freezing point on many days during winter period in 1968, 1969, 1970.

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.5	15.5	10.5	10.0	3.5	2.0	1.5	1.5	1.5	1.5	3.0	2.0
2	15.5	15.5	10.0	9.5	2.0	2.0	1.5	1.5	1.5	1.5	3.0	3.0
3	15.5	15.5	9.5	8.5	2.0	2.0	1.5	1.5	1.5	1.5	3.0	3.0
4	15.5	15.0	8.5	7.0	2.0	2.0	1.5	1.5	1.5	1.5	3.0	3.0
5	15.0	15.0	7.0	6.5	2.0	1.5	1.5	1.5	1.5	1.5	3.5	3.0
6	15.0	15.0	6.5	6.0	1.5	1.5	1.5	1.5	1.5	1.5	3.5	3.5
7	15.0	15.0	6.0	6.0	1.5	1.5	1.5	1.5	1.5	1.5	4.0	3.5
8	15.0	15.0	6.0	5.5	1.5	1.5	1.5	1.5	1.5	1.5	4.0	4.0
9	15.0	15.0	5.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	4.0	4.0
10	15.0	15.0	4.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	4.5	4.0
11	15.0	15.0	4.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	4.5	4.5
12	15.0	15.0	4.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	4.5	4.5
13	15.0	15.0	5.0	4.5	1.5	1.5	1.5	1.5	1.5	1.5	4.5	4.5
14	15.0	14.5	5.0	5.0	1.5	1.5	1.5	1.5	1.5	1.5	4.5	4.5
15	14.5	14.5	5.0	5.0	1.5	1.5	1.5	1.5	1.5	1.5	4.5	4.5
16	14.5	13.5	5.0	5.0	1.5	1.5	1.5	1.5	1.5	1.5	4.5	4.5
17	13.5	13.5	5.0	4.5	1.5	1.5	1.5	1.5	1.5	1.5	4.5	4.5
18	13.5	13.5	4.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	4.5	4.5
19	13.5	13.5	4.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	5.0	4.5
20	13.5	13.5	4.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	5.0	5.0
21	13.5	13.5	4.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	5.0	5.0
22	13.5	13.5	4.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	5.0	5.0
23	13.5	13.5	4.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	5.0	5.0
24	13.5	13.5	4.5	4.5	1.5	1.5	1.5	1.5	1.5	1.5	5.0	4.5
25	13.5	13.5	4.5	4.5	1.5	1.5	1.5	1.5	2.0	1.5	4.5	4.5
26	13.5	13.5	4.5	4.5	1.5	1.5	1.5	1.5	2.0	2.0	4.5	4.0
27	13.5	12.0	4.5	4.5	1.5	1.5	1.5	1.5	2.0	2.0	4.0	4.0
28	12.0	11.0	4.5	4.5	1.5	1.5	1.5	1.5	2.0	2.0	4.0	4.0
29	11.0	10.5	4.5	4.5	1.5	1.5	1.5	1.5	---	---	4.0	4.0
30	10.5	10.5	4.5	3.5	1.5	1.5	1.5	1.5	---	---	4.0	4.0
31	10.5	10.5	---	---	1.5	1.5	1.5	1.5	---	---	4.0	3.0
MONTH	15.5	10.5	10.5	3.5	3.5	1.5	1.5	1.5	2.0	1.5	5.0	2.0

LITTLE SIOUX RIVER BASIN

247

06604100 SPIRIT LAKE OUTLET AT ORLEANS, IOWA

LOCATION.--Lat 43°26'45", long 95°05'45", in SE1/4 SE1/4 sec. 28, T.100 N., R.36 W., Dickinson County, on right bank 25 ft (8 m) upstream from culvert on State Highway 327 in city of Orleans, 200 ft (61 m) downstream from outlet structure of Spirit Lake.

DRAINAGE AREA.--75.6 mi² (196 km²).

PERIOD OF RECORD.--Chemical analysis: May 1971 to September 1974 (discontinued).
Water temperatures: May 1971 to September 1974 (discontinued).

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
APR., 1974				
02...	8.9	480	8.4	3.5
MAY				
15...	15	500	--	12.0
JUNE				
03...	12	480	--	19.5
25...	27	460	--	22.0

LITTLE SIOUX RIVER BASIN

06604400 MILFORD CREEK AT MILFORD, IOWA

LOCATION.--Lat 43°19'14", long 95°08'41", in NE1/4 SW1/4 sec. 7, T.98 N., R.36 W., Dickinson County, on left bank at downstream side of highway bridge at east edge of Milford.

DRAINAGE AREA.--146 mi² (378 km²).

PERIOD OF RECORD.--Chemical analysis: October 1971 to September 1974 (discontinued).
Water temperatures: October 1971 to September 1974 (discontinued).

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
OCT., 1973				
14...	1.7	650	7.6	10.5
NOV.				
06...	1.8	--	--	3.0
DEC.				
11...	3.2	860	7.4	.0
JAN., 1974				
15...	1.4	420	7.4	.0
FEB.				
26...	2.2	800	7.4	.0
APR.				
02...	45	500	8.2	6.0
MAY				
15...	49	520	--	--
JUNE				
03...	21	520	--	25.5
25...	42	480	--	25.0
JULY				
16...	2.9	700	--	20.0
AUG.				
07...	2.3	800	--	23.5
SEPT.				
05...	2.2	840	--	18.5
14...	2.0	850	--	15.0

06609600 WILLOW CREEK NEAR LOGAN, IOWA

LOCATION.--Lat 41°37'54", long 95°27'50", in NW1/4 NE1/4 sec.30, T.79 N., R.43 W., Harrison County, at bridge, at gaging station, on county highway F50, 5.5 mi (8.8 km) west of Logan, and 7.5 mi (12.1 km) upstream from mouth.

DRAINAGE AREA.--129 mi² (334 km²).

PERIOD OF RECORD.--Specific conductance: October 1972 to current year (partial-record station).

Water temperatures: October 1972 to current year (partial-record station).

Sediment records: October 1971 to September 1972 (partial-record station), October 1972 to current year.

March 1968 to September 1971 (daily sediment discharge only for most years) in reports of Corps of Engineers, published as Willow Creek near Missouri Valley.

EXTREMES.--Water year 1973: Sediment concentrations: Maximum daily, 14,200 mg/l Feb. 24; minimum daily, 45 mg/l Sept. 14.

Sediment discharge: Maximum daily, 18,100 tons (16,400 tonnes) Feb. 24; minimum daily, 2.7 tons (2.4 tonnes) Sept. 7.

Current year: Sediment concentrations: Maximum daily, 6,400 mg/l Aug. 13; minimum daily, 25 mg/l Sept. 30.

Sediment discharge: Maximum daily, 30,100 tons (27,300 tonnes) May 18; minimum daily, 1.0 ton (0.91 tonnes) Sept. 30.

Period of record: Sediment concentrations: Maximum daily, 14,200 mg/l Feb. 24, 1973; minimum daily, 25 mg/l Sept. 30, 1974.

Sediment discharge: Maximum daily, 30,100 tons (27,300 tonnes) May 18, 1974; minimum daily, 1.0 ton (0.91 tonne) Sept. 30, 1974.

REMARKS.--Flow affected by ice Dec. 2, 1972 to Feb. 21, 1973; Dec. 4, 1973 to Feb. 18, Feb. 24, 25, Mar. 21-25, 1974.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	570	---	510	470	630	450	450	455	500	560
2	480	---	---	---	510	---	630	---	480	460	510	560
3	---	---	570	390	500	---	550	---	500	460	---	---
4	---	---	---	---	465	---	---	---	445	450	---	495
5	---	---	670	---	500	---	---	---	450	---	---	---
6	---	500	650	---	520	---	---	---	---	440	460	520
7	---	---	460	490	495	---	---	435	---	450	420	460
8	---	---	450	---	540	---	450	450	---	450	---	490
9	---	---	---	520	490	---	---	440	---	450	---	500
10	---	---	480	---	520	---	---	430	390	450	440	---
11	520	---	---	520	500	---	440	480	---	430	---	---
12	---	---	500	---	520	---	---	460	425	---	---	---
13	---	---	520	480	510	---	430	450	480	---	---	530
14	---	---	470	---	490	---	---	---	---	430	---	530
15	---	---	420	480	520	---	440	---	---	460	305	550
16	---	---	530	---	490	---	440	510	---	---	370	460
17	---	---	440	610	490	---	440	---	460	420	---	550
18	---	---	490	---	490	---	440	---	480	430	---	560
19	---	---	520	520	490	---	450	350	500	---	---	570
20	---	---	485	---	480	650	---	340	---	---	---	570
21	---	---	490	650	490	640	450	400	500	460	---	---
22	---	---	---	---	480	---	---	460	500	460	---	580
23	---	---	410	530	590	650	---	---	---	470	---	580
24	440	---	---	---	600	---	---	480	480	460	420	480
25	---	---	---	570	620	---	440	---	480	430	500	580
26	---	---	---	---	540	650	---	520	---	470	500	600
27	---	620	410	570	560	630	---	530	500	470	---	610
28	---	---	---	---	---	---	---	---	520	470	470	---
29	---	590	---	560	---	670	---	520	490	---	---	610
30	---	540	---	---	---	650	460	---	---	490	450	620
31	---	---	---	---	---	650	---	440	---	480	540	---
MONTH	---	---	---	---	515	---	---	---	---	---	---	---
YEAR	MAX	670	MIN	305	MEAN	499						

06609600 WILLOW CREEK NEAR LOGAN, IOWA--CONTINUED

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	5.5	---	0.5	1.0	18.0	23.5	22.0	24.0	21.0	21.0
2	19.0	---	---	---	0.5	---	18.5	---	24.0	29.5	24.5	18.5
3	---	---	3.0	0.0	1.0	---	7.0	---	26.5	29.5	---	---
4	---	---	---	---	0.5	---	---	---	22.0	30.0	---	8.5
5	---	---	2.0	---	1.0	---	---	---	24.5	---	---	---
6	---	3.5	1.0	---	1.0	---	13.0	---	---	30.5	21.0	19.0
7	---	---	0.0	0.5	1.0	---	---	16.0	---	31.0	24.5	25.5
8	---	---	1.0	---	0.5	---	15.0	18.0	---	30.5	---	24.5
9	---	---	---	1.0	1.0	---	---	16.5	---	30.5	---	24.0
10	---	---	1.0	---	0.5	---	---	15.5	19.0	28.0	24.5	---
11	18.0	---	---	0.5	0.5	---	11.0	15.5	---	31.0	---	---
12	---	---	1.0	---	0.5	---	---	15.5	19.5	---	---	---
13	---	---	1.0	0.5	0.5	---	13.0	15.5	26.0	---	---	20.0
14	---	---	1.0	---	1.0	---	---	---	---	30.0	---	23.5
15	---	---	1.0	0.0	0.5	---	13.0	---	---	30.5	21.0	25.0
16	---	---	1.0	---	1.0	---	14.5	15.5	---	---	19.0	25.5
17	---	---	1.0	0.5	1.0	---	19.0	---	26.0	27.0	---	24.5
18	---	---	1.0	---	1.0	---	21.5	16.5	26.0	32.0	---	24.0
19	---	---	1.0	0.5	1.0	---	21.5	19.0	33.5	---	---	22.0
20	---	---	0.5	---	1.0	6.5	---	24.5	---	---	---	19.0
21	---	---	0.5	1.0	3.5	8.0	23.0	22.0	31.0	32.0	---	---
22	---	---	---	---	3.5	---	---	24.5	25.0	31.5	---	18.5
23	---	---	0.5	1.0	4.5	8.5	---	---	---	29.5	---	16.5
24	14.5	---	---	---	5.0	---	---	24.5	26.5	29.0	29.5	18.5
25	---	---	---	1.0	5.0	---	24.0	---	29.0	28.0	29.5	23.0
26	---	---	---	---	5.5	8.5	---	20.0	---	29.0	30.5	19.5
27	---	5.5	0.5	1.0	5.5	15.5	---	20.0	29.0	28.0	---	17.0
28	---	---	---	---	---	---	---	---	29.0	29.0	26.0	---
29	---	5.5	---	1.0	---	14.5	---	21.0	33.0	---	---	17.0
30	---	5.5	---	---	---	15.5	24.5	16.5	---	24.0	21.0	15.5
31	---	---	---	---	---	16.5	---	21.0	---	21.5	22.0	---
MONTH	---	---	---	---	2.0	---	---	---	---	---	---	---
YEAR	MAX	33.5	MIN	0.0	MEAN	15.0						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	24	98	6.4	55	170	25	60	167	27
2	23	95	5.9	121	470	154	30	214	17
3	23	92	5.7	59	257	41	20	248	13
4	23	89	5.5	46	225	28	15	392	16
5	23	87	5.4	43	200	23	13	239	8.4
6	23	86	5.3	45	210	26	12	152	4.9
7	24	84	5.4	52	240	34	12	198	6.4
8	23	83	5.2	47	218	28	13	172	6.0
9	23	82	5.1	48	203	26	14	185	7.0
10	23	80	5.0	64	298	51	14	182	6.9
11	24	84	5.4	53	258	37	14	178	6.7
12	23	124	7.7	53	241	34	14	168	6.4
13	23	109	6.8	72	291	57	14	157	5.9
14	24	119	7.7	57	274	42	14	113	4.3
15	24	103	6.7	55	294	44	14	98	3.7
16	24	93	6.0	54	412	60	14	121	4.6
17	24	102	6.6	54	336	49	14	130	4.9
18	23	94	5.8	54	285	42	15	128	5.2
19	24	105	6.8	53	270	39	15	147	6.0
20	28	98	7.4	52	262	37	16	182	7.9
21	35	82	7.7	42	313	35	17	201	9.2
22	55	218	32	72	540	105	18	156	7.6
23	155	695	291	55	454	67	19	160	8.2
24	43	292	34	56	420	64	20	281	15
25	33	260	23	50	387	52	20	407	22
26	31	177	15	55	349	52	22	405	24
27	29	115	9.0	55	309	46	30	355	29
28	29	98	7.7	52	272	38	50	316	43
29	28	90	6.8	52	238	33	150	475	192
30	28	82	6.2	54	202	29	100	602	163
31	37	74	7.4	--	--	--	80	400	86
TOTAL	976	--	561.6	1680	--	1398	873	--	767.2

BOYER RIVER BASIN

06609600 WILLOW CREEK NEAR LOGAN, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	76	332	68	30	163	13	633	6200	10600
2	73	318	63	28	105	7.9	227	1230	754
3	60	171	28	28	110	8.3	148	1680	671
4	40	177	19	29	162	13	105	1350	383
5	35	172	16	31	382	32	116	1540	482
6	33	215	19	31	298	25	118	1560	497
7	31	250	21	31	322	27	123	1280	425
8	30	240	19	31	352	29	91	1090	268
9	30	252	20	31	241	20	84	940	213
10	30	212	17	31	225	19	89	1620	389
11	30	183	15	31	220	18	174	5180	2430
12	30	241	20	31	221	18	110	1630	484
13	30	582	47	31	213	18	101	1000	273
14	32	658	57	29	209	16	154	3550	1480
15	35	660	62	27	193	14	119	690	222
16	50	673	91	25	191	13	110	1060	315
17	100	775	209	25	161	11	98	915	242
18	150	2370	960	27	148	11	100	760	205
19	90	610	148	30	145	12	116	768	241
20	70	575	109	35	770	73	116	865	271
21	65	645	113	50	1080	146	117	841	266
22	60	598	97	100	1470	397	95	730	187
23	50	540	73	150	4340	1760	73	586	116
24	50	569	77	472	14200	18100	239	780	503
25	50	548	74	101	11000	3000	188	688	349
26	54	483	70	75	7500	1520	140	647	245
27	45	540	66	70	5500	1040	123	682	226
28	35	510	48	206	7200	4000	121	706	231
29	30	547	44	--	--	--	109	682	201
30	30	381	31	--	--	--	103	662	184
31	30	234	19	--	--	--	114	660	203
TOTAL	1554	--	2720	1816	--	30361.2	4354	--	23556
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	131	659	233	89	885	213	78	272	57
2	108	642	187	101	1480	404	80	262	57
3	100	640	173	87	750	176	88	260	62
4	99	644	172	77	660	137	96	300	78
5	88	662	157	74	620	124	113	448	137
6	87	655	154	77	570	119	80	364	79
7	88	640	152	166	1770	793	76	302	62
8	92	640	159	183	2450	1210	73	262	52
9	99	652	174	105	1250	354	69	221	41
10	77	640	133	98	660	175	70	210	40
11	108	748	218	88	529	126	71	215	41
12	108	618	180	82	430	95	75	248	50
13	94	467	119	79	390	83	80	297	64
14	91	307	75	79	369	79	96	329	85
15	131	1920	679	77	307	64	151	603	246
16	311	3190	2680	78	182	38	80	550	119
17	138	720	268	76	129	26	73	554	109
18	128	550	190	78	140	29	68	641	118
19	121	555	181	73	147	29	170	790	363
20	119	540	174	70	190	36	90	613	149
21	92	545	135	71	249	48	80	615	133
22	89	550	132	68	271	50	70	610	115
23	86	560	130	66	267	48	65	588	103
24	88	570	135	65	199	35	60	418	68
25	103	625	174	65	142	25	57	127	20
26	104	570	160	86	215	50	54	72	10
27	96	530	137	181	580	283	52	70	9.8
28	88	535	127	170	478	219	50	63	8.5
29	83	540	121	97	293	77	49	64	8.5
30	81	605	132	86	261	62	48	65	8.4
31	--	--	--	77	259	54	--	--	--
TOTAL	3228	--	7841	2871	--	5261	2362	--	2493.2

06609600 WILLOW CREEK NEAR LOGAN, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	50	192	26	57	222	34	22	60	3.6
2	64	3100	536	50	210	28	21	61	3.5
3	98	2190	579	48	208	27	22	59	3.5
4	200	3990	2150	46	80	9.9	22	51	3.0
5	60	2140	347	44	120	14	21	60	3.4
6	56	1060	160	42	150	17	20	57	3.1
7	52	730	102	40	160	17	20	50	2.7
8	50	560	76	38	160	16	26	52	3.7
9	48	400	52	36	2170	211	44	103	12
10	80	480	104	34	1380	127	45	189	23
11	69	990	184	33	2600	232	27	113	8.2
12	55	775	115	32	1570	136	24	90	5.8
13	51	760	105	31	300	25	24	60	3.9
14	47	755	96	31	110	9.2	23	45	2.8
15	46	745	93	33	126	11	29	141	11
16	45	825	100	34	90	8.3	40	300	32
17	40	730	79	38	82	8.4	34	215	20
18	27	610	44	34	148	14	29	173	14
19	28	575	43	31	147	12	26	152	11
20	33	540	48	28	119	9.0	25	132	8.9
21	34	480	44	27	73	5.3	24	115	7.5
22	40	470	51	27	62	4.5	24	133	8.6
23	127	750	257	26	78	5.5	24	172	11
24	60	350	57	26	110	7.7	26	187	13
25	56	335	51	27	161	12	30	240	19
26	49	350	46	26	130	9.1	919	1610	3990
27	44	225	27	24	61	4.0	139	650	244
28	42	155	18	25	82	5.5	94	342	87
29	45	125	15	23	61	3.8	143	420	162
30	714	1120	2160	22	52	3.1	69	215	40
31	83	430	96	22	63	3.7	--	--	--
TOTAL	2493	--	7861	1035	--	1030.0	2036	--	4761.2
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									25278
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									88611.4

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	57	135	21	53	170	24	56	75	11
2	54	114	17	52	165	23	57	114	18
3	52	101	14	51	162	22	58	115	18
4	51	92	13	51	155	21	55	55	8.2
5	49	83	11	50	148	20	40	40	4.3
6	49	89	12	51	142	20	33	45	4.0
7	53	134	19	52	138	19	35	95	9.0
8	50	114	15	55	133	20	40	107	12
9	61	151	25	52	129	18	50	103	14
10	172	1060	492	53	124	18	46	102	13
11	314	1160	983	55	121	18	47	111	14
12	135	313	114	56	118	18	47	112	14
13	90	237	58	56	117	18	46	101	13
14	80	218	47	55	115	17	44	113	13
15	74	216	43	58	112	18	42	106	12
16	69	214	40	57	110	17	41	98	11
17	68	214	39	55	104	15	40	96	10
18	66	212	38	55	99	15	40	104	11
19	64	210	36	53	94	13	40	104	11
20	62	208	35	91	362	89	40	111	12
21	61	207	34	94	324	82	40	104	11
22	61	205	34	67	173	31	40	108	12
23	59	202	32	60	134	22	40	105	11
24	59	201	32	63	122	21	40	100	11
25	58	198	31	61	112	18	40	96	10
26	56	195	29	59	100	16	40	133	14
27	56	192	29	58	89	14	40	113	12
28	54	189	28	57	77	12	40	114	12
29	54	185	27	56	65	9.8	40	111	12
30	54	179	26	57	101	16	40	115	12
31	54	175	26	--	--	--	40	119	13
TOTAL	2296	--	2400	1743	--	684.8	1337	--	362.5

BOYER RIVER BASIN

06609600 WILLOW CREEK NEAR LOGAN, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	40	129	14	35	238	22	62	312	52
2	40	152	16	31	270	23	65	300	53
3	40	164	18	29	262	21	72	342	66
4	40	159	17	29	208	16	64	288	50
5	40	151	16	29	232	18	58	260	41
6	40	144	16	29	227	18	55	255	38
7	40	131	14	29	217	17	53	249	36
8	40	132	14	29	205	16	51	239	33
9	40	122	13	29	230	18	52	228	32
10	40	117	13	30	243	20	49	212	28
11	40	107	12	33	208	19	49	252	33
12	40	114	12	40	231	25	54	337	49
13	40	114	12	60	210	34	49	285	38
14	40	117	13	50	193	26	48	265	34
15	42	142	16	45	187	23	47	250	32
16	44	115	14	48	195	25	45	230	28
17	45	115	14	55	203	30	43	219	25
18	44	203	24	70	200	38	44	218	26
19	43	172	20	100	217	59	43	199	23
20	42	126	14	74	188	38	43	190	22
21	41	132	15	74	172	34	40	222	24
22	40	143	15	58	218	34	38	320	33
23	40	174	19	50	350	47	35	317	30
24	40	200	22	50	503	68	36	259	25
25	42	189	21	56	551	83	37	225	22
26	43	175	20	59	408	65	46	193	24
27	44	330	39	103	449	125	40	175	19
28	45	294	36	98	360	95	38	167	17
29	46	176	22	--	--	--	38	152	16
30	50	165	22	--	--	--	38	141	14
31	45	152	18	--	--	--	37	107	11
TOTAL	1296	--	551	1422	--	1057	1469	--	974
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	36	81	7.9	40	126	14	77	650	135
2	33	91	8.1	39	120	13	65	515	90
3	41	150	17	40	120	13	60	538	87
4	49	209	28	39	117	12	66	472	84
5	45	168	20	39	127	13	65	418	73
6	42	120	14	39	140	15	66	485	86
7	42	103	12	41	158	17	137	1240	459
8	39	90	9.5	45	277	34	136	1220	448
9	40	182	20	41	139	15	133	1220	438
10	40	173	19	41	173	19	69	802	149
11	42	128	15	61	2940	484	55	525	78
12	49	211	28	48	750	97	53	370	53
13	46	159	20	44	150	18	57	403	62
14	114	498	153	47	250	32	53	331	47
15	73	271	53	40	160	17	50	272	37
16	56	241	36	445	3710	4460	48	247	32
17	52	220	31	264	2320	1650	46	219	27
18	48	220	29	2230	5000	30100	47	190	24
19	46	235	29	1910	1820	9390	48	169	22
20	45	260	32	249	980	659	47	203	26
21	47	257	33	276	2520	1880	49	265	35
22	44	220	26	139	1050	394	56	285	43
23	42	182	21	84	350	79	53	250	36
24	46	147	18	89	530	127	46	221	27
25	44	117	14	85	370	85	46	207	26
26	43	101	12	98	1490	394	44	181	22
27	43	97	11	143	1390	537	43	151	18
28	44	139	17	123	820	272	42	148	17
29	44	192	23	298	3600	2900	41	131	15
30	41	163	18	894	900	2170	41	170	19
31	--	--	--	664	1370	2460	--	--	--
TOTAL	1416	--	774.5	8635	--	58370	1839	--	2715

BOYER RIVER BASIN

06609600 WILLOW CREEK NEAR LOGAN, IOWA--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	SUS. SED. FALL DIAM. % FINER THAN (70345)	SUS. SED. FALL DIAM. % FINER THAN (70346)	SUS. SED. SIEVE DIAM. % FINER THAN (70331)	BED MAT. FALL DIAM. % FINER THAN (80158)	BED MAT. FALL DIAM. % FINER THAN (80159)	BED MAT. FALL DIAM. % FINER THAN (80160)	BED MAT. FALL DIAM. % FINER THAN (80161)	BED MAT. FALL DIAM. % FINER THAN (80162)	BED MAT. SIEVE DIAM. % FINER THAN (80169)	BED MAT. SIEVE DIAM. % FINER THAN (80170)	BED MAT. SIEVE DIAM. % FINER THAN (80171)	BED MAT. SIEVE DIAM. % FINER THAN (80172)
OCT.												
11...	--	--	--	--	0	8	67	95	97	98	100	--
NOV.												
06...	--	--	--	1	1	7	51	86	89	93	93	100
DEC.												
07...	--	--	--	--	0	7	56	92	96	100	--	--
JAN.												
15...	--	--	--	1	1	6	59	95	97	99	100	--
FEB.												
04...	--	--	--	0	1	4	49	90	95	100	--	--
MAR.												
01...	--	--	--	1	2	6	71	96	99	100	--	--
APR.												
03...	--	--	--	0	1	5	59	88	92	94	96	100
MAY												
07...	--	--	--	1	2	13	81	98	100	--	--	--
18...	100	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
04...	--	--	--	1	2	12	55	94	97	99	100	--
JULY												
01...	--	--	--	1	1	7	66	96	97	99	100	--
AUG.												
06...	--	--	--	1	1	7	51	82	85	94	100	--
SEP.												
04...	--	--	--	1	1	8	54	92	93	99	100	--

06610000 Missouri River at Omaha, Nebraska

LOCATION.--Lat 41°15'32", long 95°55'20", in SE1/4 NW1/4 sec.23, T.15 N., R.13 E., Douglas County, 275 ft (84 m) downstream from Interstate 480 highway bridge in Omaha, and at mile 615.9 (991.0 km).

DRAINAGE AREA.--322,800 mi² (836,052 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: July 1969 to June 1972.

Specific conductance: October 1972 to current year (partial-record station).

Water temperatures: October 1971 to current year (partial-record station).

Sediment records: October 1971 to current year. April 1939 to September 1971 (daily sediment discharge only) in reports of Corps of Engineers.

EXTREMES.--Current year: Sediment concentrations: Maximum daily, 8,180 mg/l May 19; minimum daily, 190 mg/l Jan. 6.

Sediment discharge: Maximum daily, 1,060,000 tons (962,000 tonnes) May 19; minimum daily, 7,650 tons (6,940 tonnes) Jan. 11.

Period of record: Sediment concentrations: Maximum daily, 8,180 mg/l May 19, 1974; minimum daily, 190 mg/l Jan. 6, 1974.

Sediment discharge: Maximum daily, 1,060,000 tons (962,000 tonnes) May 19, 1974; minimum daily, 4,860 tons (4,410 tonnes) Jan. 18, 1972.

REMARKS.--Sediment samples collected at bridge 15.5 mi (24.9 km) downstream from gaging station until Oct. 18, 1973, at which time sampling was begun from Interstate 80 highway bridge 2.0 mi (3.2 km) downstream from gaging station.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700	740	---	---	---	---	560	---	---	720	720	---
2	---	---	---	---	---	---	---	700	---	---	---	---
3	---	---	730	---	---	---	---	---	720	---	---	---
4	750	---	---	---	---	---	750	---	---	---	---	---
5	---	730	---	---	---	---	---	---	---	750	750	---
6	---	---	---	---	---	670	---	740	750	---	---	720
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	840	---	---	---	---	750	---	---	750	740	---
9	730	---	---	---	---	---	---	740	---	---	---	720
10	---	---	---	---	---	---	---	---	670	---	---	---
11	---	---	800	---	750	---	720	---	---	750	---	---
12	700	720	---	---	---	---	---	---	---	---	740	710
13	---	---	---	---	---	680	---	730	740	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	750	750	---	830	---	---	750	---	---	---	---	---
16	---	---	---	---	---	---	---	690	---	750	---	720
17	---	---	---	---	---	---	---	---	750	---	---	---
18	770	---	---	---	---	---	750	---	---	720	---	---
19	---	790	700	---	700	720	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	740	---	740	---
21	---	---	---	790	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	710	---	---	750	---	---
23	750	---	---	---	---	---	---	---	---	---	730	720
24	---	---	---	---	---	---	---	730	560	---	---	---
25	---	---	---	---	---	760	730	---	---	760	---	---
26	740	720	790	---	---	---	---	---	---	---	---	720
27	---	---	---	---	760	---	---	---	730	---	730	---
28	---	---	---	---	---	730	---	730	---	---	---	---
29	760	730	---	---	---	---	730	---	---	750	---	---
30	---	---	---	---	---	---	---	---	---	---	720	---
31	---	---	---	---	---	---	---	780	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	840	MIN	560	MEAN	733						

MISSOURI RIVER MAIN STEM

06610000 MISSOURI RIVER AT OMAHA, NEBRASKA--CONTINUED

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	10.0	---	---	---	---	9.0	---	---	20.5	21.0	---
2	---	---	---	---	---	---	---	15.5	---	---	---	---
3	---	---	3.0	---	---	---	---	---	20.5	---	---	---
4	16.0	---	---	---	---	---	5.0	---	---	---	---	---
5	---	6.0	---	---	---	---	---	---	---	21.5	22.0	---
6	---	---	---	---	---	6.5	---	15.5	21.5	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	6.5	---	---	---	---	9.0	---	---	25.5	22.5	---
9	19.0	---	---	---	---	---	---	15.0	---	---	---	19.0
10	---	---	---	---	---	---	---	---	18.0	---	---	---
11	---	---	0.5	---	3.5	---	9.5	---	---	26.0	---	---
12	6.0	7.0	---	---	---	---	---	---	---	---	22.0	19.5
13	---	---	---	---	---	5.0	---	15.0	19.5	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	18.0	7.5	---	4.0	---	---	8.0	---	---	---	23.5	---
16	---	---	---	---	---	---	---	13.5	---	27.0	---	17.5
17	---	---	---	---	---	---	---	---	21.0	---	---	---
18	13.5	---	---	---	---	---	10.0	---	---	26.0	---	---
19	---	6.0	3.0	---	3.0	3.0	---	---	---	---	---	19.0
20	---	---	---	---	---	---	---	---	24.0	---	25.5	---
21	---	---	---	1.5	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	12.0	---	---	25.5	---	---
23	16.5	---	---	---	---	---	---	---	---	---	24.0	10.0
24	---	---	---	---	---	---	---	18.5	23.0	---	---	---
25	---	---	---	---	---	3.0	12.0	---	---	26.0	---	---
26	14.5	6.0	0.5	---	---	---	---	---	---	---	---	17.5
27	---	---	---	---	3.0	---	---	---	20.5	---	22.0	---
28	---	---	---	---	---	5.5	---	20.5	---	---	---	---
29	13.5	6.0	---	---	---	---	15.0	---	---	26.0	---	---
30	---	---	---	---	---	---	---	---	---	---	21.0	---
31	---	---	---	---	---	---	---	20.0	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	MAX	27.0	MIN	0.5	MEAN	14.5						

SUSPENDED--SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	34400	583	54100	31000	538	45000	23400	330	20800
2	33400	402	36300	31800	630	54100	23100	309	19300
3	33200	395	35400	33000	585	52100	22900	383	23700
4	33800	385	35100	33400	490	44200	22700	284	17400
5	33700	375	34100	33200	358	32100	22100	273	16300
6	33300	366	32900	32500	302	26500	20600	245	13600
7	33200	360	32300	32300	345	30100	19200	210	10900
8	33100	352	31500	32100	449	38900	19200	272	14100
9	32500	355	31200	32000	440	38000	20700	498	27800
10	33500	355	32100	31400	392	33200	21000	463	26300
11	39400	955	102000	31200	338	28500	20600	372	20700
12	38100	940	96700	31800	361	31000	20300	331	18100
13	33100	630	56300	31600	477	40700	21400	521	30100
14	31300	535	45200	31800	605	51900	22500	637	38700
15	31000	522	43700	32000	669	57800	21100	551	31400
16	29200	483	38100	32100	640	55500	20000	433	23400
17	29400	420	33300	31800	578	49600	20200	378	20600
18	29000	355	27800	32000	525	45400	19900	349	18800
19	27200	315	23100	31600	480	41000	19800	347	18600
20	27400	305	22600	32700	551	48600	20800	505	28400
21	27200	307	22500	33900	752	68800	20600	462	25700
22	27200	329	24200	34500	777	72400	19500	372	19600
23	27200	364	26700	34100	701	64500	19500	380	20000
24	27400	370	27400	33900	609	55700	21400	581	33600
25	27600	335	25000	33600	510	46300	21700	645	37800
26	27700	295	22100	32000	410	35400	20500	511	28300
27	27900	278	20900	29200	368	29000	20100	402	21800
28	28100	302	22900	26400	380	27100	19800	331	17700
29	27800	355	26600	24000	390	25300	19400	287	15000
30	28200	356	27100	23400	360	22700	18600	269	13500
31	29000	379	29700	---	---	---	17500	257	12100
TOTAL	954500	--	1118900	946300	--	1291400	640100	--	684100

06610000 MISSOURI RIVER AT OMAHA, NEBRASKA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	17000	242	11100	24000	907	58800	23200	456	28600
2	17500	230	10900	22600	823	50200	22600	400	24400
3	17400	217	10200	20000	611	33000	22600	390	23800
4	17200	208	9660	19800	626	33500	23200	428	26800
5	17000	195	8950	19700	575	30600	23300	467	29400
6	16900	190	8670	17600	401	19100	23100	469	29300
7	17100	243	11200	18100	373	18200	22800	435	26800
8	17500	403	19000	20000	477	25800	22600	421	25700
9	16900	375	17100	19900	500	26900	22800	449	27600
10	16300	295	13000	20500	439	24300	22900	469	29000
11	13500	210	7650	20700	331	18500	22700	482	29500
12	13300	247	8870	20800	255	14300	22500	433	26300
13	14100	319	12100	22100	330	19700	22400	387	23400
14	13800	220	8200	23900	845	54500	23200	503	31500
15	14800	220	8790	23400	868	54800	22700	518	31700
16	17700	387	18500	21400	567	32800	22000	479	28500
17	22300	709	42700	20900	412	23200	22500	522	31700
18	24900	972	65300	23900	590	38100	22400	515	31100
19	24500	810	53600	26000	1350	94800	22300	495	29800
20	22500	527	32000	26100	670	47200	22900	560	34600
21	20600	369	20500	24500	835	55200	27200	840	61700
22	20000	270	14600	23400	517	32700	31500	1500	128000
23	20200	212	11600	22600	408	24900	33900	1660	152000
24	20200	200	10900	22200	350	21000	32600	915	80500
25	20300	253	14400	21600	323	18800	31900	430	37000
26	20400	390	21500	21800	323	19000	31500	392	33300
27	20900	449	25300	23100	430	26800	31900	381	32800
28	20800	459	25800	23400	495	31300	32500	380	33300
29	20500	442	24500	--	--	--	32500	550	48300
30	20500	413	22900	--	--	--	31300	510	43100
31	22300	560	33700	--	--	--	30600	565	46700
TOTAL	578900	--	603190	614000	--	948000	802100	--	1266200
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	31100	741	62200	33400	412	37200	35700	3660	353000
2	32200	771	67000	32800	455	40300	35100	1300	123000
3	33200	630	56500	31900	413	35600	35300	811	77300
4	33100	400	35700	31800	411	35300	34400	650	60400
5	33700	425	36700	31800	413	35500	33200	520	46600
6	33300	411	37000	30900	359	30000	35400	585	55900
7	33200	405	36300	32300	427	37200	37000	1040	104000
8	33600	439	39800	33900	571	52300	38100	1460	150000
9	33600	440	39900	34000	518	47600	37300	1190	120000
10	33600	403	36600	32600	420	37000	36700	1010	100000
11	35200	485	46100	33800	740	67500	36400	915	89900
12	35400	563	53800	34100	860	74200	35400	860	82200
13	35500	597	57200	32400	732	64000	34700	815	76400
14	35700	602	56000	33300	644	57900	35200	740	70300
15	35000	568	53700	34800	624	58600	35300	645	61500
16	33800	500	45600	36100	824	80300	35000	596	56300
17	33200	429	38500	35100	818	77500	34800	565	53100
18	34100	455	41900	37000	4100	428000	35100	512	48500
19	33400	539	48600	47900	8180	1060000	33100	415	37100
20	33700	562	51100	37800	5220	533000	33500	690	62400
21	33700	571	52000	34700	2620	245000	34600	828	77400
22	32600	445	39200	35000	2150	203000	34500	685	63800
23	33800	429	39200	33000	800	71300	35800	660	63800
24	33300	438	39400	33700	1220	111000	40800	1960	216000
25	33000	425	37900	35600	1890	182000	42000	2580	293000
26	32500	388	34000	37300	1650	166000	36600	1680	166000
27	32400	350	30600	38400	1200	124000	35500	770	73800
28	33200	377	33800	36600	900	88900	35100	470	44500
29	34200	447	41300	37600	3020	307000	33900	385	35200
30	32900	400	35500	41500	7350	824000	33600	360	32700
31	--	--	--	38100	6580	677000	--	--	--
TOTAL	1007200	--	1327100	1090900	--	5893200	1069100	--	2894100

MISSOURI RIVER MAIN STEM

06610000 MISSOURI RIVER AT OMAHA, NEBRASKA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JULY			AUGUST			SEPTEMBER			
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	35000	540	51000	37100	458	45900	35200	582	55300	
2	35400	655	62600	37700	505	51400	34900	580	54700	
3	35300	615	58600	37500	510	51600	34200	562	51900	
4	35700	590	56900	37200	477	47900	34100	528	48600	
5	35800	608	58800	37000	433	43300	34000	488	44800	
6	35300	570	54300	36700	423	41900	34300	439	40700	
7	35000	480	45400	36500	443	43700	34500	444	41400	
8	34500	400	37300	37000	478	47800	34600	458	42800	
9	34800	380	35700	38000	548	56200	34500	453	42200	
10	35100	423	40100	39400	630	67000	35000	458	43300	
11	36000	555	53900	39300	668	70900	35900	475	46000	
12	36300	613	60100	37800	648	66100	36900	485	48300	
13	36100	560	54600	37900	656	67100	37000	494	49400	
14	35700	482	46500	39400	670	71300	36800	485	48200	
15	35300	430	41000	38500	618	64200	35900	459	44500	
16	35300	378	36000	38600	612	63800	35500	420	40300	
17	35300	356	33900	37400	602	60800	35100	365	34600	
18	36500	422	41600	36100	589	57400	35200	348	33100	
19	37300	492	49500	35500	578	55400	35500	390	37400	
20	36700	452	44800	35100	578	54800	35700	420	40500	
21	36300	421	41300	35100	580	55000	35800	425	41100	
22	36600	482	47600	35000	597	56400	35900	399	38700	
23	36500	497	49000	34300	592	54800	35900	355	34400	
24	36100	481	46900	34300	560	51900	36300	338	33100	
25	35900	480	46500	34400	529	49100	36500	328	32300	
26	36400	474	46600	34400	495	46000	36200	325	31800	
27	36200	458	44800	34200	380	35100	36200	317	31000	
28	36300	437	42800	34500	378	35200	36500	309	30500	
29	36400	418	41100	35000	470	44400	36500	299	29500	
30	36800	400	39700	34900	458	43200	36600	283	28000	
31	36800	407	40400	34900	479	45100	--	--	--	
TOTAL	1112700	--	1449300	1130700	--	1644700	1067200	--	1218400	
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)										11013700
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)										20338590

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TEMPERATURE (DEG C) (00010)	NUMBER OF SAMPLING POINTS (00063)	INSTANTANEOUS DISCHARGE (CFS) (00061)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT CHARGE (T/DAY) (80155)	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	
						% FINER THAN .002 MM (70337)	% FINER THAN .004 MM (70338)	% FINER THAN .008 MM (70339)	% FINER THAN .016 MM (70340)	% FINER THAN .062 MM (70342)	% FINER THAN .125 MM (70343)	% FINER THAN .250 MM (70344)
OCT.												
01...	17.0	3	34600	475	44400	--	--	--	--	52	66	100
12...	6.0	--	39500	1030	110000	--	--	--	--	--	--	--
NOV.												
08...	6.5	3	32200	466	40500	--	--	--	--	28	50	99
19...	6.0	--	30300	469	38400	--	--	--	--	--	--	--
DEC.												
11...	.5	3	20800	387	21700	--	--	--	--	31	46	100
26...	.5	--	20500	480	26600	--	--	--	--	--	--	--
JAN.												
15...	4.0	3	14700	219	8690	--	--	--	--	47	54	100
21...	1.5	--	20700	357	20000	--	--	--	--	--	--	--
FEB.												
11...	3.5	3	20800	317	17800	--	--	--	--	33	45	99
27...	3.0	--	23200	446	27900	--	--	--	--	--	--	--
MAR.												
19...	3.0	3	22400	494	29900	--	--	--	--	32	48	96
25...	3.0	--	32000	407	35200	--	--	--	--	--	--	--
APR.												
01...	9.0	--	29600	765	61100	--	--	--	--	25	35	100
04...	5.0	3	32800	--	--	--	--	--	--	--	--	--
22...	12.0	--	32600	433	38100	--	--	--	--	--	--	--
MAY												
02...	15.5	3	33000	457	40700	--	--	--	--	34	52	98
16...	13.5	--	35400	660	63100	--	--	--	--	--	--	--
JUNE												
10...	18.0	3	36800	1010	100000	--	--	--	--	73	81	100
24...	23.0	--	40500	1990	218000	--	--	--	--	--	--	--
JULY												
01...	20.5	3	35700	543	52300	--	--	--	--	46	62	100
18...	26.0	--	36000	417	40500	--	--	--	--	--	--	--
AUG.												
01...	21.0	3	37100	462	46300	--	--	--	--	34	48	98
15...	23.5	--	38700	596	62300	--	--	--	--	--	--	--
SEP.												
03...	19.0	1	34300	562	52000	--	--	--	--	26	42	98
19...	19.0	--	34400	395	36700	--	--	--	--	--	--	--

MISSOURI RIVER MAIN STEM

06807000 MISSOURI RIVER AT NEBRASKA CITY, NEBRASKA
(National Stream Quality Accounting Network Station)

LOCATION.--Lat 40°40'55", long 95°50'48", in NW1/4 NE1/4 sec.9, T.8 N., R.14 E., Otto County, at Waubonsie Highway Bridge at Nebraska City, and at mile 562.6 (905.2 km).

DRAINAGE AREA.--414,400 mi² (1,073,296 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: January 1951 to current year.

Specific conductance: May 1951 to current year. Water temperatures: May 1951 to current year.

Sediment records: October 1971 to current year. August 1957 to September 1971 (daily sediment discharge only) in reports of Corps of Engineers.

EXTREMES.--Current year: Specific conductance: Maximum daily, 817 micromhos Jan. 15; minimum daily, 493 micromhos Oct. 12.

Water temperatures: Maximum daily, 28.0°C July 22; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 8,220 mg/l May 19; minimum daily, 145 mg/l Jan. 17.

Sediment discharge: Maximum daily, 1,590,000 tons (1,440,000 tonnes) May 19; minimum daily, 9,570 tons (8,680 tonnes) Jan. 11.

Period of record: Specific conductance: Maximum daily, 994 micromhos Dec. 17, 1962; minimum daily, 273 micromhos June 17, 1964.

Water temperature: Maximum daily, 29.0°C July 25, 1952; minimum, freezing point on many days during winter period each year.

Sediment concentrations: Maximum daily, 8,220 mg/l May 19, 1974; minimum daily, 145 mg/l Jan. 17, 1974.

Sediment discharge: Maximum daily, 1,590,000 tons (1,440,000 tonnes) May 19, 1974; minimum daily, 4,050 tons (3,670 tonnes) Jan. 17, 1972.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	663	742	635	788	679	706	758	729	690	751	753	746
2	647	739	646	736	683	701	790	748	677	764	743	760
3	656	735	626	783	684	702	763	747	700	762	748	741
4	683	731	633	772	685	709	756	750	719	762	719	746
5	700	724	638	772	684	712	744	745	724	796	736	751
6	704	726	649	804	713	706	734	754	724	766	748	752
7	720	727	659	808	730	703	737	763	727	765	748	746
8	716	724	650	789	726	713	746	756	745	766	749	752
9	711	734	658	789	732	719	745	749	692	764	743	756
10	700	721	665	797	735	714	749	746	676	759	734	748
11	582	720	655	791	731	705	749	738	689	762	723	748
12	493	717	661	796	726	699	745	727	680	762	702	750
13	510	712	661	746	726	709	762	701	651	765	730	728
14	601	718	655	814	714	702	746	696	669	763	776	730
15	646	717	648	817	703	706	735	720	685	770	696	738
16	680	706	655	807	700	711	737	727	704	766	693	740
17	692	717	674	805	700	724	736	714	705	766	680	745
18	697	740	670	780	691	722	746	701	708	771	749	740
19	708	721	697	767	653	730	750	675	707	771	702	739
20	720	718	680	752	646	738	757	533	711	769	706	741
21	721	708	693	743	630	740	755	575	721	768	702	736
22	732	712	681	730	638	746	749	649	734	773	717	736
23	732	665	668	733	662	749	757	598	742	770	711	743
24	732	675	696	722	692	752	746	642	744	768	711	743
25	734	703	701	711	657	744	746	682	712	774	711	738
26	728	690	685	713	714	757	754	720	713	768	726	745
27	729	715	685	717	720	750	752	718	699	773	722	743
28	736	714	684	717	717	746	747	676	730	768	716	738
29	734	714	677	705	---	752	733	700	747	771	714	738
30	740	699	672	697	---	752	727	694	750	769	720	738
31	746	---	662	707	---	755	---	633	---	768	719	---
MONTH	687	716	665	762	695	725	748	700	709	767	724	743
YEAR	MAX	817	MIN	493	MEAN	720						

MISSOURI RIVER MAIN STEM

06807000 MISSOURI RIVER AT NEBRASKA CITY, IOWA--CONTINUED

WATER QUALITY DATA

DATE	DIS-CHARGE (CFS) (00060)	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	DIS-SOLVED SILICA (SI02) (MG/L) (00955)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	DIS-SOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	ALKALINITY AS CaCO3 (MG/L) (00410)
DATE	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL KJELDAHL NITROGEN (N) (MG/L) (00625)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL NITROGEN (NO3) (MG/L) (71887)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DIS-SOLVED PHOSPHORUS (P) (MG/L) (00666)	DIS-SOLVED BORON (B) (UG/L) (01020)	TOTAL FILTRABLE RESIDUE (MG/L) (00515)
AUG., 1974												
13...	--	37300	--	--	--	--	--	--	--	192	0	158
16...	--	42200	--	--	--	--	--	--	--	--	--	--
SEP.												
03...	--	37000	--	--	--	--	--	--	--	--	--	--
17...	--	35300	--	--	--	--	--	--	--	--	--	--
24...	--	37700	--	--	--	--	--	--	--	203	0	167
OCT., 1973												
01...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	.84	--	--	--	--	.12	--	--
NOV.												
02...	--	--	--	--	--	--	--	--	--	--	--	--
15...	170	19	.4	--	.98	--	--	--	--	.11	110	500
19...	--	--	--	--	--	--	--	--	--	--	--	--
DEC.												
03...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	1.6	--	--	--	--	.14	--	--
JAN., 1974												
17...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	1.8	--	--	--	--	.18	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
11...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	1.5	--	--	--	--	.16	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
06...	150	24	.5	--	1.4	--	--	--	--	.17	320	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
APR.												
05...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	.98	--	--	--	--	.06	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
03...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	.55	--	--	--	--	.03	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
04...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	170	18	.5	--	.69	--	--	--	--	.10	120	500
JULY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	.54	--	--	--	--	.12	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
02...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	.17	--	--	--	--	.12	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
03...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	.43	--	--	--	--	.08	--	--

MISSOURI RIVER MAIN STEM

06807000 MISSOURI RIVER AT NEBRASKA CITY, IOWA--CONTINUED

WATER QUALITY DATA

DATE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	CARBON DIOXIDE (CO2) (MG/L) (00405)	TOTAL PHYTO- PLANK- TON (CELLS PER ML) (60050)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDE D GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS SR90 (PC/L) (80050)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDE D GROSS BETA AS SR90 (PC/L) (80060)	SUS- PENDE D GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED NATURAL URANIUM (U) (UG/L) (22703)
MAR.												
06...	8	--	5.6	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
APR.												
05...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	2.1	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
03...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	3.2	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
04...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	7	--	5.1	--	11	10	8.7	10	6.6	8.2	.09	4.5
JULY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	1.6	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
02...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	2.4	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
03...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENT- RATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENT- RATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENT- RATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	51400	1040	144000	38500	369	38400	31400	422	35800
2	53800	1300	189000	41200	400	44500	31400	475	40300
3	50300	872	118000	42400	490	56100	31400	570	48300
4	48600	730	95800	42100	689	78300	31800	692	59400
5	46800	550	69500	41500	878	98400	31800	793	68100
6	45400	540	66200	40900	862	95200	29900	742	59900
7	44500	558	67000	41200	789	87800	29500	697	55500
8	43900	580	68700	40900	728	80400	28100	641	48600
9	42700	603	69500	40900	662	73100	27400	611	45200
10	48500	1090	143000	40300	600	65300	28100	620	47000
11	78200	2420	511000	40000	527	56900	28100	638	48400
12	82200	2400	533000	39700	459	49200	27900	637	48000
13	66700	1500	270000	39100	397	41900	28800	663	51600
14	53200	1050	151000	39700	613	65700	29000	656	51400
15	47500	872	112000	41200	770	85700	28600	639	49300
16	43600	772	90900	40900	543	60000	27700	590	44100
17	42700	687	79200	39700	452	48400	27000	551	40200
18	42100	589	67000	40600	570	62500	26600	480	34500
19	41500	539	60400	40000	578	62400	24800	379	25400
20	41200	542	60300	40300	448	48700	23200	308	19300
21	40000	563	60800	43900	570	67600	22000	239	14200
22	40000	631	68100	49600	1080	145000	21600	224	13100
23	39400	667	71000	47800	950	123000	21800	532	31300
24	38800	625	65500	46100	760	94600	23200	257	16100
25	38500	552	57400	44800	635	76800	25400	307	21100
26	38500	452	47000	44800	684	82700	25400	315	21600
27	38800	440	46100	40300	561	61000	25400	302	20700
28	38500	452	47000	37400	494	49900	25900	336	23500
29	37900	542	55500	34400	462	42900	26100	366	25800
30	37400	509	51400	32100	426	36900	25900	350	24500
31	37400	392	39600	--	--	--	24500	282	18700
TOTAL	1440000	--	3574900	1232300	--	2079300	839700	--	1150900

06807000 MISSOURI RIVER AT NEBRASKA CITY, IOWA--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	23200	242	15200	37100	838	83900	35100	633	60000
2	22300	218	13100	37100	854	85500	35100	630	59700
3	21800	204	12000	35600	822	79000	34400	617	57300
4	21800	230	13500	33800	775	70700	34600	610	57000
5	22300	278	16700	33800	738	67300	34100	607	55900
6	21800	289	17000	32400	687	60100	34100	593	54600
7	21600	261	15200	31100	638	53600	33800	577	52700
8	21600	239	13900	31600	582	49700	33600	565	51300
9	21000	210	11900	31400	548	46500	33400	547	49300
10	20600	190	10600	30600	560	46300	33600	543	49300
11	19800	179	9570	29900	548	44200	33400	540	48700
12	18800	210	10700	30200	555	45300	33600	530	48100
13	18500	278	13900	32100	640	55500	34100	515	47400
14	18500	287	14300	34800	740	69500	34100	500	46000
15	18500	250	12500	36100	835	81400	34100	479	44100
16	20000	190	10300	36100	885	86300	33600	463	42000
17	28500	145	11200	35800	885	85500	33600	450	40800
18	31000	159	13300	40000	1040	112000	33400	439	39600
19	33000	275	24500	44200	1220	146000	33400	435	39200
20	32100	450	39000	44500	1020	123000	33800	477	43500
21	31100	551	46300	43600	1010	119000	34800	542	50900
22	30800	553	46000	41500	950	106000	37100	627	62800
23	31400	556	47100	37100	910	91200	39400	723	76900
24	31600	557	47500	36100	870	84800	43900	876	104000
25	31400	560	47500	34400	828	76900	43000	808	93800
26	32100	559	48400	32800	758	67100	43900	800	94800
27	32600	548	48200	32600	668	58800	44500	780	93700
28	32800	558	49400	34400	637	59200	43000	635	73700
29	32800	620	54900	--	--	--	43000	522	60600
30	33600	702	63700	--	--	--	42700	508	58600
31	35600	778	74800	--	--	--	41500	582	65200
TOTAL	812500	--	872170	990700	--	2154300	1135700	--	1821500
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	40000	670	72400	41200	540	60100	42700	3170	365000
2	41800	795	89700	42100	450	51200	41200	2360	263000
3	41800	840	94800	41800	438	49400	40300	1410	153000
4	43000	975	113000	40900	437	48300	39400	950	101000
5	44200	1040	124000	40600	428	46900	37400	730	73700
6	45100	955	116000	39400	419	44600	37400	570	57600
7	44500	708	85100	38500	438	45500	39100	800	84500
8	44500	725	87100	39400	457	48600	41200	1320	147000
9	44800	740	89500	40000	370	40000	44500	1840	221000
10	44500	580	69700	39100	348	36700	42100	1370	156000
11	45100	570	69400	40600	503	55100	42100	1160	132000
12	45800	530	65500	43300	800	93500	44800	1430	173000
13	46100	445	55400	44200	890	106000	44500	1620	195000
14	47800	660	85200	41200	800	89000	43000	980	114000
15	48200	750	97600	41500	930	104000	43000	882	102000
16	46400	620	77700	40600	820	89900	41200	758	84300
17	46400	578	72400	42700	2400	277000	41800	695	78400
18	45400	545	66800	46400	2480	311000	41500	690	77300
19	45800	472	58400	71800	8220	1590000	40000	612	66100
20	44800	500	60500	75000	6920	1400000	38200	565	58300
21	45100	575	70000	50300	4130	561000	38500	612	63600
22	44800	630	76200	49200	4000	531000	38200	580	59800
23	45100	660	80400	48200	4550	592000	38200	590	60900
24	44800	618	74800	40900	3000	331000	40900	900	99400
25	43000	538	62500	40000	2120	229000	43300	1380	161000
26	42700	460	53000	41200	1200	133000	40000	1220	132000
27	42400	425	48700	44500	1800	216000	36600	880	87000
28	42100	470	53400	44500	1720	207000	37100	692	69300
29	45800	865	107000	42400	1080	124000	36800	563	55900
30	43000	567	65800	50000	4260	575000	35600	403	38700
31	--	--	--	48600	4520	593000	--	--	--
TOTAL	1334800	--	2342000	1390100	--	8678800	1210600	--	3529800

MISSOURI RIVER MAIN STEM

06807000 MISSOURI RIVER AT NEBRASKA CITY, IOWA--CONTINUED

SUSPENDED--SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JULY			AUGUST			SEPTEMBER			
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	36100	390	38000	36800	386	38400	36600	417	41200	
2	36600	410	40500	37100	413	41400	37100	491	49200	
3	36100	395	38500	38500	432	44900	37100	460	46100	
4	36400	484	47600	37900	407	41600	36600	500	49400	
5	36100	530	51700	37900	395	40400	36400	573	56300	
6	35800	512	49500	38200	382	39400	35600	602	57900	
7	35800	607	58700	37900	370	37900	35400	608	58100	
8	35800	597	57700	37900	380	38900	35600	605	58200	
9	35800	588	56800	38500	418	43500	35400	588	56200	
10	35800	507	49000	40600	609	66800	35400	568	54300	
11	35800	410	39600	40900	850	93900	36100	571	55700	
12	36400	393	38600	38800	797	83500	38200	761	78500	
13	36400	518	50900	37600	750	76100	38500	817	84900	
14	36100	502	48900	40600	900	98700	38200	692	71400	
15	35800	482	46600	40300	882	96000	37400	568	57400	
16	35100	460	43600	42100	916	104000	36600	457	45200	
17	35400	370	35400	40900	850	93900	36400	365	35900	
18	36100	311	30300	38800	745	78000	36600	402	39700	
19	37600	360	36500	37100	643	64400	36800	402	39900	
20	37400	370	37400	36100	537	52300	36800	401	39800	
21	37100	390	39100	35800	477	46100	37100	410	41100	
22	36800	481	47800	36100	445	43400	36400	395	38800	
23	36600	530	52400	36400	429	42200	36600	398	39300	
24	36400	510	50100	36100	477	46500	37600	410	41600	
25	36400	488	48000	35800	514	49700	37900	490	50100	
26	36800	467	46400	35800	576	55700	37400	535	54000	
27	37100	448	44900	35800	540	52200	37100	516	51700	
28	37100	432	43300	36100	458	44600	37100	511	51200	
29	37100	416	41700	36100	390	38000	37100	508	50900	
30	37100	392	39300	36100	333	32500	37100	520	52100	
31	37100	372	37300	36100	322	31400	--	--	--	
TOTAL	1128000	--	1386100	1170700	--	1756300	1104200	--	1546100	
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)										13789300
TOTAL SUSPENDED--SEDIMENT DISCHARGE FOR YEAR (TONS)										30892170

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TEMPERATURE (DEG C)	NUMBER OF SAMPLING POINTS (000063)	INSTANTANEOUS DISCHARGE (CFS) (000061)	SUSPENDED SEDIMENT (MG/L) (80154)	SUSPENDED SEDIMENT CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	
						% FINER THAN .002 MM (70337)	% FINER THAN .004 MM (70338)	% FINER THAN .008 MM (70339)	% FINER THAN .016 MM (70340)	% FINER THAN .062 MM (70342)	% FINER THAN .125 MM (70343)	% FINER THAN .250 MM (70344)
OCT.												
01...	17.0	3	48700	496	65200	--	--	--	--	89	91	97
NOV.												
02...	9.5	3	41000	402	44500	--	--	--	--	16	40	97
19...	5.5	--	39800	586	63000	--	--	--	--	--	--	--
DEC.												
03...	4.0	3	31500	577	49100	--	--	--	--	30	40	96
12...	1.0	--	28100	642	48700	--	--	--	--	--	--	--
JAN.												
17...	1.0	3	28400	139	10700	--	--	--	--	--	--	--
28...	.0	--	32900	558	49600	--	--	--	--	28	43	100
FEB.												
11...	1.0	3	29900	546	44100	--	--	--	--	20	32	88
27...	2.0	--	32400	660	57700	--	--	--	--	--	--	--
MAR.												
13...	5.0	3	34100	513	47200	--	--	--	--	38	53	94
25...	4.0	--	42400	782	89500	--	--	--	--	--	--	--
APR.												
05...	8.5	3	44400	1050	126000	--	--	--	--	25	30	96
19...	13.0	--	45600	470	57900	--	--	--	--	--	--	--
MAY												
03...	16.0	3	41700	430	48400	--	--	--	--	45	62	100
17...	15.0	--	43500	3120	366000	--	--	--	--	--	--	--
JUNE												
04...	21.0	3	39500	981	105000	--	--	--	--	72	79	99
21...	24.5	--	38900	617	64800	--	--	--	--	--	--	--
JULY												
02...	25.0	3	35700	405	39000	--	--	--	--	57	71	100
19...	27.0	--	37600	365	37100	--	--	--	--	--	--	--
AUG.												
02...	24.0	3	37000	411	41100	--	--	--	--	51	68	100
16...	23.5	--	42200	927	106000	--	--	--	--	--	--	--
SEP.												
03...	19.0	2	37000	461	46100	--	--	--	--	37	54	100
17...	20.5	--	35300	352	33500	--	--	--	--	--	--	--

GRAND RIVER BASIN

06897950 ELK CREEK NEAR DECATUR CITY, IOWA
(Hydrologic bench-mark station)

LOCATION.--Lat 40°43'18", long 93°56'19", near the southeast corner sec.34, T.69 N., R.27 W., Decatur County, at gaging station, 700 ft (213 m) downstream from West Elk Creek, 5.2 mi (8.4 km) upstream from mouth, and 5.7 mi (9.2 km) southwest of Decatur City.

DRAINAGE AREA.--52.5 mi² (136 km²).

PERIOD OF RECORD.--Chemical analyses: February 1968 to current year.
Water temperatures: November 1967 to current year (partial-record station).
Sediment records: November 1967 to current year (partial-record station).

REMARKS.--Miscellaneous biological data collected September 1970 to September 1972 are available in the District office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	DIS-SOLVED SILICA (SI02) (MG/L) (00955)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	PERCENT SODIUM (00932)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)
OCT. 25...	9.7	14	30	130	88	17	11	8	.3	4.2	300	0
DEC. 05...	70	10	--	--	35	8.7	7.7	11	.3	5.3	127	--
JAN. 16...	12	13	--	--	77	17	11	8	.3	2.4	254	0
FEB. 21...	19	11	--	--	58	15	11	10	.3	3.1	236	0
MAR. 28...	14	9.9	--	--	71	16	13	10	.4	2.4	234	5
MAY 09...	9.1	9.0	--	--	82	17	12	9	.3	2.6	276	--
JUNE 27...	2.6	10	--	--	89	18	10	7	.3	3.6	295	--
AUG. 06...	.02	12	--	--	97	22	12	7	.3	3.9	357	0
SEP. 17...	.002	11	--	--	110	24	13	7	.3	4.0	422	0

DATE	ALKALINITY AS CaCO3 (MG/L) (00410)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED NITRATE (N) (MG/L) (00618)	DIS-SOLVED NITRATE (NO3) (MG/L) (71851)	TOTAL NITRITE PLUS NITRATE (MG/L) (00630)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	TOTAL PHOSPHORUS (PO4) (MG/L) (71886)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	TOTAL FILTERABLE RESIDUE (MG/L) (00515)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)
OCT. 25...	246	49	7.0	.3	.03	.10	--	.04	.12	358	350	339
DEC. 05...	104	29	5.8	.0	--	--	1.1	.06	--	200	--	164
JAN. 16...	208	55	6.5	.1	--	--	.47	.02	--	314	--	307
FEB. 21...	194	47	5.2	.2	--	--	.47	.06	--	296	--	267
MAR. 28...	200	57	7.9	.2	--	--	.03	.01	--	296	--	298
MAY 09...	226	53	20	.3	--	--	.06	.05	--	292	--	332
JUNE 27...	242	49	6.4	.3	--	--	.01	.03	--	362	--	332
AUG. 06...	293	38	13	.1	--	--	.01	.06	--	388	--	374
SEP. 17...	346	45	7.7	.4	--	--	.04	.07	--	398	440	423

06897950 ELK CREEK NEAR DECATUR CITY, IOWA--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS-SOLVED SOLIDS (TONS PER DAY) (70302)	TOTAL NON-FILT-RABLE RFSIDUE (MG/L) (00530)	HARD-NESS (CA+MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	AIR TEMPER-ATURE (DEG C) (00020)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	DIS-SOLVED OXYGEN (MG/L) (00300)	PER-CENT SATUR-ATION (00301)
OCT. 25...	.49	9.38	5	290	44	475	7.8	12.0	12.0	10	10.0	96
DEC. 05...	.27	37.8	--	120	19	281	7.3	.0	-4.0	--	12.7	90
JAN. 16...	.43	10.3	--	260	54	512	7.6	.0	7.5	--	13.4	95
FEB. 21...	.40	15.2	--	210	13	472	8.0	4.0	--	--	--	--
MAR. 28...	.40	11.2	--	240	43	240	8.2	12.0	14.0	--	14.2	131
MAY 09...	.40	7.17	--	270	48	530	7.8	13.5	8.0	--	13.3	131
JUNE 27...	.49	2.54	--	300	54	560	7.5	16.0	13.5	--	9.6	100
AUG. 06...	.53	.02	--	330	40	600	7.7	22.0	28.0	--	7.8	90
SEP. 17...	.54	.21	16	370	27	720	7.9	22.5	26.0	--	11.0	128

DATE	CARBON DIOXIDE (CO2) (MG/L) (00405)	IMME-DIATE COLI-FORM (COL. PER 100 ML) (31501)	FECAL COLI-FORM (COL. PER 100 ML) (31616)	STREP-TOCOCCI (COL-ONIES PER 100 ML) (31679)	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L) (80040)	SUS-PENDED GROSS BETA AS CS-137 (PC/L) (03516)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L) (80050)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L) (80060)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS-SOLVED NATURAL URANIUM (U) (UG/L) (22703)
OCT. 25...	7.6	460	330	--	10	<.4	1.1	7.3	1.0	.06	3.1
DEC. 05...	10	4500	--	14000	--	--	--	--	--	--	--
JAN. 16...	10	33	--	173	--	--	--	--	--	--	--
FEB. 21...	3.8	--	--	--	--	--	--	--	--	--	--
MAR. 28...	2.5	700	20	13	--	--	--	--	--	--	--
MAY 09...	7.0	430	550	57	--	--	--	--	--	--	--
JUNE 27...	15	830	--	170	--	--	--	--	--	--	--
AUG. 06...	11	900	880	13	--	--	--	--	--	--	--
SEP. 17...	8.5	5700	55	0	<5.8	0.8	2.8	7.0	2.6	.02	3.0

DATE	INSTAN-TANEOUS DIS-CHARGE (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SUS-PENDED SEDI-MENT (MG/L) (80154)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) (80155)
OCT. 25...	9.7	12.0	11	.29
DEC. 05...	70	.0	333	63
JAN. 16...	12	.0	74	2.4
FEB. 21...	19	4.0	98	5.0
MAR. 28...	14	12.0	60	2.3
MAY 09...	9.1	13.5	72	1.8
JUNE 27...	2.6	16.0	37	.26

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS STATIONS

Water-quality records at periodic and miscellaneous stations

The Geological Survey collects data on specific conductance, pH and water temperature at many streamgaging stations and low-flow partial-record stations other than regular water-quality stations. These data are collected during routine visits to the stations for purpose of measuring streamflow. Periodic water-quality stations are those at regular streamgaging stations where samples are taken at 4- to 6-week intervals. Miscellaneous water-quality stations are those at low-flow partial-record stations where samples are taken on approximately a yearly basis. Additional information pertaining to location, drainage area and period of record are published in Part 1 of this report.

Water quality data for the low-flow partial-record stations are published for the period extending into the 1975 water year. As the analysis of these types of data should not be restricted to a specific cut-off date, the data during a stable base-flow condition are published in one report.

ANALYSIS OF PERIODIC STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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HAQUOKETA RIVER BASIN

05417700 - BEAR CREEK NEAR MONMOUTH, IOWA (LAT 42 02 18 LONG 090 52 59)

OCT., 1973				
04...	63	480	7.6	--
NOV.				
08...	18	440	8.1	1.5
DEC.				
12...	42	540	7.8	.0
JAN., 1974				
23...	52	410	8.7	.5
MAR.				
05...	180	430	7.8	2.5
APR.				
16...	140	480	7.8	11.0
MAY				
29...	123	--	--	17.0
AUG.				
22...	285	--	--	23.5

IOWA RIVER BASIN

05449500 - IOWA RIVER NEAR ROWAN, IOWA (LAT 42 45 36 LONG 093 37 23)

OCT., 1973				
30...	95	--	--	9.0
JAN., 1974				
10...	60	750	7.8	.0
FEB.				
11...	43	--	--	.0
MAR.				
18...	391	460	7.1	2.0
APR.				
29...	355	745	--	16.0
JUNE				
13...	729	700	--	17.0
JULY				
22...	73	600	--	23.0
AUG.				
26...	39	540	--	21.0

05457700 - CEDAR RIVER AT CHARLES CITY, IOWA (LAT 43 03 45 LONG 092 40 23)

OCT., 1973				
02...	3240	410	7.1	15.0
NOV.				
07...	461	580	8.0	3.0
JAN., 1974				
09...	361	430	7.4	.0
FEB.				
12...	294	660	8.2	1.0
MAR.				
20...	958	540	7.3	2.0
APR.				
30...	750	600	--	17.0
JUNE				
12...	3510	440	--	16.0
JULY				
23...	352	--	--	26.5
AUG.				
28...	270	540	--	21.5

ANALYSIS OF PERIODIC STATIONS

271

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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IOWA RIVER BASIN--CONTINUED

05464640 - PRAIRIE CREEK AT FAIRFAX, IOWA (LAT 41 55 22 LONG 091 47 02)

OCT., 1973				
09...	43	600	8.4	19.0
NOV.				
02...	34	560	8.1	8.5
DEC.				
14...	76	570	8.2	.0
JAN., 1974				
25...	107	560	8.8	1.0
MAR.				
01...	151	--	--	1.0
28...	94	390	7.9	5.5
JULY				
29...	46	--	--	22.0
SEP.				
13...	72	--	--	14.5

DES MOINES RIVER BASIN

05483000 - EAST FORK HARDIN CREEK NR. CHURDAN, IOWA (LAT 42 06 27 LONG 094 22 12)

OCT., 1973				
18...	32	730	7.5	14.0
NOV.				
30...	21	650	7.9	5.0
JAN., 1974				
18...	7.4	960	7.8	1.0
MAR.				
05...	6.2	680	7.5	8.0
APR.				
17...	28	760	7.5	10.0
MAY				
28...	49	700	--	--
JULY				
01...	20	580	--	17.0
10...	9.0	750	--	--
AUG.				
20...	.63	790	--	26.0

05483600 - MIDDLE RACCOON RIVER AT PANORA, IOWA (LAT 41 41 14 LONG 094 22 15)

OCT., 1973				
16...	743	--	--	15.0
NOV.				
30...	318	710	7.7	15.0
JAN., 1974				
17...	233	780	7.5	1.0
MAR.				
05...	778	--	--	6.0
APR.				
16...	71	600	7.9	12.0
MAY				
24...	1200	--	--	19.0
JULY				
10...	206	550	--	--
AUG.				
20...	52	600	--	23.0

05484800 - WALNUT CREEK AT DES MOINES, IOWA (LAT 41 35 14 LONG 093 42 11)

OCT., 1973				
10...	122	--	--	18.0
NOV.				
13...	36	800	8.4	9.5
DEC.				
19...	49	--	--	.0
JAN., 1974				
28...	119	550	8.8	1.0
FEB.				
27...	52	--	--	2.0
MAR.				
25...	57	360	8.1	.0
AUG.				
08...	16	600	8.1	23.5
SEP.				
19...	1.0	800	8.2	21.0

ANALYSIS OF PERIODIC STATIONS

DATE	DIS- CHANGE (CFS) (00060)	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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DES MOINES RIVER BASIN--CONTINUED

05485640 - FOURMILE CREEK AT DES MOINES, IOWA (LAT 41 36 50 LONG 093 32 43)

OCT., 1973				
10...	96	--	--	18.0
NOV.				
13...	42	460	8.2	9.5
DEC.				
19...	50	--	--	.0
JAN., 1974				
24...	125	580	8.5	.0
FER.				
27...	43	850	7.7	.5
MAR.				
25...	65	540	8.1	.0
JUNE				
04...	159	--	--	16.0
JULY				
01...	112	--	--	25.5
AUG.				
08...	7.9	800	7.7	23.5
SEP.				
19...	1.8	1300	8.2	21.0
23...	1.4	1180	7.8	12.0
23...	1.4	1180	7.8	12.0

MOSQUITO CREEK BASIN

06610520 - MOSQUITO CREEK NEAR EARLING, IOWA (LAT 41 45 10 LONG 095 27 50)

OCT., 1973				
01...	43	640	7.7	14.5
NOV.				
08...	26	625	7.8	3.5
DEC.				
07...	23	625	7.4	.0
JAN., 1974				
14...	16	610	7.5	.0
FER.				
14...	17	540	7.9	.0
MAR.				
01...	33	560	7.4	1.5
APR.				
03...	23	890	7.8	6.5
MAY				
07...	18	750	8.0	11.5
JUNE				
07...	22	650	8.0	16.0
JULY				
11...	14	550	7.8	21.0
AUG.				
01...	7.8	480	8.4	16.5
SEP.				
04...	4.7	550	7.4	15.0

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
MINNESOTA RIVER BASIN				
05317650 - BLUE EARTH R NR LAKOTA, IOWA (LAT 43 30 00 LONG 094 09 00)				
SEP., 1974 25...	.77	650	--	23.5
05317700 - UNION SLOUGH OUTLET NR LAKOTA, IOWA (LAT 43 24 00 LONG 094 07 00)				
SEP., 1974 25...	.76	780	--	18.5
05317810 - WF BLUE EARTH R BL MINN-IOWA STATE LINE (LAT 43 26 00 LONG 094 04 00)				
SEP., 1974 25...	2.4	850	--	21.5
UPPER ICWA RIVER BASIN				
05387300 - UPPER IOWA R AT CHESTER, IOWA (LAT 43 30 00 LONG 092 22 00)				
OCT., 1974 01...	20	480	8.0	6.0
05387400 - UPPER IOWA R NR KENDALVILLE, IOWA (LAT 43 28 00 LONG 092 02 00)				
OCT., 1974 01...	62	440	7.7	10.0
05388100 - CANOE CR NR DECORAH, IOWA (LAT 43 21 00 LONG 091 41 00)				
OCT., 1974 01...	23	470	7.6	10.0
05388300 - BEAR CR NR HIGHLANDVILLE, IOWA (LAT 43 27 00 LONG 091 37 00)				
OCT., 1974 01...	39	460	7.8	10.0
VILLAGE CREEK BASIN				
05388350 - VILLAGE CR AT VILLAGE CREEK, IOWA (LAT 43 19 00 LONG 091 14 00)				
OCT., 1974 02...	35	470	7.5	5.5
YELLOW CREEK BASIN				
05388800 - YELLOW R AT MYRON, IOWA (LAT 43 10 00 LONG 091 32 00)				
OCT., 1974 02...	12	580	7.7	9.0
05389000 - YELLOW RIVER AT ION, IOWA (LAT 43 07 00 LONG 091 16 00)				
OCT., 1974 03...	71	530	7.7	6.5
05411550 - NB TURKEY R NR VERNON SPRINGS, IOWA (LAT 43 21 00 LONG 092 11 00)				
OCT., 1974 01...	3.4	380	7.7	11.5
TURKEY RIVER BASIN				
05411560 - TURKEY R NR VERNON SPRINGS, IOWA (LAT 43 20 00 LONG 092 07 00)				
OCT., 1974 01...	7.3	370	7.8	10.0
05411620 - L TURKEY R NR WAUCOMA, IOWA (LAT 43 01 00 LONG 091 59 00)				
SEP., 1974 30...	21	420	7.8	11.0
05411700 - CRANE CREEK NEAR LOURDES, IOWA (LAT 43 15 00 LONG 092 19 00)				
SEP., 1974 30...	5.0	350	7.8	11.0

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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TURKEY RIVER BASIN--CONTINUED

05411800 - L TURKEY R NR ALPHA, IOWA (LAT 43 01 00 LONG 091 57 00)

SEP., 1974				
30...	45	390	7.6	11.5

05412100 - ROBERTS C AB ST. OLAF, IOWA (LAT 42 55 49 LONG 091 23 03)

SEP., 1974				
30...	6.3	620	8.1	10.0

05412150 - ROBERTS C AT ST. OLAF, IOWA (LAT 42 55 42 LONG 091 23 01)

SEP., 1974				
30...	9.7	630	8.2	10.5

05412200 - VOLGA R NR FAYETTE, IOWA (LAT 42 49 00 LONG 091 53 00)

SEP., 1974				
30...	5.0	360	8.1	12.5

05412300 - L VOLGA R NR FAYETTE, IOWA (LAT 41 49 02 LONG 091 53 02)

SEP., 1974				
30...	2.4	500	8.3	13.5

05412400 - VOLGA R AT LITTLEPORT, IOWA (LAT 42 45 14 LONG 091 22 08)

SEP., 1974				
30...	93	570	8.1	9.5

LITTLE MAQUOKETA RIVER BASIN

05414450 - N FK L MAQUOKETA R NR RICKARDSVILLE, IOWA (LAT 42 35 09 LONG 090 51 20)

SEP., 1974				
30...	2.3	570	8.0	10.0

MAQUOKETA RIVER BASIN

05416300 - MAQUOKETA R NR DUNDEE, IOWA (LAT 42 36 55 LONG 091 33 44)

SEP., 1974				
30...	15	420	7.8	14.0

05416400 - SF MAQUOKETA R NR DUNDEE, IOWA (LAT 42 36 08 LONG 091 35 13)

SEP., 1974				
30...	9.6	490	7.7	15.0

05417540 - PLUM C NR EARLVILLE, IOWA (LAT 42 26 04 LONG 091 13 58)

OCT., 1974				
01...	28	520	7.8	8.0

05417560 - MAQUOKETA R NR HOPKINTON, IOWA (LAT 42 22 00 LONG 091 16 00)

OCT., 1974				
01...	137	510	7.7	12.0

05417580 - BUCK CR NR HOPKINTON, IOWA (LAT 42 21 00 LONG 091 17 00)

OCT., 1974				
01...	13	510	7.8	9.0

05417600 - MAQUOKETA R NR SCOTCH GROVE, IOWA (LAT 42 12 00 LONG 091 01 00)

SEP., 1974				
30...	246	50	7.8	15.0

05418100 - NF MAQUOKETA R AT DYERSVILLE, IOWA (LAT 42 29 05 LONG 091 08 26)

SEP., 1974				
30...	37	630	7.7	12.0

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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MAQUOKETA RIVER BASIN--CONTINUED

05418200 - WHITEWATER CR AT FILLMORE, IOWA (LAT 42 19 07 LONG 090 55 26)

OCT., 1974				
01...	36	570	7.9	13.0

05418300 - LYTLE C NR BERNARD, IOWA (LAT 42 17 57 LONG 090 46 56)

OCT., 1974				
01...	35	590	8.0	11.0

05418350 - LYTLE CR NR FULTON, IOWA (LAT 42 12 00 LONG 090 45 00)

OCT., 1974				
01...	73	540	8.0	10.0

05418400 - NF MAQUOKETA R NR FULTON, IOWA (LAT 42 11 00 LONG 090 44 00)

OCT., 1974				
01...	254	560	8.2	10.5

05418650 - DEEP CR NR CHARLOTTE, IOWA (LAT 42 00 00 LONG 090 24 00)

OCT., 1974				
01...	11	450	8.0	13.0

05418700 - DEEP CR NR PRESTON, IOWA (LAT 42 03 00 LONG 090 26 00)

OCT., 1974				
01...	19	570	8.1	13.0

ELK RIVER BASIN

05420300 - ELK C NR ALMONT, IOWA (LAT 42 00 39 LONG 090 12 05)

OCT., 1974				
01...	26	615	8.4	14.5

WAPSIPINICON RIVER BASIN

05420540 - WAPSIPINCON R NR RICEVILLE, IOWA (LAT 43 20 00 LONG 092 34 00)

OCT., 1974				
01...	10	380	7.6	7.5

05420580 - WAPSIPINICON R NR IONIA, IOWA (LAT 43 01 00 LONG 092 23 00)

SEP., 1974				
30...	13	340	7.7	11.5

05420640 - LITTLE WAPSIPINICON RIVER AT ELMA, IOWA (LAT 43 14 00 LONG 092 27 00)

OCT., 1974				
01...	4.4	440	7.7	11.0

05420660 - WAPSIPINICON R NR NEW HAMPTON, IOWA (LAT 42 59 00 LONG 092 22 00)

SEP., 1974				
30...	26	340	7.6	9.5

05420680 - WAPSIPINICON R NR TRIPOLI, IOWA (LAT 42 05 00 LONG 092 15 00)

OCT., 1974				
01...	34	360	8.1	9.0

05420700 - EF WAPSIPINICON R NR FREDERICKSBURG, IOWA (LAT 43 01 00 LONG 092 13 00)

SEP., 1974				
30...	5.4	350	7.7	11.0

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
WAPSIPINICON RIVER BASIN--CONTINUED				
05420720 - EF WAPSIPINICON R NR TRIPOLI, IOWA (LAT 42 51 00 LONG 092 14 00)				
OCT., 1974 01...	15	460	8.2	8.5
05420740 - WAPSIPINICON R AT TRIPOLI, IOWA (LAT 42 48 00 LONG 092 14 00)				
OCT., 1974 01...	35	380	8.3	9.0
05420800 - CRANE C NR DENVER, IOWA (LAT 42 38 32 LONG 092 15 21)				
OCT., 1974 01...	.57	440	8.0	10.0
05420820 - CRANE CR AT DUNKERTON, IOWA (LAT 42 34 00 LONG 092 10 00)				
SEP., 1974 30...	.88	440	7.8	14.0
05420840 - L WAPSIPINICON R NR WESTGATE, IOWA (LAT 42 47 00 LONG 092 05 00)				
SEP., 1974 30...	6.4	350	8.0	14.0
05420860 - BUCK CR NR LITTLETON, IOWA (LAT 42 35 00 LONG 092 03 00)				
SEP., 1974 30...	1.4	320	7.3	13.5
05420900 - L WAPSIPINICON R AT LITTLETON, IOWA (LAT 42 33 00 LONG 092 02 00)				
SEP., 1974 30...	18	410	7.9	10.0
05420940 - OTTER CR NR OTTERVILLE, IOWA (LAT 42 33 00 LONG 091 57 00)				
SEP., 1974 30...	20	470	7.6	10.0
05421500 - WAPSIPINICON RIVER AT STONE CITY, IOWA (LAT 42 07 00 LONG 091 21 00)				
SEP., 1974 30...	174	400	8.3	14.0
05421550 - BUFFALO CREEK ABOVE WINTHROP, IOWA (LAT 42 30 00 LONG 091 44 00)				
SEP., 1974 30...	6.7	400	7.9	7.5
05421700 - BUFFALO CR NR STONE CITY, IOWA (LAT 42 08 00 LONG 091 21 00)				
SEP., 1974 30...	37	390	8.1	14.0
05421800 - YANKEE RUN AT WHEATLAND, IOWA (LAT 41 49 34 LONG 090 50 25)				
OCT., 1974 02...	4.9	580	8.0	6.0
05421850 - MUD CR NR PLAINVIEW, IOWA (LAT 41 42 02 LONG 090 45 26)				
OCT., 1974 02...	9.4	380	8.0	6.0
05421900 - SILVER C NR DE WITT, IOWA (LAT 41 47 09 LONG 090 33 13)				
OCT., 1974 02...	15	520	7.9	7.0

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
WAPSIPINICON RIVER BASIN--CONTINUED				
05422100 - BROPHYS C NR LOW MOOR, IOWA (LAT 41 48 56 LONG 090 24 14)				
OCT., 1974 01...	18	440	8.2	13.5
IOWA RIVER BASIN				
05451600 - LINN C AT MARSHALLTOWN, IOWA (LAT 42 02 22 LONG 092 54 40)				
SEP., 1974 26...	11	480	8.3	20.0
05451700 - TIMBER CREEK NEAR MARSHALLTOWN, IOWA (LAT 42 00 25 LONG 092 51 15)				
SEP., 1974 26...	13	430	8.3	21.0
05451800 - DEER CREEK AT TOLEDO, IOWA (LAT 41 59 00 LONG 092 35 00)				
SEP., 1974 27...	23	500	8.2	14.0
05451930 - SALT CR NR CLUTIER, IOWA (LAT 42 03 00 LONG 092 22 00)				
SEP., 1974 27...	22	490	8.2	15.0
05451960 - EB SALT CR NR ELBERON, IOWA (LAT 42 04 00 LONG 092 20 00)				
SEP., 1974 27...	13	500	8.1	15.0
05452700 - BEAR CR AT BROOKLYN, IOWA (LAT 41 45 00 LONG 092 26 00)				
SEP., 1974 26...	9.4	520	8.0	14.0
05454200 - CLEAR CR NR OXFORD, IOWA (LAT 41 43 00 LONG 091 47 00)				
SEP., 1974 27...	12	440	7.9	17.0
05455050 - OLD MANS CR NR PARNELL, IOWA (LAT 41 36 00 LONG 091 57 00)				
SEP., 1974 26...	13	380	8.2	21.0
05455100 - OLD MANS CREEK NEAR IOWA CITY, IOWA (LAT 41 36 23 LONG 091 36 56)				
SEP., 1974 27...	38	430	7.9	19.0
05455200 - NORTH FORK ENGLISH RIVER NEAR GUERNSEY, IOWA (LAT 41 38 00 LONG 092 24 00)				
SEP., 1974 26...	6.2	380	8.3	19.0
05455250 - N ENGLISH R NR NORTH ENGLISH, IOWA (LAT 41 33 00 LONG 092 03 00)				
SEP., 1974 26...	26	320	8.3	20.0
05455260 - M ENGLISH R NR NORTH ENGLISH, IOWA (LAT 41 32 00 LONG 092 04 00)				
SEP., 1974 26...	4.7	380	8.1	17.0
05455400 - S ENGLISH R NR KESWICK, IOWA (LAT 41 28 13 LONG 092 15 31)				
SEP., 1974 26...	4.7	380	8.1	17.0

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
IOWA RIVER BASIN--CONTINUED				
05455450 - S ENGLISH R NR KINROSS, IOWA (LAT 41 30 00 LONG 091 57 00)				
SEP., 1974				
26...	9.1	360	7.9	19.5
05464050 - MILLERS CR NR LAPORTE CITY, IOWA (LAT 42 23 00 LONG 092 15 00)				
SEP., 1974				
26...	3.9	570	8.2	17.0
OCT.				
21...	12	610	8.0	4.5
05464100 - WOLF C NR BEAMAN, IOWA (LAT 42 12 47 LONG 092 47 12)				
SEP., 1974				
26...	7.8	500	8.3	19.0
OCT.				
21...	13	640	7.6	9.0
05464150 - TWELVE MILE CR NR BUCKINGHAM, IOWA (LAT 42 14 00 LONG 092 26 00)				
SEP., 1974				
26...	9.2	490	8.4	19.0
OCT.				
21...	21	590	7.8	8.0
05464200 - WOLF C NR BUCKINGHAM, IOWA (LAT 42 15 33 LONG 092 21 42)				
SEP., 1974				
26...	42	450	8.3	17.0
OCT.				
21...	89	580	7.7	10.0
05464250 - WOLF CR AT LAPORTE CITY, IOWA (LAT 42 19 00 LONG 092 12 00)				
SEP., 1974				
26...	54	540	8.3	14.0
OCT.				
21...	94	520	7.6	5.5
05464300 - SPRING CR NR LAPORTE CITY, IOWA (LAT 42 20 00 LONG 092 06 00)				
SEP., 1974				
26...	9.8	500	8.2	15.0
OCT.				
21...	12	440	7.8	6.0
05464320 - E BLUE C NR CENTER POINT, IOWA (LAT 42 11 41 LONG 091 48 28)				
SEP., 1974				
26...	3.0	430	8.0	.0
OCT.				
21...	6.0	440	7.9	.0
05464350 - BEAR C AT SHELLSBURG, IOWA (LAT 42 05 39 LONG 091 53 34)				
SEP., 1974				
26...	7.0	440	8.0	.0
OCT.				
21...	11	480	7.7	12.0
05464400 - BEAR C NR PALO, IOWA (LAT 42 04 55 LONG 091 47 40)				
SEP., 1974				
26...	14	470	8.0	.0
OCT.				
21...	16	400	8.1	7.0

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
IOWA RIVER BASIN--CONTINUED				
05464460 - OTTER C NR CEDAR RAPIDS, IOWA (LAT 42 03 57 LONG 091 44 27)				
SEP., 1974				
26...	8.0	430	7.7	.0
OCT.				
21...	11	380	8.1	9.5
05464550 - PRAIRIE C NR BLAIRSTOWN, IOWA (LAT 41 56 06 LONG 092 07 51)				
SEP., 1974				
26...	8.2	570	7.7	.0
05464600 - PRAIRIE C AT NORWAY, IOWA (LAT 41 53 35 LONG 091 55 43)				
SEP., 1974				
26...	25	530	7.9	.0
05464650 - PRAIRIE C AT CEDAR RAPIDS, IOWA (LAT 41 55 49 LONG 091 40 34)				
SEP., 1974				
27...	47	500	7.8	.0
05464700 - INDIAN C AT CEDAR RAPIDS, IOWA (LAT 41 59 42 LONG 091 37 03)				
SEP., 1974				
27...	8.0	490	7.7	.0
05464750 - BIG C AT BERTRAM, IOWA (LAT 41 57 23 LONG 091 31 35)				
SEP., 1974				
27...	35	500	8.0	.0
05464800 - RDCK C AT ROCHESTER, IOWA (LAT 41 40 40 LONG 091 09 52)				
SEP., 1974				
26...	10	520	7.9	14.0
05464850 - SUGAR C NR BENNETT, IOWA (LAT 41 41 56 LONG 091 02 43)				
SEP., 1974				
26...	7.1	400	8.0	16.0
05464900 - MUD C NR WILTON, IOWA (LAT 41 34 45 LONG 091 02 17)				
SEP., 1974				
26...	13	560	7.8	18.0
05464920 - SUGAR C NR MOSCOW, IOWA (LAT 41 34 00 LONG 091 04 09)				
SEP., 1974				
26...	28	410	8.0	20.0
05464940 - WAPSINOC C AT WEST LIBERTY, IOWA (LAT 41 33 26 LONG 091 15 19)				
SEP., 1974				
26...	4.7	900	7.4	19.0
05464950 - WB WAPSINOC C AT WEST LIBERTY, IOWA (LAT 41 33 48 LONG 091 16 13)				
SEP., 1974				
26...	7.7	520	7.9	19.0
05465300 - LONG CR NR WAPELLO, IOWA (LAT 41 12 00 LONG 091 17 00)				
SEP., 1974				
27...	8.0	650	7.8	18.0
05465600 - OTTER C NR WAPELLO, IOWA (LAT 41 07 20 LONG 091 09 00)				
SEP., 1974				
27...	10	480	7.8	14.5

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
FLINT RIVER BASIN				
05469700 - FLINT CR NR BURLINGTON, IOWA (LAT 40 52 00 LONG 091 12 03)				
SEP., 1974 20...	3.1	700	8.0	18.0
SKUNK RIVER BASIN				
05469800 - S SKUNK R NR ELLSWORTH, IOWA (LAT 42 19 00 LONG 093 35 00)				
SEP., 1974 20...	2.7	580	8.1	16.5
05469850 - MUD LAKE DRAINAGE DITCH 71 AT JEWELL, IOWA (LAT 42 19 05 LONG 093 38 05)				
SEP., 1974 20...	3.9	800	7.7	16.5
05469950 - S SKUNK R AT RANDALL, IOWA (LAT 42 14 00 LONG 093 35 00)				
SEP., 1974 20...	11	700	8.0	15.5
05470200 - SQUAW CR NR STANHOPE, IOWA (LAT 42 12 34 LONG 093 47 07)				
SEP., 1974 20...	.75	650	7.7	21.0
05471050 - S SKUNK R AT COLFAX, IOWA (LAT 41 40 55 LONG 093 14 47)				
SEP., 1974 19...	98	660	8.1	20.5
05471100 - EB INDIAN CR NR NEVADA, IOWA (LAT 41 02 00 LONG 093 22 00)				
SEP., 1974 19...	4.0	530	8.0	23.5
05471150 - WB INDIAN CR NR IOWA CENTER, IOWA (LAT 41 56 00 LONG 093 26 00)				
SEP., 1974 19...	2.3	1050	8.5	24.0
05471180 - INDIAN CR NR IOWA CENTER, IOWA (LAT 41 55 00 LONG 093 25 00)				
SEP., 1974 19...	9.2	650	8.0	22.0
05471350 - CLEAR CR NR MINGO, IOWA (LAT 41 47 00 LONG 093 16 00)				
SEP., 1974 19...	6.4	600	8.2	18.0
05471400 - ELK CR NR TAINTOR, IOWA (LAT 41 29 00 LONG 092 51 00)				
SEP., 1974 19...	4.1	460	8.2	21.0
05472100 - N SKUNK R NR NEWTON, IOWA (LAT 41 47 00 LONG 093 02 00)				
SEP., 1974 19...	12	560	7.9	18.0
05472300 - N SKUNK R NR SEARSBORO, IOWA (LAT 41 32 00 LONG 092 42 00)				
SEP., 1974 19...	40	480	8.0	18.0
05472400 - MIDDLE CR NR ROSE HILL, IOWA (LAT 41 20 42 LONG 092 28 25)				
SEP., 1974 19...	4.2	480	8.0	20.0

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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SKUNK RIVER BASIN--CONTINUED

05472450 - CEDAR CR NR SIGOURNEY, IOWA (LAT 41 18 42 LONG 092 13 33)				
SEP., 1974 19...	4.1	420	8.0	19.5
05473000 - SKUNK RIVER AT COPPOCK, IOWA (LAT 41 10 00 LONG 091 43 00)				
SEP., 1974 20...	354	440	8.1	18.5
05473020 - EF CROOKED CR NR WINFIELD, IOWA (LAT 41 09 00 LONG 091 26 00)				
SEP., 1974 19...	.55	530	7.7	22.0
05473050 - CROOKED CR NR COPPOCK, IOWA (LAT 41 12 00 LONG 091 42 00)				
SEP., 1974 20...	12	560	8.2	18.0
05473100 - WALNUT CR AT GERMANVILLE, IOWA (LAT 41 06 00 LONG 091 46 00)				
SEP., 1974 20...	2.0	440	8.1	16.0
05473200 - CEDAR CR NR HIGHLAND CENTER, IOWA (LAT 41 06 30 LONG 092 21 58)				
SEP., 1974 19...	4.2	490	8.4	20.0
05473250 - COMPETINE CR BELOW FORKS NR BATAVIA, IOWA (LAT 41 02 00 LONG 092 07 00)				
SEP., 1974 20...	.35	460	8.0	15.0
05473300 - CEDAR CR NR BATAVIA, IOWA (LAT 41 01 00 LONG 092 07 00)				
SEP., 1974 20...	9.0	480	8.2	16.0
05473350 - L CEDAR CR NR SALEM, IOWA (LAT 40 51 00 LONG 091 41 00)				
SEP., 1974 19...	.04	500	7.8	23.0
05473400 - CEDAR CR NR OAKLAND MILLS, IOWA (LAT 40 55 00 LONG 091 40 00)				
SEP., 1974 19...	23	480	8.0	22.5
DEVILS CREEK BASIN				
05474200 - SUGAR CR NR FRANKLIN, IOWA (LAT 40 39 54 LONG 091 28 39)				
SEP., 1974 20...	1.2	590	8.0	18.5
DES MOINES RIVER BASIN				
05476550 - JACK CR NR RINGSTED, IOWA (LAT 43 16 00 LONG 094 38 00)				
SEP., 1974 26...	.08	620	--	11.5
05476600 - SILVER CR NR EMMETTSBURG, IOWA (LAT 43 06 00 LONG 094 43 00)				
SEP., 1974 26...	.99	625	--	12.5

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
DES MOINES RIVER BASIN--CONTINUED				
05476650 - CYLINDER CR NR RODMAN, IOWA (LAT 43 02 00 LONG 094 34 00)				
SEP., 1974 26...	2.8	650	--	13.5
05476720 - BEAVER CR NR ROLFE, IOWA (LAT 42 50 00 LONG 094 28 00)				
SEP., 1974 24...	.10	280	--	10.5
05476740 - PILOT CR NR ROLFE, IOWA (LAT 42 49 00 LONG 094 27 00)				
SEP., 1974 24...	2.0	400	--	11.0
05477700 - EF DES MOINES R NR SWEA CITY, IOWA (LAT 43 19 00 LONG 094 25 00)				
SEP., 1974 25...	.58	700	--	18.5
05477800 - MUD CR AT BANCROFT, IOWA (LAT 43 18 00 LONG 094 12 00)				
SEP., 1974 25...	.42	1250	--	17.0
05478050 - BUFFALO CR NR TITONKA, IOWA (LAT 43 14 00 LONG 093 59 00)				
SEP., 1974 25...	.04	640	--	17.5
05478100 - N BUFFALO CR NR BUFFALO CENTER, IOWA (LAT 43 19 00 LONG 093 58 00)				
SEP., 1974 25...	.96	640	--	19.0
05478150 - BLACK CAT CR NR LONE ROCK, IOWA (LAT 43 12 00 LONG 094 20 00)				
SEP., 1974 26...	.06	1000	--	14.0
05478350 - LOTTS CR NR WEST BEND, IOWA (LAT 43 58 00 LONG 094 23 00)				
SEP., 1974 26...	1.3	1010	--	19.0
05478400 - LOTTS CR AT LIVERMORE, IOWA (LAT 42 52 00 LONG 094 11 00)				
SEP., 1974 25...	2.0	820	--	16.0
05479600 - LIZARD CR NR PALMER, IOWA (LAT 42 39 00 LONG 094 30 00)				
SEP., 1974 24...	1.3	860	--	13.0
05479800 - NB LIZARD CR NR HAVELOCK, IOWA (LAT 42 48 00 LONG 094 40 00)				
SEP., 1974 24...	.46	360	--	11.0
05479900 - LIZARD CR NR GILMORE CITY, IOWA (LAT 42 38 00 LONG 094 28 00)				
SEP., 1974 24...	1.3	500	--	18.0

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
DES MOINES RIVER BASIN--CONTINUED				
05480100 - SB LIZARD CR NR PALMER, IOWA (LAT 42 35 00 LONG 094 32 00)				
SEP., 1974 24...	.10	540	--	15.0
05480300 - SB LIZARD CR NR FORT DODGE, IOWA (LAT 42 29 50 LONG 094 13 59)				
SEP., 1974 24...	1.9	640	--	16.0
05480620 - BRUSHY CR NR HOMER, IOWA (LAT 42 23 00 LONG 093 59 00)				
SEP., 1974 24...	.36	700	--	14.5
05480700 - BOONE R NR RENWICK, IOWA (LAT 42 53 00 LONG 093 55 00)				
SEP., 1974 25...	2.1	720	--	20.0
05480720 - PRAIRIE CR NR LUVERNE, IOWA (LAT 42 57 00 LONG 094 05 00)				
SEP., 1974 25...	1.1	750	--	10.0
05480760 - PRAIRIE CR NR RENWICK, IOWA (LAT 42 52 00 LONG 093 59 00)				
SEP., 1974 25...	.52	660	--	20.0
05480800 - OTTER CR NR GOLDFIELD, IOWA (LAT 42 47 00 LONG 093 53 00)				
SEP., 1974 25...	.35	650	--	20.0
05480820 - BOONE R NR GOLDFIELD, IOWA (LAT 42 43 00 LONG 093 57 00)				
SEP., 1974 25...	1.9	550	--	14.0
05480860 - EAGLE CR NR EAGLE GROVE, IOWA (LAT 42 42 00 LONG 093 49 00)				
SEP., 1974 25...	.95	900	--	16.5
05480900 - EAGLE CR NR WOOLSTOCK, IOWA (LAT 42 34 00 LONG 093 51 00)				
SEP., 1974 25...	2.1	750	--	13.0
05480940 - WHITE FOX CR NR WOOLSTOCK, IOWA (LAT 42 36 00 LONG 093 45 00)				
SEP., 1974 25...	2.3	560	--	14.5
05480980 - WHITE FOX CR AT WEBSTER CITY, IOWA (LAT 42 30 00 LONG 093 48 00)				
SEP., 1974 24...	4.0	650	--	14.0

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
DES MOINES RIVER BASIN--CONTINUED				
05481700 - BEAVER CR NR BEAVER, IOWA (LAT 42 01 55 LONG 094 09 01)				
SEP., 1974 23...	.76	670	9.4	.0
05481800 - BEAVER CR NR BERKLEY, IOWA (LAT 41 55 00 LONG 094 06 00)				
SEP., 1974 23...	1.6	675	8.1	17.0
05481900 - BEAVER CR AT GRANGER, IOWA (LAT 41 45 39 LONG 093 51 01)				
SEP., 1974 23...	2.9	500	8.2	19.0
05482100 - N RACCOON R NR REMBRANDT, IOWA (LAT 42 47 00 LONG 095 06 00)				
SEP., 1974 23...	.79	720	--	17.0
05482120 - N RACCOON R NR TRUESDALE, IOWA (LAT 42 42 00 LONG 095 05 00)				
SEP., 1974 23...	2.2	800	--	18.0
05482180 - L CEDAR CR NR FONDA, IOWA (LAT 42 37 00 LONG 094 51 00)				
SEP., 1974 23...	.05	600	--	16.0
05482200 - B CEDAR CR AT FONDA, IOWA (LAT 42 35 00 LONG 094 51 00)				
SEP., 1974 23...	.69	1300	--	17.5
05482220 - B CEDAR CR AT SAC CITY, IOWA (LAT 42 24 00 LONG 094 59 00)				
SEP., 1974 23...	4.4	890	--	14.0
05482320 - INDIAN CR NR LAKE VIEW, IOWA (LAT 42 20 00 LONG 095 00 00)				
SEP., 1974 23...	4.1	740	--	12.0
05482360 - CAMP CR NR LYTTON, IOWA (LAT 42 23 00 LONG 094 50 00)				
SEP., 1974 23...	.15	3025	--	15.0
05482380 - CAMP CR NR LAKE CITY, IOWA (LAT 42 17 00 LONG 094 50 00)				
SEP., 1974 23...	.81	775	--	15.0
05482400 - N RACCOON R NR LAKE CITY, IOWA (LAT 42 16 00 LONG 094 50 00)				
SEP., 1974 23...	.36	700	--	16.0
05482410 - LAKE CR NR ROCKWELL CITY, IOWA (LAT 42 24 00 LONG 094 36 00)				
SEP., 1974 23...	.57	2700	--	12.5
05482420 - LAKE C NR LAKE CITY, IOWA (LAT 42 16 00 LONG 094 47 00)				
SEP., 1974 23...	1.1	1280	--	16.0

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
DES MOINES RIVER BASIN--CONTINUED				
05482440 - PURGATORY CR NR LANESBORO, IOWA (LAT 42 10 00 LONG 094 38 00)				
SEP., 1974 25...	1.1	560	--	18.5
05482460 - E CEDAR CR NR SOMERS, IOWA (LAT 42 22 07 LONG 094 27 03)				
SEP., 1974 23...	.19	950	--	10.5
05482700 - HARDIN CR NR CHURDAN, IOWA (LAT 42 10 00 LONG 094 26 00)				
SEP., 1974 23...	.16	700	--	11.5
05483050 - HARDIN CR NR JEFFERSON, IOWA (LAT 42 01 00 LONG 094 20 00)				
SEP., 1974 23...	1.7	610	--	15.0
05483100 - W BUTTRICK CR NR FARNHAMVILLE, IOWA (LAT 42 13 00 LONG 094 22 00)				
SEP., 1974 23...	.22	2000	--	9.5
05483150 - E BUTTRICK CR NR GRAND JUNCTION, IOWA (LAT 42 04 00 LONG 094 16 00)				
SEP., 1974 23...	.53	580	--	14.0
05483200 - BUTTRICK CR NR GRAND JUNCTION, IOWA (LAT 42 02 00 LONG 094 17 00)				
SEP., 1974 23...	.86	580	--	15.0
05483250 - GREEN BRIER CR NR JAMAICA, IOWA (LAT 41 51 00 LONG 094 17 00)				
SEP., 1974 23...	.36	450	--	15.0
05483300 - N RACCOON R NR PERRY, IOWA (LAT 41 50 00 LONG 094 08 00)				
SEP., 1974 23...	.89	600	--	16.5
05483310 - S RACCOON R NR GUTHRIE CENTER, IOWA (LAT 41 41 00 LONG 094 32 00)				
SEP., 1974 24...	.16	410	--	19.5
05483320 - BRUSHY FORK CR NR DEDHAM, IOWA (LAT 41 47 00 LONG 094 54 00)				
SEP., 1974 25...	.12	600	--	14.0
05483330 - BRUSHY FORK CR NR GUTHRIE CENTER, IOWA (LAT 41 39 00 LONG 094 27 00)				
SEP., 1974 24...	.34	0	--	17.5
05483340 - S RACCOON R NR MONTEITH, IOWA (LAT 41 38 00 LONG 094 25 00)				
SEP., 1974 24...	.57	480	--	17.0
05483350 - M RACCOON R NR CARROLL, IOWA (LAT 42 03 00 LONG 094 49 00)				
SEP., 1974 25...	.10	750	--	12.5

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
DES MOINES RIVER BASIN--CONTINUED				
05483360 - M RACCOON R NR GLIDDEN, IOWA (LAT 42 03 00 LONG 094 46 00)				
SEP., 1974 25...	9.8	900	--	11.0
05483380 - WILLOW CR NR SCRANTON, IOWA (LAT 41 54 00 LONG 094 35 00)				
SEP., 1974 25...	1.0	675	--	18.0
05483400 - WILLOW CR NR BAYARD, IOWA (LAT 41 49 00 LONG 094 33 00)				
SEP., 1974 24...	6.3	490	--	18.5
05483450 - M RACCOON R NR BAYARD, IOWA (LAT 41 47 00 LONG 094 30 00)				
SEP., 1974 24...	42	625	--	16.0
05483620 - MOSQUITO CR NR LINDEN, IOWA (LAT 41 43 00 LONG 094 15 00)				
SEP., 1974 23...	.15	440	--	18.0
05483640 - MOSQUITO CR NR REDFIELD, IOWA (LAT 41 38 00 LONG 094 13 00)				
SEP., 1974 24...	.53	560	--	14.5
05483660 - M RACCOON R AT REDFIELD, IOWA (LAT 41 36 00 LONG 094 13 00)				
SEP., 1974 24...	48	570	--	16.0
05484200 - PANTHER CR NR ADEL, IOWA (LAT 41 36 00 LONG 094 06 00)				
SEP., 1974 24...	1.1	600	--	12.0
05485600 - FOURMILE CR NR ANKENY, IOWA (LAT 41 43 54 LONG 093 34 21)				
SEP., 1974 23...	.10	670	7.8	14.0
05485700 - NORTH R NR EARLHAM, IOWA (LAT 41 24 00 LONG 094 11 00)				
SEP., 1974 24...	.56	420	8.0	.0
05485850 - NB NORTH R AT WINTERSET, IOWA (LAT 41 26 00 LONG 093 56 00)				
SEP., 1974 24...	.77	450	7.8	17.0
05485900 - NORTH R NR WINTERSET, IOWA (LAT 41 26 00 LONG 093 55 00)				
SEP., 1974 24...	2.0	500	7.8	.0
05486100 - MIDDLE R NR CASEY, IOWA (LAT 41 30 00 LONG 094 29 00)				
SEP., 1974 24...	1.8	530	7.7	19.0

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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DES MOINES RIVER BASIN--CONTINUED

05486150 - MIDDLE R AT MIDDLE RIVER, IOWA (LAT 41 20 00 LONG 094 14 00)				
SEP., 1974				
24...	3.3	450	7.8	18.0
05486350 - CLANTON CR NR MARTENSDALE, IOWA (LAT 41 21 00 LONG 093 45 00)				
SEP., 1974				
23...	1.0	500	7.8	15.0
05486400 - MIDDLE R AT MARTENSDALE, IOWA (LAT 41 22 00 LONG 093 44 00)				
SEP., 1974				
23...	8.8	540	7.5	17.0
05486900 - SQUAW CR NR JAMISON, IOWA (LAT 41 08 00 LONG 093 44 00)				
SEP., 1974				
23...	.00	480	7.7	15.0
05487100 - SQUAW CR NR INDIANOLA, IOWA (LAT 41 18 00 LONG 093 36 00)				
SEP., 1974				
23...	1.1	440	7.6	16.0
05487200 - SOUTH R NR INDIANOLA, IOWA (LAT 41 20 00 LONG 093 35 00)				
SEP., 1974				
23...	3.2	500	7.4	17.0
05487450 - OTTER CR NR MILO, IOWA (LAT 41 17 02 LONG 093 29 09)				
SEP., 1974				
23...	.74	440	7.5	14.0
05487700 - WHITE BREAST CR NR WOODBURN, IOWA (LAT 40 58 36 LONG 093 35 14)				
SEP., 1974				
24...	.05	600	7.5	12.5
05487800 - WHITEBREAST CREEK AT LUCAS, IOWA (LAT 41 01 00 LONG 093 28 00)				
SEP., 1974				
24...	.07	570	7.5	12.0
05487900 - WHITE BREAST CREEK NEAR NEWBORN, IOWA (LAT 41 10 00 LONG 093 21 00)				
SEP., 1974				
23...	.80	480	7.7	15.0
05488200 - ENGLISH CR NR KNOXVILLE, IOWA (LAT 41 16 00 LONG 093 05 00)				
SEP., 1974				
23...	.05	460	7.7	14.5
05488300 - ENGLISH R NR HARVEY, IOWA (LAT 41 20 00 LONG 092 57 00)				
SEP., 1974				
23...	2.3	1800	7.8	14.0
05488550 - CEDAR CR AT MELROSE, IOWA (LAT 40 58 00 LONG 093 03 00)				
SEP., 1974				
24...	.02	650	7.8	15.5
05488600 - CEDAR CR NR ALBIA, IOWA (LAT 41 01 00 LONG 092 53 00)				
SEP., 1974				
24...	.26	560	7.6	14.5

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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DES MOINES RIVER BASIN--CONTINUED

05488700 - CEDAR CR NR LOVILIA, IOWA (LAT 41 07 00 LONG 092 56 00)

SEP., 1974 23...	2.1	560	7.9	14.0
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05488800 - N CEDAR CR NR LOVILIA, IOWA (LAT 41 09 00 LONG 093 03 00)

SEP., 1974 23...	.03	520	7.6	15.0
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05488900 - N CEDAR CR NR MARYSVILLE, IOWA (LAT 41 11 00 LONG 093 01 00)

SEP., 1974 23...	.18	530	7.4	13.5
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05489300 - M AVERY CR NR CHILLICOTHE, IOWA (LAT 41 06 00 LONG 092 33 00)

SEP., 1974 24...	.43	800	7.4	14.0
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05489400 - S AVERY CR AT CHILLICOTHE, IOWA (LAT 41 05 00 LONG 092 32 00)

SEP., 1974 24...	.14	680	7.8	11.5
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05489900 - SOAP CR NR ASH GROVE, IOWA (LAT 40 51 00 LONG 092 36 00)

SEP., 1974 24...	1.1	530	7.9	22.0
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05490100 - SOAP CR NR FLORIS, IOWA (LAT 40 53 37 LONG 092 15 53)

SEP., 1974 25...	7.1	580	7.6	14.5
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05490200 - LICK CR AT KILBOURN, IOWA (LAT 40 48 00 LONG 091 58 00)

SEP., 1974 25...	.36	460	7.8	18.5
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05490300 - CHEQUEST CR NR TROY, IOWA (LAT 40 47 17 LONG 092 11 01)

SEP., 1974 25...	.06	570	7.7	--
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05490400 - CHEQUEST CR NR PITTSBURG, IOWA (LAT 40 45 41 LONG 092 00 57)

SEP., 1974 25...	1.1	520	7.8	16.0
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05490700 - SUGAR CR NR CHARLESTON, IOWA (LAT 40 33 53 LONG 091 23 43)

SEP., 1974 20...	.06	470	7.7	16.0
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FOX RIVER BASIN

05494500 - FOX RIVER AT CANTRIL, IOWA (LAT 40 39 35 LONG 092 03 40)

SEP., 1974 25...	4.2	460	8.0	15.5
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ANALYSES OF MISCELLANEOUS STATIONS

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DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
BIG SIOUX RIVER BASIN				
06483100 - ROCK R NR ROCK RAPIDS, IOWA (LAT 43 30 01 LONG 096 11 03)				
SEP., 1974 25...	7.6	700	7.9	20.0
06483260 - KANARANZI CR NR ROCK RAPIDS, IOWA (LAT 43 28 00 LONG 096 09 00)				
SEP., 1974 25...	1.5	620	8.0	22.0
06483280 - TOM CR AT ROCK RAPIDS, IOWA (LAT 43 26 00 LONG 096 09 00)				
SEP., 1974 25...	.02	700	7.4	18.5
06483300 - ROCK R BELOW ROCK RAPIDS, IOWA (LAT 43 24 00 LONG 096 09 00)				
SEP., 1974 25...	8.2	700	7.6	17.0
06483320 - MUD CR AT LESTER, IOWA (LAT 43 27 00 LONG 096 20 00)				
SEP., 1974 25...	.01	1400	7.5	21.5
06483330 - MUD CR NR DOON, IOWA (LAT 43 17 00 LONG 096 15 00)				
SEP., 1974 25...	.37	880	7.6	19.5
06483340 - ROCK R NR DOON, IOWA (LAT 43 16 00 LONG 096 15 00)				
SEP., 1974 25...	9.7	600	8.7	18.0
06483360 - L ROCK R NR LITTLE ROCK, IOWA (LAT 43 30 00 LONG 095 50 57)				
SEP., 1974 25...	.18	560	7.7	20.0
06483380 - L ROCK R AT LITTLE ROCK, IOWA (LAT 43 26 00 LONG 095 54 00)				
SEP., 1974 25...	1.6	1000	7.7	19.0
06483400 - L ROCK R NR GEORGE, IOWA (LAT 43 19 00 LONG 096 02 00)				
SEP., 1974 25...	3.0	780	7.9	19.5
06483460 - OTTER CREEK NEAR ASHTON, IOWA (LAT 43 20 00 LONG 095 46 00)				
SEP., 1974 25...	2.6	1090	8.2	20.5
06483470 - OTTER CR NR MATLOCK, IOWA (LAT 43 16 00 LONG 095 55 00)				
SEP., 1974 25...	3.8	1000	7.7	21.0
06483480 - OTTER CR NR GEORGE, IOWA (LAT 43 17 00 LONG 096 03 00)				
SEP., 1974 25...	4.9	930	7.7	19.0
06483490 - L ROCK R NR DOON, IOWA (LAT 43 16 00 LONG 096 14 00)				
SEP., 1974 25...	8.2	840	8.1	18.0

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
BIG SIOUX RIVER BASIN--CONTINUED				
06484100 - SIXMILE CR NR HAWARDEN, IOWA (LAT 43 02 00 LONG 096 24 00)				
SEP., 1974 25...	1.1	900	7.3	15.0
06484150 - SIXMILE CR NR CHATSWORTH, IOWA (LAT 42 56 00 LONG 096 29 00)				
SEP., 1974 25...	3.1	800	8.4	13.5
06484200 - INDIAN CR NR CHATSWORTH, IOWA (LAT 42 53 00 LONG 096 30 00)				
SEP., 1974 25...	1.1	990	8.2	12.0
06485800 - BROKEN KETTLE CR NR ADAVILLE, IOWA (LAT 42 43 20 LONG 096 28 08)				
SEP., 1974 26...	2.4	800	8.3	11.5
06485900 - BROKEN KETTLE CR NR SIOUX CITY, IOWA (LAT 42 38 16 LONG 096 30 28)				
SEP., 1974 26...	2.9	780	8.4	11.0
FLOYD RIVER BASIN				
06600020 - FLOYD R NR SHELDON, IOWA (LAT 43 12 19 LONG 095 49 22)				
SEP., 1974 26...	2.8	700	7.6	12.5
06600040 - L FLOYD R NR SHELDON, IOWA (LAT 43 09 25 LONG 095 52 02)				
SEP., 1974 26...	4.2	800	7.8	11.0
06600060 - FLOYD R BELOW SHELDON, IOWA (LAT 43 07 38 LONG 095 53 27)				
SEP., 1974 26...	8.2	1090	7.5	12.0
06600120 - DEEP CR NR OYENS, IOWA (LAT 42 49 26 LONG 096 06 53)				
SEP., 1974 26...	2.2	900	7.7	11.5
06600140 - WILLOW CR NR OYENS, IOWA (LAT 42 49 42 LONG 096 06 54)				
SEP., 1974 26...	.48	710	7.3	10.5
06600160 - DEEP CR AT LE MARS, IOWA (LAT 42 48 15 LONG 096 09 28)				
SEP., 1974 26...	3.2	850	7.5	15.0
06600180 - FLOYD R AT LE MARS, IOWA (LAT 42 48 02 LONG 096 10 26)				
SEP., 1974 26...	18.5	800	7.7	15.5
06600200 - FLOYD R NR MERRILL, IOWA (LAT 42 44 59 LONG 096 12 32)				
SEP., 1974 26...	22	940	8.1	11.5
06600250 - WB FLOYD R NR MIDDLEBURG, IOWA (LAT 43 06 49 LONG 096 04 52)				
SEP., 1974 25...	.10	850	8.5	21.0

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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FLOYD RIVER BASIN--CONTINUED

06600400 - WB FLOYD R NR MERRILL, IOWA (LAT 42 44 59 LONG 096 14 26)

SEP., 1974				
26...	6.9	800	7.9	11.0

MONONA-HARRISON DITCH BASIN

06601500 - BIG WHISKEY SLOUGH NR KINGSLEY, IOWA (LAT 42 40 00 LONG 095 52 00)

OCT., 1974				
02...	2.3	800	8.4	3.5

06601600 - WF L SIOUX R NR FIELDING, IOWA (LAT 42 39 00 LONG 095 52 00)

OCT., 1974				
02...	6.2	700	8.3	3.0

06601700 - WF L SIOUX R NR KINGLEY, IOWA (LAT 42 35 00 LONG 096 00 00)

OCT., 1974				
02...	11	700	8.2	1.0

06601800 - MUD CR AT MOVILLE, IOWA (LAT 42 29 28 LONG 096 05 24)

SEP., 1974				
26...	18	800	7.7	15.5
OCT.				
02...	.65	620	8.0	2.5

06601900 - WF L SIOUX R AT MOVILLE, IOWA (LAT 42 28 30 LONG 096 04 39)

OCT., 1974				
02...	14	650	8.1	3.0

06602200 - ELLIOT CR NR BRONSON, IOWA (LAT 42 23 53 LONG 096 14 05)

OCT., 1974				
02...	.62	580	8.2	2.0

06602250 - BIG WHISKEY CR NR BRONSON, IOWA (LAT 42 24 04 LONG 096 14 29)

OCT., 1974				
02...	.96	670	8.2	4.0

06602300 - WOLF CR NR HOLLY SPRINGS, IOWA (LAT 42 18 06 LONG 096 01 10)

OCT., 1974				
02...	6.0	600	8.1	3.5

LITTLE SIOUX RIVER BASIN

06603600 - L SIOUX R NR MONTGOMERY, IOWA (LAT 43 26 00 LONG 095 15 00)

OCT., 1974				
01...	.26	900	--	12.0

06603800 - WF L SIOUX R NR MONTGOMERY, IOWA (LAT 43 25 00 LONG 095 16 00)

OCT., 1974				
01...	.39	1300	--	15.5

06603900 - L SIOUX R NR MILFORD, IOWA (LAT 43 19 00 LONG 095 11 00)

OCT., 1974				
02...	.90	750	--	11.5

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
LITTLE SIOUX RIVER BASIN--CONTINUED				
06604500 - OCHEYEDAN R NR BIGELOW, MINN (LAT 43 27 00 LONG 095 37 00)				
OCT., 1974 01...	.04	750	--	14.0
06604600 - OCHEYEDAN R NR MAY CITY, IOWA (LAT 43 17 00 LONG 095 28 00)				
OCT., 1974 01...	1.5	840	--	9.0
06604700 - OCHEYEDAN R NR MAY CITY, IOWA (LAT 43 16 00 LONG 095 27 00)				
OCT., 1974 01...	8.6	800	--	11.0
06604800 - STONEY CR NR FOSTORIA, IOWA (LAT 43 14 00 LONG 095 20 00)				
OCT., 1974 02...	1.5	680	--	13.5
06604900 - STONEY CR NR EVERLY, IOWA (LAT 43 09 22 LONG 095 14 58)				
OCT., 1974 02...	2.1	580	--	13.5
06605000 - OCHEYEDAN R NR SPENCER, IOWA (LAT 43 07 44 LONG 095 12 37)				
OCT., 1974 02...	12	620	--	13.5
06605100 - L SIOUX R AT SPENCER IOWA (LAT 43 08 13 LONG 095 08 39)				
OCT., 1974 02...	24	600	--	7.0
06605200 - BIG MUDDY CR NR LANGDON, IOWA (LAT 43 11 49 LONG 095 04 11)				
OCT., 1974 02...	1.1	680	--	8.0
06605300 - BIG MUDDY CR NR SPENCER, IOWA (LAT 43 08 28 LONG 095 05 14)				
OCT., 1974 02...	2.4	850	--	7.0
06605500 - LOST ISLAND OUTLET NR DICKENS, IOWA (LAT 43 07 07 LONG 095 01 58)				
OCT., 1974 02...	2.7	500	--	10.0
06605800 - WILLOW CR NR GREENVILLE, IOWA (LAT 42 59 00 LONG 095 09 00)				
OCT., 1974 02...	1.0	660	--	4.0
06605900 - WATERMAN CR NR HARTLEY, IOWA (LAT 43 05 00 LONG 095 27 00)				
OCT., 1974 03...	.91	660	--	5.0
06606000 - WATERMAN CR NR SUTHERLAND, IOWA (LAT 42 57 00 LONG 095 25 00)				
OCT., 1974 03...	4.4	650	--	7.5
06606100 - L SIOUX R NR SUTHERLAND, IOWA (LAT 42 56 00 LONG 095 25 00)				
OCT., 1974 03...	44	600	--	8.0

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
LITTLE SIOUX RIVER BASIN--CONTINUED				
06606300 - MILL CR NR CHEROKEE, IOWA (LAT 42 47 00 LONG 095 33 00)				
OCT., 1974 03...	.32	480	--	.0
06606400 - L SIOUX R AT CHEROKEE, IOWA (LAT 42 45 00 LONG 095 32 00)				
OCT., 1974 03...	75	600	--	10.0
06606500 - PIERSON CR NR CORRECTIONVILLE, IOWA (LAT 42 29 00 LONG 095 48 00)				
OCT., 1974 02...	3.5	620	8.6	8.0
06606800 - MAPLE R NR AURELIA, IOWA (LAT 42 43 00 LONG 095 29 00)				
OCT., 1974 03...	1.4	0	--	10.0
06606900 - MAPLE R NR IDA GROVE, IOWA (LAT 42 21 55 LONG 095 27 27)				
OCT., 1974 01...	30	650	8.5	11.5
06607100 - ODEBOLT CR AT IDA GROVE, IOWA (LAT 42 20 49 LONG 095 28 03)				
OCT., 1974 01...	7.6	700	8.6	13.0
06607400 - MAPLE R NR TURIN, IOWA (LAT 42 01 00 LONG 095 58 00)				
OCT., 1974 01...	90	670	8.1	8.5
SOLDIER RIVER BASIN				
06608300 - SOLDIER R NR RICKETTS, IOWA (LAT 42 12 00 LONG 095 35 00)				
OCT., 1974 01...	15	680	8.5	9.0
06608350 - SOLDIER R NR UTE, IOWA (LAT 42 03 00 LONG 095 43 00)				
OCT., 1974 01...	25	640	8.6	8.5
06608400 - E SOLDIER R NR UTE, IOWA (LAT 42 03 00 LONG 095 42 00)				
OCT., 1974 01...	12	670	8.0	7.5
ALLEN DITCH BASIN				
06609220 - ALLEN CREEK NR LOVELAND, IOWA (LAT 41 29 00 LONG 095 55 00)				
OCT., 1974 03...	2.5	750	7.6	14.5
BOYER RIVER BASIN				
06609260 - BOYER R NR EARLY, IOWA (LAT 42 28 00 LONG 095 11 00)				
OCT., 1974 01...	4.2	650	8.7	11.5
06609300 - E BOYER R AT VAIL, IOWA (LAT 42 04 00 LONG 095 12 00)				
OCT., 1974 01...	11	600	8.7	7.0
06609350 - E BOYER R AT DENISON, IOWA (LAT 42 01 00 LONG 095 22 00)				
OCT., 1974 01...	24	620	8.4	6.0

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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BOYER RIVER BASIN--CONTINUED

06609400 - BOYER R NR DENISON, IOWA (LAT 42 00 00 LONG 095 23 00)

OCT., 1974				
01...	66	920	7.8	6.0

06609550 - BOYER R NR MISSOURI VALLEY, IOWA (LAT 41 31 00 LONG 095 54 00)

OCT., 1974				
03...	123	750	7.8	10.5

06609580 - WILLOW CR NR WOODBINE, IOWA (LAT 41 48 00 LONG 095 45 00)

OCT., 1974				
02...	7.5	630	8.4	10.5

06609670 - BOYER R NR LOVELAND, IOWA (LAT 41 27 58 LONG 095 54 37)

OCT., 1974				
03...	131	800	7.9	13.0

TARKIO RIVER BASIN

06811860 - TARKIO R NR COBURG, IOWA (LAT 40 54 00 LONG 095 08 00)

SEP., 1974				
24...	.51	440	8.0	12.5

06811880 - E TARKIO CR NR YORKTOWN, IOWA (LAT 40 43 00 LONG 095 12 00)

SEP., 1974				
23...	1.1	420	8.1	15.0

06811900 - TARKIO R NR YORKTOWN, IOWA (LAT 40 43 00 LONG 095 13 00)

SEP., 1974				
23...	2.4	440	8.3	16.5

06812000 - TARKIO R AT BLANCHARD IOWA (LAT 40 36 00 LONG 095 14 00)

SEP., 1974				
23...	4.6	480	8.2	20.5

06812300 - W TARKIO CR NR COIN, IOWA (LAT 40 41 00 LONG 095 18 00)

SEP., 1974				
23...	.95	420	7.9	15.5

06812400 - W TARKIO CR NR NORTHBORO, IOWA (LAT 40 35 00 LONG 095 21 00)

SEP., 1974				
23...	4.4	460	7.8	19.0

NODAWAY RIVER BASIN

06816300 - W NODAWAY R NR CUMBERLAND, IOWA (LAT 41 12 00 LONG 094 52 00)

SEP., 1974				
24...	1.0	750	8.3	12.0

06816350 - SEVENMILE CR NR LYMAN, IOWA (LAT 41 15 00 LONG 094 59 00)

SEP., 1974				
24...	4.1	320	7.8	18.5

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
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NODAWAY RIVER BASIN--CONTINUED

06816400 - SEVENMILE CR NR MORTONS MILL, IOWA (LAT 41 06 00 LONG 095 00 00)

SEP., 1974				
24...	19	330	7.9	15.5

06816550 - W NODAWAY R NR VILLISCA, IOWA (LAT 40 55 00 LONG 095 00 00)

SEP., 1974				
24...	26	380	7.8	15.0

06816600 - M NODAWAY R NR BRIDGEWATER, IOWA (LAT 41 10 00 LONG 094 39 00)

SEP., 1974				
24...	.62	400	8.6	12.0

06816700 - WF M NODAWAY R NR FONTANELLE, IOWA (LAT 41 19 00 LONG 094 39 00)

SEP., 1974				
24...	.55	400	8.2	10.5

06816800 - WF M NODAWAY R NR BRIDGEWATER, IOWA (LAT 41 11 00 LONG 094 39 00)

SEP., 1974				
24...	2.7	480	8.6	12.0

06816900 - M NODAWAY R NR VILLISCA, IOWA (LAT 40 55 00 LONG 094 59 00)

SEP., 1974				
24...	10	500	7.7	12.0

06817100 - E NODAWAY R NR SHAMBAUGH, IOWA (LAT 40 38 00 LONG 095 01 00)

SEP., 1974				
23...	5.8	500	8.6	17.5

06817200 - NODAWAY R NR BRADYVILLE, IOWA (LAT 40 37 00 LONG 095 01 00)

SEP., 1974				
23...	47	400	8.0	17.5

PLATTE RIVER BASIN

06818600 - PLATTE R NR KENT, IOWA (LAT 40 57 00 LONG 094 29 00)

SEP., 1974				
23...	1.1	720	8.4	18.0

06818650 - E PLATTE R NR KNOWLTON, IOWA (LAT 40 54 00 LONG 094 26 00)

SEP., 1974				
23...	.01	550	8.0	21.0

06818700 - PLATTE R NR KNOWLTON, IOWA (LAT 40 52 00 LONG 094 26 00)

SEP., 1974				
23...	.42	580	8.3	16.0

06819120 - WB 102 R BLW MB NR GRAVITY, IOWA (LAT 40 48 00 LONG 094 49 00)

SEP., 1974				
23...	.005	450	7.9	14.0

06819140 - WB 102 R NR NEW MARKET, IOWA (LAT 40 44 00 LONG 094 51 00)

SEP., 1974				
23...	.36	500	7.7	18.0

06819150 - WF 102 R NR NEW MARKET, IOWA (LAT 40 43 00 LONG 094 51 00)

SEP., 1974				
23...	.61	540	8.4	15.5

ANALYSES OF MISCELLANEOUS STATIONS

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
PLATTE RIVER BASIN--CONTINUED				
06819195 - MF 102 R NR BEDFORD, IOWA (LAT 40 35 00 LONG 094 49 00)				
SEP., 1974 23...	.007	510	8.1	16.5
GRAND RIVER BASIN				
06896100 - GRAND R AT KNOWLTON, IOWA (LAT 40 50 00 LONG 094 20 00)				
SEP., 1974 24...	.10	540	7.8	19.5
06896150 - GRAND R NR BLOCKTON, IOWA (LAT 40 37 00 LONG 094 25 00)				
SEP., 1974 24...	2.7	500	7.8	16.0
06896200 - EF GRAND R NR MT AYR, IOWA (LAT 40 43 00 LONG 094 10 00)				
SEP., 1974 24...	.04	380	7.9	13.0
06896250 - EF GRAND R SOUTH OF MT AYR, IOWA (LAT 40 35 00 LONG 094 14 00)				
SEP., 1974 24...	.05	620	7.5	13.5
06897770 - THOMPSON R NR HEBRON, IOWA (LAT 41 14 00 LONG 094 16 00)				
SEP., 1974 23...	.23	740	7.4	19.5
06897800 - THREEMILE CR NR AFTON, IOWA (LAT 41 02 00 LONG 094 08 00)				
SEP., 1974 23...	.04	480	7.9	19.5
06897820 - THOMPSON R NR AFTON, IOWA (LAT 41 02 00 LONG 094 06 00)				
SEP., 1974 23...	1.2	520	7.6	16.0
06897880 - TWELVEMILE CR NR ARISPE, IOWA (LAT 40 56 00 LONG 094 06 00)				
SEP., 1974 23...	.05	500	7.5	19.0
06897900 - THOMPSON R NR GRAND RIVER, IOWA (LAT 40 52 00 LONG 093 58 00)				
SEP., 1974 27...	2.5	500	7.9	16.0
06897940 - LONG CR NR VAN WERT, IOWA (LAT 40 49 00 LONG 093 52 00)				
SEP., 1974 24...	.04	540	7.3	18.0
06898300 - WELDON R EAST OF LEON, IOWA (LAT 40 45 18 LONG 093 38 05)				
SEP., 1974 25...	.11	520	7.5	13.0
06898450 - WELDON R NR PLEASANTON, IOWA (LAT 40 35 40 LONG 093 36 20)				
SEP., 1974 25...	1.6	520	7.8	15.0
06898470 - LITTLE R NR LEON, IOWA (LAT 40 39 36 LONG 093 44 59)				
SEP., 1974 25...	.05	1250	7.4	14.5

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
CHARITON RIVER BASIN				
06903300 - CHARITON R NR DERBY, IOWA (LAT 40 57 00 LONG 093 28 00)				
SEP., 1974 24...	.01	570	7.4	10.0
06903350 - WOLF CR NR CHARITON, IOWA (LAT 40 56 00 LONG 093 16 00)				
SEP., 1974 24...	.02	570	7.6	16.0
06903600 - SF CHARITON R NR CAMBRIE, IOWA (LAT 40 49 00 LONG 093 23 00)				
SEP., 1974 24...	.03	510	7.5	16.0
06903650 - SF CHARITON R NR CORYDON, IOWA (LAT 40 49 00 LONG 093 19 00)				
SEP., 1974 24...	.04	500	7.7	15.0
06904150 - SHOAL CR NR CINCINNATI, IOWA (LAT 40 37 00 LONG 092 52 00)				
SEP., 1974 24...	.04	480	7.7	17.0

PERIODIC AND MISCELLANEOUS WATER-QUALITY RECORDS

Extremes and Mean of Periodic Water Temperatures

Periodic water temperatures are obtained approximately once a month at the following stations. These data have been analyzed on a monthly basis for the period of record shown for each station. The maximum, minimum and mean temperature for that period are shown. The mean temperature was calculated by summing all of the entries per month and dividing by the number of entries. All stations with 10 or more years record are listed. Although a more sophisticated analysis of these data may be desirable and a complete continuous record of temperature would be ultimate, this summary does show the general water temperature trends throughout a year. Water temperature data are also available for some stations on a more frequent sampling schedule and published elsewhere in this report (see contents, Water Quality Data).

MAXIMUM, MINIMUM, AND MEAN MONTHLY WATER TEMPERATURE (°C)

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
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PAINT CREEK BASIN

05388500 PAINT CREEK AT WATERVILLE, IOWA (1953-73)

MAXIMUM	19.0	11.0	3.0	2.0	2.0	7.0	13.0	21.0	26.0	25.5	27.0	21.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	14.0	18.0	16.5	12.0
MEAN	12.0	6.0	0.5	0.5	0.5	1.5	6.5	14.5	20.5	22.0	22.0	17.5

TURKEY RIVER BASIN

05411600 Turkey River at Spillville, Iowa (1957-73)

MAXIMUM	19.0	13.0	3.5	0.5	2.0	6.0	18.0	20.0	27.0	29.0	32.5	24.5
MINIMUM	3.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	17.0	18.5	19.0	13.5
MEAN	12.5	4.5	0.5	0.0	0.0	1.0	7.0	15.5	21.5	23.0	26.0	18.5

05412500 TURKEY RIVER AT GARBER, IOWA (1948-74)

MAXIMUM	18.0	15.0	3.0	2.0	2.0	9.0	19.0	22.0	27.0	28.0	28.0	23.5
MINIMUM	6.5	0.0	0.0	0.0	0.0	0.0	4.5	5.0	13.0	20.0	17.0	10.0
MEAN	12.0	6.0	0.5	0.5	0.5	2.5	10.5	14.0	21.0	24.0	23.5	18.0

LITTLE MAQUOKETA RIVER BASIN

05414500 LITTLE MAQUOKETA RIVER NEAR DURANGO, IOWA (1944-74)

MAXIMUM	17.0	14.0	3.5	3.0	3.0	10.0	18.0	20.0	26.0	32.0	32.5	24.0
MINIMUM	4.5	0.0	0.0	0.0	0.0	0.0	2.0	6.0	14.0	20.0	13.0	13.0
MEAN	11.0	5.5	1.0	0.5	0.5	2.5	10.0	14.0	21.0	24.0	22.5	18.0

MAQUOKETA RIVER BASIN

05417000 MAQUOKETA RIVER NEAR MANCHESTER, IOWA (1944-73)

MAXIMUM	19.0	12.0	2.0	2.0	2.0	9.0	16.0	21.0	27.0	29.0	27.0	24.0
MINIMUM	4.5	0.0	0.0	0.0	0.0	0.0	1.0	9.0	15.5	19.0	19.0	16.0
MEAN	12.0	6.0	0.0	0.5	0.5	2.0	9.0	16.0	22.0	24.0	23.0	18.0

05417700 BEAR CREEK NEAR MONMOUTH, IOWA (1958-74)

MAXIMUM	18.0	10.0	2.0	3.0	1.0	13.0	20.0	20.0	23.0	28.0	26.5	23.0
MINIMUM	4.0	0.0	0.0	0.0	0.0	0.0	4.0	6.0	14.0	17.0	17.0	11.5
MEAN	12.0	5.5	0.0	0.5	0.0	2.0	11.0	15.0	20.5	23.5	22.0	18.0

05418500 MAQUOKETA RIVER NEAR MAQUOKETA, IOWA (1944-74)

MAXIMUM	17.0	12.0	3.5	2.5	2.0	13.0	19.0	21.0	28.0	27.0	28.0	23.0
MINIMUM	4.0	0.0	0.0	0.0	0.0	0.0	1.0	9.0	15.0	20.0	19.0	8.0
MEAN	11.0	5.0	0.5	0.5	0.5	2.0	10.0	15.5	21.0	23.5	23.0	17.5

MAXIMUM, MINIMUM, AND MEAN MONTHLY WATER TEMPERATURE (°C)--CONTINUED

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
WAPSIPINICON RIVER BASIN												
05420560 WAPSIPINICON RIVER NEAR ELMA, IOWA (1959-74)												
MAXIMUM	18.5	12.0	2.5	0.5	1.0	3.5	17.0	21.5	24.0	27.5	31.0	23.5
MINIMUM	8.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	18.0	17.5	14.0	15.5
MEAN	13.0	4.0	0.5	0.0	0.0	0.0	7.0	15.5	21.0	23.5	23.5	19.5
05421000 WAPSIPINICON RIVER AT INDEPENDENCE, IOWA (1949-74)												
MAXIMUM	19.0	13.0	1.5	1.5	3.5	5.5	13.5	21.5	25.5	28.0	26.5	27.0
MINIMUM	6.5	0.0	0.0	0.0	0.0	0.0	2.0	9.0	15.5	21.0	19.5	15.5
MEAN	12.0	6.0	0.5	0.5	0.5	1.5	9.0	15.0	22.0	24.0	24.5	20.5
05421000 WAPSIPINICON RIVER AT INDEPENDENCE, IOWA (1949-74)												
MAXIMUM	19.0	13.0	1.5	1.5	3.5	5.5	13.5	21.5	25.5	28.0	26.5	27.0
MINIMUM	6.5	0.0	0.0	0.0	0.0	0.0	2.0	9.0	15.5	21.0	19.5	15.5
MEAN	12.0	6.0	0.5	0.5	0.5	1.5	9.0	15.0	22.0	24.0	24.5	20.5
05422000 WAPSIPINICON RIVER NEAR DEWITT, IOWA (1944-74)												
MAXIMUM	20.0	10.0	2.0	2.0	3.0	6.0	21.0	24.0	29.0	29.0	33.0	27.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	2.0	8.0	13.5	22.0	15.0	14.0
MEAN	12.5	5.5	0.5	0.0	0.5	1.5	10.5	16.5	22.5	25.0	22.0	19.5
IOWA RIVER BASIN												
05449000 EAST BRANCH IOWA RIVER NEAR KLEMME, IOWA (1948-74)												
MAXIMUM	19.0	13.0	1.0	0.5	1.0	6.5	17.0	22.5	24.0	30.0	32.0	26.5
MINIMUM	1.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	11.5	16.5	16.0	11.5
MEAN	12.5	4.5	0.0	0.0	0.0	1.0	7.0	14.0	19.0	23.0	25.0	18.0
05449500 IOWA RIVER NEAR ROWAN, IOWA (1945-74)												
MAXIMUM	17.0	14.0	6.5	0.5	2.5	8.5	16.5	17.0	26.5	26.5	30.0	25.5
MINIMUM	4.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	13.5	18.0	17.0	12.5
MEAN	12.0	5.0	1.0	0.0	0.0	2.0	8.0	12.5	20.5	22.0	23.0	18.0
05451500 IOWA RIVER AT MARSHALLTOWN, IOWA (1944-74)												
MAXIMUM	21.0	14.0	4.0	3.5	5.0	10.0	20.5	24.0	28.0	29.0	29.0	25.0
MINIMUM	4.0	0.0	0.0	0.0	0.0	0.0	1.0	8.0	18.0	16.0	17.0	13.0
MEAN	12.5	3.5	0.5	0.5	0.5	3.0	9.5	18.0	23.0	23.5	23.5	17.5
05-451700 TIMBER CREEK NEAR MARSHALLTOWN, IOWA (1957-74)												
MAXIMUM	21.5	9.5	4.0	1.0	1.0	11.0	18.0	25.5	28.5	31.0	25.5	23.5
MINIMUM	3.5	0.0	0.0	0.0	0.0	0.0	2.0	11.0	16.0	19.0	15.5	10.0
MEAN	13.0	4.0	0.5	0.0	0.5	3.0	10.0	16.0	21.0	22.5	21.0	18.0
05451900 RICHLAND CREEK NEAR HAVEN, IOWA (1957-74)												
MAXIMUM	21.5	11.0	7.5	1.0	1.5	11.5	19.5	25.5	25.5	30.0	30.0	22.0
MINIMUM	0.5	0.0	0.0	0.0	0.0	0.0	2.0	9.5	15.5	15.5	16.5	12.0
MEAN	11.0	4.5	1.0	0.0	0.5	3.0	11.0	16.0	21.0	24.0	21.0	17.5
05452000 SALT CREEK NEAR ELBERON, IOWA (1945-74)												
MAXIMUM	21.5	16.0	8.5	1.0	3.0	14.0	19.5	24.0	29.0	31.0	31.0	26.0
MINIMUM	3.5	0.0	0.0	0.0	0.0	0.0	1.0	6.0	13.0	14.0	15.5	13.0
MEAN	12.5	4.0	1.0	0.0	0.5	2.5	8.5	16.0	21.5	24.0	22.5	18.0
05452200 WALNUT CREEK NEAR HARTWICK, IOWA (1957-74)												
MAXIMUM	21.0	9.5	8.0	1.0	1.5	11.0	18.0	26.5	28.5	30.0	30	28.0
MINIMUM	5.0	0.0	0.0	0.0	0.0	0.0	2.0	7.0	16.0	20.5	15.0	13.5
MEAN	12.5	4.0	1.0	0.0	0.5	2.5	10.0	14.5	22.5	24.5	22.0	18.5

PERIODIC AND MISCELLANEOUS WATER-QUALITY RECORDS

MAXIMUM, MINIMUM, AND MEAN MONTHLY WATER TEMPERATURE (°C)--CONTINUED

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
IOWA RIVER BASIN--CONTINUED												
05453000 BIG BEAR CREEK AT LADORA, IOWA (1945-74)												
MAXIMUM	24.0	14.0	4.0	2.0	2.0	14.0	20.5	24.0	32.0	30.0	32.0	30.0
MINIMUM	3.5	0.0	0.0	0.0	0.0	0.0	0.5	6.0	13.0	17.0	17.0	11.0
MEAN	14.0	4.5	1.0	0.0	0.5	3.0	8.5	16.5	20.0	24.0	23.5	20.0
05453100 IONA RIVER AT MARENGO, IOWA (1957-74)												
MAXIMUM	20.5	11.0	5.0	1.0	1.5	15.0	20.5	22.0	25.5	28.0	28.0	24.5
MINIMUM	4.0	0.5	0.0	0.0	0.0	0.0	0.5	0.5	14.0	19.0	18.0	11.0
MEAN	12.5	4.0	1.0	0.0	0.5	3.5	7.5	15.5	20.0	24.0	22.0	19.0
05454000 RAPID CREEK NEAR IOWA CITY, IOWA (1945-74)												
MAXIMUM	21.0	14.5	4.0	8.0	3.0	10.0	20.0	21.0	22.0	25.5	26.0	24.5
MINIMUM	4.0	0.0	0.0	0.0	0.0	0.0	1.5	5.0	13.0	15.5	15.5	14.5
MEAN	12.0	6.0	0.5	0.5	0.5	2.5	10.5	14.0	19.5	22.5	22.0	19.0
05454300 CLEAR CREEK NEAR CORALVILLE, IOWA (1957-74)												
MAXIMUM	21.0	11.0	2.0	2.0	2.0	11.0	20.0	26.0	26.0	26.0	27.0	23.0
MINIMUM	4.5	0.0	0.0	0.0	0.0	0.0	2.0	4.0	14.0	17.0	17.0	11.0
MEAN	12.0	5.0	0.0	0.0	0.0	3.5	10.0	15.5	20.0	26.0	22.5	17.5
05455500 ENGLISH RIVER AT KALONA, IOWA (1944-74)												
MAXIMUM	26.0	13.0	4.0	2.0	3.0	8.0	20.0	24.0	28.0	29.0	30.0	30.0
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	1.0	8.0	13.0	20.0	16.5	13.0
MEAN	13.5	5.0	1.0	0.5	0.5	2.5	11.0	15.5	22.0	24.5	23.0	19.0
05455700 IOWA RIVER NEAR LONE TREE, IOWA (1957-74)												
MAXIMUM	21.5	12.0	4.5	1.0	3.5	13.0	14.0	25.5	25.5	30.0	31.5	23.5
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	1.5	5.5	15	17.0	19.5	10.5
MEAN	13.0	6.0	1.5	0.0	0.5	2.5	9.5	16.0	21.0	25.0	24.5	19.0
05457700 CEDAR RIVER AT CHARLES CITY, IOWA (1946-74)												
MAXIMUM	17.0	12.5	4.5	1.5	3.5	8.5	15.5	25.5	25.5	26.5	31.0	27.5
MINIMUM	3.5	0.5	0.0	0.0	0.0	0.0	0.0	7.5	13.0	17.0	19.0	16.5
MEAN	12.0	4.5	1.0	0.5	1.0	2.0	8.0	16.0	21.0	23.0	25.0	20.0
05458000 LITTLE CEDAR RIVER NEAR IONIA, IOWA (1955-74)												
MAXIMUM	19.0	14.5	2.5	1.0	1.0	10.0	19.0	24.5	29.0	31.0	33.5	27.5
MINIMUM	8.0	0.0	0.0	0.0	0.0	0.0	1.0	9.0	10.0	17.0	16.5	17.5
MEAN	14.0	4.0	0.5	0.5	0.5	2.0	8.0	16.0	21.0	24.5	24.5	19.5
05458500 CEDAR RIVER AT JANESVILLE, IOWA (1947-74)												
MAXIMUM	20.0	13.0	7.0	1.0	2.0	8.0	18.0	22.0	25.0	29.0	30.0	26.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	16.0	17.5	19.0	15.5
MEAN	14.0	4.5	1.0	0.5	0.5	2.0	8.0	16.0	21.0	24.0	24.5	19.5
05458900 WEST FORK CEDAR RIVER AT FINCHFORD, IOWA (1946-74)												
MAXIMUM	18.0	13.0	8.0	1.0	3.0	8.0	17.0	25.5	26.0	30.0	35.0	28.0
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	16.0	17.0	19.0	15.0
MEAN	13.0	5.0	1.0	0.5	0.5	2.0	8.0	16.5	22.0	24.0	25.0	20.0
05459000 SHELL HOCK RIVER NEAR NORTHWOOD, IOWA (1947-74)												
MAXIMUM	19.0	11.0	1.5	0.5	1.0	6.5	21.0	24.5	25.0	32.5	30.0	28.0
MINIMUM	6.5	0.0	0.0	0.0	0.0	0.0	1.0	7.0	16.0	16.0	16.0	11.0
MEAN	13.0	3.5	0.5	0.0	0.0	1.5	7.5	15.5	21.0	23.0	24.0	20.0

MAXIMUM, MINIMUM, AND MEAN MONTHLY WATER TEMPERATURE (°C) --CONTINUED

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
IOWA RIVER BASIN--CONTINUED												
05459500 WINNEBAGO RIVER AT MASON CITY, IOWA (1944-74)												
MAXIMUM	18.0	16.0	6.0	6.5	5.5	8.0	18.0	24.5	26.0	28.0	30.5	27.0
MINIMUM	8.0	0.0	0.0	0.0	0.0	0.5	0.0	8.5	17.5	16.0	15.5	15.5
MEAN	14.0	6.0	2.0	1.5	1.5	3.0	8.5	16.0	21.0	24.0	23.0	20.0
05463000 HEAVER CREEK AT NEW HARTFORD, IOWA (1947-74)												
MAXIMUM	20.0	12.0	5.0	1.0	6.0	6.5	16.0	29.0	27.0	29.0	33.0	29.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	16.0	17.0	17.0	14.0
MEAN	13.5	5.0	0.5	0.0	0.5	1.5	8.5	18.0	21.5	23.0	24.0	20.5
05463500 BLACK HAWK CREEK AT HUDSON, IOWA (1952-74)												
MAXIMUM	18.0	11.0	8.0	6.5	5.0	9.0	16.5	23.0	24.5	27.0	32.5	31.0
MINIMUM	4.5	0.0	0.0	0.0	0.0	0.0	0.0	4.0	16.0	18.0	18.5	11.5
MEAN	12.5	4.0	2.0	1.0	1.0	2.0	7.5	14.0	21.0	23.5	23.5	19.0
05464000 CEDAR RIVER AT WATERLOO, IOWA (1944-74)												
MAXIMUM	18.0	13.0	8.0	3.0	3.0	9.0	18.0	21.0	26.0	28.0	31.0	24.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	17.0	17.0	16.5	16.0
MEAN	14.0	4.5	1.5	1.0	1.0	3.0	8.0	15.0	21.5	23.5	24.0	19.5
05464500 CEDAR RIVER AT CEDAR RAPIDS, IOWA (1944-74)												
MAXIMUM	21.0	14.0	4.0	2.0	1.0	14.0	16.0	24.5	29.0	31.0	28.0	25.5
MINIMUM	3.0	0.0	0.0	0.0	0.0	0.0	1.0	8.0	14.0	18.0	19.0	13.0
MEAN	13.5	4.5	1.0	0.5	0.5	3.5	9.0	17.0	22.5	24.5	24.5	19.5
05465000 CEDAR RIVER NEAR CONESVILLE, IOWA (1946-74)												
MAXIMUM	21.5	14.0	7.0	1.0	2.0	9.0	23.5	24.0	28.0	28.0	33.0	26.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	1.0	8.0	13.0	18.0	17.0	16.0
MEAN	13.5	6.0	1.5	0.5	0.5	2.5	8.5	14.5	22.0	25.0	24.5	21.5
054655 00 IOWA RIVER AT WAPELLO, IOWA (1944-74)												
MAXIMUM	20.0	13.0	9.0	4.0	2.0	17.0	16.5	24.0	29.0	30.0	29.0	27.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	1.0	9.0	16.5	17.0	21.0	15.0
MEAN	14.0	5.0	2.0	1.0	0.5	3.0	10.0	17.5	21.0	24.0	25.0	20.5
SKUNK RIVER BASIN												
05470000 SOUTH SKUNK RIVER NEAR AMES, IOWA (1944-74)												
MAXIMUM	18.0	11.0	4.0	1.0	2.5	17.0	19.0	24.5	29.0	32.0	31.5	24.0
MINIMUM	4.0	0.0	0.0	0.0	0.0	0.0	2.0	4.5	13.0	19.0	16.5	11.0
MEAN	12.0	5.5	1.0	0.0	0.5	2.0	8.5	15.5	20.0	24.0	24.5	18.0
05470500 SQUAW CREEK AT AMES, IOWA (1965-74)												
MAXIMUM	25.5	10.5	2.5	2.5	2.5	17.0	12.0	21.0	28.0	32.0	30.0	24.5
MINIMUM	4.0	0.5	0.0	0.0	0.0	1.0	2.0	4.5	13.0	19.0	18.0	16.5
MEAN	14.0	6.0	1.0	0.5	1.0	3.5	8.0	13.0	19.0	23.5	24.5	19.5
05471000 SOUTH SKUNK RIVER BELOW SQUAW CREEK NEAR AMES, IOWA (1953-74)												
MAXIMUM	22.0	12.0	4.5	0.5	3.5	12.5	18.5	26.0	30.0	30.0	28.0	26.0
MINIMUM	4.0	0.0	0.0	0.0	0.0	0.0	2.0	5.5	13.0	19.0	20.0	14.0
MEAN	14.0	5.0	1.0	0.0	0.5	1.5	8.0	16.0	20.5	24.5	24.5	18.5
05471200 INDIAN CREEK NEAR MINGO, IOWA (1959-74)												
MAXIMUM	20.0	14.0	2.0	0.5	1.5	4.5	15.5	21.0	25.5	31.0	28.5	24.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	0.5	8.5	14.5	19.5	21.0	18.5
MEAN	15.5	6.0	0.5	0.0	0.0	1.0	7.0	14.5	20.0	24.5	24.5	21.0

PERIODIC AND MISCELLANEOUS WATER-QUALITY RECORDS

MAXIMUM, MINIMUM, AND MEAN MONTHLY WATER TEMPERATURE (°C)--CONTINUED

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
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SKUNK RIVER BASIN--CONTINUED

05471500 SOUTH SKUNK RIVER NEAR OSKALOOSA, IOWA (1945-74)

MAXIMUM	19.0	15.0	9.0	2.0	3.0	10.0	16.5	24.0	30.0	32.0	29.0	26.0
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	1.0	11.0	18.0	23.0	21.0	14.0
MEAN	12.0	5.5	1.0	0.0	0.5	2.5	8.5	19.0	22.5	25.0	23.5	18.5

05472500 NORTH SKUNK RIVER NEAR SIGOURNEY, IOWA (1945-74)

MAXIMUM	21.0	14.0	6.0	2.0	3.0	9.0	16.0	24.0	29.0	31.0	28.0	23.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	3.0	5.0	14.0	21.0	19.0	12.0
MEAN	13.0	4.0	1.0	0.0	0.5	2.5	8.5	16.5	22.5	25.0	24.0	18.5

05473500 BIG CREEK NEAR MOUNT PLEASANT, IOWA (1956-74)

MAXIMUM	16.5	9.5	7.0	1.5	2.0	7.0	15.5	24.0	23.5	31.5	27.0	23.5
MINIMUM	6.5	0.0	0.0	0.0	0.0	0.0	4.5	11.0	18.0	22.0	22.0	14.5
MEAN	11.5	4.0	1.5	0.0	0.5	2.5	10.5	17.0	21.0	25.5	24.0	19.0

05474000 SKUNK RIVER AT AUGUSTA, IOWA (1944-74)

MAXIMUM	20.0	10.0	6.0	2.0	3.0	18.0	17.0	26.0	28.5	29.0	33.0	26.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	13.0	18.5	15.5	17.0
MEAN	14.0	4.0	1.5	0.5	1.0	3.0	9.0	18.0	21.5	24.0	25.0	21.0

DES MOINES RIVER BASIN

05476500 WEST FORK DES MOINES RIVER AT ESTHERVILLE, IOWA (1952-74)

MAXIMUM	18.0	11.0	1.5	2.5	3.5	4.0	18.0	23.5	26.5	28.0	29.0	23.5
MINIMUM	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5.5	13.0	20.5	18.0	11.0
MEAN	11.5	4.0	0.5	0.5	1.0	1.5	7.0	15.0	21.0	24.0	23.0	18.0

05476750 WEST FORK DES MOINES RIVER AT HUMBOLDT, IOWA (1945-74)

MAXIMUM	22.5	11.0	3.5	2.5	2.5	8.0	18.0	22.5	29.0	29.0	29.0	23.5
MINIMUM	5.0	0.0	0.0	0.0	0.0	0.0	2.0	9.5	9.5	19.0	14.5	11.5
MEAN	13.0	5.0	1.0	0.5	1.0	2.0	8.5	14.5	20.0	24.0	24.0	18.5

05478000 EAST FORK DES MOINES RIVER NEAR BURT, IOWA (1952-74)

MAXIMUM	20.0	12.5	1.5	0.5	1.0	3.5	18.0	21.0	31.5	26.0	28.0	24.5
MINIMUM	1.5	0.0	0.0	0.0	0.0	0.0	0.5	5.0	10.0	18.5	18.0	13.5
MEAN	11.5	3.5	0.5	0.0	0.0	1.0	6.5	14.0	21.5	23.0	23.0	18.0

05479000 EAST FORK DES MOINES RIVER AT DAKOTA CITY, IOWA (1954-74)

MAXIMUM	20.0	12.0	7.0	2.5	1.0	11.0	16.5	22.0	29.0	32.0	31.0	24.5
MINIMUM	4.5	0.0	0.0	0.0	0.0	0.0	0.5	10.0	9.5	16.0	16.0	10.5
MEAN	12.5	4.5	1.0	0.5	0.0	1.5	8.0	14.5	20.0	23.5	23.5	18.0

05480000 LIZARD CREEK NEAR CLARE, IOWA (1944-74)

MAXIMUM	21.0	12.0	3.0	1.5	2.0	15.5	18.0	24.5	26.0	31.5	30.0	27.0
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	4.0	6.0	10.0	16.5	13.0	10.0
MEAN	13.0	5.5	1.0	0.0	1.0	1.5	10.5	16.0	19.5	25.0	24.0	18.0

05480500 DES MOINES RIVER AT FORT DODGE, IOWA (1946-74)

MAXIMUM	18.5	10.5	4.5	2.0	1.5	12.0	18.0	23.5	28.0	32.0	32.0	26.5
MINIMUM	4.0	0.0	0.0	0.0	0.0	0.0	2.0	10.5	10.0	18.0	14.5	15.0
MEAN	13.0	5.0	1.0	0.5	0.5	2.0	8.5	16.5	21.0	23.0	24.0	20.0

05481000 BOONE RIVER NEAR WEBSTER CITY, IOWA (1944-74)

MAXIMUM	19.0	12.0	4.5	1.5	4.0	12.0	16.5	21.5	29.0	31.0	34.5	23.5
MINIMUM	4.0	0.0	0.0	0.0	0.0	0.0	4.0	5.0	13.5	14.0	16.5	11.0
MEAN	13.0	5.5	0.5	0.0	0.5	2.0	9.5	14.5	20.0	24.0	25.0	18.0

MAXIMUM, MINIMUM, AND MEAN MONTHLY WATER TEMPERATURE (°C)--CONTINUED

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
DES MOINES RIVER BASIN--CONTINUED												
05481950 BEAVER CREEK NEAR GRIMES, IOWA (1962-74)												
MAXIMUM	24.5	9.5	1.0	2.0	4.5	11.5	16.5	21.5	28.0	26.0	30.5	26.0
MINIMUM	6.5	0.5	0.0	0.0	0.0	0.0	4.0	8.5	9.5	15.0	9.0	14.5
MEAN	14.5	5.0	1.0	0.5	1.0	3.0	10.5	12.0	21.5	23.0	23.5	20.0
05482170 BIG CEDAR CREEK NEAR VARINA, IOWA (1960-74)												
MAXIMUM	20.0	13.5	1.0	1.5	2.5	13.0	18.5	22.0	28.5	30.0	29.0	25.5
MINIMUM	8.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	10.0	16.5	16.5	7.5
MEAN	13.0	5.5	0.5	0.0	0.5	1.5	7.0	14.0	18.0	23.5	23.0	16.5
05482300 NORTH RACCOON RIVER NEAR SAC CITY, IOWA (1959-74)												
MAXIMUM	20.0	12.0	7.0	0.5	0.5	9.5	13.5	21.0	26.0	28.0	26.5	27.0
MINIMUM	1.0	0.0	0.0	0.0	0.0	0.0	1.0	3.5	13.0	20.0	20.0	11.0
MEAN	12.0	4.5	1.5	0.0	0.0	1.5	7.0	14.5	20.0	23.0	23.0	20.0
05482500 NORTH RACCOON RIVER NEAR JEFFERSON, IOWA (1944-74)												
MAXIMUM	22.0	13.0	8.0	1.0	2.0	11.0	19.0	25.5	29.0	31.5	30.5	29.0
MINIMUM	3.5	0.0	0.0	0.0	0.0	0.0	1.5	5.0	10.0	19.0	15.5	14.5
MEAN	13.0	5.0	1.0	0.0	0.5	2.0	8.0	16.5	21.0	24.0	24.0	21.0
05483000 EAST FORK HARDIN CREEK NEAR CHURDAN, IOWA (1953-74)												
MAXIMUM	20.0	13.5	6.5	1.5	2.0	8.0	15.5	21.5	24.0	27.0	30.0	24.5
MINIMUM	3.5	0.0	0.0	0.0	0.0	0.0	1.0	3.5	11.0	15.5	17.0	14.5
MEAN	11.5	5.5	2.5	0.5	0.5	2.0	6.0	13.0	18.5	22.0	24.0	19.0
05483600 MIDDLE RACCOON RIVER AT PANORA, IOWA (1959-74)												
MAXIMUM	21.0	12.0	5.5	1.0	2.0	6.0	20.5	21.5	26.5	26.0	27.0	24.5
MINIMUM	2.0	1.0	0.0	0.0	0.0	0.0	2.0	4.5	13.0	15.5	16.5	15.5
MEAN	13.5	5.0	1.0	0.0	0.5	1.5	8.0	16.0	21.5	23.0	23.5	20.0
05484000 SOUTH RACCOON RIVER AT REDFIELD, IOWA (1944-74)												
MAXIMUM	23.5	9.5	5.0	1.0	2.0	6.5	20.0	23.0	30.0	28.0	30.0	25.0
MINIMUM	3.5	0.0	0.0	0.0	0.0	0.0	0.5	8.5	11.5	13.0	19.0	13.5
MEAN	13.0	4.5	0.5	0.0	0.5	2.0	9.0	17.0	22.0	23.5	25.0	19.0
05484500 RACCOON RIVER AT VAN METER, IOWA (1944-74)												
MAXIMUM	20.0	15.5	2.0	0.5	2.0	10.0	18.0	22.0	31.0	28.5	33.5	26.0
MINIMUM	3.5	0.0	0.0	0.0	0.0	0.0	1.5	5.0	14.5	14.5	15.5	10.0
MEAN	14.0	4.5	1.0	0.0	0.5	2.5	8.0	16.0	22.0	24.0	24.5	19.0
05485500 DES MOINES RIVER BELOW RACCOON RIVER AT DES MOINES, IOWA (1944-74)												
MAXIMUM	22.0	14.0	3.0	2.0	2.0	9.0	18.0	24.0	29.0	31.0	34.0	26.0
MINIMUM	4.5	0.0	0.0	0.0	0.0	0.0	2.5	7.0	13.0	19.0	21.0	15.0
MEAN	13.0	7.0	1.0	0.5	0.5	2.5	9.0	15.5	21.0	25.0	26.0	20.0
05486000 NORTH RIVER NEAR NORWALK, IOWA (1944-74)												
MAXIMUM	28.0	13.0	2.0	1.0	2.0	10.5	17.0	23.0	29.0	30.0	29.0	25.0
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	1.0	9.0	13.0	16.5	18.0	11.0
MEAN	13.0	5.0	0.5	0.0	0.0	2.5	9.0	17.0	21.0	24.0	23.5	18.5
05486590 MIDDLE RIVER NEAR INDIANOLA, IOWA (1945-74)												
MAXIMUM	23.5	11.0	3.5	1.0	4.0	10.5	20.0	28.0	30.0	33.5	30.5	31.0
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	4.5	9.0	14.0	19.5	16.5	13.5
MEAN	14.0	6.0	0.5	0.0	0.5	2.5	13.0	17.5	22.5	26.0	25.5	19.5
05487470 SOUTH RIVER NEAR ACKWORTH, IOWA (1944-74)												
MAXIMUM	21.0	17.0	5.0	2.0	4.0	10.0	24.0	31.0	36.0	34.0	36.0	28.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	3.0	8.0	11.0	20.0	14.0	10.0
MEAN	13.5	6.0	1.0	0.5	0.5	2.0	11.5	18.0	23.0	27.5	25.0	19.0

PERIODIC AND MISCELLANEOUS WATER-QUALITY RECORDS

MAXIMUM, MINIMUM, AND MEAN MONTHLY WATER TEMPERATURE (°C)--CONTINUED

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
DES MOINES RIVER BASIN--CONTINUED												
05488500 DES MOINES RIVER NEAR TRACY, IOWA (1944-74)												
MAXIMUM	21.0	14.0	6.0	1.0	4.0	11.0	14.5	32.0	32.0	32.0	28.0	26.0
MINIMUM	6.0	1.0	0.0	0.0	0.0	0.0	2.0	11.0	11.0	15.0	20.0	13.0
MEAN	12.5	6.5	1.5	0.0	1.0	3.0	9.0	18.5	23.0	24.0	24.0	20.0
05489000 CEDAR CREEK NEAR BUSSEY, IOWA (1948-74)												
MAXIMUM	21.0	13.0	7.0	2.0	2.0	10.5	19.0	23.0	27.0	31.0	29.0	28.0
MINIMUM	6.0	1.0	0.0	0.0	0.0	0.0	5.0	11.0	15.0	18.5	19.0	11.0
MEAN	14.0	6.0	1.0	0.5	0.5	2.5	10.5	17.0	22.0	24.5	24.0	20.0
05489500 DES MOINES RIVER AT OTTUMWA, IOWA (1944-74)												
MAXIMUM	21.0	12.0	6.0	2.0	2.0	15.0	16.0	27.0	29.0	31.0	32.0	26.0
MINIMUM	5.0	0.0	0.0	0.0	0.0	0.0	1.0	5.0	16.0	19.0	16.0	10.0
MEAN	14.0	5.0	1.0	1.0	0.5	3.0	8.0	17.5	23.0	25.0	24.0	20.0
05490500 DES MOINES RIVER AT KEOSAUQUA, IOWA (1944-74)												
MAXIMUM	21.0	14.0	4.0	1.0	2.0	18.0	16.0	26.0	29.0	31.0	29.0	27.0
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	1.0	11.0	17.0	17.0	18.5	13.0
MEAN	13.0	6.0	1.0	0.0	0.5	3.5	10.5	18.0	23.5	25.5	24.5	20.5
05491000 SUGAR CREEK NEAR KEOKUK, IOWA (1959-73)												
MAXIMUM	21.0	8.0	5.0	2.0	1.0	6.0	17.0	26.0	29.0	29.0	27.0	22.0
MINIMUM	7.0	3.0	0.0	0.0	0.0	0.0	3.0	9.5	19.0	18.0	22.0	14.0
MEAN	13.5	3.5	1.0	0.0	0.5	1.5	10.5	18.0	25.0	23.5	24.5	18.5
FOX RIVER BASIN												
05494300 FOX RIVER AT BLOOMFIELD, IOWA (1958-74)												
MAXIMUM	16.0	10.0	5.0	0.0	1.0	13.5	18.0	29.0	34.5	32.5	32.5	24.0
MINIMUM	6.5	0.5	0.0	0.0	0.0	0.0	4.5	11.5	19.0	21.5	22.0	14.5
MEAN	11.5	4.5	1.0	0.0	0.0	3.0	9.5	20.0	23.5	27.5	28.0	19.5
BIG SIOUX RIVER BASIN												
06483270 ROCK RIVER AT ROCK RAPIDS, IOWA (1960-74)												
MAXIMUM	18.0	12.5	0.5	0.5	0.5	5.0	15.0	18.0	24.0	26.5	27.0	23.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	1.0	10.0	14.5	21.5	22.0	17.0
MEAN	14.5	4.5	0.5	0.5	0.0	1.5	7.0	14.0	20.5	25.0	24.0	20.5
06483500 ROCK RIVER NEAR ROCK VALLEY, IOWA (1944-74)												
MAXIMUM	21.0	12.0	2.5	1.0	0.5	5.5	17.0	23.5	27.5	27.0	32.0	26.0
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	4.0	7.0	15.0	21.0	19.0	15.5
MEAN	14.5	5.0	0.5	0.0	0.0	1.5	8.5	14.5	21.5	25.5	25.0	20.0
06484000 DRY CREEK AT HAWARDEN, IOWA (1950-74)												
MAXIMUM	18.5	11.5	1.0	0.0	0.5	6.5	18.0	26.5	25.5	29.5	33.0	23.5
MINIMUM	6.5	1.0	0.0	0.0	0.0	0.0	2.0	7.0	14.5	23.0	20.0	14.5
MEAN	14.0	5.0	0.5	0.0	0.0	1.0	8.0	18.0	21.0	26.0	25.5	19.5
PERRY CREEK BASIN												
06600000 PERRY CREEK AT 38TH STREET, SIOUX CITY, IOWA (1944-69)												
MAXIMUM	18.0	11.0	5.0	1.0	6.0	8.0	20.0	27.0	30.0	30.0	29.0	26.0
MINIMUM	3.0	0.0	0.0	0.0	0.0	0.0	1.0	9.0	18.0	19.0	13.0	8.0
MEAN	12.0	5.0	1.0	0.0	0.5	2.0	9.5	17.5	22.5	24.5	24.0	21.5
FLOYD RIVER BASIN												
06600100 FLOYD RIVER AT ALTON, IOWA (1956-74)												
MAXIMUM	23.5	10.0	3.5	1.0	1.5	5.5	17.0	19.0	24.5	28.0	31.5	25.5
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	2.0	6.5	8.5	20.0	22.0	16.5
MEAN	15.5	5.0	0.5	0.0	0.5	2.0	9.0	12.0	20.5	24.0	26.0	20.5
06600300 WEST BRANCH FLOYD RIVER NEAR STRUBLE, IOWA (1956-74)												
MAXIMUM	23.0	11.0	1.0	0.0	1.0	5.5	13.5	20.0	27.0	29.0	33.5	23.0
MINIMUM	5.5	0.5	0.0	0.0	0.5	0.0	2.0	6.0	18.0	19.0	18.5	12.0
MEAN	15.0	5.5	0.0	0.0	0.0	2.0	9.5	15.5	23.0	23.5	25.5	17.5

MAXIMUM, MINIMUM, AND MEAN MONTHLY WATER TEMPERATURE (°C) --CONTINUED

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
MONONA-HARRISON DITCH BASIN												
06602000 WEST FORK DITCH AT HOLLY SPRINGS, IOWA (1944-68)												
MAXIMUM	20.0	11.0	4.0	1.0	1.0	6.0	16.0	23.0	28.0	30.0	30.0	27.0
MINIMUM	8.0	1.0	0.0	0.0	0.0	0.0	1.0	13.0	16.0	16.0	16.0	8.0
MEAN	12.0	5.5	1.0	0.0	0.0	2.0	9.5	17.5	21.5	23.5	23.5	18.5
06602400 MONONA-HARRISON DITCH NEAR TURIN, IOWA (1943-74)												
MAXIMUM	18.0	10.0	6.5	0.5	1.5	14.5	15.5	23.0	24.5	31.0	28.5	24.0
MINIMUM	1.5	0.5	0.0	0.0	0.0	0.0	3.5	7.5	17.0	17.0	18.0	12.0
MEAN	12.5	6.0	1.0	0.0	0.5	2.5	9.5	15.0	21.0	22.5	23.5	18.0
LITTLE SIOUX RIVER BASIN												
06605600 LITTLE SIOUX RIVER AT GILLETT GROVE, IOWA (1959-73)												
MAXIMUM	22.0	12.0	6.5	0.5	4.5	8.0	19.0	21.5	25.5	31.0	30.0	24.5
MINIMUM	2.0	0.0	0.0	0.0	0.0	0.0	1.0	9.0	10.0	20.0	16.5	11.0
MEAN	13.0	4.5	1.0	0.0	0.5	2.0	7.5	16.0	19.0	24.0	23.0	21.0
06606600 LITTLE SIOUX RIVER AT CORRECTIONVILLE, IOWA (1944-74)												
MAXIMUM	19.0	9.5	7.0	1.0	1.5	7.0	16.5	22.0	28.0	32.0	26.5	24.5
MINIMUM	8.0	0.5	0.0	0.0	1.0	0.0	3.5	8.0	14.5	19.5	20.0	13.0
MEAN	13.0	4.5	1.0	0.5	0.0	2.0	13.5	15.5	21.0	24.0	24.5	20.0
06606700 LITTLE SIOUX RIVER NEAR KENNEBEC, IOWA (1944-69)												
MAXIMUM	23.0	10.0	4.0	1.0	1.0	5.5	24.5	23.5	28.0	31.0	31.5	25.5
MINIMUM	6.0	0.5	0.0	0.0	0.0	0.0	2.5	9.0	11.5	19.5	17.0	10.5
MEAN	12.0	5.0	0.5	0.0	0.0	2.0	8.5	17.0	21.0	24.0	24.5	19.0
06607000 ODEBOLT CREEK NEAR ARTHUR, IOWA (1957-74)												
MAXIMUM	23.5	12.0	5.5	1.0	3.0	8.0	9.0	25.0	31.0	30.0	29.0	26.5
MINIMUM	1.0	0.0	0.0	0.0	0.0	0.0	1.5	4.5	13.0	17.0	21.0	10.0
MEAN	11.5	4.0	1.0	0.0	0.5	1.5	6.0	14.5	22.0	23.0	23.0	20.0
06607200 MAPLE RIVER AT MAPLETON, IOWA (1944-74)												
MAXIMUM	18.0	11.0	4.5	1.0	1.5	11.0	22.0	21.5	28.0	31.0	28.0	30.0
MINIMUM	8.0	0.0	0.0	0.0	0.0	0.0	2.0	9.0	17.0	18.5	19.0	13.0
MEAN	13.0	5.5	0.5	0.0	0.5	1.5	10.0	15.5	21.5	24.0	23.5	20.0
06607500 LITTLE SIOUX RIVER NEAR TURIN, IOWA (1944-74)												
MAXIMUM	21.0	13.5	9.0	1.0	1.5	14.0	20.0	25.5	30.0	32.0	29.0	33.5
MINIMUM	5.0	1.0	0.0	0.0	0.0	0.0	0.0	8.0	18.5	18.5	18.5	15.5
MEAN	13.5	7.0	1.5	0.0	0.0	2.0	9.0	16.0	23.0	24.5	24.0	20.5
SOLDIER RIVER BASIN												
06608500 SOLDIER RIVER AT PISGAH, IOWA (1944-74)												
MAXIMUM	21.0	16.0	8.0	1.0	2.0	13.0	20.0	24.0	30.0	29.0	32.0	27.5
MINIMUM	10.0	1.5	0.0	0.0	0.0	0.5	4.5	11.5	18.5	19.5	18.0	16.0
MEAN	15.0	6.0	0.5	0.0	0.5	2.5	10.5	16.0	23.0	24.5	25.5	20.5
BOYER RIVER BASIN												
06609500 BOYER RIVER AT LOGAN, IOWA (1944-74)												
MAXIMUM	21.0	14.0	4.0	1.0	2.0	10.0	16.0	22.0	26.0	28.5	28.0	26.0
MINIMUM	6.0	1.0	0.0	0.0	0.0	0.0	4.5	10.0	14.0	19.0	20.0	11.0
MEAN	14.5	7.0	1.0	0.0	0.0	2.5	9.5	15.5	20.5	24.0	24.5	20.5
INDIAN CREEK BASIN												
06610500 INDIAN CREEK AT COUNCIL BLUFFS, IOWA (1955-74)												
MAXIMUM	20.5	12.5	11.0	0.0	1.0	17.0	19.0	23.0	29.0	30.0	30.0	26.0
MINIMUM	8.5	0.0	0.0	0.0	0.0	0.0	5.0	11.5	15.0	15.0	15.0	10.0
MEAN	14.0	4.5	1.5	0.0	0.5	3.5	11.5	16.5	21.5	24.0	22.5	18.0

PERIODIC AND MISCELLANEOUS WATER-QUALITY RECORDS

MAXIMUM, MINIMUM, AND MEAN MONTHLY WATER TEMPERATURE (°C)--CONTINUED

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
WAUBONSIE CREEK BASIN												
06806000 WAUBONSIE CREEK NEAR BARTLETT, IOWA (1946-69)												
MAXIMUM	21.0	11.0	7.0	1.0	4.0	17.0	27.0	28.0	33.0	34.0	31.5	26.0
MINIMUM	8.0	0.0	0.0	0.0	0.0	0.0	4.0	2.0	16.0	21.0	18.0	11.0
MEAN	11.5	5.0	1.0	0.0	0.5	4.0	12.5	19.0	23.5	27.0	26.0	20.5
WISHNABOTNA RIVER BASIN												
06807410 WEST WISHNABOTNA RIVER AT HANCOCK, IOWA (1960-74)												
MAXIMUM	19.0	7.0	11.5	1.0	3.0	10.5	23.5	25.0	25.5	28.0	26.5	22.0
MINIMUM	4.5	0.0	0.0	0.0	0.0	0.5	2.5	11.0	16.0	19.0	19.0	5.5
MEAN	11.5	3.0	2.0	0.0	1.0	4.5	12.0	16.0	22.0	23.5	22.0	16.0
06808500 WEST WISHNABOTNA RIVER AT RANDOLPH, IOWA (1948-74)												
MAXIMUM	19.5	12.0	4.0	1.5	4.5	18.0	21.0	26.0	27.0	33.0	27.0	26.5
MINIMUM	2.5	0.0	0.0	0.0	0.0	0.0	4.5	12.0	12.0	20.5	18.0	14.0
MEAN	13.5	5.5	0.5	0.5	1.0	3.5	13.0	17.5	22.5	24.5	23.0	20.5
06809000 DAVIDS CREEK NEAR HAMLIN, IOWA (1953-73)												
MAXIMUM	23.5	15.5	11.0	4.5	4.5	23.5	23.5	29.0	31.5	33.0	33.0	30.0
MINIMUM	1.0	0.0	0.0	0.0	0.0	0.0	0.5	3.5	10.0	9.5	13.5	10.0
MEAN	12.5	5.5	2.0	0.5	1.5	4.5	10.5	16.0	20.5	23.5	23.0	18.5
06809210 EAST WISHNABOTNA RIVER AT ATLANTIC, IOWA (1961-74)												
MAXIMUM	19.0	8.5	4.0	2.0	2.0	15.5	16.5	28.0	26.0	28.0	24.5	20.0
MINIMUM	5.5	0.5	0.0	0.0	0.0	2.0	2.0	10.5	16.0	19.5	19.0	14.0
MEAN	17.0	4.5	1.0	0.5	1.0	6.0	8.5	17.0	21.5	24.0	21.5	17.5
06810000 WISHNABOTNA RIVER ABOVE HAMBURG, IOWA (1944-74)												
MAXIMUM	21.0	13.0	4.0	1.5	4.0	16.0	17.0	24.5	27.0	32.0	26.5	27.0
MINIMUM	1.0	0.0	0.0	0.0	0.0	0.0	3.5	7.0	10.5	20.0	19.0	14.5
MEAN	13.0	5.5	0.5	0.0	1.0	4.5	10.0	17.0	21.5	24.0	23.5	20.0
TARKIO RIVER BASIN												
06811840 TARKIO RIVER AT STANTON, IOWA (1958-74)												
MAXIMUM	23.5	13.0	0.5	1.0	2.0	8.0	17.0	23.5	26.0	29.0	33.0	26.5
MINIMUM	3.0	0.5	0.0	0.0	0.0	0.0	8.0	8.0	16.5	19.5	20.0	15.5
MEAN	13.5	4.5	0.0	0.5	0.5	4.5	11.0	16.5	20.0	24.5	24.5	20.5
NODAWAY RIVER BASIN												
06817000 NODAWAY RIVER AT CLARINDA, IOWA (1944-74)												
MAXIMUM	22.0	10.0	2.0	2.0	1.0	14.5	15.5	25.0	29.0	34.5	30.0	27.0
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	4.0	10.0	16.0	19.0	19.5	14.5
MEAN	14.5	5.5	0.5	0.5	0.5	3.5	10.5	18.0	23.5	25.5	24.0	20.0
PLATTE RIVER BASIN												
06819190 EAST FORK ONE HUNDRED AND TWO RIVER NEAR BEDFORD, IOWA (1960-74)												
MAXIMUM	20.5	9.5	1.5	2.0	1.0	10.0	23.5	28.5	30.5	38.0	28.5	28.0
MINIMUM	6.5	0.0	0.0	0.0	0.0	1.0	6.5	9.0	17.0	21.0	18.5	13.5
MEAN	13.0	2.5	0.5	0.5	0.5	4.5	14.5	18.5	24.5	27.0	24.5	20.0
GRAND RIVER BASIN												
06898000 THOMPSON RIVER AT DAVIS CITY, IOWA (1945-69)												
MAXIMUM	22.0	16.0	6.0	1.0	2.0	6.0	21.0	22.0	32.0	31.0	29.0	25.0
MINIMUM	6.0	1.0	0.0	0.0	0.0	0.0	3.0	10.0	17.0	17.0	17.0	14.0
MEAN	14.0	8.0	1.0	0.0	1.0	1.0	9.0	17.0	23.0	25.0	25.0	21.0
06898400 WELDON RIVER NEAR LEON, IOWA (1959-74)												
MAXIMUM	25.5	16.5	5.0	0.5	3.0	9.5	16.5	30.0	29.0	34.0	34.5	31.0
MINIMUM	6.0	0.0	0.0	0.0	0.0	0.0	0.5	9.0	17.0	22.0	18.0	15.5
MEAN	17.0	7.5	1.5	0.0	0.5	2.5	8.0	17.5	23.0	27.0	25.0	20.0
CHARITON RIVER BASIN												
06903900 CHARITON RIVER NEAR RATHBUN, IOWA (1958-74)												
MAXIMUM	21.0	14.0	12.0	2.5	1.0	5.5	14.0	22.0	24.0	28.0	27.0	24.0
MINIMUM	7.0	0.0	0.0	0.0	0.0	0.0	3.0	5.5	17.0	17.0	19.0	14.0
MEAN	14.0	7.5	4.5	0.5	0.5	2.0	10.5	16.0	21.0	24.0	23.0	19.5

DISCONTINUED WATER-QUALITY STATIONS

The following water-quality stations have been discontinued in Iowa. Continuous daily records of water temperature or sediment and monthly or periodic samples of chemical quality were collected and published for the period of record shown for each station. An asterisk (*) in the type of record column indicates that periodic data is available for that parameter subsequent to the period of daily record.

Discontinued water-quality stations

Station name	Station number	Drainage area (sq mi)	Type of Record	Period of record
Paint Creek at Waterville, Iowa.	05388500	42.8	Temp.	1952-56
Turkey River at Garber, Iowa.	05412500	1,545	Sed.	1952-57
Mississippi River at Dubuque, Iowa.	05414700	81,600	Temp.	1957-62
Wapsipinicon River at Independence, Iowa.	05421000	1,048	Sed.	1957-62
Iowa River near Rowan, Iowa.	05449500	429	Chem.	1969-73
Foursile Creek near Lincoln, Iowa.	05464130	13.78	Chem. *	1968-70
Half Mile Creek near Gladbrook, Iowa.	05464133	1.33	Temp. *	1967-70
Foursile Creek near Traer, Iowa.	05464137	19.51	Sed. *	1967-70
Cedar River at Cedar Rapids, Iowa.	05464500	6,640	Temp. *	1957-62
Mississippi River at Burlington, Iowa.	05469720	114,000	Sed. *	1957-62
Des Moines River at Des Moines, Iowa.	05482000	6,245	Chem.	1969-74
E. Fork Hardin Creek near Churdan, Iowa.	05483000	24.0	Temp.	1969-74
Raccoon River at Des Moines, Iowa.	05485000	3,590	Sed.	1969-74
Des Moines River below Raccoon River at Des Moines, Iowa.	05485500	9,770	Chem.	1969-74
Middle River near Indianola, Iowa.	05486490	503	Temp. *	1969-74
White Breast Creek near Dallas, Iowa.	05487980	342	Sed.	1969-74
Big Sioux River at Sioux City, Iowa.	06485950	9,410	Chem.	1906-07; 1944-54
Floyd River at James, Iowa.	06600500	882	Temp. *	1944-54
Floyd River at Sioux City, Iowa.	06600520	921	Sed.	1943-54
Little Sioux River at Correctionville, Iowa.	06606600	2,500	Chem.	1969-73
Little Sioux River near Kennebec, Iowa.	06606700	2,738	Chem.	1954-55
Little Sioux River at River Sioux, Iowa.	06607513	3,600	Temp. *	1951-62
Soldier River near Mondamin, Iowa.	06608505	440	Sed.	1950-62
Steer Creek near Magnolia, Iowa.	06609200	9.26	Temp.	1950-55
Thompson Creek near Woodbine, Iowa.	06609590	6.97	Sed.	1950-57
Mule Creek near Malvern, Iowa.	06808000	10.6	Chem.	1945-47
Davids Creek near Hamlin, Iowa.	06809000	26.0	Temp.	1945-47
East Nishnabotna River at Red Oak, Iowa.	06809500	894	Chem. *	1944-45
Nishnabotna River above Hamburg, Iowa.	06810000	2,806	Temp. *	1944-47
Platte River near Diagonal, Iowa.	06818750	217	Sed.	1962-67
Thompson River at Davis City, Iowa.	06898000	701	Chem.	1962-67
Weldon River near Leon, Iowa.	06898400	104	Temp.	1968-73
Chariton River near Chariton, Iowa.	06903400	182	Sed.	1967-73
Honey Creek near Russell, Iowa.	06903500	13.2	Temp.	1968-73
Chariton River near Rathbun, Iowa.	06903900	551	Chem.	1968-73
			Temp. *	1952-53; 1965-68
			Sed. *	1952-68
			Chem. *	1962-73
			Temp.	1962-73
			Sed.	1969-70
			Chem.	1969-73
			Temp.	1969-73
			Sed.	1969-73
			Temp.	1952-62
			Sed. *	1962-69
			Temp. *	1962-69

Type of record: Chem. (chemical quality); Temp. (water temperature); Sed. (sediment).

