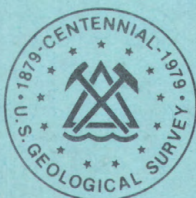


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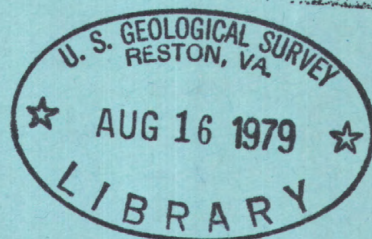
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NEBRASKA

1978



Water Resources Data for Nebraska



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NE-78-1
WATER YEAR 1978

Prepared in cooperation with the Nebraska
Department of Water Resources, the Conservation
and Survey Division of the University of Nebraska,
the Nebraska Natural Resources Commission,
and with other State and Federal agencies

CALENDAR FOR WATER YEAR 1978

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Water Resources Data for Nebraska

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NE-78-1
WATER YEAR 1978

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and with other State and Federal agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

For information on the water program in Nebraska write to:
District Chief, Water Resources Division
U.S. Geological Survey
Room 406, Federal Building
100 Centennial Mall - North
Lincoln, Nebraska 68508

1979

PREFACE

This report was prepared by personnel of the Nebraska district of the Water Resources Division of the U.S. Geological Survey under the supervision of L.R. Petri, Acting District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with the State of Nebraska and with other agencies.

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

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CONTENTS

	Page
Preface.....	III
List of stations, in downstream order, for which records are published.....	VI
Introduction.....	1
Cooperation.....	1
Acknowledgment.....	2
Hydrologic conditions.....	2
Notice.....	2
Definition of terms.....	2
Downstream order and station number.....	8
Numbering system for wells and miscellaneous sites.....	8
Special networks and programs.....	9
Explanation of stage and water-discharge records.....	9
Collection and computation of data.....	9
Accuracy of field data and computed results.....	11
Other data available.....	11
Records of discharge collected by agencies other than the Geological Survey.....	12
Explanation of water-quality records.....	12
Collection and examination of data.....	12
Water analysis.....	12
Water temperatures.....	12
Sediment.....	13
Parameter codes.....	13
Explanation of ground-water level records.....	13
Collection of the data.....	13
Publications on techniques of water-resources investigations.....	15
Station records.....	21
Discharge at partial-record stations and miscellaneous sites.....	365
Crest-stage partial-record stations.....	365
Miscellaneous sites.....	375
Miscellaneous sites for drought study.....	389
Seepage investigations.....	400
Analyses of samples collected at water-quality partial-record stations.....	405
Ground-water records.....	424
Ground-water level records.....	424
Chemical analyses of ground water.....	448
Pesticide analyses of ground water in Hall County, Nebr.....	504
Appendix A.....	505
Index.....	510

ILLUSTRATIONS

Figure 1. System for numbering wells and miscellaneous sites.....	8
2. Map of Nebraska showing locations of complete-record gaging stations.....	17
3. Map of Nebraska showing locations of partial-record stations.....	18
4. Map of Nebraska showing locations of surface water-quality stations.....	19
5. Map showing locations of selected observation wells.....	20

TABLES

Table 1. Factors for conversion of chemical constituents in milligrams per liter to milliequivalents per liter.....	14
2. Factors for conversion of sediment concentration in milligrams per liter to parts per million.....	14
3. Conversions of degrees Celsius (°C) to degrees Fahrenheit (°F).....	15

[Letter after station name designates type of data: (d) discharge, (c) chemical,
(b) biological, (m) microbiological, (t) water temperature, and (s) sediment]

MISSOURI RIVER BASINMISSOURI RIVER:WHITE RIVER BASIN

White River at Crawford (d)..... 21

Bordeaux Creek:

Big Bordeaux Creek near Chadron (d)..... 22

PONCA CREEK BASIN

Ponca Creek at Anoka (d)..... 23

Ponca Creek at Verdel (dcm)..... 24

NIORARA RIVER BASIN

Niobrara River at Wyoming-Nebraska State line (d)..... 27

Niobrara River at Agate (d)..... 28

Niobrara River above Box Butte Reservoir (dcm)..... 29

Box Butte Reservoir near Hemingford (d)..... 32

Niobrara River below Box Butte Reservoir (d)..... 33

Niobrara River near Gordon (d)..... 34

Snake River above Merritt Reservoir (dt)..... 35

Merritt Reservoir near Burge (d)..... 38

Snake River near Burge (d)..... 39

Minnechaduz Creek at Valentine (d)..... 40

Niobrara River near Sparks (d)..... 41

Niobrara River near Norden (dct)..... 43

Plum Creek at Meadville (dc)..... 47

Long Pine Creek near Riverview (dc)..... 50

Keya Paha River at Wewela, SD (d)..... 53

Keya Paha River near Naper (d)..... 54

Niobrara River near Spencer (d)..... 55

Niobrara River near Verdel (dcbmts)..... 57

BAZILE CREEK BASIN

Bazile Creek near Niobrara (d)..... 68

Lewis and Clark Lake near Yankton, SD (d)..... 69

Missouri River at Yankton, SD (d)..... 70

Missouri River at Sioux City, IA (d)..... 71

OMAHA CREEK BASIN

Omaha Creek at Homer (d)..... 72

TEKAMAH CREEK BASIN

Tekamah Creek at Tekamah (d)..... 73

Missouri River at Omaha (d)..... 74

PLATTE RIVER BASIN

North Platte River (head of Platte River) at Wyoming-Nebraska State line (dc)..... 75

Horse Creek near Lyman (d)..... 77

Sheep Creek near Morrill (d)..... 78

Dry Spottedtail Creek at Mitchell (d)..... 79

North Platte River at Mitchell (dc)..... 80

Tub Springs near Scottsbluff (d)..... 82

Winters Creek near Scottsbluff (d)..... 83

Gering drain near Gering (d)..... 84

North Platte River near Minatare (d)..... 85

Ninemile drain near McGrew (d)..... 86

North Platte River at McGrew (cm)..... 87

Bayard Sugar Factory drain near Bayard (d)..... 89

Red Willow Creek near Bayard (d)..... 90

North Platte River at Bridgeport (dc)..... 91

Pumpkin Creek near Bridgeport (d)..... 93

North Platte River at Lisco (dcbmts)..... 94

Blue Creek near Lewellen (d)..... 103

North Platte River at Lewellen (d)..... 104

Lake McConaughy near Keystone (d)..... 105

North Platte River near Keystone (dc)..... 106

North Platte River near Sutherland (d)..... 108

Birdwood Creek near Hershey (d)..... 109

Lincoln County drain No. 1 near North Platte (d)..... 110

North Platte River at North Platte (d)..... 111

South Platte River:

Lodgepole Creek at Bushnell (d)..... 112

Lodgepole Creek at Kimball (cm)..... 113

Lodgepole Creek at Ralton (d)..... 115

MISSOURI RIVER BASIN--Continued	Page
PLATTE RIVER BASIN--Continued	
South Platte River--Continued	
South Platte River at Julesburg, CO (d).....	116
South Platte River at Roscoe (cm).....	117
South Platte River at North Platte (d).....	119
Platte River at Brady (d).....	120
Platte River near Cozad (d).....	121
Platte River near Overton (dct).....	122
Spring Creek below Lexington (cm).....	127
Platte River near Odessa (d).....	129
Platte River (north channel) near Kearney (cm).....	130
Platte River near Grand Island (dcmt).....	132
Wood River near Alda (dc).....	136
Wood River near Grand Island (cm).....	138
Wood River near Chapman (cm).....	140
Platte River near Duncan (dcbmts).....	142
Middle Loup River (head of Loup River) at Dunning (dt).....	150
Dismal River near Thedford (dcm).....	152
Dismal River at Dunning (d).....	155
Middle Loup River near Milburn (c).....	156
Middle Loup River near Comstock (c).....	157
Middle Loup River at Arcadia (d).....	158
South Loup River:	
Mud Creek near Broken Bow (cm).....	160
Mud Creek near Sweetwater (d).....	162
South Loup River at St. Michael (dc).....	163
Sherman Reservoir near Loup City (dc).....	165
Middle Loup River at St. Paul (dc).....	167
North Loup River at Taylor (dct).....	169
Calamus River near Harrop (d).....	173
Calamus River near Burwell (dc).....	174
North Loup River at Ord (d).....	177
North Loup River near St. Paul (dct).....	178
Loup River:	
Cedar River near Spalding (d).....	182
Cedar River near Fullerton (dct).....	183
Loup River power canal at diversion near Genoa (cbmt).....	187
Loup River power canal near Genoa (d).....	193
Loup River near Genoa (dcbms).....	194
Beaver Creek near Albion (cm).....	198
Beaver Creek at Genoa (d).....	200
Loup River at Columbus (d).....	201
Shell Creek near Columbus (d).....	202
Platte River at North Bend (dcm).....	203
Elkhorn River at Ewing (d).....	207
South Fork Elkhorn River near Ewing (d).....	209
Clearwater Creek near Clearwater (d).....	210
Elkhorn River at Neligh (d).....	211
Elkhorn River near Norfolk (dcs).....	213
Willow Creek near Foster (d).....	215
North Fork Elkhorn River near Pierce (d).....	216
Elkhorn River at West Point (d).....	217
Logan Creek at Pender (dcms).....	218
Logan Creek near Uehling (d).....	222
Maple Creek near Nickerson (d).....	224
Elkhorn River at Waterloo (dcbmts).....	225
Salt Creek at Roca (d).....	235
Salt Creek above Beal Slough at Lincoln (cm).....	236
Salt Creek at Lincoln (dcmt).....	239
Little Salt Creek near Lincoln (d).....	243
Stevens Creek near Lincoln (d).....	244
Salt Creek below Stevens Creek near Waverly (cm).....	245
Rock Creek near Ceresco (dcms).....	248
Salt Creek at Greenwood (ds).....	250
Salt Creek above Ashland (cm).....	252
Wahoo Creek at Ithaca (d).....	254
Silver Creek near Wahoo (cm).....	255
Platte River at Louisville (dcbmts).....	257
WEeping WATER CREEK BASIN	
Weeping Water Creek at Union (d).....	268

VIII STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

MISSOURI RIVER BASIN--Continued	Page
Missouri River at Nebraska City (d).....	269
LITTLE NEMAHA RIVER BASIN	
Little Nemaha River at Auburn (dcm).....	270
Missouri River at Rulo (d).....	273
BIG NEMAHA RIVER BASIN	
Big Nemaha River:	
Turkey Creek near Seneca, KS (d).....	274
North Fork Big Nemaha River at Humboldt (d).....	275
Big Nemaha River at Falls City (dcm).....	276
KANSAS RIVER BASIN	
Arikaree River (head of Kansas River) at Haigler (d).....	279
North Fork Republican River at Colorado-Nebraska State line (d).....	280
Republican River (continuation of Arikaree River):	
Buffalo Creek near Haigler (d).....	281
Rock Creek at Parks (d).....	282
Republican River at Benkelman (d).....	283
South Fork Republican River near Benkelman (d).....	284
Muddy Creek at Stratton (d).....	285
Republican River at Stratton (d).....	286
Swanson Lake near Trenton (d).....	287
Republican River at Trenton (dc).....	288
Frenchman Creek near Imperial (d).....	290
Enders Reservoir near Enders (d).....	291
Frenchman Creek near Enders (d).....	292
Frenchman Creek at Palisade (ds).....	293
Stinking Water Creek near Palisade (d).....	295
Frenchman Creek at Culbertson (dc).....	296
Blackwood Creek near Culbertson (d).....	298
Driftwood Creek near McCook (d).....	299
Republican River at McCook (dt).....	300
Red Willow Creek above Hugh Butler Lake (d).....	302
Hugh Butler Lake near McCook (d).....	303
Red Willow Creek near McCook (d).....	304
Red Willow Creek near Red Willow (d).....	305
Medicine Creek above Harry Strunk Lake (d).....	306
Harry Strunk Lake near Cambridge (d).....	307
Medicine Creek below Harry Strunk Lake (d).....	308
Republican River at Cambridge (d).....	309
Muddy Creek at Arapahoe (d).....	310
Turkey Creek near Edison (d).....	311
Republican River near Orleans (dcm).....	312
Sappa Creek:	
Beaver Creek at Cedar Bluffs, KS (d).....	315
Beaver Creek near Beaver City (d).....	316
Sappa Creek near Stamford (d).....	317
Prairie Dog Creek near Woodruff, KS (d).....	318
Harlan County Lake near Republican City (d).....	319
Republican River below Harlan County Dam (d).....	320
Center Creek at Franklin (d).....	321
Thompson Creek at Riverton (d).....	322
Elm Creek at Amboy (d).....	323
Courtland Canal at Nebraska-Kansas State line (d).....	324
Republican River near Guide Rock (dcm).....	325
Republican River near Hardy (d).....	328
Kansas River (continuation of Republican River):	
Big Blue River at Surprise (d).....	329
Lincoln Creek:	
Lincoln Creek near Seward (dcm).....	331
Big Blue River at Seward (d).....	334
Big Blue River below Seward (cm).....	335
West Fork Big Blue River below Hastings (cm).....	337
West Fork Big Blue River near Dorchester (dcm).....	339
Big Blue River near Crete (dcmts).....	342
Turkey Creek near Wilbur (dcm).....	348
Big Blue River at Beatrice (d).....	351
Big Blue River below Beatrice (cm).....	352
Big Blue River at Barneston (d).....	354
Little Blue River near Deweese (d).....	355
Little Blue River near Alexandria (d).....	357
Little Blue River near Fairbury (d).....	358
Little Blue River at Hollenberg, KS (dcms).....	359

WATER RESOURCES DATA FOR NEBRASKA, 1978

INTRODUCTION

Water-resources data for the 1978 water year for Nebraska consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 155 gaging stations; stage and contents for 10 lakes and reservoirs; water quality for 55 gaging stations, 17 ungaged stations, 36 partial-record flow or miscellaneous stations, and 241 wells; and water levels for 65 observation wells. Also included are data for 112 crest-stage partial-record stations. Locations of the complete-record stations, partial-record stations, surface-water quality stations, and selected observation wells are shown in figures 2, 3, 4, and 5, respectively. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Nebraska.

Records of discharge and stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled, "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NE-78-1". For archiving and general distribution, the reports for water years 1971-74 are also identified as water-data reports. These water-data reports are for sale, in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the district chief at the address given on back of title page or by telephone (402) 471-5082.

COOPERATION

The U.S. Geological Survey and organizations of the State of Nebraska have had cooperative agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are:

Nebraska Department of Water Resources, John W. Neuberger, Director

Conservation and Survey Division, University of Nebraska-Lincoln, V. H. Dreeszen, Director

Nebraska Natural Resources Commission, Dayle E. Williamson, Executive Secretary

Nebraska Department of Roads, David Coolidge, Director-State Engineer

Big Blue River Compact Administration

Assistance in the form of funds and services was given by the Corps of Engineers, U.S. Army, in collecting records for 35 gaging stations and 2 daily sediment stations and by the U.S. Environmental Protection Agency in collecting records for 4 water-quality stations published in this report.

The following organizations aided in collecting records: Central Nebraska Public Power and Irrigation District, Nebraska Public Power District, and Loup River Public Power District.

ACKNOWLEDGMENT

Nebraska district personnel who contributed significantly to the collection and preparation of the data in this report were: G. B. Engel, R. A. Engberg, M. S. Johnson, E. K. Steele, Jr., M. Kubicek, C. R. Liggett, and H. D. Stephens.

HYDROLOGIC CONDITIONS

Streamflow varied considerably during the 1978 water year. Dry weather continued in the panhandle and southwest part of the State during the first half of the water year and streamflow was in the deficient range (lower 25 percent of record) for 4 of the first 5 months at the Niobrara River above Box Butte Reservoir. Streamflow was deficient in eastern Nebraska during the months of January and February. Extremely low temperatures prevailed during the winter, with a record of 46 consecutive days during January and February when the daily maximum temperature never exceeded the freezing point at Lincoln. As a result, thickness of ice exceeded 3 feet on many rivers and snow accumulated to depths of 8 to 16 inches by March 1 in central and eastern Nebraska. Sudden temperature increases in March caused rapid melting of snow and ice. Severe ice jams and the resulting flooding caused considerable damage to agricultural lands as well as urban areas in the Loup, Platte, and Elkhorn River basins. One life was lost as a direct result of the flooding, and certain reaches along these rivers were declared Federal Disaster areas. Streamflow again dropped to very low levels by the end of the water year with below-normal flows in the east, southwest, and southern panhandle in September.

Sediment concentrations were near or below normal during the 1978 water year at daily stations on the Niobrara River near Verdel and the Platte River near Louisville. The minimum sediment concentration for the period of record was observed on several days in December and January at the Verdel station. While the maximum sediment concentration for the year was less than half the maximum concentration for the period of record, a maximum suspended-sediment discharge for the period of record was observed during a runoff event of March 20-21 at the Louisville station.

Ground-water levels declined throughout the State except for an area in the southeast where water levels were slightly higher. The greatest declines occurred in southwestern and south-central Nebraska. Water levels were generally near or slightly above long-term averages at the end of the water year.

NOTICE

During water year 1978, revisions were made in the terminology used to define 143 of the water-quality parameter codes that have been used by the Geological Survey in its publication of water-quality data and in its WATSTORE data system. These revisions were made to achieve consistency in terminology and to conform to a joint USGS-EPA agreement on terminology. They do not represent a change in the way the codes have been used in the past or in the association of specific code numbers with identified analytical procedures.

Use of the new terminology began with data for the 1978 water year, and therefore, it first appears in this publication. Definitions on which the terminology is based are included in the "Definitions" section of this report, and a table showing both old and new terminology is attached as an appendix to the report.

DEFINITION OF TERMS

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

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

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

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as 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 unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

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

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

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

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

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

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

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

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

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

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

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

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

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

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

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

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

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.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

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

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

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 (CaCO₃).

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

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 kilogram (μ g/kg) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (kilogram) of sediment.

Micrograms per liter (UG/L, μ g/L) is a unit for expressing the concentration of chemical constituents in solution. It represents one one-thousandth of a milligram of constituent in a liter of solution.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Milligrams or micrograms per liter may be converted to milliequivalents per liter by using the factors in table 1 (see p. 14). Concentrations of suspended sediment also is expressed in mg/L and is based on the mass of sediment per liter of water-sediment mixture. Sediment concentration may be converted to parts per million by using the factors in table 2 (see p. 14).

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

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

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (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 milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

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

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

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined 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 the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that is discharged in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027.

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

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

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

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

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks 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 of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may vary in the same source with changes in the composition of the water.

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

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

Substrate is the physical surface upon which an organism lives.

Natural substrate 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 artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

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

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

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

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

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

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

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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

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

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

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

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

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1978, is called the "1978 water year."

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

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

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 06796000, which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream-order number "796000."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

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

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.

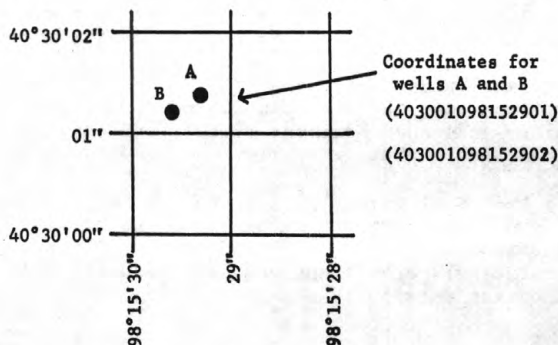


Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude).

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

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

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

For a stream-gaging station, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The application of the daily mean gage heights to the rating table gives the daily mean discharge, from which the monthly and the yearly mean discharges are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on 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 ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. 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 basic data. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Records are published for the water year, which begins on October 1 and ends on September 30.

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

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 "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by the 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 most recently revised figure was first published is given.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 4.

Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and to the availability of miscellaneous 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."

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

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. The line headed "AC-FT" gives the total discharge for the month expressed in acre-feet. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

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

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

Data collected at partial-record stations follow the information for continuous record sites. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

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

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

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations 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 this reason, figures of cubic feet per second per square mile and of runoff in inches are not published. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated.

Other data available

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

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

Records of discharge collected by agencies other than the Geological Survey

Records of daily diversions of water from streams by canals are collected by and published in Hydrographic Reports of the Nebraska Department of Water Resources. Also published therein are discharge records for Nebraska streams and storage records for Nebraska reservoirs which are not published in reports of the U.S. Geological Survey. Copies of the Hydrographic Reports may be obtained by addressing the Nebraska Department of Water Resources, Capitol Building, P.O. Box 94607, Lincoln, NE 68509.

Records of discharge not published by the Geological Survey were collected in Nebraska at three sites by Corps of Engineers, U.S. Army. The National Water Data Exchange (NAWDEX), Water Resources Division, U.S. Geological Survey, Reston, VA 22092, maintains an index of these sites. Information on records at specific sites can be obtained from that office upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

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

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

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

Water analysis

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

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

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

For chemical-quality stations equipped with digital monitors, the records consist of daily, maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the District office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. Conversions of degrees Celsius to degrees Fahrenheit are shown in table 3. For stations where water temperatures are measured manually once daily, the water temperatures are taken about the same time each day. For stations where thermographs are located, maximum and minimum daily temperatures are published. Large streams have a small daily temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section. When concentrations of suspended sediment are fairly uniform across a stream, observer samples taken at a fixed point are sufficient from which to determine mean concentrations for the cross section.

During periods when water discharge and sediment concentrations may be changing rapidly, samples may be collected more frequently than daily. Published mean daily sediment concentrations for these periods may be computed by the subdivided day method (time-discharge weighted average).

At some stations suspended-sediment samples are collected only periodically. Although data from periodic collections may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

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

Parameter codes

In most of the column headings of this report the names of the constituents or properties for which data are given are followed by five-digit codes which appear in parentheses. These codes, called parameter codes, are identical to those introduced or approved by the U.S. Environmental Protection Agency and are widely used by federal and state agencies. The codes indicate, to one having a key, more precisely than the verbal column headings can the constituents or properties being reported. Data listed under a given code in this report should be comparable to those listed under the same code by other agencies.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a sampling and historical record of water-level changes in the nation's most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on the grid system of latitude and longitude as described under the section entitled "NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES," and (2) a local number that is provided for continuity with older reports and for other use as dictated by local needs.

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

Water-level measurements in this report are given in feet with reference to land-surface datum (1sd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

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

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

<u>Ion</u>	<u>Factor</u>	<u>Ion</u>	<u>Factor</u>
Aluminum (Al^{+3}).....	0.11119	Iodide (I^{-1}).....	0.00788
Ammonia as NH_4^{+1}.....	.05544	Iron (Fe^{+3}).....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2}).....	.00965
Bicarbonate (HCO_3^{-1})..	.01639	Lithium (Li^{+1}).....	.14411
Bromide (Br^{-1}).....	.01251	Magnesium (Mg^{+2}).....	.08226
Calcium (Ca^{+2}).....	.04990	Manganese (Mn^{+2}).....	.03640
Carbonate (CO_3^{-2}).....	.03333	Nickel (Ni^{+2}).....	.03406
Chloride (Cl^{-1}).....	.02821	Nitrate (NO_3^{-1}).....	.01613
Chromium (Cr^{+6}).....	.11539	Nitrite (NO_2^{-1}).....	.02174
Cobalt (Co^{+2}).....	.03394	Phosphate (PO_4^{-3})....	.03159
Copper (Cu^{+2}).....	.03148	Potassium (K^{+1}).....	.02557
Cyanide (CN^{-1}).....	.03844	Sodium (Na^{+1}).....	.04350
Fluoride (F^{-1}).....	.05264	Strontium (Sr^{+2}).....	.02283
Hydrogen (H^{+1}).....	.99209	Sulfate (SO_4^{-2}).....	.02082
Hydroxide (OH^{-1}).....	.05880	Zinc (Zn^{+2}).....	.03060

Note: For constituent reported in micrograms per liter, multiply by the factor and then divide result by 1,000.

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

Range of concentration in 1000 mg/L	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
99.5 -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 1.00 g/ml and a specific gravity of sediment of 2.65.

Table 3.--Conversions of 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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office). Prices are effective October 1978 but are subject to change.

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

- 1-D1. *Water temperature-influential factors, field measurements, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1, 65 pages. \$1.60.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2, 1976, 24 pages. \$0.85.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1, 1974, 116 pages. \$1.90.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1, 1971, 126 pages. \$1.75.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1, 1967, 30 pages. \$1.00.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2, 1967, 12 pages. \$0.35.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3, 1968, 60 pages. \$0.40.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4, 1967, 44 pages. \$1.00.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5, 1967, 29 pages. \$0.35.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968, 13 pages. \$1.00.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7, 1968, 28 pages. \$1.40.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8, 1969, 65 pages. \$1.25.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11, 1969, 22 pages. \$1.20.

- 3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A12, 1968, 31 pages. \$0.35. Not currently available.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1, 1971, 26 pages. \$0.70.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2, 1976, 172 pages. \$2.50.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1, 1970, 55 pages. \$2.50.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2, 1970, 59 pages. \$2.50.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3, 1972, 66 pages. \$2.10.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1, 1968, 39 pages. \$1.60.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2, 1968, 15 pages. \$1.20.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1, 1972, 18 pages. \$0.65.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2, 1973, 20 pages. \$0.75.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3, 1973, 15 pages. \$0.65.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1, 1970, 17 pages. \$1.10.
- 5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1, 1970, 160 pages. \$2.40.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2, 1971, 31 pages. \$0.80.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3, 1972, 40 pages. \$0.90.
- 5-A4.* *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greenson, T. A. Ehlike, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4, 1977, 332 pages. \$20.00.
- 5-A5.* *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5, 1977, 95 pages. \$16.00.
- 5-C1. *Laboratory theory and methods for sediment analysis*, H. P. Guy: USGS--TWRI Book 5, Chapter C1, 1969, 58 pages. \$2.10.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1, 1976, 116 pages. \$2.30.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1, 1968, 23 pages. \$0.70.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2, 1968, 15 pages. \$1.10.

*These publications are available ONLY from Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. They are in looseleaf format and are subscription items. Additional supplements will be issued to subscribers at no extra cost. Checks should be made payable to Superintendent of Documents. Requester should emphasize to Superintendent of Documents that this is a subscription item.

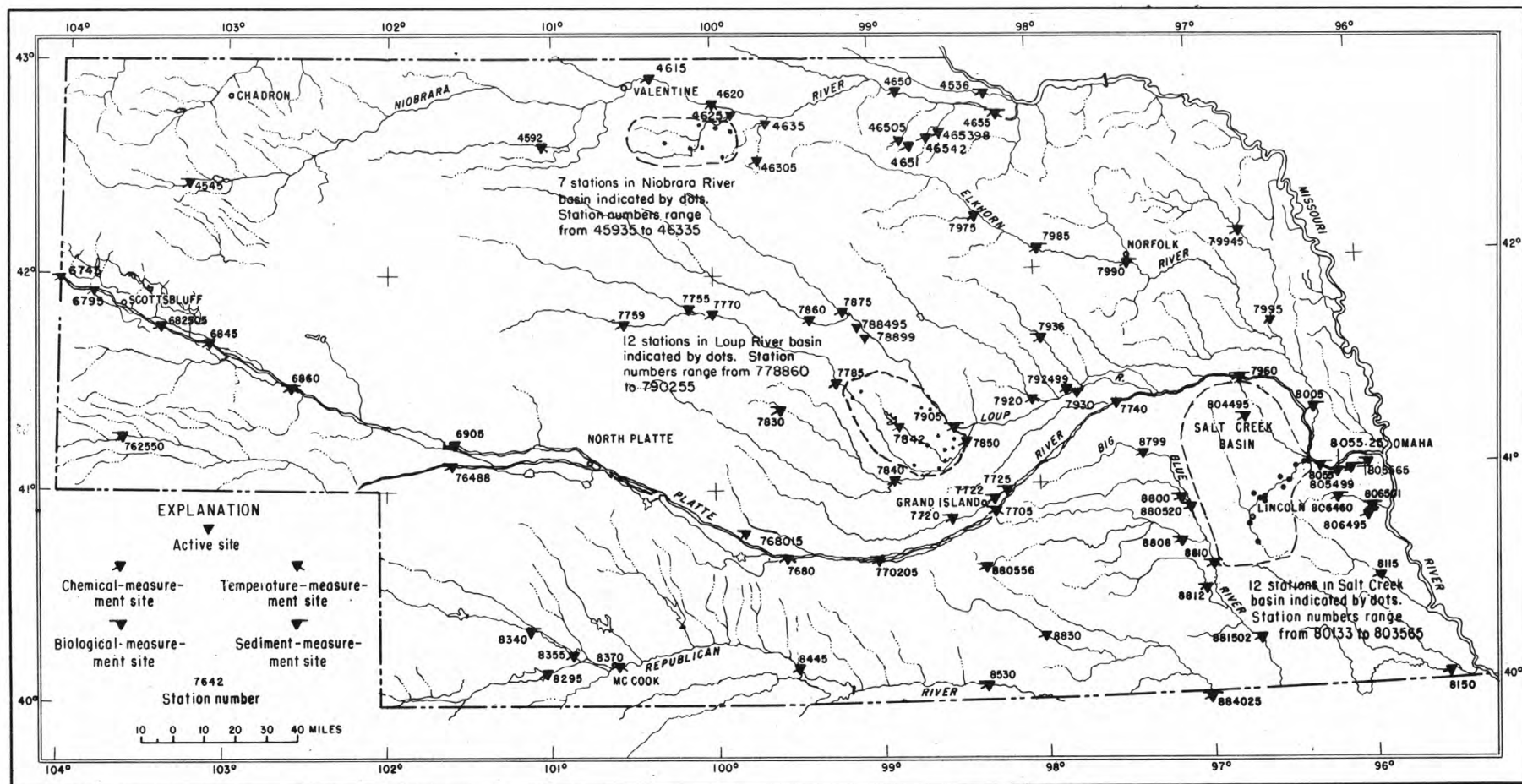


Figure 4.--Map showing locations of surface water-quality stations in Nebraska.

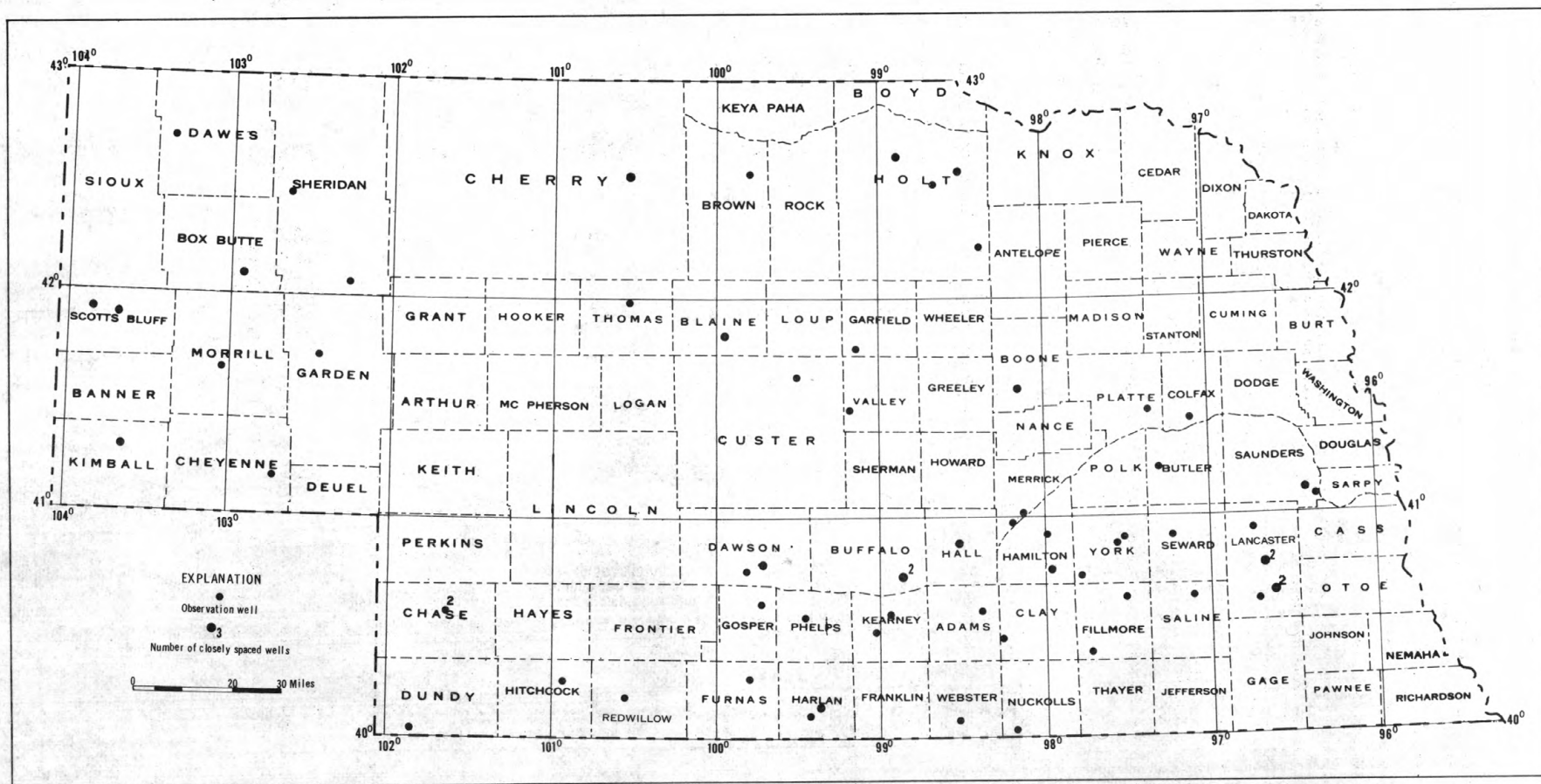


Figure 5.-- Map showing locations of selected observation wells.

GAGING-STATION RECORDS

21

WHITE RIVER BASIN

06444000 WHITE RIVER AT CRAWFORD, NE

LOCATION.--Lat 42°41'33", long 103°25'03", in W1/2 sec.3, T.31 N., R.52 W., Dawes County, Hydrologic Unit 10140201, on right bank 15 ft (5 m) downstream from bridge in city park at Crawford.

DRAINAGE AREA.--313 mi² (811 km²).

PERIOD OF RECORD.--February 1931 to September 1943, October 1947 to current year.

REVISED RECORDS.--WSP 1309: 1931(M), 1942(M). WSP 1729: 1958-59(M). WSP 1917: 1958-59.

GAGE.--Water-stage recorder. Datum of gage is 3,659.85 ft (1,115.522 m) National Geodetic Vertical Datum of 1929. Feb. 25, 1931, to Oct. 2, 1933, nonrecording gage at old highway bridge 0.5 mi (0.8 km) upstream at different datum and Oct. 3, 1933, to Sept. 30, 1943, 1 mi (2 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Some regulation at low flows by pumps for irrigation and diversion for water supply for town of Crawford.

AVERAGE DISCHARGE.--43 years, 20.2 ft³/s (0.572 m³/s), 14,630 acre-ft/yr (18.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft³/s (44.7 m³/s) Mar. 15, 1948, gage height, 6.88 ft (2.097 m); maximum gage height, 7.7 ft (2.35 m) July 10, 1958, from floodmarks; minimum daily discharge, 2.7 ft³/s (0.076 m³/s) Aug. 13, 31, Sept. 1, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 2	0700	ice jam	3.54 1.079	July 2	0115	182	5.2
Mar. 10	0830	136 3.9	2.79 0.850	July 29	0815	*203	5.7
							3.03 0.924
							3.18 0.969

Minimum daily, 10.0 ft³/s (0.28 m³/s) Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	18	21	22	18	21	27	26	24	20	17	13
2	20	18	21	21	18	21	27	25	24	44	16	12
3	18	19	21	21	21	21	26	25	24	18	18	12
4	17	19	21	21	25	22	26	26	24	16	17	11
5	18	19	20	22	26	24	27	26	24	14	16	11
6	17	19	20	22	22	30	26	27	24	15	15	11
7	18	19	21	22	22	30	25	27	23	17	15	10
8	18	19	20	20	22	35	26	29	24	15	14	10
9	18	19	19	16	22	47	26	29	23	16	14	11
10	19	20	18	13	22	93	27	28	22	18	13	11
11	19	21	20	18	22	67	27	27	22	16	13	11
12	19	21	22	24	22	52	25	27	22	15	13	11
13	18	21	23	22	21	46	25	26	20	15	12	11
14	18	21	23	20	18	36	26	26	19	14	13	12
15	18	21	24	18	11	31	27	27	18	14	15	12
16	18	21	24	14	13	28	27	26	17	15	13	11
17	19	21	23	13	14	27	27	28	21	14	12	11
18	19	21	22	15	16	38	27	32	20	14	12	12
19	19	22	23	16	17	67	28	29	19	15	13	12
20	19	18	20	18	17	38	27	28	20	16	12	14
21	19	18	21	20	20	32	26	28	20	19	12	12
22	19	20	21	20	23	30	26	29	19	24	11	13
23	19	22	21	19	25	30	26	27	19	18	12	12
24	19	21	22	18	27	29	25	25	19	16	12	12
25	18	22	22	15	25	29	25	24	19	14	11	12
26	19	22	22	16	25	29	25	23	17	13	12	11
27	19	22	23	17	24	29	24	23	16	13	12	13
28	18	21	25	17	22	29	24	26	16	13	12	11
29	18	21	26	18	---	28	24	26	15	55	13	12
30	18	22	25	18	---	27	25	27	15	20	15	13
31	18	---	23	18	---	27	---	26	---	18	13	---
TOTAL	577	608	677	574	580	1093	779	828	609	564	418	350
MEAN	18.6	20.3	21.8	18.5	20.7	35.3	26.0	26.7	20.3	18.2	13.5	11.7
HAX	24	22	26	24	27	93	28	32	24	55	18	14
MIN	17	18	18	13	11	21	24	23	15	13	11	10
AC-FT	1140	1210	1340	1140	1150	2170	1550	1640	1210	1120	829	694

CAL YR 1977 TOTAL 7330.1 MEAN 20.1 HAX 59 MIN 8.7 AC-FT 18540
WTR YR 1978 TOTAL 7657.0 MEAN 21.0 HAX 93 MIN 10 AC-FT 15190

06453500 PONCA CREEK AT ANOKA, NE

LOCATION.--Lat 42°56'25", long 98°50'30", in NE1/4 sec.9, T.34 N., R.13 W., Boyd County, Hydrologic Unit 10150001, on downstream side of left pier of bridge on State Highway 11, 0.5 mi (0.8 km) southwest of Anoka and 0.5 mi (0.8 km) upstream from Dry Creek.

DRAINAGE AREA.--505 mi² (1,308 km²).

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

REVISED RECORDS.--WSP 2117: Drainage area.

GAGE.--Water-stage recorder for stages above 0.4 ft (0.12 m) and nonrecording gage read once daily. Altitude of gage is 1.630 ft (0.4968 m), from topographic map. Prior to Sept. 13, 1950, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period and period of backwater effect from beaver dams, which are poor.

AVERAGE DISCHARGE.--29 years, 47.5 ft³/s (1,345 m³/s), 34,410 acre-ft/yr (42.4 hm³/yr); median of yearly mean discharges, 33 ft³/s (0.935 m³/s), 23,900 acre-ft/yr (29.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,810 ft³/s (278 m³/s) Mar. 27, 1960, gage height, 16.86 ft (5.139 m); no flow at times in 1949-50, 1955-62, 1965-71, 1974-76, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,700 ft³/s (105 m³/s) Mar. 21 at 0300, gage height, 10.59 ft (3.228 m), no other peak above base of 500 ft³/s (14.2 m³/s); no flow Sept. 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	258	8.0	8.4	2.4	.60	1.4	128	383	100	20	7.6	.76
2	284	7.8	7.4	2.5	.30	1.8	136	374	66	29	6.4	.62
3	118	7.4	8.0	2.7	.80	1.4	134	282	51	24	5.8	.55
4	50	7.0	8.6	2.5	.80	1.2	113	186	44	21	5.2	.55
5	28	8.0	7.6	2.7	.50	1.4	99	134	38	22	4.7	.34
6	19	10	6.4	2.9	.30	1.4	93	107	34	26	4.6	.20
7	18	11	6.8	2.5	.30	1.2	87	106	31	92	4.3	.00
8	16	16	3.5	2.1	.30	1.4	78	106	29	31	3.8	.00
9	14	30	3.8	1.6	.50	1.6	76	98	27	23	3.4	.00
10	13	40	4.3	1.4	1.0	2.0	75	87	25	17	3.3	.00
11	12	25	4.5	1.6	1.4	6.0	64	79	24	16	2.9	.13
12	11	20	4.2	2.0	1.4	15	58	70	21	15	2.8	.34
13	11	21	3.8	1.4	1.2	50	52	64	21	14	2.5	.34
14	10	19	4.0	.80	.80	120	50	61	20	14	3.0	.27
15	9.6	19	3.8	1.0	.60	600	47	59	19	13	13	.27
16	9.8	18	3.4	1.2	.50	500	53	55	18	13	5.0	.27
17	9.6	16	3.1	.80	.50	700	75	50	19	12	3.0	.55
18	9.6	15	2.9	.70	1.0	1140	134	47	19	11	2.8	.76
19	8.9	13	2.7	.60	.90	2130	190	46	19	10	2.3	.99
20	9.1	11	2.5	.50	1.7	3150	186	42	18	9.1	2.3	.90
21	7.1	9.0	2.3	.40	1.6	3260	194	40	18	18	1.8	.69
22	8.2	8.0	2.7	.30	2.1	2030	226	40	40	29	1.7	.62
23	6.7	8.6	3.0	.50	2.3	1120	308	39	26	18	1.7	.55
24	5.7	7.4	2.7	.80	2.2	533	245	37	22	13	1.4	.41
25	5.8	6.4	2.4	1.0	2.1	302	204	41	26	9.6	1.4	.41
26	5.6	8.0	2.8	.70	1.8	222	170	43	45	9.1	1.5	.34
27	5.2	7.4	3.1	1.0	1.6	212	139	40	40	8.9	1.4	.34
28	5.2	8.0	3.5	.80	1.6	210	113	40	28	8.0	1.5	.41
29	5.2	8.4	3.2	1.0	---	184	107	124	22	7.6	1.4	.41
30	7.4	9.0	3.0	1.0	---	168	168	266	20	7.3	1.1	.41
31	11	---	2.6	1.3	---	157	---	184	---	7.1	.90	---
TOTAL	991.7	402.4	131.0	42.70	30.70	16823.8	3802	3330	930	567.7	104.50	12.43
MEAN	32.0	13.4	4.23	1.38	1.10	543	127	107	31.0	18.3	3.37	.41
MAX	284	40	8.6	2.9	2.3	3260	308	383	100	92	13	.99
MIN	5.2	6.4	2.3	.30	.30	1.2	47	37	18	7.1	.90	.00
AC-FT	1970	798	260	85	61	33370	7540	6610	1840	1130	207	25
CAL YR 1977 TOTAL	8379.17			MEAN 23.0	MAX 607	MIN .00	AC-FT 16620					
WTR YR 1978 TOTAL	27168.93			MEAN 74.4	MAX 3260	MIN .00	AC-FT 53890					

PONCA CREEK BASIN

06453600 PONCA CREEK AT VERDEL, NE

LOCATION.--Lat 42°48'40", long 98°10'35", in NE1/4NE1/4 sec.30, T.33 N., R.7 W., Knox County, Hydrologic Unit 10150001, near left bank at left downstream end of bridge on State Highway 12, 0.6 mi (1.0 km) east of Verdel and 3.1 mi (5.0 km) upstream from mouth.

DRAINAGE AREA.--812 mi² (2,103 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 2117: Drainage area.

GAGE.--Water-stage recorder and nonrecording gage read once daily. Datum of gage is 1,232.9 ft (375.79 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Highways reference marks). See WSP 1917 for history of changes prior to Nov. 15, 1962.

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

AVERAGE DISCHARGE.--21 years, 75.3 ft³/s (2.132 m³/s), 54,550 acre-ft/yr (67.3 hm³/yr); median of yearly mean discharges, 56 ft³/s (1.586 m³/s), 40,600 acre-ft/yr (50.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s (445 m³/s) Mar. 27, 1960, gage height, 15.10 ft (4.602 m), site and datum then in use; no flow for many days in 1957-60, 1965-72, 1974-77.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 16	----	3550 101	ice jam	Mar. 21	1000	*5400 153	a11.15 3.399
Apr. 29	0830	1360 38.5	5.75 1.753	July 7	0900	1490 42.2	6.01 1.832

a From graph based on partially recorded gage height trace.

Minimum daily discharge, 1.6 ft³/s (0.045 m³/s) Jan. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	16	12	4.0	2.2	5.0	296	529	233	28	27	8.2
2	248	16	10	4.2	2.0	5.4	267	586	142	24	28	8.4
3	178	15	11	4.4	2.4	5.6	260	473	94	22	34	8.0
4	86	14	12	4.0	2.4	5.4	241	392	68	26	24	7.2
5	52	15	10	4.4	2.2	6.0	230	305	54	69	23	6.3
6	39	15	8.0	4.6	2.2	5.8	217	247	46	203	22	6.3
7	38	15	9.0	4.0	2.2	5.8	208	244	41	905	18	5.9
8	32	22	4.5	3.4	2.4	5.8	206	269	37	317	16	5.3
9	28	42	5.2	3.0	2.6	5.8	184	227	35	156	16	5.0
10	26	57	6.0	2.6	2.8	6.4	178	195	32	94	15	4.9
11	26	47	6.4	2.8	3.0	15	171	170	32	69	15	4.7
12	23	43	5.8	3.0	3.0	40	151	158	30	53	15	9.4
13	23	38	5.2	2.6	2.8	100	127	138	28	43	14	11
14	21	36	6.0	2.4	2.6	600	112	123	28	37	16	7.7
15	20	34	5.8	2.2	2.4	1500	121	114	29	33	36	6.2
16	19	31	5.4	2.3	2.2	3000	176	106	28	29	77	5.2
17	18	30	4.8	2.6	2.2	2470	230	98	28	29	69	5.6
18	16	28	4.6	2.4	2.6	1360	251	91	29	42	35	12
19	16	28	4.4	2.2	2.6	1910	254	91	30	34	20	10
20	16	25	4.2	2.0	3.2	3500	270	88	30	36	17	6.8
21	15	14	4.2	1.8	4.0	5100	259	82	29	127	16	6.2
22	14	15	5.2	1.6	5.0	3950	274	80	36	488	13	5.0
23	14	16	6.0	1.8	7.0	2250	349	75	40	314	11	4.5
24	15	13	5.6	2.2	6.6	1200	384	74	56	146	9.7	4.1
25	15	11	5.0	2.4	6.2	770	317	72	46	79	10	4.2
26	15	14	5.4	2.2	5.8	533	286	69	66	51	12	3.4
27	14	12	5.8	2.6	5.6	437	260	96	60	41	13	3.2
28	14	13	6.4	2.4	5.0	400	233	88	60	34	11	3.0
29	14	12	6.0	2.6	---	380	698	197	45	30	10	3.0
30	16	13	5.6	2.6	---	363	709	218	33	29	9.8	2.9
31	19	---	4.4	2.8	---	347	---	290	---	28	8.9	---
TOTAL	1149	700	199.9	88.1	95.2	30282.0	7919	5985	1545	3616	661.4	183.6
MEAN	37.1	23.3	6.45	2.84	3.40	977	264	193	51.5	117	21.3	6.12
MAX	248	57	12	4.6	7.0	5100	709	586	233	905	77	12
MIN	14	11	4.2	1.6	2.0	5.0	112	69	28	22	8.9	2.9
AC-FT	2280	1390	397	175	189	60060	15710	11870	3060	7170	1310	364
CAL YR 1977	TOTAL	13557.27	MEAN	37.1	MAX	860	MIN	.00	AC-FT	26890		
WTR YR 1978	TOTAL	52424.20	MEAN	144	MAX	5100	MIN	1.6	AC-FT	104000		

06453600 PONCA CREEK AT VERDEL, NE--Continued

WATER QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 13...	1100	23	929	7.8	9.0	35	12.1	1.4	530	3000
NOV 29...	1350	12	1120	7.6	1.0	4	12.4	6.0	K13	280
DEC 13...	1120	5.4	1360	7.4	.5	2	8.8	2.1	K54	1100
JAN 16...	1715	2.4	1300	7.2	.5	3	9.0	1.4	K22	1100
FEB 07...	1245	2.3	1510	7.3	.5	2	13.9	1.8	K19	160
MAR 21...	1650	5110	298	7.8	5.0	85	12.9	11	440	K78000
APR 22...	1135	278	1040	7.6	3.5	130	12.9	3.0	6300	9000
MAY 10...	1110	196	1110	8.1	15.0	95	10.5	3.0	310	1200
JUN 21...	1115	38	1220	7.9	22.0	60	9.4	3.6	1000	3400
JUL 12...	1105	54	1160	7.6	26.0	75	8.5	1.2	1600	4200
AUG 23...	1105	11	1330	7.7	26.0	7	9.0	3.4	590	980
SEP 13...	1110	10	1240	7.9	20.5	9	9.8	2.0	1700	4900

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 13...	11	648	.88	40.2	.20	.01	.33	.34	.54	.08
NOV 29...	18	--	1.21	28.8	.49	.04	.22	.26	.75	.05
DEC 13...	23	1070	1.46	15.6	.37	.21	.16	.37	.74	.03
JAN 16...	26	1080	1.47	7.00	.32	.20	.08	.28	.60	.03
FEB 07...	22	--	1.44	6.58	.29	.21	.00	.21	.50	.02
MAR 21...	4.3	193	.26	2660	.87	.86	6.8	7.7	8.6	2.8
APR 22...	13	807	1.10	606	.67	.23	1.5	1.7	2.4	.52
MAY 10...	14	--	1.14	442	.48	.03	1.1	1.1	1.6	.37
JUN 21...	18	931	1.27	95.5	.73	.01	.51	.52	1.3	.14
JUL 12...	13	819	1.11	119	.67	.07	.82	.89	1.6	.20
AUG 23...	20	--	1.40	31.1	.40	.03	.48	.51	.91	.04
SEP 13...	21	1000	1.36	28.6	.26	.00	.53	.53	.79	.03

PONCA CREEK BASIN

06453600 PONCA CREEK AT VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
NOV 29...	1350	5	620	360	180	42	41	.7	13	320	0
FEB 07...	1245	1	760	560	220	51	48	.8	13	240	0
MAY 10...	1110	9	580	330	160	44	41	.7	17	300	0
AUG 23...	1105	5	700	560	200	48	48	.8	20	170	0

DATE	ALKA- LINITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 29...	260	420	.4	16	889	.05	--	170	--	--
FEB 07...	200	570	.3	16	1060	.02	1	200	1	0
MAY 10...	250	400	.3	12	836	.07	--	150	--	--
AUG 23...	140	590	.3	16	1030	.01	2	250	0	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 29...	--	10	--	160	--	--	--	--	--	--
FEB 07...	1	10	6	1100	.0	.0	.0	7	0	10
MAY 10...	--	20	--	30	--	--	--	--	--	--
AUG 23...	2	20	11	0	.0	.0	.1	6	0	10

LOCATION.--Lat 42°39'33", Long 104°03'54", in SE1/4SW1/4 sec.15, T.31 N., R.60 W., Niobrara County, Wyo., Hydrologic Unit 101500002, on left bank 0.2 mi (0.3 km) downstream from Van Tassel Creek, 0.3 mi (0.5 km) upstream from Wyoming-Nebraska State line, and 3 mi (5 km) east of Van Tassel, Wyo.

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

GAGE.--Water-stage recorder. Datum of gage is 4,687.70 ft (1,428.811 m) National Geodetic Vertical Datum of 1929.

AVERAGE DISCHARGE.--23 years, 4.15 ft³/s (0.118 m³/s), 3,010 acre-ft/yr (3.71 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s (60.0 m³/s) Aug. 16, 1977, gage height, 8.28 ft (2.524 m) in gage well, from rating curve extended above 800 ft³/s (22.7 m³/s) on basis of computation of peak flow from slope-area measurement; minimum daily, 0.54 ft³/s (0.015 m³/s) Aug. 9, 10, 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12 ft³/s (0.34 m³/s) Bar. 13 at 1615, gage height, 1.63 ft (0.497 m). No peak above base of 20 ft³/s (0.57 m³/s); minimum daily, 0.61 ft³/s (0.017 m³/s) Aug. 13.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1.9	2.0	2.4	2.3	2.7	4.5	4.1	4.0	2.7	1.9	1.7
2	2.5	1.7	1.9	2.4	2.1	2.5	4.1	4.1	4.0	2.2	1.6	1.4
3	2.2	1.6	1.9	2.2	2.1	2.5	3.5	3.9	3.8	2.0	1.6	1.4
4	2.2	1.6	1.9	2.2	2.2	3.1	3.9	3.9	3.8	1.8	1.4	1.4
5	2.2	1.6	1.9	2.1	2.2	3.2	4.7	4.7	3.8	1.6	1.1	1.3
6	2.2	1.6	1.9	2.1	2.4	2.9	4.5	5.1	3.6	1.8	.91	1.2
7	2.2	1.6	1.9	2.1	2.4	2.9	4.3	6.4	3.6	1.7	.91	1.1
8	2.2	1.8	1.9	2.0	2.5	3.2	3.9	7.6	3.6	1.2	.79	1.0
9	2.2	2.0	1.9	2.0	2.5	3.5	3.7	6.1	3.5	1.6	.85	1.2
10	2.1	2.2	1.8	2.0	2.4	3.5	3.4	7.3	3.2	2.1	.79	1.2
11	2.1	2.2	1.7	2.0	2.5	3.1	3.2	7.3	3.1	1.8	.79	1.2
12	2.0	2.4	1.8	2.1	2.4	3.1	3.1	7.0	2.8	1.6	.67	1.2
13	2.0	2.4	1.8	2.1	2.4	4.7	3.1	6.1	2.7	1.4	.61	1.3
14	2.0	2.6	1.9	2.2	2.2	5.5	3.2	5.8	2.5	1.5	.85	1.4
15	2.0	2.8	2.0	2.2	2.4	4.3	3.2	5.5	2.4	1.3	.97	1.4
16	2.1	3.0	2.0	2.2	2.2	3.4	3.2	5.3	2.2	1.2	.79	1.3
17	2.1	3.0	1.8	2.4	2.1	3.7	3.2	5.5	2.2	2.7	.73	1.4
18	2.1	2.8	1.8	2.4	2.2	4.5	4.1	8.2	2.1	1.0	.70	1.5
19	2.1	2.8	1.9	2.4	2.1	4.3	3.7	6.1	2.1	1.1	.79	1.4
20	2.0	2.7	2.0	2.4	1.9	5.1	3.5	5.3	2.2	1.1	.79	1.4
21	2.1	2.7	2.0	2.5	1.4	5.3	3.5	5.3	2.2	2.2	.79	1.4
22	2.2	2.6	2.0	2.5	2.6	5.3	3.7	5.5	2.2	2.2	.85	1.3
23	2.2	2.5	2.1	2.5	2.9	5.3	3.4	5.3	2.7	1.6	.91	1.3
24	2.2	2.4	2.2	2.5	2.8	4.7	3.4	5.1	2.5	1.3	.97	1.3
25	2.2	2.3	2.4	2.3	2.8	4.5	3.2	4.9	2.8	1.2	.97	1.3
26	2.0	2.2	2.4	2.0	2.8	3.9	3.2	4.5	2.5	1.2	1.1	1.3
27	2.0	2.1	2.5	2.7	2.9	5.3	3.5	4.3	2.7	1.2	1.2	1.4
28	2.0	2.1	2.4	2.8	2.8	6.4	4.3	4.3	2.5	2.0	1.2	1.4
29	2.0	2.0	2.4	2.8	---	7.3	4.1	4.3	2.8	3.9	1.4	1.5
30	2.0	2.0	2.5	2.8	---	6.1	4.1	4.2	2.9	2.0	1.7	1.6
31	1.9	---	2.4	2.5	---	4.9	---	4.2	---	1.8	1.8	---
TOTAL	66.1	67.2	63.0	71.8	66.5	130.7	110.4	167.2	87.2	54.0	32.43	40.2
MEAN	2.13	2.24	2.03	2.32	2.38	4.22	3.68	5.39	2.91	1.74	1.05	1.34
MAX	2.8	3.0	2.5	2.8	2.9	7.3	4.7	8.2	4.0	3.9	1.9	1.7
MIN	1.9	1.6	1.7	2.0	1.4	2.5	3.1	3.9	2.1	1.0	.61	1.0
AC-FT	131	133	125	142	132	259	219	332	173	107	64	80
CAL YR 1977	TOTAL	1314.57	MEAN	3.60	MAX	233	MIN	.85	AC-FT	2610		
WTR YR 1978	TOTAL	956.7										

NIOBRARA RIVER BASIN

06454100 NIOBRARA RIVER AT AGATE, NE

LOCATION.--Lat 42°25'22", long 103°47'28", in SW1/4 sec.6, T.28 N., R.55 W., Sioux County, Hydrologic Unit 10150002, on right bank 10 ft (3 m) upstream from timber farm-vehicle bridge, 300 ft (91 m) upstream from bridge on State Highway 29, 0.2 mi (0.3 km) northwest of Agate, and 14.5 mi (23.3 km) upstream from Whistle Creek.

DRAINAGE AREA.--840 mi² (2,180 km²), approximately.

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

GAGE.--Water-stage recorder. Altitude of gage is 4,440 ft (1,353 m), from topographic map. Prior to Nov. 3, 1960, nonrecording gage at present station datum.

REMARKS.--Records good. Diversions for irrigation of about 6,700 acres (27.1 km²) above station.

AVERAGE DISCHARGE.--21 years, 14.3 ft³/s (0.405 m³/s), 10,360 acre-ft/yr (12.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft³/s (5.13 m³/s) June 23, 1959, gage height, 5.00 ft (1.524 m), from floodmark; minimum daily, 1.0 ft³/s (0.028 m³/s) Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35 ft³/s (0.99 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 12	1745	59 1.7	3.65 1.113	July 21	0345	*62 1.8	3.70 1.128
Mar. 20	1315	35 1.0	3.30 1.006				

Minimum daily, 5.2 ft³/s (0.15 m³/s) Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	18	12	13	15	21	16	16	8.8	11	11
2	13	12	19	12	13	9.3	18	16	16	8.2	10	10
3	12	12	19	12	14	8.0	16	15	15	8.2	10	10
4	12	12	19	13	14	8.8	16	15	15	8.8	10	9.7
5	12	12	17	13	14	12	15	18	15	7.6	11	9.3
6	11	13	16	13	14	13	14	18	14	7.8	11	8.6
7	12	12	16	14	14	14	14	21	13	7.8	11	8.2
8	12	13	16	14	14	16	13	22	12	7.8	11	8.0
9	11	12	11	13	14	19	12	25	12	7.8	11	8.0
10	12	16	12	12	15	24	12	24	13	8.6	11	7.8
11	12	20	13	13	15	25	12	23	12	8.0	10	7.6
12	11	18	14	13	15	35	12	21	12	7.8	10	7.8
13	12	19	14	14	15	34	12	19	12	6.6	9.7	7.6
14	11	18	17	14	14	33	12	19	11	6.2	10	7.8
15	11	19	18	14	14	32	14	18	11	6.4	11	7.6
16	11	18	18	13	14	27	13	18	11	8.6	11	5.9
17	11	18	16	13	14	29	13	17	12	8.8	10	5.2
18	11	17	17	13	14	31	13	18	12	8.2	10	5.9
19	11	17	16	13	13	33	14	18	12	8.2	10	6.2
20	11	8.4	13	14	10	33	14	18	11	9.5	11	6.6
21	11	11	10	13	8.4	33	14	18	11	21	10	7.2
22	11	12	13	13	12	32	13	17	7.2	16	10	7.4
23	11	16	16	13	13	29	13	16	8.0	14	10	7.4
24	11	16	16	14	15	28	13	16	8.4	13	10	7.0
25	11	18	14	12	16	28	13	15	11	12	10	7.0
26	11	18	13	8.6	16	27	12	14	10	12	11	6.8
27	11	19	14	9.5	16	27	13	14	9.0	11	10	6.6
28	12	19	12	12	15	26	15	15	9.0	11	11	5.7
29	12	19	12	12	---	24	16	15	9.0	20	11	6.0
30	12	19	13	12	---	23	16	18	8.8	14	11	6.4
31	12	---	14	12	---	23	---	18	---	12	11	---
TOTAL	357	465.4	466	393.1	388.4	751.1	418	555	348.4	315.7	324.7	226.3
MEAN	11.5	15.5	15.0	12.7	13.9	24.2	13.9	17.9	11.6	10.2	10.5	7.54
MAX	13	20	19	14	16	35	21	25	16	21	11	11
MIN	11	8.4	10	8.6	8.4	8.0	12	14	7.2	6.2	9.7	5.2
AC-FT	708	923	924	780	770	1490	829	1100	691	626	644	449

CAL YR 1977 TOTAL 4522.2 MEAN 12.4 MAX 35 MIN 1.2 AC-FT 8970
WTR YR 1978 TOTAL 5009.1 MEAN 13.7 MAX 35 MIN 5.2 AC-FT 9940

NIOBARRA RIVER BASIN

29

06454500 NIOBARRA RIVER ABOVE BOX BUTTE RESERVOIR, NE

LOCATION.--Lat 42°27'35", long 103°10'15", in NE1/4 sec.27, T.29 N., R.50 W., Dawes County, Hydrologic Unit 10150002, on right bank 1 mi (2 km) upstream from high-water line of Box Butte Reservoir and 6 mi (10 km) east of Marsland.

DRAINAGE AREA.--1,400 mi² (3,630 km²), approximately.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1917: 1951, 1952(P), 1957(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 12, 1953. Datum of gage is 4,012.47 ft (1,223.001 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 27, 1949, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 12,800 acres (51.8 km²) above station.

AVERAGE DISCHARGE.--32 years, 30.2 ft³/s (0.855 m³/s), 21,880 acre-ft/yr (27.0 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,950 ft³/s (140 m³/s) July 28, 1951, gage height, 10.30 ft (3.139 m), from rating curve extended above 230 ft³/s (6.51 m³/s) on basis of step-backwater analysis and slope-area measurement at gage height 9.22 ft (2.810 m); minimum daily, 1.6 ft³/s (0.045 m³/s) Sept. 26, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 127 ft³/s (3.60 m³/s) Mar. 19 at 0200, gage height, 4.72 ft (1.439 m), no other peaks above base of 100 ft³/s (2.83 m³/s); minimum daily, 9.5 ft³/s (0.27 m³/s) June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	22	28	25	22	32	48	36	28	12	29	18
2	15	22	29	27	23	28	50	36	27	12	28	17
3	16	23	29	29	24	30	45	33	23	12	29	17
4	16	23	31	26	25	30	44	23	18	11	29	17
5	17	23	28	23	25	32	43	46	20	10	29	15
6	17	23	25	24	25	33	42	43	21	14	27	15
7	17	23	25	24	25	34	41	51	20	14	23	15
8	17	24	26	24	24	36	41	52	20	14	14	14
9	18	23	26	24	24	42	41	51	18	18	16	15
10	18	22	26	24	24	61	41	50	17	17	15	15
11	18	22	27	24	25	48	40	46	16	16	15	15
12	19	24	27	24	24	59	39	44	17	15	14	15
13	19	24	27	25	24	69	38	36	17	15	14	15
14	19	24	29	26	24	53	38	32	17	13	14	16
15	19	24	30	26	24	56	38	33	15	13	15	18
16	19	24	31	22	24	59	38	32	15	12	16	18
17	19	24	30	20	24	76	38	32	15	12	17	18
18	19	24	28	26	24	96	41	38	15	12	16	20
19	19	24	26	28	26	96	41	34	21	13	15	20
20	19	24	15	28	26	76	40	33	16	14	15	20
21	19	24	20	26	26	74	39	32	15	19	15	22
22	19	22	23	26	29	72	41	25	17	24	14	22
23	19	23	27	26	28	69	37	19	9.5	24	13	22
24	20	25	25	26	31	64	34	26	10	24	12	20
25	20	26	24	22	30	61	34	20	13	23	13	19
26	20	29	26	22	29	60	33	20	13	23	13	18
27	20	26	29	20	29	57	34	19	12	23	14	16
28	20	29	29	20	29	56	34	40	13	23	13	13
29	22	29	28	22	---	54	36	34	12	27	19	13
30	22	30	26	22	---	52	36	34	12	26	20	13
31	22	---	24	22	---	51	---	32	---	34	18	---
TOTAL	578	729	824	753	717	1716	1185	1082	502.5	539	554	511
MEAN	18.6	24.3	26.6	24.3	25.6	55.4	39.5	34.9	16.8	17.4	17.9	17.0
MAX	22	30	31	29	31	96	50	52	28	34	29	22
MIN	15	22	15	20	22	28	33	19	9.5	10	12	13
AC-FT	1150	1450	1630	1490	1420	3400	2350	2150	997	1070	1100	1010

CAL YR 1977 TOTAL 9688.8 MEAN 26.5 MAX 285 MIN 7.0 AC-FT 19220
WTR YR 1978 TOTAL 9690.5 MEAN 26.5 MAX 96 MIN 9.5 AC-FT 19220

NIOBRARA RIVER BASIN

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE--Continued

WATER QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
24...	1110	20	450	7.3	8.0	--	11.7	3.2	K63	62
NOV										
21...	1115	25	470	7.4	.0	15	13.1	6.4	22	240
DEC										
27...	1130	30	476	7.5	.0	15	12.9	2.4	K10	30
JAN										
24...	1200	27	418	7.6	.0	10	13.6	.6	K1	24
FEB										
22...	1100	27	528	7.7	1.0	15	12.5	2.4	K1	230
MAR										
27...	1045	58	400	7.3	8.0	15	11.1	1.6	K2	31
APR										
25...	1100	33	438	7.8	10.0	10	12.5	.8	--	14
MAY										
23...	1115	19	475	7.5	16.5	10	10.4	1.8	170	78
JUN										
26...	1115	13	452	7.7	16.0	10	10.4	1.9	250	150
JUL										
25...	1100	24	438	7.5	21.0	25	9.3	3.7	730	420
AUG										
28...	1100	13	430	7.2	14.5	10	10.4	4.2	160	680
SEP										
25...	1100	19	408	7.2	13.0	15	10.4	2.9	160	130

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
24...	5.5	280	.38	15.1	.70	.01	.17	.18	.88	.03
NOV										
21...	5.3	--	.41	20.3	1.0	.01	.48	.49	1.5	.04
DEC										
27...	7.4	337	.46	27.3	1.4	.06	.39	.45	1.9	.03
JAN										
24...	5.9	290	.39	21.1	1.7	.01	.04	.05	1.8	.04
FEB										
22...	4.8	--	.37	19.9	1.5	.02	.16	.18	1.7	.04
MAR										
27...	5.0	257	.35	40.2	.29	.00	.54	.54	.83	.06
APR										
25...	5.3	292	.40	26.0	.68	.01	.49	.50	1.2	.02
MAY										
23...	4.9	--	.37	14.1	.54	.04	.68	.72	1.3	.02
JUN										
26...	6.2	282	.38	9.90	.81	.00	.38	.38	1.2	.04
JUL										
25...	4.6	282	.38	18.3	.52	.01	.62	.63	1.2	.05
AUG										
28...	4.7	--	.38	9.72	.74	.01	.35	.36	1.1	.03
SEP										
25...	5.0	270	.37	13.9	.95	.01	.34	.35	1.3	.04

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
NOV 21...	1115	7	180	0	53	11	26	.8	7.3	260	0
FEB 22...	1100	3	170	0	51	9.5	22	.7	6.6	230	0
MAY 23...	1115	6	160	0	49	10	25	.9	7.4	250	0
AUG 28...	1100	6	150	0	46	9.2	27	1.0	7.3	240	0

DATE	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 21...	210	18	.8	50	300	.02	6	50	0	0
FEB 22...	190	14	.7	51	273	.02	--	50	--	--
MAY 23...	210	13	.8	42	275	.00	6	50	2	0
AUG 28...	197	12	.8	52	277	.02	--	50	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE DIS- RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 21...	1	50	10	0	.0	.0	.0	1	0	10
FEB 22...	--	40	--	10	--	--	--	--	--	--
MAY 23...	3	10	13	10	.1	.0	.1	1	0	10
AUG 28...	--	40	--	7	--	--	--	--	--	--

NIOBRARA RIVER BASIN

06455000 BOX BUTTE RESERVOIR NEAR HEMINGFORD, NE

LOCATION.--Lat 42°27'30", long 103°04'03", in sec.28, T.29 N., R.49 W., Daves County, Hydrologic Unit 10150002, in control tower on dam near left bank on Niobrara River, 9 mi (14 km) north of Hemingford.

DRAINAGE AREA.--1,460 mi² (3,780 km²), approximately.

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

GAGE.--Electric tape gage read three or more times a month. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam; outlet gate first closed Oct. 3, 1945. Usable capacity, 30,420 acre-ft (37.5 hm³) between elevations 3,969.00 ft (1,209.751 m), sill of outlet gate, and 4,007.00 ft (1,221.334 m), crest of spillway. Dead storage, 640 acre-ft (0.789 hm³). Figures given herein represent total contents. Water is used for irrigation of Mirage Flats project of Bureau of Reclamation.

COOPERATION.--Records of elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 32,210 acre-ft (39.7 hm³) Mar. 26, 1948, elevation, 4,007.70 ft (1,221.547 m); minimum observed since operation of reservoir began, 764 acre-ft (0.942 hm³) Aug. 23 to Sept. 14, 1976, elevation, 3,969.82 ft (1,210.001 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 18,210 acre-ft (22.5 hm³) June 10, elevation, 3,997.75 ft (1,218.514 m); minimum observed, 2,067 acre-ft (2.55 hm³) Sept. 11, elevation, 3,975.75 ft (1,211.809 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

	Date	Elevation (feet)g/	Contents (acre-feet)	Change in contents (acre-feet)
Sept.	30	3,982.12	4,810	-
Oct.	31	3,984.04	5,900	+1,090
Nov.	30	3,986.53	7,520	+1,620
Dec.	31	3,988.85	9,290	+1,770
CAL YR 1977	.....			+4,010
Jan.	31	3,990.15	10,400	+1,110
Feb.	28	3,991.48	11,610	+1,210
Mar.	31	3,994.64	14,740	+3,130
Apr.	30	3,996.06	16,270	+1,530
May	31	3,997.66	18,110	+1,840
June	30	3,997.57	18,000	-110
July	31	3,988.43	8,950	-9,050
Aug.	31	3,978.65	3,100	-5,850
Sept.	30	3,978.51	3,040	-60
WTR YR 1978	.....	-	-	-1,770

a Elevations read on or near last day of month.

LOCATION.--Lat 42°27'25", long 103°04'05", in SE1/4 sec.28, T.29 N., R.49 W., Dawes County, Hydrologic Unit 10150003, on left bank 0.2 mi (0.3 km) downstream from Box Butte Reservoir and 9 mi (14 km) north of Hemingford.

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

GAGE.--Water-stage recorder. Concrete control since Apr. 11, 1953. Datum of gage is 3,950.08 ft (1,203.984 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those below 2 ft³/s (0.057 m³/s), which are fair. Flow completely regulated by Box Butte Reservoir (station 06455000).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 616 ft³/s (17.4 m³/s) July 2, 1968, gage height, 5.04 ft (1.536 m); minimum daily, 0.10 ft³/s (0.003 m³/s) for many days in 1947, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 223 ft³/s (6.32 m³/s) July 17, gage height, 4.44 ft (1.353 m); minimum daily, 0.69 ft³/s (0.020 m³/s) Sept. 24-27, 30.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	.87	.87	.87	.83	.83	.87	.96	1.1	44	141	95
2	.92	.87	.87	.87	.83	.80	.92	.92	1.0	59	146	94
3	.87	.87	.87	.87	.83	.83	.92	.92	1.0	74	139	90
4	.87	.87	.92	.87	.83	.83	.92	1.0	1.1	88	121	88
5	.87	.87	.92	.92	.87	.87	.87	1.0	1.1	124	118	88
6	.87	.92	.92	.92	.87	.87	.87	1.1	1.0	156	127	88
7	.87	.92	.92	.92	.87	.87	.96	1.2	1.0	161	156	85
8	.83	.96	.87	.92	.87	.87	1.0	1.0	1.0	172	166	78
9	.83	.92	.87	.96	.87	.87	1.0	1.0	1.0	175	166	73
10	.83	.96	.87	.96	.87	.83	1.0	.96	1.0	180	164	73
11	.80	.96	.92	.92	.87	.83	1.0	.96	.96	180	148	18
12	.80	.96	.92	.92	.87	.83	1.0	.92	.96	183	125	.87
13	.80	.96	.92	.92	.87	.83	1.1	.96	.96	189	146	.80
14	.80	.92	.92	.92	.87	.83	1.1	.96	.92	186	172	.80
15	.80	.92	.92	.92	.83	.83	1.1	1.0	.92	186	158	.76
16	.80	.92	.87	.92	.83	.83	1.1	1.1	.92	195	151	.72
17	.80	.92	.87	.92	.80	.83	1.1	.96	1.0	213	146	.76
18	.80	.92	.92	.92	.80	.87	1.1	1.0	1.0	223	139	.76
19	.80	.92	.92	.92	.80	.87	1.1	.96	.96	210	125	.72
20	.80	.87	.87	.92	.80	.87	1.1	.96	.96	186	125	.72
21	.80	.92	.87	.92	.80	.87	1.1	.96	.96	147	139	.72
22	.83	.92	.92	.92	.80	.87	1.0	.96	.96	1.6	151	.72
23	.83	.92	.92	.87	.83	.92	.96	1.0	.96	1.2	131	.72
24	.83	.92	.87	.87	.87	.92	.92	1.1	.96	1.1	127	.69
25	.83	.92	.92	.87	.83	.87	.92	1.0	1.0	62	123	.69
26	.83	.96	.87	.87	.83	.92	.92	.96	1.0	110	125	.69
27	.83	.92	.92	.87	.83	.87	.99	1.1	1.0	114	121	.69
28	.87	.92	.92	.83	.83	.92	1.0	1.6	1.0	180	116	.72
29	.87	.96	.92	.83	---	.87	1.0	1.2	12	192	108	.72
30	.87	.96	.92	.83	---	.87	1.0	1.3	39	189	97	.69
31	.87	---	.87	.83	---	.87	---	1.1	---	145	97	---
TOTAL	25.98	27.62	27.87	27.79	23.50	26.66	29.94	32.12	78.70	4326.9	4214	883.96
MEAN	.84	.92	.90	.90	.84	.86	1.00	1.04	2.62	140	136	29.5
MAX	.96	.96	.92	.96	.87	.92	1.1	1.6	39	223	172	95
MIN	.80	.87	.87	.83	.80	.80	.87	.92	.92	1.1	97	.69
AC-FT	52	55	55	55	47	53	59	64	156	8580	8360	1750
CAL YR 1977	TOTAL	6982.95		MEAN 19.1	MAX 195	MIN .61	AC-FT 13850					
WTR YR 1978	TOTAL	9725.04		MEAN 26.6	MAX 223	MIN .69	AC-FT 19290					

NIOBRARA RIVER BASIN

06457500 NIOBRARA RIVER NEAR GORDON, NE

LOCATION.--Lat 42°38'00", long 102°12'40", in NE1/4 sec.26, T.31 N., R.42 W., Sheridan County, Hydrologic Unit 10150003, on left bank 250 ft (76 m) upstream from bridge on State Highway 27, 4 mi (6 km) downstream from Rush Creek, and 11 mi (18 km) south of Gordon.

DRAINAGE AREA.--4,290 mi² (11,100 km²), approximately.

PERIOD OF RECORD.--August 1928 to September 1932, October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,433.49 ft (1,046.528 m) National Geodetic Vertical Datum of 1929. Aug. 24, 1928, to June 30, 1932 nonrecording gage at bridge 4 mi (6 km) downstream at different datum. Dec. 3, 1945, to Mar. 24, 1970, water-stage recorder at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by storage in Box Butte Reservoir (station 06455000) for irrigation of Mirage Flats project and return flow from irrigated land.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,130 ft³/s (259 m³/s) May 21, 1962, gage height, 5.25 ft (1.600 m); minimum daily, 16 ft³/s (0.45 m³/s) Dec. 20, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 990 ft³/s (28.0 m³/s) May 29, gage height, 1.54 ft (0.469 m); maximum gage height, 1.70 ft (0.518 m) Jan. 25 (backwater from ice); minimum daily, 62 ft³/s (1.76 m³/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	105	124	108	96	120	157	172	153	94	112	85
2	120	107	133	108	96	120	157	168	149	83	97	77
3	112	106	142	104	100	114	153	157	157	80	97	77
4	106	106	147	110	106	114	146	149	168	75	100	75
5	109	106	145	115	106	114	157	172	176	75	88	77
6	106	110	120	115	106	114	149	188	172	88	85	72
7	110	108	100	110	104	114	142	192	164	100	85	70
8	110	126	100	105	104	125	138	184	164	85	80	67
9	112	106	100	105	104	145	132	176	157	88	77	67
10	114	106	100	105	104	160	121	176	146	88	77	62
11	120	112	130	100	104	175	128	160	135	80	77	66
12	119	107	135	90	104	190	121	149	128	72	67	94
13	113	121	140	90	104	205	112	142	115	70	62	103
14	110	121	140	90	104	220	121	135	109	70	80	83
15	107	111	140	90	106	232	121	128	103	67	125	77
16	107	107	150	90	108	196	118	118	91	83	112	75
17	101	105	140	92	110	201	128	115	101	72	85	91
18	100	113	141	96	112	214	128	128	109	65	85	109
19	97	121	130	96	114	223	121	125	94	65	94	91
20	94	80	202	96	116	196	112	118	88	83	97	88
21	90	90	288	100	118	192	100	115	91	149	88	88
22	92	105	233	100	118	192	125	115	85	192	91	88
23	96	110	189	96	118	180	135	121	85	146	94	85
24	95	110	166	96	120	164	125	109	97	132	94	85
25	95	111	140	96	122	153	121	109	176	112	91	83
26	96	113	130	96	126	168	112	135	128	97	97	83
27	99	118	120	96	126	165	115	125	100	85	97	83
28	101	128	112	96	126	146	149	366	97	77	97	88
29	100	123	112	96	---	153	172	491	100	83	83	94
30	102	123	110	96	---	160	180	570	91	91	106	97
31	100	---	110	96	---	160	---	230	---	94	94	---
TOTAL	3260	3315	4369	3079	3082	5125	3996	5538	3734	2841	2814	2480
MEAN	105	111	141	99.3	110	165	133	179	124	91.6	90.8	82.7
MAX	127	128	288	115	126	232	180	570	176	192	125	109
MIN	90	80	100	90	96	114	100	109	85	65	62	62
AC-FT	6470	6580	8670	6110	6110	10170	7930	10980	7410	5640	5580	4920
CAL YR 1977	TOTAL	41645	MEAN	114	MAX	351	MIN	58	AC-FT	82600		
WTR YR 1978	TOTAL	43633	MEAN	120	MAX	570	MIN	62	AC-FT	86550		

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE

LOCATION.--Lat 42°36'12", long 101°04'14", in NW1/4SW1/4 sec.3, T.30 N., R.32 W., Cherry County, Hydrologic Unit 10150005, on left bank 0.2 mi (0.3 km) south of Nebraska National Forest boundary fence, 2.6 mi (4.2 km) upstream from Shelbourn Bridge, 7.1 mi (11.4 km) southeast of headquarters for Nebraska National Forest (Niobrara Division), 12.4 mi (20.0 km) upstream from Boardman Creek, and 16.9 mi (27.2 km) upstream from Merritt Dam.

DRAINAGE AREA.--440 mi² (1,140 km²), approximately, of which about 28 mi² (73 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Prior to Sept. 9, 1977, at site 2.4 mi (3.9 km) downstream at different datum.

REMARKS.--Records fair except those for flow above 250 ft³/s (7.08 m³/s) and those for winter periods, which are poor. Periodic conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--16 years, 204 ft³/s (5.777 m³/s), 147,800 acre-ft/yr (0.182 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 637 ft³/s (18.0 m³/s) Aug. 12, 1966, gage height, 2.43 ft (0.741 m), site and datum then in use; maximum gage height, 8.63 feet, site and datum then in use, Mar. 14, 1977, ice jam; minimum daily discharge, 89 ft³/s (2.52 m³/s) Dec. 13, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since October 1960, 820 ft³/s (23.2 m³/s) June 30, 1962, gage height, 2,953.46 ft (900.215 m) National Geodetic Vertical Datum of 1929, from high-water profiles at reference point on downstream side of Shelbourn Bridge 2.6 mi (4.2 km) downstream, result of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Dec. 21	1445	ice jam	a*3.58 1.091	May 30	0630	411 11.6	2.23 0.680
May 28	0315	*548 15.5	2.41 0.735				

a Maximum gage height recorded, but was probably exceeded during period of no gage height record Nov. 27 to Dec. 20.

Minimum daily discharge, 100 ft³/s (2.83 m³/s) Dec. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	200	210	170	170	180	242	229	270	169	225	181
2	195	197	200	175	180	190	256	223	233	242	225	176
3	189	200	195	185	210	175	246	225	208	215	208	171
4	192	192	210	180	200	165	215	219	203	222	202	172
5	186	205	200	200	190	170	225	221	202	210	187	173
6	186	203	170	210	185	170	224	219	207	234	174	174
7	189	202	190	190	180	175	225	228	197	262	175	182
8	186	224	185	190	185	195	230	218	191	253	174	182
9	189	195	190	195	190	220	261	215	203	247	176	179
10	195	204	205	205	200	210	241	220	210	259	178	189
11	200	206	215	225	205	250	250	204	192	235	180	189
12	195	210	215	225	200	240	250	201	197	234	177	189
13	190	207	220	195	190	260	236	194	182	197	177	195
14	195	215	230	215	195	225	232	202	195	183	190	189
15	190	203	240	195	185	266	235	196	218	181	209	189
16	195	203	250	190	180	270	262	192	217	174	210	192
17	195	213	230	185	185	274	242	190	238	176	194	198
18	189	204	200	180	190	292	237	195	235	173	185	211
19	183	216	190	175	200	278	251	193	223	180	184	195
20	186	204	170	170	195	266	255	190	196	184	181	172
21	187	160	100	180	210	262	261	190	194	219	177	165
22	183	180	215	190	225	242	270	198	202	261	176	160
23	178	186	250	180	220	228	241	197	202	228	178	164
24	177	169	190	185	215	222	249	203	207	201	184	166
25	170	173	180	185	205	211	244	208	232	185	183	170
26	173	171	185	180	195	222	238	206	180	177	181	174
27	175	180	180	175	195	222	225	216	166	175	184	170
28	179	210	195	180	175	225	233	353	170	177	196	174
29	179	220	210	185	---	242	244	289	168	200	190	177
30	209	220	190	195	---	244	246	364	162	198	183	179
31	208	---	180	180	---	240	---	311	---	198	187	---
TOTAL	5868	5972	6190	5870	5455	7031	7266	6909	6100	6449	5830	5397
MEAN	189	199	200	189	195	227	242	223	203	208	188	180
MAX	225	224	250	225	225	292	270	364	270	262	225	211
MIN	170	160	100	170	170	165	215	190	162	169	174	160
AC-FT	11640	11850	12280	11640	10820	13950	14410	13700	12100	12790	11560	10700
CAL YR 1977 TOTAL	74534			MEAN 204	MAX 333	MIN 100	AC-FT 147800					
WTR YR 1978 TOTAL	74337			MEAN 204	MAX 364	MIN 100	AC-FT 147400					

NIOBRARA RIVER BASIN

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE--Continued

WATER QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Water years 1963-1975, October 1977 to current year.

INSTRUMENTATION.--Temperature recorder from Oct. 1, 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 32.0°C July 18, 1974; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 31.5°C July 1; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEDUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEDUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT , 1977					JUN , 1978				
18...	1210	192	175	10.0	07...	1145	197	208	16.0
NOV					JUL				
08...	1105	235	168	4.0	20...	1100	186	169	19.0
JAN , 1978					AUG				
10...	1040	198	185	.0	29...	1335	201	171	19.0
MAR					SEP				
14...	1030	212	168	4.0	19...	1120	190	761	10.5
APR									
04...	1020	217	168	10.0					

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.0	11.5	8.5	4.0	2.0	.5	4.5	1.5	.0	.0	2.0	.0
2	14.0	10.0	10.0	4.0	1.5	.5	1.5	.0	.0	.0	.5	.5
3	14.0	9.5	9.5	4.5	.5	.0	.5	.0	.0	.0	.5	.5
4	13.5	11.0	9.0	4.0	.5	.0	.5	.5	.0	.0	1.0	.5
5	12.0	9.5	8.5	4.0	.0	.0	.0	.0	.0	.0	1.5	.5
6	11.0	9.5	7.5	3.5	.0	.0	.0	.0	.0	.0	1.0	1.0
7	13.0	9.5	7.5	3.0	.0	.0	.0	.0	.0	.0	1.0	1.0
8	10.0	7.0	8.0	3.5	.0	.0	.0	.0	.0	.0	3.0	.5
9	14.0	7.0	3.0	.5	.0	.0	.0	.0	.0	.0	8.5	3.0
10	11.0	5.0	4.0	.5	.0	.0	.0	.0	.0	.0	8.0	6.0
11	10.0	5.0	6.5	3.0	1.0	.5	.0	.0	.0	.0	10.0	5.0
12	13.0	5.5	7.0	4.0	2.0	.5	.0	.0	.0	.0	9.0	5.0
13	12.5	6.0	8.5	5.0	3.0	1.0	.0	.0	.5	.0	8.0	4.0
14	12.0	7.0	8.5	6.0	3.0	1.0	.0	.0	.5	.0	8.0	4.0
15	12.0	8.0	7.0	5.5	1.5	.5	.0	.0	.5	.0	8.0	3.5
16	15.5	9.5	6.0	4.0	1.0	.5	.0	.0	.5	.5	7.0	3.0
17	15.0	9.5	4.5	1.5	.0	.0	.0	.0	.5	.0	10.0	4.0
18	15.0	9.0	5.5	3.5	.0	.0	.0	.0	.5	.0	13.5	6.5
19	15.5	9.5	5.0	3.5	.0	.0	.0	.0	.0	.0	11.5	8.0
20	16.0	10.5	4.0	2.0	.0	.0	.0	.0	3.0	.0	11.5	6.0
21	14.0	11.0	3.5	1.0	.0	.0	.0	.0	3.5	3.5	14.0	6.5
22	14.0	10.0	1.5	.5	.0	.0	.0	.0	3.5	.0	11.5	8.5
23	12.0	9.5	1.0	.5	1.5	.0	.0	.0	.0	.0	9.5	6.5
24	14.0	10.0	.5	.0	1.0	.5	.0	.0	1.0	.0	8.0	4.5
25	14.5	9.5	.5	.0	.5	.0	.0	.0	.0	.0	9.5	5.5
26	15.0	10.0	1.5	.5	.5	.5	.0	.0	.0	.0	14.0	6.0
27	13.5	10.0	1.5	.5	.5	.0	.0	.0	1.0	.0	16.0	8.5
28	14.0	10.0	2.0	.5	.0	.0	.0	.0	.5	.0	16.0	9.5
29	13.5	10.0	1.5	.5	.0	.0	.0	.0	---	---	16.0	9.0
30	12.5	9.5	1.5	.5	.0	.0	.0	.0	---	---	18.5	10.5
31	12.5	9.0	---	---	3.0	.0	.0	.0	---	---	18.5	11.5
MONTH	16.0	5.0	10.0	.0	3.0	.0	4.5	.0	3.5	.0	18.5	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	10.0	16.5	10.0	18.0	13.5	31.5	23.0	28.0	19.5	26.0	17.0
2	16.0	8.5	18.5	10.5	20.5	13.0	30.0	20.5	21.5	18.0	26.0	18.5
3	15.5	11.5	18.5	11.0	23.5	15.0	29.0	20.5	24.0	15.0	25.0	19.0
4	16.0	9.5	14.0	10.5	23.5	16.5	31.0	19.5	25.0	16.5	25.5	19.0
5	16.0	10.5	16.5	10.0	21.0	16.0	29.5	22.0	28.0	17.0	25.5	18.5
6	17.0	10.0	13.5	9.0	25.0	15.0	26.5	19.5	28.5	19.5	25.0	18.5
7	18.0	10.5	12.0	8.5	21.5	16.5	27.0	18.5	29.5	20.0	23.5	17.0
8	14.0	10.5	11.0	7.0	23.5	15.0	28.5	19.0	28.5	21.0	23.0	16.5
9	13.0	8.0	18.5	8.0	25.5	16.5	25.5	19.0	28.0	20.5	25.5	17.0
10	9.5	5.5	20.0	11.5	27.0	18.5	25.0	17.0	28.5	20.0	25.0	18.5
11	14.5	5.0	20.0	14.0	23.5	17.0	28.0	18.0	29.0	18.5	22.0	18.0
12	13.5	8.0	16.5	13.5	26.0	15.5	29.5	21.0	29.0	21.0	18.0	14.5
13	13.0	8.0	21.5	11.0	26.0	17.0	27.0	19.5	29.5	21.5	20.0	14.0
14	10.0	8.5	21.5	14.0	29.5	19.5	30.0	20.5	26.5	20.5	20.0	13.5
15	9.0	7.0	23.5	15.0	29.5	21.5	31.0	21.0	21.5	17.0	22.0	14.5
16	8.0	6.5	21.5	14.5	28.5	20.5	30.5	22.0	25.5	16.0	20.0	14.5
17	10.0	8.0	20.0	14.0	24.5	19.0	30.0	23.0	25.5	19.0	18.0	13.0
18	9.0	5.5	21.0	14.0	26.0	17.0	28.5	20.5	23.0	18.0	17.0	12.0
19	8.5	5.0	20.5	13.0	24.5	18.0	28.5	20.0	23.0	14.0	10.5	10.5
20	14.0	4.5	23.5	13.5	23.5	16.0	21.5	19.5	25.0	15.5	15.0	10.5
21	12.0	6.5	21.5	15.0	26.0	17.0	21.5	19.0	27.0	19.5	16.5	9.5
22	9.5	7.0	20.0	15.5	28.5	20.0	20.5	16.5	26.5	20.0	16.5	10.0
23	14.0	6.0	25.5	15.5	29.5	21.5	25.5	16.0	28.5	20.0	19.5	11.5
24	11.0	8.0	25.0	19.0	28.5	19.5	29.0	19.0	28.0	21.0	19.5	13.5
25	15.0	8.0	26.0	16.0	29.5	20.5	29.0	20.5	26.5	19.5	20.0	13.5
26	16.0	9.0	25.0	18.5	26.0	20.5	29.5	20.0	28.5	20.5	21.5	14.5
27	17.0	9.5	24.0	18.0	28.0	19.5	28.5	21.0	26.5	20.0	19.5	14.0
28	18.0	12.0	19.5	13.5	29.5	20.5	29.5	20.0	24.0	18.0	19.5	14.0
29	15.5	13.5	21.0	12.0	29.5	22.0	26.0	21.0	21.0	16.5	18.5	14.5
30	13.5	11.0	21.5	16.0	31.0	21.0	26.0	19.0	24.0	15.5	18.0	11.0
31	---	---	19.5	15.0	---	---	26.0	19.0	23.5	16.5	---	---
MONTH	18.0	4.5	26.0	7.0	31.0	13.0	31.5	16.0	29.5	14.0	26.0	9.5

NIOBRARA RIVER BASIN

06459300 HERRITT RESERVOIR NEAR BURGE, NE

LOCATION.--Lat 42°38'06", long 100°52'18", in SW1/4NW1/4 sec.29, T.31 N., R.30 W., Cherry County, Hydrologic Unit 10150005, in control house of outlet works of Herritt Dam, 8.1 mi (13.0 km) southwest of Burge and 23 mi (37 km) southwest of Valentine.

DRAINAGE AREA.--640 mi² (1,660 km²), approximately, of which about 44 mi² (110 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Direct reading, single vertical column, mercury-well type manometer read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam; storage began Feb. 19, 1964. Usable capacity, 72,872 acre-ft (89.9 hm³) between elevations 2,875.0 ft (876.30 m), sill of canal outlet works, and 2,946.0 ft (897.94 m), crest of spillway. Dead and inactive storage, 1,614 acre-ft (1.99 hm³) below elevation 2,875.0 ft (876.30 m). Figures given herein represent total contents. Water is used for irrigation of Ainsworth Unit of Bureau of Reclamation.

COOPERATION.--Records of elevation and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 76,840 acre-ft (94.7 hm³) May 4, 1971, May 28 to June 2, 1976, elevation 2,946.8 ft (898.18 m); minimum since appreciable storage was attained, 20,060 acre-ft (24.7 hm³) Oct. 1, 1968, elevation, 2,916.1 ft (888.83 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 75,080 acre-ft (92.6 hm³) May 31 to June 5, June 25-27, July 6-8, elevation, 2,946.2 ft (898.00 m); minimum observed, 49,280 acre-ft (60.8 hm³) Sept. 13, elevation, 2,936.0 ft (894.89 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

	Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.	30	2,941.4	61,940	-
Oct.	31	2,944.0	68,830	+6,890
Nov.	30	2,944.1	69,110	+280
Dec.	31	2,944.0	68,830	-280
CAL YR 1977		-	-	+270
Jan.	31	2,943.8	68,290	-540
Feb.	28	2,944.0	68,830	+540
Mar.	31	2,943.9	68,560	-270
Apr.	30	2,946.0	74,490	+5,930
May	31	2,946.2	75,080	+590
June	30	2,946.1	74,780	-300
July	31	2,943.7	68,020	-6,760
Aug.	31	2,936.9	51,220	-16,800
Sept.	30	2,937.9	53,450	+2,230
WTR YR 1978		-	-	-8,490

NIOBRARA RIVER BASIN

39

06459500 SNAKE RIVER NEAR BURGE, NE

LOCATION.--Lat 42°39'15", long 100°51'28", in NE1/4 sec.20, T.31 N., R.30 W., Cherry County, Hydrologic Unit 10150005, on right bank 150 ft (46 m) downstream from Nebraska National Forest boundary, 2.1 mi (3.4 km) downstream from Merritt Dam, 6.5 mi (10.5 km) southwest of Burge, and 22 mi (35 km) southwest of Valentine.

DRAINAGE AREA.--660 mi² (1,710 km²), approximately, of which about 44 mi² (110 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WSP 1279: 1950(M), 1951(P). WDR NE-67,72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,805.36 ft (855.074 m) National Geodetic Vertical Datum of 1929, (levels by Bureau of Reclamation).

REMARKS.--Records good. Natural flow affected by storage in Merritt Reservoir (station 06459300) 2.1 mi (3.4 km) upstream.

AVERAGE DISCHARGE.--15 years (1963-78), 150 ft³/s (4.248 m³/s), 108,700 acre-ft/yr (0.134 km³/yr), since storage and diversion began.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,170 ft³/s (89.8 m³/s) Feb. 7, 1963, gage height, 6.96 ft (2.121 m), release of storage behind temporary construction dike, from rating curve extended above 520 ft³/s (14.7 m³/s) on basis of slope-area measurement at gage height 5.39 ft (1.643 m); minimum daily, 5.8 ft³/s (0.16 m³/s) May 24-27, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 370 ft³/s (10.5 m³/s) Apr. 22, gage height, 2.33 ft (0.710 m); minimum daily, 14 ft³/s (0.40 m³/s) Apr. 5-8, 10-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	214	208	235	211	256	274	266	244	109	19	16
2	37	214	206	238	211	261	264	267	274	105	18	16
3	37	214	207	248	211	261	264	271	286	91	18	17
4	37	214	208	238	212	260	117	267	274	68	18	17
5	37	214	208	227	214	261	14	266	264	93	18	17
6	37	214	208	220	213	259	14	267	253	125	18	17
7	37	214	208	220	213	259	14	268	243	127	73	17
8	37	217	209	220	213	259	14	268	152	133	142	17
9	37	214	208	214	214	259	15	266	112	127	157	16
10	37	214	208	211	214	262	14	268	110	127	156	16
11	37	214	208	214	213	264	14	247	107	127	154	16
12	49	214	208	214	214	266	14	235	107	115	155	16
13	58	211	205	211	214	266	14	232	99	60	155	16
14	54	211	205	214	214	266	63	233	76	22	156	16
15	60	212	207	214	214	267	108	238	73	17	155	15
16	65	211	208	214	213	266	112	226	70	16	155	15
17	65	212	208	214	214	266	181	170	71	58	155	16
18	35	213	205	214	214	268	272	207	75	89	155	16
19	29	214	208	214	222	268	298	208	79	89	117	15
20	150	214	209	214	228	268	294	208	70	73	83	15
21	193	214	209	214	228	285	318	208	76	18	41	15
22	178	213	208	214	226	299	342	141	87	17	15	15
23	163	213	211	214	244	321	362	56	123	17	15	15
24	163	213	224	214	255	335	350	111	126	16	15	15
25	178	212	234	214	256	333	322	98	154	16	15	15
26	208	208	234	211	255	333	314	81	162	16	15	15
27	217	209	235	211	255	331	312	81	158	17	16	15
28	217	208	238	211	256	330	280	109	157	17	16	15
29	217	208	238	211	---	330	267	127	154	17	15	15
30	214	208	238	211	---	307	266	159	142	18	16	15
31	214	---	235	211	---	296	---	189	---	18	16	---
TOTAL	3134	6375	6653	6744	6261	8762	5507	6238	4378	1958	2272	472
MEAN	101	213	215	218	224	283	184	201	146	63.2	73.3	15.7
MAX	217	217	238	248	256	335	362	271	286	133	157	17
MIN	29	208	205	211	211	256	14	56	70	16	15	15
AC-FT	6220	12640	13200	13380	12420	17380	10920	12370	8680	3880	4510	936

CAL YR 1977 TOTAL 56886 MEAN 156 MAX 495 MIN 15 AC-FT 112800
WTR YR 1978 TOTAL 58754 MEAN 161 MAX 362 MIN 14 AC-FT 116500

NIOBRARA RIVER BASIN

06461000 MINNECHADUZA CREEK AT VALENTINE, NE

LOCATION.--Lat 42°53'10", long 100°33'10", in SW1/4 sec.30, T.34 N., R.27 W., Cherry County, Hydrologic Unit 10150004, on right bank 500 ft (152 m) downstream from powerplant in city park at north edge of Valentine and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--390 mi² (1,010 km²), approximately, of which about 200 mi² (520 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,470 ft (753 m), from topographic map.

REMARKS.--Records fair. Flow regulated by powerplant 500 ft (152 m) above station.

AVERAGE DISCHARGE.--30 years (1948-78), 33.9 ft³/s (0.960 m³/s), 24,560 acre-ft/yr (30.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) Mar. 22, 1960, gage height, 8.00 ft (2.438 m); minimum daily, 2.6 ft³/s (0.074 m³/s) Feb. 22, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 641 ft³/s (18.2 m³/s) Mar. 20, gage height, 5.35 ft (1.631 m) from floodmark; minimum daily, 4.7 ft³/s (0.13 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	27	42	26	25	30	68	61	76	38	65	13
2	42	23	26	21	27	23	71	63	72	43	11	13
3	37	28	36	24	21	29	86	64	50	27	4.7	17
4	49	26	38	23	21	33	68	61	51	35	5.1	21
5	35	29	21	24	28	21	49	56	41	29	16	16
6	37	20	14	27	24	32	71	55	33	34	25	17
7	37	24	23	45	30	31	62	72	33	24	17	13
8	38	36	24	31	34	32	56	58	33	32	18	11
9	34	33	25	21	30	36	58	80	25	33	19	12
10	27	29	24	18	30	37	66	48	25	34	15	13
11	25	38	28	27	20	59	66	73	27	25	39	11
12	27	37	19	23	26	66	66	55	16	25	21	14
13	34	32	24	27	45	66	50	68	26	18	34	18
14	23	34	36	23	34	60	64	56	27	30	31	15
15	31	36	37	23	31	65	47	58	15	18	50	14
16	27	35	42	24	29	81	82	46	18	21	28	40
17	22	31	56	23	45	80	64	54	22	20	25	29
18	27	41	36	19	45	63	98	44	17	21	26	5.1
19	28	36	41	23	32	190	125	42	26	18	22	5.3
20	24	34	33	22	30	477	137	43	19	18	26	12
21	35	15	26	26	28	542	140	44	20	40	17	26
22	24	23	14	22	22	408	126	39	21	42	18	20
23	26	44	45	18	23	236	124	41	19	44	20	20
24	22	38	43	20	31	166	127	29	21	32	18	19
25	25	18	17	21	29	144	132	33	68	27	17	19
26	27	29	34	30	30	112	102	31	44	28	22	16
27	25	37	18	21	31	94	92	33	40	24	12	19
28	28	34	36	22	29	92	89	67	39	19	26	13
29	28	33	25	18	---	68	66	59	38	18	25	21
30	25	27	27	19	---	90	70	66	27	26	23	19
31	25	---	29	22	---	76	---	74	---	26	24	---
TOTAL	933	927	939	733	830	3539	2522	1673	989	869	719.8	501.4
MEAN	30.1	30.9	30.3	23.6	29.6	114	84.1	54.0	33.0	28.0	23.2	16.7
MAX	49	44	56	45	45	542	140	80	76	44	65	40
MIN	22	15	14	18	20	21	47	29	15	18	4.7	5.1
AC-FT	1850	1840	1860	1450	1650	7020	5000	3320	1960	1720	1430	995
CAL YR 1977	TOTAL	14983.7	MEAN	41.1	MAX	275	MIN	5.1	AC-FT	29720		
WTR YR 1978	TOTAL	15175.2	MEAN	41.6	MAX	542	MIN	4.7	AC-FT	30100		

06461500 NIOBRARA RIVER NEAR SPARKS, NE

LOCATION.--Lat 42°54'10", long 100°21'40", in SE1/4 sec.22, T.34 N., R.26 W., Cherry County, Hydrologic Unit 10150004, on left bank 18 ft (5 m) downstream from highway bridge, 2.2 mi (3.5 km) downstream from Big Beaver Creek, 5.5 mi (8.8 km) downstream from Minnehadaza Creek, and 6.5 mi (10.5 km) southwest of Sparks.

DRAINAGE AREA.--8,090 mi² (21,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1209: 1947(M), 1948-50(P). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,287.57 ft (697.251 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by irrigation and power developments, storage in Box Butte Reservoir (station 06455000), and since May 1964 by storage in Merritt Reservoir (station 06459300). Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--33 years, 781 ft³/s (22.12 m³/s), 565,800 acre-ft/yr (0.698 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s (289 m³/s) Mar. 5, 1949, gage height, 6.73 ft (2.051 m), from rating curve extended above 3,800 ft³/s (108 m³/s); maximum gage height recorded, 10.06 ft (3.066 m) Feb. 7, 1973, ice jam; minimum daily discharge, 100 ft³/s (2.83 m³/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,190 ft³/s (62.0 m³/s) May 31, gage height, 3.90 ft (1.189 m); maximum gage height, 6.61 ft (2.015 m) Mar. 15, ice jam; minimum daily discharge, 280 ft³/s (7.93 m³/s) Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	715	718	770	600	640	720	950	1020	1190	715	550	418
2	688	718	728	680	700	740	949	946	1050	662	540	391
3	606	687	680	780	800	680	921	943	1010	654	557	391
4	578	697	660	740	780	660	898	954	965	695	475	396
5	564	697	640	800	700	800	596	908	949	569	485	393
6	555	666	280	900	720	780	601	903	920	639	498	397
7	544	697	380	880	720	840	603	994	897	682	482	372
8	537	900	700	620	720	900	610	1020	863	703	559	346
9	538	839	560	640	740	960	678	951	795	681	622	345
10	519	860	500	680	760	1060	692	900	808	661	644	367
11	546	840	782	700	780	1200	607	905	747	632	933	396
12	525	840	874	740	760	1350	564	896	701	651	655	413
13	528	840	957	720	740	1450	569	867	781	611	648	424
14	522	820	1070	720	700	1500	586	827	705	609	656	418
15	558	840	981	700	640	1550	687	809	675	513	835	431
16	550	820	1110	680	660	1500	875	806	691	474	620	422
17	544	820	1020	680	640	1400	813	767	672	418	618	496
18	552	820	933	660	700	1300	949	765	621	518	619	496
19	544	840	782	620	740	1220	1120	772	570	565	645	467
20	535	820	720	540	720	1500	1070	752	648	581	552	467
21	687	708	640	600	780	1610	1090	747	632	734	518	503
22	718	656	720	700	900	1430	1280	742	638	798	439	488
23	697	697	800	800	980	1220	1230	691	617	750	396	472
24	687	728	780	780	1000	1170	1160	701	656	568	369	470
25	687	885	700	740	960	1130	1160	700	943	544	397	462
26	708	885	680	680	920	1040	1040	699	903	523	413	452
27	728	793	720	660	940	987	1010	710	838	512	408	459
28	749	793	780	660	700	985	1000	890	868	497	530	447
29	739	749	800	680	---	967	963	1050	767	480	481	455
30	739	728	700	700	---	984	1100	1120	679	501	513	463
31	739	---	580	740	---	922	---	1410	---	508	454	---
TOTAL	19126	23401	23027	21820	21540	34555	26371	27165	23799	18648	17111	12917
MEAN	617	780	743	704	769	1115	879	876	793	602	552	431
MAX	749	900	1110	900	1000	1610	1280	1410	1190	798	933	503
MIN	519	656	280	540	640	660	564	691	570	418	369	345
AC-FT	37940	46420	45670	43280	42720	68540	52310	53880	47210	36990	33940	25620
CAL YR 1977	TOTAL	267502	MEAN	733	MAX	1470	MIN	280	AC-FT	530600		
WTR YR 1978	TOTAL	269480	MEAN	738	MAX	1610	MIN	280	AC-FT	534500		

NIOBRARA RIVER BASIN

06461500 NIOBRARA RIVER NEAR SPARKS, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT , 1977					APR , 1978				
17...	1200	538	243	10.0	04...	1640	890	243	14.5
NOV					MAY				
09...	1600	844	245	--	17...	1505	806	212	18.0
28...	1145	797	231	--	JUN				
DEC					05...	1245	900	250	22.0
20...	0925	755	231	.5	JUL				
JAN , 1978					17...	1320	411	237	30.0
10...	1625	698	238	.5	AUG				
FEB					07...	1150	471	238	25.0
21...	1600	780	225	.5	SEP				
MAR					18...	1400	504	223	12.0
13...	1520	1350	212	.5					

NIOBRARA RIVER BASIN

43

06462000 NIOBRARA RIVER NEAR WORDEN, NE

LOCATION.--Lat 42°47'13", long 100°02'06", in N1/2SW1/4 sec.33, T.33 N., R.23 W., Keya Paha County, Hydrologic Unit 10150004, on left bank 60 ft (18 m) downstream from county road bridge, 1.5 mi (2.4 km) downstream from Fairfield Creek, and 6 mi (10 km) south of Worden.

DRAINAGE AREA.--8,390 mi² (21,700 km²), approximately.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 2,109.93 ft (643.107 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Flow affected by regulation at powerplants, diversions for irrigation, return flow from irrigated areas, storage in Box Butte Reservoir (station 06455000), and since May 1964 storage in Herritt Reservoir (station 06459300).

AVERAGE DISCHARGE.--26 years, 866 ft³/s (24.53 m³/s), 627,400 acre-ft/yr (0.774 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,380 ft³/s (209 m³/s) July 1, 1962, gage height, 7.10 ft (2.164 m), backwater from bridge in channel; maximum gage height, 10.24 ft (3.121 m) Mar. 11, 1966, ice jam and backwater from bridge in channel; minimum daily discharge, 130 ft³/s (3.68 m³/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,880 ft³/s (53.2 m³/s) May 31, gage height, 2.49 ft (0.759 m); maximum gage height, 5.26 ft (1.603 m) Mar. 4, ice jam; minimum daily discharge, 400 ft³/s (11.3 m³/s) Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	873	892	1010	740	740	820	1170	1200	1350	751	566	529
2	810	896	1090	800	800	860	1180	1120	1210	726	616	527
3	740	862	950	900	880	800	1150	1120	1140	711	669	530
4	689	883	957	860	840	780	1120	1100	1080	711	587	526
5	693	886	900	900	760	900	944	1110	1050	646	565	530
6	670	868	400	1000	800	880	821	1040	1060	657	575	511
7	667	883	500	980	800	940	863	1160	1020	722	576	507
8	654	1000	800	860	800	1020	827	1180	1010	693	583	504
9	656	1110	700	700	800	1100	918	1110	875	688	660	502
10	654	990	620	720	820	1200	1010	1050	801	678	696	505
11	658	937	900	740	880	1300	918	1000	811	677	936	518
12	656	963	1100	800	880	1450	857	1020	794	663	740	515
13	632	947	1200	780	840	1550	845	1020	772	636	691	523
14	659	942	1260	780	800	1600	827	959	760	647	716	550
15	672	959	1320	760	720	1650	925	930	728	590	911	547
16	683	959	1070	760	740	1600	1110	914	700	522	768	559
17	669	951	1230	740	720	1500	1150	896	739	512	715	622
18	672	959	1050	720	780	1450	1240	880	828	536	711	622
19	670	965	1000	700	840	1400	1340	924	706	570	736	631
20	627	931	880	640	820	1600	1270	885	679	571	670	592
21	742	795	780	720	880	1650	1240	882	679	708	599	600
22	830	904	840	800	1000	1570	1380	897	734	733	583	602
23	826	900	920	900	1080	1440	1430	843	667	829	534	583
24	810	939	900	880	1120	1350	1340	707	710	682	533	577
25	789	989	800	860	1060	1330	1340	790	880	630	529	576
26	813	997	780	780	1020	1290	1220	797	1140	595	526	576
27	851	970	820	700	1020	1230	1150	809	867	574	542	571
28	859	1000	880	700	800	1200	1140	908	801	562	591	572
29	882	1030	900	780	---	1190	1110	1260	763	551	566	566
30	879	995	800	720	---	1220	1220	1190	735	570	575	582
31	900	---	680	780	---	1170	---	1400	---	561	549	---
TOTAL	22885	28302	28037	24420	24040	39040	33055	31101	26089	19902	19814	16655
MEAN	738	943	904	788	859	1259	1102	1003	870	642	639	555
MAX	900	1110	1320	1000	1120	1650	1430	1400	1350	829	936	631
MIN	627	795	400	640	720	780	821	707	667	512	526	502
AC-FT	45390	56140	55610	48440	47680	77440	65560	61690	51750	39480	39300	33040
CAL YR 1977	TOTAL	323390	MEAN	886	MAX	1870	MIN	400	AC-FT	641400		
WTR YR 1978	TOTAL	313340	MEAN	858	MAX	1650	MIN	400	AC-FT	621500		

NIOBRARA RIVER BASIN

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-66, 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1974 to current year.

WATER TEMPERATURES: August 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 489 micromhos June 29, 1976; minimum daily, 155 micromhos May 30, 1977.

WATER TEMPERATURES: Maximum, 30.0°C July 17, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 367 micromhos Aug. 1; minimum daily, 162 micromhos May 2.

WATER TEMPERATURES: Maximum, 30.0°C July 17; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 17...	1420	665	231	7.5	14.5	7	98	0	32	4.5
NOV 30...	1120	971	221	7.3	3.0	6	98	0	32	4.4
DEC 19...	1410	952	223	7.1	.0	5	98	0	32	4.4
JAN 11...	1140	741	230	7.0	.0	5	110	4	37	4.5
FEB 01...	1055	718	230	7.2	.0	4	110	0	37	4.1
MAR 15...	1030	1640	190	6.9	.5	27	82	0	27	3.5
APR 05...	1110	945	227	7.6	11.0	6	100	0	33	4.8
MAY 18...	1110	833	242	7.6	17.5	6	110	0	34	4.9
JUN 08...	1035	1010	251	7.6	20.0	10	110	0	34	5.2
JUL 21...	1230	769	214	7.3	26.0	20	93	0	30	4.3
AUG 31...	1235	553	238	7.8	20.5	5	110	0	35	4.3
SEP 18...	1410	622	221	7.8	17.5	3	100	0	34	4.2

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT 17...	8.4	.4	6.4	130	0	110	7.7	1.5	.4
NOV 30...	8.7	.4	6.1	130	0	110	6.7	1.4	.4
DEC 19...	8.4	.4	6.1	130	0	110	5.9	1.5	.4
JAN 11...	9.1	.4	6.4	130	0	110	10	1.6	.4
FEB 01...	8.7	.4	6.0	150	0	120	12	1.4	.4
MAR 15...	7.3	.4	6.3	110	0	90	6.9	1.9	.3
APR 05...	8.1	.3	7.2	140	0	110	8.5	1.5	.4
MAY 18...	11	.5	6.8	150	0	120	9.9	2.5	.4
JUN 08...	13	.5	7.0	150	0	120	20	2.5	.4
JUL 21...	13	.4	6.7	140	0	110	4.9	1.4	.3
AUG 31...	10	.4	6.3	150	0	120	8.3	1.9	.3
SEP 18...	8.6	.4	5.8	140	0	110	5.7	1.6	2.0

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS- SOLVED (MG/L AS SI02) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 17...	51	178	.24	320	.37	.06	30	10	0
NOV 30...	50	176	.24	461	.58	.09	40	10	0
DEC 19...	51	177	.24	455	.65	.10	30	20	0
JAN 11...	63	201	.27	402	1.1	.12	30	40	10
FEB 01...	56	203	.28	394	.68	.11	20	10	0
MAR 15...	39	149	.20	660	.58	.18	40	60	10
APR 05...	49	183	.25	467	.40	.09	30	40	10
MAY 18...	47	191	.26	430	.15	.05	40	10	0
JUN 08...	47	204	.28	556	.28	.05	40	20	10
JUL 21...	49	175	.24	363	.04	.05	40	30	0
AUG 31...	54	194	.26	290	.03	.03	110	20	0
SEP 18...	52	185	.25	311	.36	.05	30	40	0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	242	258	271	228	219	220	238	250	229	367	210
2	235	248	232	288	209	218	185	162	334	218	233	207
3	265	245	238	293	220	215	188	168	267	221	245	207
4	264	247	238	260	229	268	209	198	277	228	253	239
5	262	243	248	254	227	234	252	226	265	220	266	238
6	267	240	249	253	229	225	268	250	272	222	235	225
7	265	236	248	240	228	217	268	197	249	237	234	212
8	270	230	278	263	229	230	268	235	247	218	228	228
9	267	237	297	275	231	232	258	237	241	221	230	236
10	260	218	297	287	230	207	248	245	268	229	234	234
11	268	244	304	247	224	208	259	244	277	229	248	208
12	258	235	275	248	223	207	256	251	265	220	232	227
13	259	228	248	237	222	207	269	250	259	220	234	237
14	264	234	250	287	222	208	270	248	267	208	235	240
15	248	240	243	243	223	204	270	255	271	223	232	230
16	260	225	232	248	225	215	208	253	263	242	313	228
17	250	214	224	243	224	218	223	270	247	220	232	232
18	250	231	235	245	225	217	250	269	263	218	226	232
19	258	246	235	247	224	218	239	255	250	221	220	230
20	258	240	258	264	222	214	233	255	274	218	243	228
21	263	251	257	267	220	226	268	243	257	230	230	228
22	255	250	258	233	218	217	259	251	250	233	231	238
23	250	243	258	233	218	216	241	248	265	228	232	238
24	253	243	254	230	220	218	255	249	268	228	232	235
25	250	256	248	230	222	226	257	250	268	242	231	231
26	252	249	268	232	220	234	261	250	215	232	230	238
27	253	218	262	237	219	228	258	250	244	232	227	225
28	253	250	268	237	220	230	253	248	235	231	230	237
29	254	235	247	240	---	234	249	248	242	228	237	230
30	248	245	254	240	---	234	249	248	214	230	247	235
31	255	---	253	227	---	233	---	248	---	230	230	---

NIOBRARA RIVER BASIN

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.5	9.0	1.0	.0	.0	1.0	10.0	9.0	18.0	21.0	24.0	25.0
2	11.0	6.0	1.0	1.0	.0	1.0	8.0	10.0	16.0	22.0	18.0	24.0
3	10.0	7.0	1.0	.0	3.0	1.0	9.0	16.0	20.0	22.0	18.0	21.0
4	10.0	6.0	3.0	.0	1.0	1.0	10.0	10.0	22.0	19.0	26.0	20.5
5	9.0	3.5	.5	.0	3.0	2.0	11.0	11.0	24.0	22.0	22.0	20.0
6	10.0	1.0	.5	.0	1.0	2.0	9.0	10.0	20.0	23.0	25.0	22.0
7	10.0	10.0	1.0	3.0	3.0	2.0	11.0	10.0	19.0	21.0	21.0	23.0
8	8.0	10.0	.0	.0	3.0	1.0	10.0	9.0	20.0	24.0	21.0	24.0
9	6.0	2.0	.0	.0	1.0	2.0	10.0	11.0	21.0	24.0	20.0	20.0
10	7.0	1.0	1.0	.0	3.0	2.0	6.0	13.0	19.0	20.0	27.0	14.0
11	5.0	3.0	1.0	.0	3.0	1.0	6.0	15.0	17.0	17.0	18.0	23.0
12	4.0	3.0	1.0	.0	2.5	1.0	8.0	12.0	20.0	24.0	20.0	20.0
13	6.0	4.0	1.0	1.0	2.0	5.0	7.0	12.0	22.0	23.0	22.0	20.0
14	9.0	5.0	1.0	.0	3.0	1.0	7.0	19.0	26.0	23.0	24.0	21.0
15	7.0	6.0	1.0	.0	3.0	1.0	7.0	20.0	25.0	23.0	19.0	16.0
16	7.0	6.0	2.0	.0	1.0	1.0	5.0	19.0	21.0	24.0	20.0	17.0
17	8.0	3.0	3.0	.0	1.0	1.0	6.0	21.0	22.0	30.0	22.0	19.0
18	8.0	4.0	1.0	.0	1.0	4.0	5.0	20.5	24.0	22.0	21.0	21.0
19	7.0	7.0	1.0	1.0	1.0	1.0	5.0	20.0	23.0	22.5	21.0	20.0
20	10.0	2.0	1.0	.0	1.0	2.0	5.0	18.0	23.0	22.0	22.0	13.0
21	10.0	1.0	1.0	.0	1.0	1.0	7.0	17.0	20.0	24.0	21.0	17.0
22	9.0	1.0	1.0	1.0	1.0	4.0	5.0	19.0	22.0	23.0	22.5	19.0
23	10.0	1.0	.5	.0	5.0	4.0	7.0	18.0	24.0	23.0	24.0	18.0
24	10.0	1.0	.0	1.0	2.0	3.0	4.0	17.5	21.0	25.0	20.0	18.0
25	8.0	1.0	.0	.0	3.0	4.0	8.0	17.0	19.0	24.0	21.0	20.0
26	9.0	1.0	.5	.0	3.0	5.0	11.0	17.0	20.0	23.0	22.0	22.0
27	10.0	1.0	.0	1.0	2.0	8.0	7.0	18.0	24.0	25.0	23.0	15.0
28	9.0	1.0	.0	1.0	1.0	9.0	8.0	18.0	25.0	24.0	23.0	21.0
29	10.0	1.0	.0	.5	---	6.0	11.0	14.0	23.0	25.0	22.0	15.0
30	13.0	2.0	.0	1.0	---	10.0	11.0	14.0	21.0	24.0	24.0	12.0
31	9.0	---	.0	3.0	---	11.0	---	15.0	---	20.0	23.0	---

NIOBRARA RIVER BASIN

47

06462500 PLUM CREEK AT MEADVILLE, NE

LOCATION.--Lat 42°45'05", long 99°52'05", in NE1/4NW1/4 sec.14, T.32 N., R.22 W., Brown County, Hydrologic Unit 10150004, on left bank 0.4 mi (0.6 km) upstream from county road bridge, 1 mi (2 km) upstream from mouth, 1 mi (2 km) southwest of Meadville, and 17 mi (27 km) north of Ainsworth.

DRAINAGE AREA.--600 mi² (1,550 km²), approximately, of which about 340 mi² (880 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1947 to September 1975, October 1976 to current year. Prior to October 1962, published as "near Meadville."

REVISED RECORDS.--WSP 1729: 1953. WSP 1917: 1953.

GAGE.--Water-stage recorder. Altitude of gage is 2,035 ft (620.3 m), from topographic map. Prior to Nov. 25, 1962, at site 6.5 mi (10.5 km) upstream at different datum. Nov. 25, 1962, to Nov. 14, 1966, at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--29 years (1948-75,1978), 109 ft³/s (3.087 m³/s), 78,970 acre-ft/yr (97.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,070 ft³/s (58.6 m³/s) Sept. 18, 1967, gage height, 4.98 ft (1.518 m); maximum gage height observed, 7.54 ft (2.298 m) Dec. 6, 1964, backwater from ice, present datum; minimum daily discharge, 15 ft³/s (0.42 m³/s) Feb. 19, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 5	1330	ice jam	*4.43 1.350	Apr. 20	0500	*456 12.9	2.07 0.631
Mar. 19	1500	430 12.2	2.27 0.692	July 7	0630	404 11.4	1.93 0.588

Minimum discharge, 74 ft³/s (2.10 m³/s) Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	114	100	78	94	84	127	194	124	107	96	96
2	97	113	97	84	84	88	135	201	120	111	95	96
3	91	114	95	82	106	82	130	220	116	106	94	96
4	91	116	99	88	100	76	124	205	112	108	94	95
5	88	117	92	98	90	98	122	183	110	132	95	95
6	87	123	86	104	100	90	117	165	110	161	93	94
7	89	127	88	96	96	120	114	161	108	189	93	93
8	88	132	82	86	98	150	112	163	108	114	92	93
9	91	131	74	90	102	119	112	161	110	103	93	95
10	90	116	82	94	110	114	119	156	108	100	94	96
11	90	117	96	90	114	122	122	149	104	96	95	97
12	88	117	110	100	110	145	119	143	102	95	97	93
13	91	122	106	94	104	160	110	138	101	94	97	92
14	96	121	130	98	106	127	108	132	104	98	95	91
15	98	117	122	90	98	142	105	126	102	97	96	92
16	99	116	118	86	100	135	114	122	101	93	101	92
17	98	109	114	94	94	148	140	120	106	93	101	93
18	94	108	114	90	102	195	230	124	112	94	98	94
19	98	107	98	80	108	400	350	158	124	93	97	95
20	103	99	86	76	104	380	400	127	105	92	96	95
21	104	92	90	86	98	350	382	115	111	94	97	96
22	103	98	96	96	110	330	344	116	112	108	97	94
23	100	99	98	94	122	300	340	114	133	108	99	93
24	106	96	90	94	116	240	358	112	119	96	99	93
25	108	91	98	86	110	205	323	110	167	94	100	93
26	111	96	94	84	106	185	281	108	122	93	100	93
27	110	94	100	76	100	175	228	110	109	93	100	94
28	109	98	96	92	90	165	200	116	106	93	98	94
29	114	97	90	90	---	147	185	132	104	94	96	93
30	121	100	86	98	---	145	181	132	103	99	96	93
31	117	---	82	98	---	137	---	140	---	98	97	---
TOTAL	3067	3297	3009	2792	2872	5354	5832	4453	3373	3246	2991	2819
MEAN	98.9	110	97.1	90.1	103	173	194	144	112	105	96.5	94.0
MAX	121	132	130	104	122	400	400	220	167	189	101	97
MIN	87	91	74	76	84	76	105	108	101	92	92	91
AC-FT	6080	6540	5970	5540	5700	10620	11570	8830	6690	6440	5930	5590

CAL YR 1977 TOTAL 47935 MEAN 131 MAX 558 MIN 74 AC-FT 95080
WTR YR 1978 TOTAL 43105 MEAN 118 MAX 400 MIN 74 AC-FT 85500

NIOBRARA RIVER BASIN

06462500 PLUM CREEK AT MEADVILLE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT										
19...	1050	96	181	7.5	10.5	6	78	0	26	3.2
NOV										
10...	1030	107	176	7.2	3.0	9	76	0	25	3.2
DEC										
22...	1020	97	192	7.0	1.0	2	86	0	28	3.9
JAN										
09...	1430	100	193	6.8	.0	6	84	0	28	3.4
FEB										
23...	1030	116	171	6.9	.0	1	72	0	24	3.0
MAR										
13...	1300	170	165	7.0	4.5	35	70	0	23	3.1
APR										
27...	0935	249	333	7.6	13.5	45	140	0	41	8.3
MAY										
15...	1410	136	239	8.0	21.5	12	110	0	34	4.9
JUN										
29...	1040	108	199	7.1	26.0	22	88	0	29	3.7
JUL										
19...	1500	93	200	7.2	27.5	12	78	0	25	3.7
AUG										
09...	1010	94	191	7.4	22.5	6	76	0	25	3.2
SEP										
20...	1320	94	183	7.9	16.0	5	78	0	26	3.2

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT									
19...	6.0	.3	5.3	100	0	82	4.0	1.1	.4
NOV									
10...	6.8	.3	5.1	100	0	82	4.8	1.5	.3
DEC									
22...	6.9	.3	5.3	110	0	90	4.5	1.2	.3
JAN									
09...	6.9	.3	5.5	110	0	90	7.8	1.2	.4
FEB									
23...	6.2	.3	4.7	99	0	81	3.9	1.0	.3
MAR									
13...	5.7	.3	7.0	95	0	78	5.4	2.2	.3
APR									
27...	19	.7	10	210	0	170	8.9	4.4	.7
MAY									
15...	12	.5	7.4	150	0	120	7.5	2.2	.5
JUN									
29...	7.0	.3	6.6	120	0	98	4.1	1.4	.4
JUL									
19...	7.5	.4	6.2	100	0	82	7.0	2.1	.3
AUG									
09...	6.2	.3	5.7	110	0	90	4.7	.7	.3
SEP									
20...	6.5	.3	5.0	100	0	82	4.9	2.0	.3

06462500 PLUM CREEK AT MEADVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS- SOLVED (MG/L AS S102) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 19...	55	153	.21	39.7	.66	.10	20	20	0
NOV 10...	53	154	.21	44.5	1.0	.13	20	50	0
DEC 22...	59	168	.23	44.0	.96	.11	20	10	0
JAN 09...	--	--	--	65.3	1.1	.12	20	10	10
FEB 23...	53	149	.20	46.7	.95	.11	20	20	0
MAR 13...	42	141	.19	64.7	1.1	.32	40	80	10
APR 27...	43	240	.33	161	.33	.09	60	40	0
MAY 15...	49	194	.26	71.2	.45	.09	30	20	0
JUN 29...	55	169	.23	49.3	.67	.16	20	50	10
JUL 19...	53	159	.22	39.9	1.1	.25	30	80	0
AUG 09...	58	161	.22	40.9	.63	.08	30	<10	2
SEP 20...	56	156	.21	39.6	.70	.07	30	60	0

NIOBRARA RIVER BASIN

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE

LOCATION (REVISED).--Lat 42°41'20", long 99°40'43", in SE1/4NE1/4 sec.5, T.31 N., R.20 W., Brown County, Hydrologic Unit 10150004, on right bank 7 ft (2 m) downstream from county road bridge, 1 mi (2 km) downstream from Bone Creek, and 5.5 mi (8.8 km) southwest of Riverview.

DRAINAGE AREA.--390 mi² (1,010 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1948 to January 1954, September 1954 to current year.

REVISID RECORDS.--WSP 1729: 1952(M).

GAGE.--Water-stage recorder. Datum of gage is 1,983.34 ft (604.522 m) National Geodetic Vertical Datum of 1929, (levels by Bureau of Reclamation). Prior to Dec. 7, 1962, at site 100 ft (30 m) upstream at present datum.

REMARKS.--Records good except those above 250 ft³/s (7.08 m³/s), which are poor.

AVERAGE DISCHARGE.--29 years (1948-53, 1954-78), 136 ft³/s (3.852 m³/s), 98,530 acre-ft/yr (0.121 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,650 ft³/s (273 m³/s) July 1, 1962, gage height, 15.68 ft (4.779 m), backwater from fallen bridge, from rating curve extended above 3,600 ft³/s (102 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 44 ft³/s (1.25 m³/s) Jan. 10, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)				(ft ³ /s)	(m ³ /s)	(ft)	
Mar. 18	1900	644	18.2	4.68	1.426	June 25	0730	836	23.7	4.96	1.512
June 21	2200	*2110	59.8	7.08	2.158	July 6	1930	2080	58.9	7.05	2.149
June 22	1700	816	23.1	4.92	1.500						

Minimum daily, 94 ft³/s (2.66 m³/s) Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	145	145	111	134	131	156	154	155	166	161	184
2	161	147	145	108	120	129	164	151	156	158	163	184
3	144	143	147	115	127	123	163	147	151	161	167	187
4	139	142	147	107	145	126	160	148	147	163	162	188
5	137	145	144	114	132	127	160	146	134	690	161	187
6	135	145	145	115	126	123	160	149	143	904	156	180
7	138	145	156	113	132	126	158	150	147	1060	155	178
8	135	153	145	94	134	121	157	147	147	520	155	183
9	134	142	145	108	132	126	162	146	145	392	154	177
10	136	140	158	108	137	142	162	146	145	245	160	181
11	134	143	145	103	139	178	162	145	150	176	170	177
12	134	143	145	110	135	237	157	151	150	171	165	177
13	135	143	145	110	123	316	155	153	145	167	169	174
14	135	143	147	115	131	245	155	148	147	169	172	172
15	134	142	148	118	134	318	155	141	150	169	181	172
16	132	142	151	110	126	287	164	139	148	167	178	169
17	131	143	147	120	132	265	186	139	151	169	171	169
18	133	143	145	123	147	392	224	141	151	173	172	171
19	135	147	145	139	137	463	240	141	147	172	176	171
20	135	142	139	142	132	380	219	138	147	171	180	167
21	137	132	137	134	120	260	178	147	288	209	179	162
22	137	140	143	139	135	223	191	147	385	204	177	164
23	142	140	141	140	134	163	191	145	161	182	181	162
24	139	137	138	140	142	159	200	144	153	178	186	158
25	139	129	129	131	134	158	158	144	347	174	186	157
26	140	134	121	114	135	156	163	142	215	168	183	157
27	142	134	124	120	143	155	155	150	183	170	188	156
28	142	140	129	135	137	156	148	166	173	163	195	156
29	147	145	129	127	---	158	150	171	167	160	190	153
30	145	146	127	132	---	156	156	164	164	168	186	158
31	145	---	126	131	---	158	---	163	---	163	183	---
TOTAL	4331	4255	4378	3726	3735	6257	5109	4603	5192	8102	5362	5131
MEAN	140	142	141	120	133	202	170	148	173	261	173	171
MAX	179	153	158	142	147	463	240	171	385	1060	195	188
MIN	131	129	121	94	120	121	148	138	134	158	154	153
AC-FT	8590	8440	8680	7390	7410	12410	10130	9130	10300	16070	10640	10180
CAL YR 1977	TOTAL	61781	MEAN	169	MAX	1080	MIN	104	AC-FT	122500		
WTR YR 1978	TOTAL	60181	MEAN	165	MAX	1060	MIN	94	AC-FT	119400		

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 19...	54	153	.21	56.2	1.3	.19	20	30	0
NOV 10...	53	159	.22	61.8	1.7	.25	30	40	8
DEC 22...	54	155	.21	60.7	1.6	.17	20	10	0
JAN 09...	56	155	.21	45.2	1.6	.16	20	20	0
FEB 23...	54	155	.21	56.1	1.6	.18	20	10	0
MAR 13...	27	183	.25	168	1.9	1.8	130	270	40
APR 27...	49	164	.22	69.5	1.3	.21	30	30	0
MAY 15...	50	161	.22	62.6	1.1	.18	20	40	0
JUN 29...	53	157	.21	69.9	.99	.27	30	50	0
JUL 19...	57	168	.23	79.8	.68	.14	30	50	10
AUG 09...	53	150	.20	63.2	.96	.17	30	10	2
SEP 20...	51	151	.21	69.3	1.1	.14	40	20	0

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 19...	1420	136	185	7.4	14.0	8	74	1	24	3.5
NOV 10...	1325	144	187	7.3	6.0	15	75	0	24	3.6
DEC 22...	1310	145	179	7.1	4.0	5	75	0	24	3.7
JAN 09...	1140	108	180	6.7	.0	5	73	0	24	3.2
FEB 23...	1250	134	177	7.2	4.5	2	74	0	24	3.3
MAR 13...	1050	339	225	7.1	2.0	160	79	0	25	4.0
APR 27...	1120	157	202	7.2	13.0	15	79	0	25	3.9
MAY 15...	1130	144	188	7.2	17.0	6	81	0	27	3.4
JUN 29...	1340	165	187	7.2	28.0	20	75	0	24	3.6
JUL 19...	1135	176	190	7.2	22.0	8	86	0	29	3.4
AUG 09...	1325	156	173	7.6	21.0	7	69	0	22	3.3
SEP 20...	1005	170	175	7.5	12.5	6	71	0	23	3.4

NIOBRARA RIVER BASIN

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT 19...	6.5	.3	5.5	90	0	74	6.8	2.5	.3
NOV 10...	8.4	.4	6.9	100	0	82	2.7	3.7	.2
DEC 22...	7.2	.4	5.2	95	0	78	4.0	2.5	.2
JAN 09...	6.9	.4	5.1	89	0	73	4.3	1.9	.3
FEB 23...	7.2	.4	4.8	96	0	79	4.6	2.3	.2
MAR 13...	9.8	.5	23	120	0	98	15	11	.3
APR 27...	9.0	.4	6.0	110	0	90	7.2	3.1	.3
MAY 15...	7.8	.4	5.4	110	0	90	5.4	2.5	.3
JUN 29...	7.4	.4	6.6	101	0	83	4.7	2.9	.3
JUL 19...	6.9	.3	5.7	110	0	90	6.9	1.4	.4
AUG 09...	6.5	.3	5.7	99	0	81	5.1	1.4	.2
SEP 20...	6.8	.4	5.0	95	0	78	6.7	2.7	.2

06464500 KEYA PAHA RIVER AT WEWELA, SD

LOCATION.--Lat 43°01'42", long 99°46'45", in SE1/4 sec.24, T.95 N., R.76 W., Tripp County, Hydrologic Unit 10150006, on left bank 13 ft (4 m) downstream from bridge on U.S. Highway 183, 1.0 mi (1.6 km) north of Wewela, 4.5 mi (7.2 km) upstream from Holt Creek, and 11.5 mi (18.5 km) downstream from Lost Creek.

DRAINAGE AREA.--1,070 mi² (2,770 km²), approximately.

PERIOD OF RECORD.--November 1937 to September 1940, October 1947 to current year. Monthly discharge only for October 1947, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 2,049.78 ft (624.773 m) National Geodetic Vertical Datum of 1929. Prior to June 21, 1957, nonrecording gage at site 13 ft (4.0 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--33 years (water years 1939-40, 1948-77), 68.6 ft³/s (1.943 m³/s), 49,700 acre-ft/yr (61.3 hm³/yr); median of yearly mean discharges, 58 ft³/s (1.643 m³/s), 42,000 acre-ft/yr (51.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft³/s (154 m³/s) Mar. 31, 1952, gage height, 13.08 ft (3.987 m); maximum gage height, 13.5 ft (4.11 m) Mar. 25, 1950, from floodmark (backwater from ice); no flow Jan. 10 to Feb. 15, 1949, Aug. 19 to Sept. 14, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 16	1115	1600	45.3	Apr. 20	0245	691	19.6
Mar. 19	unknown	b*2600	73.6				4.12 1.256

a Ice jam.

b Sometime during the period Mar. 17-19.

Minimum daily discharge, 15 ft³/s (0.42 m³/s) Feb. 16.

 DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	39	52	28	16	18	201	262	174	69	32	21
2	131	39	50	29	17	18	197	227	159	163	31	21
3	143	40	52	29	18	17	199	202	141	106	29	20
4	110	40	53	30	18	17	188	180	128	83	29	20
5	86	40	50	30	17	18	183	164	112	72	28	19
6	75	40	45	32	17	17	177	150	99	69	27	18
7	67	40	40	30	17	17	168	159	92	66	26	17
8	59	48	40	25	16	19	157	181	87	63	24	16
9	53	52	35	22	16	21	153	176	82	63	23	16
10	52	44	37	21	17	23	165	164	77	59	23	16
11	48	52	42	22	18	22	169	150	73	54	23	16
12	45	60	42	23	17	30	157	139	70	51	24	16
13	43	63	44	24	16	50	139	133	69	46	24	17
14	42	66	45	23	16	200	138	126	66	46	25	17
15	41	65	44	22	16	415	152	119	64	45	36	18
16	41	63	40	21	15	1500	204	111	62	44	35	18
17	41	59	37	20	16	2200	272	105	62	42	30	19
18	40	57	34	19	17	2000	420	103	66	41	29	22
19	40	56	32	17	17	2500	595	102	62	40	27	23
20	39	52	30	17	17	2240	624	97	57	39	25	23
21	39	25	31	18	18	2000	500	93	56	42	24	24
22	38	40	33	20	20	1480	419	92	68	55	22	24
23	38	50	33	20	22	970	426	89	70	64	22	24
24	41	60	32	19	21	628	420	84	80	57	22	23
25	39	65	30	18	20	438	379	78	94	50	22	23
26	39	60	29	17	19	343	331	74	148	46	22	22
27	38	58	29	16	19	290	280	74	120	42	23	22
28	39	56	30	16	18	274	238	87	102	39	25	22
29	39	55	31	16	---	249	222	135	80	35	24	22
30	41	55	32	17	---	231	265	171	68	34	23	23
31	40	---	30	16	---	221	---	192	---	32	22	---
TOTAL	1780	1539	1184	677	491	18466	8138	4219	2688	1757	801	602
MEAN	57.4	51.3	38.2	21.8	17.5	596	271	136	89.6	56.7	25.8	20.1
MAX	153	66	53	32	22	2500	624	262	174	163	36	24
MIN	38	25	29	16	15	17	138	74	56	32	22	16
AC-FT	3530	3050	2350	1340	974	36630	16140	8370	5330	3490	1590	1190
CAL YR 1977	TOTAL	32860.9	MEAN	90.0	MAX	605	MIN	2.0	AC-FT	65180		
WTR YR 1978	TOTAL	42342.0	MEAN	116	MAX	2500	MIN	15	AC-FT	83990		

NIOBARA RIVER BASIN

06464900 KETA PAHA RIVER NEAR WAPER, NE

LOCATION.--Lat 42°55'00", long 99°05'50", in SE1/4SE1/4 sec.17, T.34 N., R.15 W., Boyd County, Hydrologic Unit 10150006, on left bank 70 ft (21 m) upstream from highway bridge, 3.3 mi (5.3 km) south of Waper, and 8.6 mi (13.8 km) upstream from mouth. A new bridge was constructed 70 ft (21 m) downstream from gage and put into use in July 1977, gage not moved.

DRAINAGE AREA.--1,630 mi² (4,220 km²), approximately.

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

REVISED RECORDS.--WSP 1709: 1959(H).

GAUGE.--Water-stage recorder. Altitude of gage is 1,680 ft (512 m), from topographic map. Prior to May 2, 1958, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--21 years, 132 ft³/s (3.738 m³/s), 95,630 acre-ft/yr (0.118 km³/yr); median of yearly mean discharges, 120 ft³/s (3.398 m³/s), 86,900 acre-ft/yr (0.107 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,280 ft³/s (263 m³/s) July 1, 1962, gage height, 10.91 ft (3.325 m); maximum gage height, 13.34 ft (4.066 m) Mar. 23, 1960, backwater from ice; no flow July 22-30, Aug. 10, 11, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s (25.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 19	2000	*6620 187	9.67 2.947	May 30	0500	989 28.0	5.89 1.795
Apr. 20	0630	1320 37.4	6.26 1.908				

Minimum daily discharge, 9.5 ft³/s (0.27 m³/s) Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	60	90	46	35	45	220	399	317	100	42	35
2	240	59	70	50	34	47	229	330	366	82	40	31
3	356	57	72	54	40	45	229	296	348	103	37	29
4	270	53	76	54	40	43	234	239	303	168	39	26
5	246	50	58	58	39	45	239	245	257	140	37	24
6	166	52	60	60	38	44	267	347	222	129	36	20
7	147	56	64	56	36	46	360	366	190	168	37	15
8	121	96	58	45	36	50	342	367	164	132	36	12
9	112	147	54	46	36	60	319	366	155	97	32	9.5
10	101	131	58	46	38	70	295	386	140	78	33	9.5
11	96	119	66	50	40	80	302	342	130	72	32	10
12	93	102	74	54	39	150	355	324	125	65	27	10
13	97	107	74	52	37	300	302	282	124	60	25	10
14	89	119	76	54	36	600	307	263	116	56	51	12
15	82	128	78	50	32	1100	319	256	113	52	153	14
16	80	123	74	49	31	2000	353	219	101	53	85	15
17	75	112	68	48	33	3800	347	194	105	50	83	21
18	73	105	60	46	37	3500	683	183	111	55	69	37
19	71	100	58	44	40	4910	1070	185	95	45	67	40
20	69	80	54	40	38	3990	1260	177	90	36	66	37
21	71	28	54	43	45	3180	980	172	94	114	61	39
22	67	50	60	48	50	2340	844	159	119	148	50	40
23	66	60	64	45	58	1520	896	155	109	134	44	39
24	63	80	60	47	56	870	754	154	116	112	40	39
25	69	100	54	42	52	598	582	203	148	101	34	35
26	66	120	54	39	50	426	439	160	196	81	32	32
27	65	110	56	36	48	336	330	179	188	61	45	29
28	62	100	58	37	48	307	347	176	200	52	40	28
29	61	100	58	37	---	279	672	650	152	50	43	29
30	63	90	54	38	---	256	393	853	120	41	44	30
31	68	---	46	37	---	239	---	452	---	38	41	---
TOTAL	3484	2694	1960	1451	1142	31276	14269	9079	5014	2673	1501	757.0
MEAN	112	89.8	63.2	46.8	40.8	1009	476	293	167	86.2	48.4	25.2
MAX	356	147	90	60	58	4910	1260	853	366	168	153	40
MIN	61	28	46	36	31	43	220	154	90	36	25	9.5
AC-FT	6910	5340	3890	2880	2270	62040	28300	18010	9950	5300	2980	1500
CAL YR 1977	TOTAL	52583.0	MEAN	144	MAX	1780	MIN	3.6	AC-FT	104300		
WTR YR 1978	TOTAL	75300.0	MEAN	206	MAX	4910	MIN	9.5	AC-FT	149400		

NIORRARA RIVER BASIN

55

06465000 NIOBRARA RIVER NEAR SPENCER, NE

LOCATION.--Lat 42°48'33", long 98°30'19", in SE1/4NW1/4 sec.30, T.33 N., R.11 W., Boyd County, Hydrologic Unit 10150007, at Spencer powerplant dam 5 mi (8 km) southeast of Spencer.

DRAINAGE AREA.--12,100 mi² (31,300 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to December 1908 (gage heights only); August 1913 to September 1914; October to December 1914, April to September 1915 (gage heights only); August 1927 to September 1936, June 1940 to current year. Published as "near Lynch" 1913-15. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder and hourly log of power plant operation. Datum of gage is 1,473.67 ft (449.175 m) National Geodetic Vertical Datum of 1929. Elevation of taintor gage sill, 1,491.12 ft (454.493 m) National Geodetic Vertical Datum of 1929. Prior to December 1908, nonrecording gage on former highway bridge 275 ft (83.8 m) downstream and Aug. 1, 1913, to Sept. 30, 1915, nonrecording gage at highway bridge 10 mi (16 km) downstream at different datums. Aug. 1, 1927 to Sept. 30, 1936, and June 14, 1940, to Sept. 30, 1944, discharge computed as flow through powerhouse and over dam. Oct. 1, 1944, to Nov. 10, 1954, water-stage recorder at site 275 ft (83.8 m) downstream at datum 4.98 ft (1.518 m) higher, and Nov. 11, 1954, to Sept. 30, 1957, at site 0.3 mi (0.5 km) downstream at datum 9.78 ft (2.981 m) lower. Oct. 1, 1957, to Oct. 21, 1958, discharge computed as flow through powerhouse and over dam. Oct. 28, 1958, to Aug. 13, 1963, water-stage recorder at site 225 ft (68.6 m) downstream at present datum. Aug. 14, 1963, gage moved to present site with discharge computed as flow through powerhouse and over dam.

REMARKS.--Records good. Natural flow of stream affected by irrigation and power developments. Daily discharge determined from flow through turbines and taintor gates, computed from relation between discharge, head, and gate openings. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

COOPERATION.--Powerplant log furnished by Nebraska Public Power District.

AVERAGE DISCHARGE.--48 years (1913-14, 1927-36, 1940-78), 1,399 ft³/s (39.62 m³/s), 1,014,000 acre-ft/yr (1.25 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft³/s (776 m³/s) Mar. 12, 1955, gage height, 12.16 ft (3.706 m), site and datum then in use; minimum daily, 5 ft³/s (0.14 m³/s) Nov. 14, Dec. 18, 19, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 10,700 ft³/s (303 m³/s) Mar. 21; minimum daily, 164 ft³/s (4.64 m³/s) Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2360	1490	2080	1110	1090	1460	1910	2690	2470	1180	1030	852
2	2270	1440	1930	1040	1150	1440	2140	2490	2360	1140	960	764
3	1800	1390	1460	1020	1180	1450	2070	2290	2040	1090	1040	762
4	1580	1360	1490	1040	1160	1420	1970	2230	1950	1160	1020	786
5	1540	1390	1400	1040	1140	1370	1870	2160	1760	2200	1000	769
6	1430	1400	466	1140	1210	1350	1990	2020	1720	2650	917	762
7	1440	1440	375	1310	1250	1260	1620	2240	1690	2900	843	715
8	1370	1780	305	1320	1230	1370	1690	2300	1640	1930	839	662
9	1290	2260	164	1290	1220	1520	1850	2000	1430	1590	837	665
10	1310	1780	210	1090	1220	1610	2010	1800	1350	1370	887	662
11	1380	1720	392	1070	1160	1700	1920	1710	1230	1240	967	739
12	1250	1560	410	1050	1100	1840	1790	1760	1280	1130	1070	985
13	1250	1540	633	1070	1100	2160	1660	1740	1160	1080	1190	920
14	1180	1580	920	1140	1050	3080	1600	1570	1110	1110	1070	937
15	1300	1590	1500	1160	523	3960	1630	1560	1020	1340	2120	992
16	1290	1550	2120	1180	1140	3440	2150	1540	1040	959	1640	1630
17	1250	1540	2070	1180	652	2960	2580	1580	1140	957	1280	856
18	1240	1520	1940	1160	1090	3630	3220	1650	1320	999	1180	1240
19	1540	1530	1770	1110	1050	6580	3630	1690	1220	985	1170	1150
20	1210	1280	1620	1080	1050	9980	3540	1780	1170	998	1070	1100
21	1210	202	1250	1040	528	10700	3120	1430	1060	2020	981	1020
22	2180	664	1130	1050	1150	9140	3060	1400	1600	2880	864	1000
23	1370	1030	1200	1060	1250	7050	3400	1440	1640	2190	897	974
24	1410	1130	1230	1050	1310	4570	3100	1400	1250	1710	833	856
25	1370	1080	1200	1090	1290	3280	2650	1460	1460	1240	797	900
26	1270	804	1320	1200	1320	3070	2490	1360	2500	1110	844	883
27	1300	916	1210	1170	1350	3360	2330	1470	1780	1050	917	846
28	1370	1220	1130	1070	1440	2870	2360	1560	1480	998	1020	915
29	1280	1440	1150	1050	---	2550	2460	2310	1210	943	1050	949
30	1440	1970	1240	1060	---	2210	3000	2820	1170	985	943	986
31	1560	---	1220	1050	---	1950	---	2440	---	966	887	---
TOTAL	45040	41596	36535	34490	31403	104330	70810	57890	45250	44100	32163	27277
MEAN	1453	1387	1179	1113	1122	3365	2360	1867	1508	1423	1038	909
MAX	2360	2260	2120	1320	1440	10700	3630	2820	2500	2900	2120	1630
MIN	1180	202	164	1020	523	1260	1600	1360	1020	943	797	662
AC-FT	89340	82510	72470	68410	62290	206900	140500	114800	89750	87470	63800	54100
CAL YR 1977 TOTAL	571306			1565	6120	164	AC-FT	1133000				
WTR YR 1978 TOTAL	570884			1564	10700	164	AC-FT	1132000				

NIOBRARA RIVER BASIN

06465000 NIOBRARA RIVER NEAR SPENCER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT , 1977					MAR , 1978				
06...	1120	1420	280	9.5	22...	1120	9250	291	1.0
25...	1050	1430	368	11.0	APR				
NOV					19...	1820	4200	358	4.5
15...	1100	1630	267	4.5	JUN				
DEC					13...	1435	1300	839	26.0
05...	1330	940	262	.5	SEP				
JAN , 1978					07...	1630	713	254	27.0
16...	1350	1240	308	.5					
FEB									
08...	1350	1220	278	.5					

NIOBRARA RIVER BASIN

57

06465500 NIOBRARA RIVER NEAR VERDEL, NE
National stream-quality accounting network station

LOCATION.--Lat 42°44'25", long 98°12'45", near center of N1/2 sec.23, T.32 N., R.8 W., Knox County, Hydrologic Unit 10150007, on left bank 4 ft (1 m) downstream from Pishelville Bridge, 6 mi (10 km) south of Verdel, and 7 mi (11 km) upstream from Verdigre Creek.

DRAINAGE AREA.--12,600 mi² (32,600 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to May 1940, June 1958 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,308.12 ft (398.715 m) National Geodetic Vertical Datum of 1929. Apr. 25, 1938, to June 16, 1939, nonrecording gage at same site and datum. June 17, 1939, to June 13, 1940, nonrecording gage 250 ft (76 m) downstream at present datum.

REMARKS.--Records poor. Natural flow of stream affected by irrigation and power developments.

AVERAGE DISCHARGE.--21 years, 1,527 ft³/s (43.24 m³/s), 1,106,000 acre-ft/yr (1.36 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft³/s (1,100 m³/s) Mar. 27, 1960, gage height, 10.10 ft (3.078 m); maximum gage height, 10.62 ft (3.237 m) Mar. 12, 1966, backwater from ice; minimum daily discharge, 104 ft³/s (2.95 m³/s) Nov. 30, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 11,200 ft³/s (317 m³/s) Mar. 21; maximum gage height, 10.36 ft (3.158 m) Mar. 20, ice jam; minimum daily discharge, 190 ft³/s (5.38 m³/s) Dec. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2000	1550	2150	1180	1120	1500	2050	3000	2600	1180	1080	900
2	2600	1550	2250	1120	1180	1500	2150	2700	2600	1250	1020	840
3	1950	1500	1650	1080	1220	1500	2250	2500	2200	1180	1080	800
4	1750	1450	1500	1100	1220	1500	2100	2350	2050	1140	1100	820
5	1650	1450	1650	1080	1200	1450	2000	2350	1950	1900	1080	820
6	1550	1500	740	1160	1220	1450	2100	2100	1800	2550	960	820
7	1500	1500	390	1300	1350	1350	1750	2250	1750	3300	900	780
8	1500	1600	340	1400	1300	1350	1750	2450	1800	2200	900	700
9	1400	2400	210	1400	1300	1600	1850	2250	1600	1800	860	680
10	1300	1950	190	1200	1250	1650	2100	1950	1450	1550	920	700
11	1450	1850	310	1120	1250	1750	2050	1800	1250	1300	980	680
12	1400	1700	450	1100	1160	1850	1950	1850	1300	1220	1100	1020
13	1300	1600	580	1120	1120	2100	1750	1850	1300	1140	1300	1000
14	1240	1700	860	1180	1180	2600	1650	1700	1160	1180	1060	960
15	1300	1700	1300	1220	680	4000	1700	1650	1040	1400	1900	1040
16	1400	1600	2200	1240	1020	4100	2050	1600	1100	1080	1950	1160
17	1350	1600	2200	1240	840	3100	2500	1650	1160	1040	1450	1450
18	1300	1600	2050	1250	980	3700	3200	1700	1400	980	1180	1220
19	1400	1600	1950	1180	1120	5400	3700	1850	1220	1080	1250	1250
20	1500	1600	1800	1140	1100	9200	3800	1750	1300	980	1140	1140
21	1250	400	1450	1120	740	11200	3400	1750	1140	1500	1080	1120
22	1850	480	1200	1080	980	10400	3100	1300	1350	3100	960	1080
23	1800	1000	1240	1120	1250	8400	3600	1550	1850	2600	900	1040
24	1450	1180	1250	1100	1350	5400	3300	1500	1500	1900	900	940
25	1450	1180	1250	1120	1400	3900	2900	1450	1400	1400	840	920
26	1400	900	1350	1220	1400	3200	2700	1450	2400	1200	860	940
27	1350	880	1350	1250	1400	3500	2450	1450	2200	1160	920	880
28	1400	1160	1200	1160	1500	3200	2450	1700	1600	1040	1060	940
29	1350	1450	1180	1100	---	2800	2500	1950	1350	1000	1080	960
30	1450	1850	1250	1120	---	2500	3000	3000	1220	1040	1040	1020
31	1650	---	1300	1100	---	2050	---	2600	---	980	960	---
TOTAL	47240	43480	38790	36300	32830	109200	73850	61000	48040	46370	33810	28620
MEAN	1524	1449	1251	1171	1173	3523	2462	1968	1601	1496	1091	954
MAX	2600	2400	2250	1400	1500	11200	3800	3000	2600	3300	1950	1450
MIN	1240	400	190	1080	680	1350	1650	1300	1040	980	840	680
AC-FT	93700	86240	76940	72000	65120	216600	146500	121000	95290	91970	67060	56770
CAL YR 1977 TOTAL	600010			MEAN 1644	MAX 6400	MIN 190	AC-FT 1190000					
WTR YR 1978 TOTAL	599530			MEAN 1643	MAX 11200	MIN 190	AC-FT 1189000					

NIOBRARA RIVER BASIN

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-65, 1967 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1975 to current year.

WATER TEMPERATURES: June 1958 to September 1965, October 1966 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1971 to current year.

INSTRUMENTATION.--Temperature recorder since June 14, 1958.

REMARKS.--Prior to July 1, 1971, sediment records were obtained by U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 470 micromhos Dec. 22, 1976; minimum daily, 110 micromhos Nov. 22, 1976.

WATER TEMPERATURES: Maximum, 38.0°C July 22, 1964, July 20, 1974; minimum, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 12,000 mg/L June 8, 1975; minimum daily, 50 mg/L Dec. 31, Jan. 1, 3, 5, 6, 1978.

SEDIMENT LOADS: Maximum daily, 123,000 tons (112,000 tonnes) Mar. 13, 1977; minimum daily, 60 tons (55 tonnes) Dec. 7, 1972.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 413 micromhos Jan. 18; minimum daily, 150 micromhos Dec. 1.

WATER TEMPERATURES: Maximum, 34.5°C June 29; minimum, 0.0°C on many days during winter period.

SEDIMENT CONCENTRATIONS: Maximum daily, 6,100 mg/L May 4; minimum daily, 50 mg/L Dec. 31, Jan. 1, 3, 5, 6.

SEDIMENT LOADS: Maximum daily, 70,000 tons (63,700 tonnes) Mar. 13; minimum daily, 100 tons (91 tonnes) Aug. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT										
12...	1055	1110	263	7.7	7.0	60	--	12.7	.9	540
NOV										
02...	1100	1450	249	7.7	11.5	65	--	10.9	5.5	110
28...	1510	1230	291	7.4	.5	40	--	--	--	--
JAN										
04...	1505	1200	297	7.5	.5	8	--	12.4	1.2	K19
FEB										
16...	1235	1170	255	7.4	.5	20	--	12.5	1.0	K11
MAR										
28...	1240	3630	258	7.5	8.0	310	--	11.1	2.8	K59
APR										
18...	1135	4220	298	7.4	4.0	240	--	12.3	3.6	2100
MAY										
09...	1140	2790	319	7.6	13.0	85	--	11.3	3.0	180
31...	1145	2990	294	7.7	15.5	--	--	--	--	--
JUN										
20...	1100	1440	267	7.8	24.0	45	55	9.4	4.1	130
JUL										
11...	1150	1340	264	7.8	27.5	100	140	9.6	15	1100
AUG										
22...	1055	897	238	7.9	31.0	40	45	8.4	6.0	600
SEP										
12...	1045	1200	243	7.7	26.0	75	--	9.4	5.0	1100

DATE	STREP- TOCOCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (000900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (000902)	CALCIUM DIS- SOLVED (MG/L AS CA) (000915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (000925)	SODIUM, DIS- SOLVED (MG/L AS NA) (000930)	SODIUM AD- SORP- TION RATIO (000931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (000935)	BICAR- BONATE (MG/L AS HCO3) (000440)	CAR- BONATE (MG/L AS CO3) (000445)
OCT										
12...	760	--	--	--	--	--	--	--	150	0
NOV										
02...	760	--	--	--	--	34	--	--	150	0
28...	--	--	--	--	--	--	--	--	--	--
JAN										
04...	84	140	7	45	6.2	11	.4	6.5	160	0
FEB										
16...	580	120	0	39	5.4	8.8	.4	5.5	150	0
MAR										
28...	K21000	120	8	37	5.4	8.4	.3	7.4	130	0
APR										
18...	>10000	130	3	40	6.3	12	.5	6.6	150	0
MAY										
09...	1200	140	0	43	6.8	13	.5	7.9	170	0
31...	--	--	--	--	--	--	--	--	--	--
JUN										
20...	180	130	0	42	5.2	12	.5	7.8	--	--
JUL										
11...	760	110	0	35	5.4	9.5	.4	7.4	--	--
AUG										
22...	1000	98	0	32	4.4	9.3	.4	7.3	--	--
SEP										
12...	1300	--	--	--	--	--	--	--	--	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

[illegible][illegible]

NIOBRARA RIVER BASIN

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
JAN 04...	1505	5	1	4	100	100	0	1	1	0	0
MAR 28...	1240	8	5	3	300	300	0	2	2	0	10
JUN 20...	1100	7	0	8	200	0	200	1	1	0	0
SEP 12...	1045	13	12	1	300	0	300	6	4	2	10

DATE	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE) (01044)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
JAN 04...	0	0	0	0	0	8	7	1	330	310	20
MAR 28...	10	0	0	0	0	20	17	3	9600	9600	50
JUN 20...	0	0	0	0	0	8	6	2	2200	2200	0
SEP 12...	0	10	0	0	0	10	6	4	3600	3600	50

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN) (01054)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)
JAN 04...	4	0	4	50	40	10	.2	.0	.2	1
MAR 28...	13	8	5	1000	990	10	.0	.0	.0	4
JUN 20...	12	4	8	220	220	0	.0	.0	.0	1
SEP 12...	--	--	--	420	420	0	.0	.0	.0	1

DATE	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE) (01146)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG) (01076)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN) (01091)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
JAN 04...	0	1	0	0	0	10	10	0	--	--
MAR 28...	3	1	1	1	0	70	60	10	4.4	--
JUN 20...	0	1	0	0	0	20	15	5	4.9	4.8
SEP 12...	0	1	0	0	0	30	30	0	3.0	>5.0

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE TIME	NOV 2,77 1100	MAR 28,78 1240	MAY 9,78 1140	JUN 20,78 1100	JUL 11,78 1150					
TOTAL CELLS/ML	11000	8700	4800	88000	140000					
DIVERSITY: DIVISION	1.2	0.0	1.0	1.1	0.7					
..CLASS	1.2	0.0	1.0	1.1	0.7					
...ORDER	2.0	0.3	1.6	1.3	1.1					
....FAMILY	2.7	2.1	2.9	2.0	2.2					
.....GENUS	3.4	2.3	3.2	2.2	3.0					
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
....COELASTRACEAE										
.....COELASTRUM	--	-	--	-	--	-	10000	7		
.....HYDRODICTYACEAE										
.....PEDIASTRUM	120	1	--	-	--	-	6100	7	--	-
.....MICRACIINIACEAE										
.....MICRACIINIUM	--	-	--	-	--	-			1300	1
.....DOCYSTACEAE										
.....ANKISTRODESMUS	61	1	--	-	--	-	4000	5	12000	9
.....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	6300	5
.....KIRCHNERIELLA	--	-	--	-	--	-	--	-	5100	4
.....DOCYSTIS	--	-	--	-	--	-	1200	1	3200	2
.....SELENASTRUM	--	-	--	-	200	4	--	-	--	-
.....TETRAEDRON	61	1	--	-	--	-	--	-	--	-
.....TREUBARIA	--	-	--	-	--	-	--	-	*	0
.....SCENEDESMACEAE										
.....ACTINASTRUM	--	-	--	-	230	5	--	-	2500	2
.....CRUCIGENIA	480	5	--	-	--	-	*	0	--	-
.....SCENEDESMUS	1500	14	--	-	57	1	53000#	60	62000#	44
.....TETRASTRUM	240	2	--	-	110	2	--	-	7600	5
....VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	61	1	--	-	28	1	--	-	11000	8
...ZYGEMATALES										
....DESMIDIACEAE										
....COSMARIUM	--	-	--	-	--	-	1500	2	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...PENNALES										
....NAVICULACEAE										
.....ENTOMONEIS	--	-	57	1	--	-	--	-	--	-
...CENTRALES										
....COSCINODISCACEAE										
.....CYCLOTELLA	1600#	15	570	7	740#	15	3700	4	--	-
.....MELOSIRA	2500#	24	--	-	--	-	--	-	--	-
.....STEPHANODISCUS	--	-	--	-	--	-	*	0	--	-
...PENNALES										
....ACHNANTHACEAE										
.....ACHNANTHES	61	1	--	-	--	-	--	-	--	-
....COCCONEIS	360	3	170	2	28	1	--	-	--	-
....CYMBELLACEAE										
.....AMPHORA	--	-	57	1	28	1	--	-	--	-
.....CYMBELLA	--	-	110	1	--	-	--	-	*	0
.....EPITHEMIA	--	-	280	3	--	-	--	-	--	-
.....RHOPALODIA	--	-	230	3	57	1	--	-	--	-
....DIATOMACEAE										
.....DIATOMA	420	4	230	3	540	11	--	-	1300	1
....FRAGILARIACEAE										
.....ASTERIONELLA	--	-	--	-	--	-	3700	4	--	-
....FRAGILARIA	--	-	4900#	57	--	-	1800	2	--	-
.....SYNEDRA	120	1	--	-	28	1	--	-	--	-
....GOMPHONEMACEAE										
.....GOMPHONEMA	180	2	1200	14	200	4	--	-	--	-
....NAVICULACEAE										
.....CALONEIS	--	-	110	1	--	-	--	-	--	-
.....NAVICULA	300	3	450	5	1200#	26	920	1	*	0
....PINNULARIA	--	-	--	-	--	-	--	-	1300	1
.....STAURONEIS	--	-	--	-	140	3	--	-	--	-
....NITZSCHACEAE										
.....NITZSCHIA	1600	15	170	2	650	14	920	1	2500	2
....SURIRELLACEAE										
.....SURIRELLA	--	-	57	1	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

NIOBRARA RIVER BASIN

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE TIME	NOV 2,77 1100		MAR 28,78 1240		MAY 9,78 1140		JUN 20,78 1100		JUL 11,78 1150	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROCOCCALES										
...CHROCOCCACEAE										
....ANACYSTIS	420	4	--	-	510	11	10000	11	10000	7
...HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	*	0	--	-
...OSCILLATORIAEAE										
....OSCILLATORIA	360	3	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	61	1	--	-	--	-	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)										
..DINOPHYCEAE										
...GYMNODINIALES										
...GYMNODINIACEAE										
...GYMNODINIUM	--	-	--	-	--	-	--	-	*	0
...PERIDINIALES										
...PERIDINIACEAE										
...PERIDINIUM	61	1	--	-	--	-	--	-	--	-

NOTE: # = DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* = OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

		LENGTH OF EXPO- SURE (DAYS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (00022)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
		NOV 28...	25	.000	.000	.000
		MAY 31...	21	--	--	--
		JUN 20...	19	.760	.070	1.57
		JUL 11...	21	1.26	.380	.709
		AUG 22...	28	--	--	--

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG						AUG					
15...	1300	234	7.4	23.0	8.5	16...	0515	249	7.8	17.0	8.8
15...	1430	239	7.9	23.0	8.3	16...	0615	242	7.7	17.0	8.5
15...	1645	231	7.5	22.0	8.2	16...	0730	256	7.7	17.0	8.1
15...	1930	261	7.4	21.0	8.1	16...	1010	268	7.3	19.0	8.8
15...	2030	231	7.3	20.5	8.1	16...	1050	252	7.4	20.0	8.3
15...	2130	235	7.4	20.0	7.9	16...	1305	254	7.3	23.5	8.5
15...	2230	233	7.6	19.5	8.2	16...	1530	255	7.3	26.0	7.9
16...	0055	244	7.3	17.0	8.3						
16...	0210	236	7.6	19.0	8.1						
16...	0320	239	7.3	18.0	7.9						

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	285	298	150	245	248	238	318	329	270	294	308	230
2	276	272	158	275	244	229	342	337	280	268	280	228
3	270	274	217	400	225	243	315	333	278	278	268	228
4	278	312	206	297	237	245	324	336	277	268	257	235
5	273	271	210	262	245	227	311	325	280	263	257	230
6	278	268	212	235	229	232	314	327	281	267	255	230
7	268	273	215	230	237	238	310	308	270	262	258	235
8	268	273	219	183	241	251	310	338	282	268	258	234
9	272	268	218	231	228	244	310	316	283	272	258	240
10	271	268	223	239	236	259	286	315	271	263	258	230
11	274	272	220	236	228	258	312	315	284	263	257	233
12	264	277	205	258	239	252	308	308	282	268	259	235
13	269	268	214	220	246	261	323	313	280	268	257	230
14	264	271	203	248	241	249	350	368	278	269	262	233
15	260	275	235	247	255	259	358	344	280	270	259	228
16	272	270	218	227	260	263	357	313	280	270	265	228
17	277	276	218	244	254	259	357	330	285	268	272	235
18	278	286	255	413	241	271	348	318	285	279	258	228
19	261	283	183	283	244	276	357	300	285	268	256	228
20	261	272	177	242	248	288	355	295	268	267	255	245
21	273	316	178	262	251	284	349	300	267	270	258	238
22	260	253	168	230	247	291	360	304	270	273	263	237
23	274	260	183	242	246	317	353	308	269	266	267	233
24	263	322	217	248	233	286	354	303	269	267	267	238
25	267	297	210	239	238	318	350	315	272	269	260	233
26	267	260	205	251	242	300	348	315	272	270	280	250
27	263	255	253	247	238	287	355	308	267	267	262	240
28	265	321	238	255	247	290	347	313	265	270	268	244
29	263	290	232	264	---	303	357	297	270	265	265	230
30	280	273	215	261	---	307	345	298	271	265	265	232
31	260	---	200	255	---	298	---	284	---	265	250	---

NIOBRARA RIVER BASIN

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	14.5	11.0	11.5	8.5	.5	.5	1.0	1.0	1.0	.5	1.0	1.0
2	16.0	10.0	10.5	6.5	.5	.5	1.0	.5	1.5	1.0	1.0	1.0
3	16.0	9.5	11.5	6.0	1.0	1.0	1.0	.0	1.0	.5	1.0	1.0
4	14.5	11.0	11.0	5.0	1.0	1.0	.5	.5	.5	.5	1.5	.5
5	13.5	9.0	10.5	6.5	1.0	1.0	.5	.5	.5	.0	1.0	.5
6	10.5	9.5	11.0	10.0	1.0	.0	.5	.5	.5	.5	.5	.5
7	13.5	9.0	14.0	10.5	1.0	.0	1.0	.5	.5	.5	.5	.5
8	8.5	6.5	12.0	4.0	1.5	1.0	1.0	1.0	.5	.5	1.0	.5
9	13.5	5.0	4.0	1.5	1.5	1.5	1.5	1.0	.5	.0	.5	.0
10	10.5	6.0	4.0	1.0	1.5	1.0	1.0	1.0	.0	.0	.5	.5
11	8.5	5.5	5.0	1.5	1.0	.5	.5	.5	.0	.0	1.0	.5
12	11.5	5.5	4.5	1.5	.5	.0	.5	.5	.0	.0	1.0	1.0
13	15.0	6.0	6.0	3.0	.5	.0	1.0	.5	.0	.0	1.0	1.0
14	14.0	9.5	7.0	4.5	.5	.0	1.0	.5	.0	.0	1.0	1.0
15	13.0	7.0	6.5	4.5	.5	.0	1.0	1.0	.5	.0	1.0	1.0
16	14.0	6.0	6.0	4.5	.5	.5	1.5	1.0	.5	.5	1.0	1.0
17	13.5	9.0	4.5	2.0	.5	.5	1.0	1.0	1.0	.5	1.5	1.0
18	13.5	7.0	3.0	2.0	.5	.5	1.0	1.0	1.0	.0	1.5	1.5
19	15.0	7.0	3.0	2.0	1.0	1.0	1.5	1.0	.5	.0	1.5	1.5
20	16.0	10.0	3.0	1.0	1.0	1.0	1.5	1.0	.5	.0	2.0	1.5
21	14.0	10.5	4.5	1.0	1.0	.5	1.0	.5	1.0	.0	1.5	1.5
22	11.5	9.5	10.0	1.0	1.0	1.0	.5	.5	.5	.0	2.0	1.5
23	9.0	8.5	1.0	1.0	.5	.0	.5	.5	.0	.0	2.0	2.0
24	10.0	8.5	1.0	1.0	.5	.5	1.0	.5	.0	.0	3.0	2.0
25	14.0	7.0	1.0	1.0	1.0	.5	1.0	.5	.5	.0	4.5	3.0
26	15.5	8.5	1.0	.5	1.0	1.0	1.0	1.0	1.0	1.0	6.0	3.0
27	15.0	10.0	1.0	.5	1.0	.5	1.0	1.0	1.0	1.0	8.0	4.5
28	12.0	10.5	.5	.5	.5	.0	1.0	1.0	1.0	1.0	5.5	5.5
29	13.5	10.5	.5	.5	.5	.0	1.0	.5	---	---	9.5	6.0
30	15.0	13.0	.5	.5	1.0	.5	1.0	.5	---	---	17.0	8.5
31	13.5	10.0	---	---	1.0	.5	1.0	.5	---	---	16.5	11.5
MONTH	16.0	5.0	14.0	.5	1.5	.0	1.5	.0	1.5	.0	17.0	.0
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	13.5	9.5	16.0	10.5	18.5	13.5	30.5	24.5	30.0	22.0	26.5	19.0
2	10.0	7.0	18.0	10.5	23.0	13.5	33.5	24.0	26.0	21.5	31.0	20.5
3	9.5	9.0	17.0	11.5	25.0	16.5	30.5	24.0	25.5	18.0	30.5	22.0
4	14.5	9.0	16.0	13.0	25.5	18.0	31.5	24.0	26.5	18.0	31.0	23.0
5	12.0	10.5	16.5	11.5	25.5	18.5	27.0	21.0	29.0	20.0	33.0	23.5
6	16.0	10.0	14.0	10.0	26.5	19.0	28.0	22.0	31.0	21.5	31.5	23.0
7	14.0	11.0	12.0	10.0	23.5	18.0	27.0	20.0	32.0	22.0	29.5	21.5
8	16.5	10.0	11.5	10.0	25.0	14.5	24.5	21.5	31.5	24.0	28.5	21.0
9	15.5	10.0	16.0	11.0	26.5	17.0	25.0	19.5	28.0	22.0	30.0	20.5
10	13.0	8.5	21.0	11.5	26.5	18.5	26.0	19.0	29.0	20.0	30.0	21.5
11	14.5	9.0	24.5	15.0	25.5	20.0	27.0	20.5	30.5	22.0	29.5	22.0
12	13.5	9.5	19.5	13.0	27.0	16.5	31.0	21.5	32.0	23.5	28.5	20.5
13	12.0	8.0	20.0	10.5	28.0	19.0	29.5	21.0	31.5	25.0	23.0	19.5
14	9.5	8.5	22.0	13.0	29.5	19.5	30.5	21.0	28.5	21.5	24.0	16.0
15	8.0	6.5	22.0	14.0	30.5	23.0	32.0	21.5	24.0	20.5	25.0	17.0
16	7.0	6.5	22.0	14.5	30.5	24.5	32.0	24.0	27.0	20.5	24.0	20.0
17	6.5	6.5	19.0	15.0	27.0	21.5	33.5	24.5	30.0	21.0	19.5	15.5
18	6.5	5.5	16.5	14.0	28.5	19.0	29.5	24.0	25.5	19.5	21.5	15.5
19	5.0	4.5	23.0	14.0	24.5	19.5	31.5	22.0	26.0	16.5	20.0	15.5
20	5.0	4.0	22.0	14.5	25.0	18.5	28.5	22.0	26.5	18.0	19.5	14.0
21	10.0	4.0	23.5	14.5	25.5	17.0	26.0	21.0	31.0	20.5	20.0	12.0
22	8.5	7.0	24.0	16.0	24.0	18.5	24.0	20.5	31.5	26.0	19.5	13.0
23	10.0	6.5	26.0	17.0	27.0	20.5	28.5	19.0	32.0	23.5	21.5	12.0
24	9.0	8.0	26.0	19.0	31.0	23.0	29.5	20.5	33.5	24.5	23.0	15.0
25	13.5	7.0	28.5	19.5	31.5	23.0	33.5	23.0	30.0	24.5	22.0	15.5
26	15.5	11.0	25.5	20.0	28.5	21.5	32.0	24.0	27.0	23.5	23.5	15.5
27	15.5	11.0	24.0	20.5	30.5	21.5	31.5	24.0	28.0	22.0	22.0	15.5
28	18.5	11.0	25.0	19.5	33.0	23.5	31.0	23.0	25.0	20.0	21.0	15.0
29	16.0	14.0	21.0	17.0	34.5	26.0	29.0	24.0	28.0	18.5	19.5	15.5
30	14.0	12.0	19.5	15.0	31.5	24.5	30.5	21.0	27.0	19.5	20.5	13.5
31	---	---	19.0	14.0	---	---	28.0	23.5	26.0	19.0	---	---
MONTH	18.5	4.0	28.5	10.0	34.5	13.5	33.5	19.0	33.5	16.5	33.0	12.0

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
12...	1350	1110	9.5	1040	3120	10	12
NOV							
02...	1310	1450	9.5	970	3800	--	--
JAN							
24...	1525	1060	.5	328	939	--	--
MAR							
28...	1445	3630	7.0	2080	20400	23	29
APR							
18...	1410	4220	4.0	3150	35900	9	11
MAY							
09...	1410	2790	15.0	1500	11300	--	--
31...	1400	2990	15.5	1920	15500	14	18
JUN							
20...	1300	1440	23.0	968	3760	11	13
JUL							
11...	1355	1340	25.0	986	3570	19	24
AUG							
01...	1320	1150	26.5	1130	3510	11	14
22...	1255	897	30.5	732	1770	22	24
SEP							
12...	1315	1200	25.5	730	2370	15	20

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
12...	15	27	32	66	90	97
NOV						
02...	--	25	39	76	97	100
JAN						
24...	--	13	20	59	95	99
MAR						
28...	44	58	70	88	98	100
APR						
18...	18	31	45	79	98	100
MAY						
09...	--	20	39	70	95	100
31...	24	37	54	98	99	100
JUN						
20...	14	26	38	68	94	99
JUL						
11...	28	38	55	87	99	100
AUG						
01...	15	21	37	69	97	100
22...	24	34	48	78	100	--
SEP						
12...	32	50	72	87	99	100

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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. FALL DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. FALL DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. FALL DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. FALL DIAM. % FINER THAN 16.0 MM (80172)
OCT												
12...	1350	1110	5	0	2	32	81	97	98	99	100	--
NOV												
02...	1310	1450	5	0	1	34	94	99	100	--	--	--
JAN												
24...	1525	1060	3	--	0	35	86	95	99	100	--	--
MAR												
28...	1445	3630	5	--	0	17	60	85	95	98	99	100
APR												
18...	1410	4220	5	0	2	34	84	93	96	98	99	100
MAY												
09...	1410	2790	5	0	3	41	94	100	--	--	--	--
31...	1400	2990	5	--	0	20	71	91	97	99	100	--
JUN												
20...	1300	1440	4	0	2	41	73	98	99	99	100	--
JUL												
11...	1355	1340	5	0	3	34	88	95	99	100	--	--
AUG												
01...	1320	1150	5	0	3	41	91	97	99	100	--	--
22...	1255	897	5	--	0	36	92	98	100	--	--	--
SEP												
12...	1315	1200	5	0	3	31	86	96	98	100	--	--

NIOBRARA RIVER BASIN

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	2000	1300	7000	1550	960	4000	2150	1100	6400
2	2600	1200	8400	1550	860	3600	2250	1200	7300
3	1950	970	5100	1500	860	3500	1650	900	4000
4	1750	740	3500	1450	880	3400	1500	620	2500
5	1650	580	2600	1450	800	3100	1650	630	2800
6	1550	460	1900	1500	720	2900	740	500	1000
7	1500	520	2100	1500	860	3500	390	470	490
8	1500	620	2500	1600	1100	4800	340	440	400
9	1400	650	2500	2400	1300	8400	210	230	130
10	1300	670	2400	1950	1500	7900	190	200	100
11	1450	770	3000	1850	1100	5500	310	480	400
12	1400	880	3300	1700	620	2800	450	960	1200
13	1300	850	3000	1600	530	2300	580	1300	2000
14	1240	780	2600	1700	570	2600	860	1500	3500
15	1300	670	2400	1700	550	2500	1300	970	3400
16	1400	540	2000	1600	590	2500	2200	340	2000
17	1350	580	2100	1600	1000	4300	2200	560	3300
18	1300	710	2500	1600	1400	6000	2050	900	5000
19	1400	940	3600	1600	1200	5200	1950	830	4400
20	1500	1200	4900	1600	850	3700	1800	680	3300
21	1250	1000	3400	400	990	1100	1450	700	2700
22	1850	760	3800	480	1200	1600	1200	770	2500
23	1800	780	3800	1000	940	2500	1240	900	3000
24	1450	820	3200	1180	610	1900	1250	990	3300
25	1450	970	3800	1180	840	2700	1250	600	2000
26	1400	1100	4200	900	1200	2900	1350	150	550
27	1350	1100	4000	880	1400	3300	1350	70	260
28	1400	880	3300	1160	1600	5000	1200	60	190
29	1350	950	3500	1450	1300	5100	1180	60	190
30	1450	1100	4300	1850	1100	5500	1250	60	200
31	1650	1100	4900	---	---	---	1300	50	180
TOTAL	47240	---	109600	43480	---	114100	38790	---	68690
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	1180	50	160	1120	350	1100	1500	460	1900
2	1120	40	120	1180	370	1200	1500	460	1900
3	1080	50	150	1220	380	1300	1500	460	1900
4	1100	60	180	1220	380	1300	1500	460	1900
5	1080	50	150	1200	370	1200	1450	450	1800
6	1160	50	160	1220	380	1300	1450	450	1800
7	1300	70	250	1350	420	1500	1350	420	1500
8	1400	100	380	1300	400	1400	1350	420	1500
9	1400	100	380	1300	400	1400	1600	490	2100
10	1200	110	360	1250	380	1300	1650	510	2300
11	1120	120	360	1250	380	1300	1750	540	2600
12	1100	120	360	1160	360	1100	1850	570	2800
13	1120	180	540	1120	350	1100	2100	640	3600
14	1180	260	830	1180	370	1200	2600	780	5500
15	1220	330	1100	680	210	390	4000	1200	13000
16	1240	380	1300	1020	320	880	4100	1200	13000
17	1240	380	1300	840	260	590	3100	930	7800
18	1250	390	1300	980	300	790	3700	1100	11000
19	1180	370	1200	1120	350	1100	5400	1400	20000
20	1140	350	1100	1100	340	1000	9200	1500	37000
21	1120	350	1100	740	230	460	11200	2300	70000
22	1080	340	990	980	300	790	10400	1800	51000
23	1120	350	1100	1250	380	1300	8400	1500	34000
24	1100	330	980	1350	420	1500	5400	1300	19000
25	1120	340	1000	1400	430	1600	3900	1200	13000
26	1220	380	1300	1400	430	1600	3200	1200	10000
27	1250	390	1300	1400	430	1600	3500	1400	13000
28	1160	360	1100	1500	460	1900	3200	1600	14000
29	1100	340	1000	---	---	---	2800	1500	11000
30	1120	350	1100	---	---	---	2500	1300	8800
31	1100	340	1000	---	---	---	2050	1300	7200
TOTAL	36300	---	23650	32830	---	33200	109200	---	385900

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	2050	1400	7700	3000	1700	14000	2600	1600	11000
2	2150	1600	9300	2700	2500	18000	2600	1200	8400
3	2250	1700	10000	2500	4200	28000	2200	870	5200
4	2100	1800	10000	2350	6100	39000	2050	500	2800
5	2000	1400	7600	2350	6000	38000	1950	410	2200
6	2100	850	4800	2100	5200	29000	1800	490	2400
7	1750	1300	6100	2250	4400	27000	1750	470	2200
8	1750	2000	9400	2450	3400	22000	1800	390	1900
9	1850	2400	12000	2250	1800	11000	1600	290	1300
10	2100	2600	15000	1950	1300	6800	1450	220	860
11	2050	2300	13000	1800	1000	4900	1250	500	1700
12	1950	1900	10000	1850	700	3500	1300	940	3300
13	1750	1500	7100	1850	600	3000	1300	870	3100
14	1650	1000	4500	1700	730	3400	1160	550	1700
15	1700	920	4200	1650	900	4000	1040	420	1200
16	2050	990	5500	1600	1100	4800	1100	380	1100
17	2500	1300	8800	1650	2300	10000	1160	370	1200
18	3200	2200	19000	1700	5300	24000	1400	430	1600
19	3700	1400	14000	1850	4700	23000	1220	650	2100
20	3800	1500	15000	1750	3000	14000	1300	880	3100
21	3400	1500	14000	1750	2100	9900	1140	900	2800
22	3100	1500	13000	1300	3400	13000	1350	860	3100
23	3600	1600	16000	1550	5200	22000	1850	860	4300
24	3300	1700	15000	1500	4500	18000	1500	880	3600
25	2900	1700	13000	1450	4500	18000	1400	1000	3800
26	2700	1600	12000	1450	4500	18000	2400	1200	7800
27	2450	1400	9300	1450	3100	12000	2200	1200	7100
28	2450	1100	7300	1700	1100	5000	1600	1200	5200
29	2500	1000	6800	1950	300	1600	1350	1100	4000
30	3000	1200	9700	3000	300	2400	1220	850	2800
31	---	---	---	2600	1500	11000	---	---	---
TOTAL	73850	---	309100	61000	---	458300	48040	---	102860
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	1180	730	2300	1080	1000	2900	900	560	1400
2	1250	660	2200	1020	640	1800	840	360	820
3	1180	640	2000	1080	320	930	800	280	600
4	1140	640	2000	1100	410	1200	820	260	580
5	1900	710	3600	1080	540	1600	820	300	660
6	2550	820	5600	960	480	1200	820	370	820
7	3300	880	7800	900	340	830	780	500	1100
8	2200	920	5500	900	330	800	700	660	1200
9	1800	980	4800	860	370	860	680	570	1000
10	1550	1100	4600	920	400	990	700	380	720
11	1300	1000	3500	980	430	1100	680	320	590
12	1220	530	1700	1100	510	1500	1020	490	1300
13	1140	630	1900	1300	630	2200	1000	280	760
14	1180	870	2800	1060	820	2300	960	280	730
15	1400	870	3300	1900	1000	5100	1040	470	1300
16	1080	770	2200	1950	880	4600	1160	750	2300
17	1040	740	2100	1450	520	2000	1450	1300	5100
18	980	760	2000	1180	410	1300	1220	2000	6600
19	1080	780	2300	1250	420	1400	1250	1900	6400
20	980	810	2100	1140	410	1300	1140	1500	4600
21	1500	860	3500	1080	410	1200	1120	1700	5100
22	3100	910	7600	960	460	1200	1080	2100	6100
23	2600	1100	7700	900	760	1800	1040	1800	5100
24	1900	1200	6200	900	960	2300	940	1200	3000
25	1400	1400	5300	840	1100	2500	920	980	2400
26	1200	1500	4900	860	1400	3200	940	900	2300
27	1160	1200	3800	920	1600	4000	880	860	2000
28	1040	790	2200	1060	1300	3700	940	850	2200
29	1000	570	1500	1080	640	1900	960	1200	3100
30	1040	450	1300	1040	530	1500	1020	1600	4400
31	980	680	1800	960	650	1700	---	---	---
TOTAL	46370	---	110100	33810	---	60910	28620	---	74280

BAZILE CREEK BASIN

06466500 BAZILE CREEK NEAR NIOBRARA, NE

LOCATION.--Lat 42°45'00", long 97°56'10", in NE1/4 sec.18, T.32 N., R.5 W., Knox County, Hydrologic Unit 10170101, on downstream side of left pier of bridge on State Highway 12, 2.5 mi (4.0 km) upstream from mouth and 4.5 mi (7.2 km) east of Niobrara.

DRAINAGE AREA.--440 mi² (1,140 km²), approximately.

PERIOD OF RECORD.--May 1952 to current year. Records for October 1931 to September 1932, published in WSP 731, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1279: 1952. WSP 1729: 1958(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and nonrecording gage read once daily. Datum of gage is 1,210.81 ft (369.055 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 16, 1952, nonrecording gage only, and Dec. 16, 1952, to June 16, 1957, water-stage recorder, above 4.2 ft (1.28 m), at present site at datum 4 ft (1.2 m) higher. June 17, 1957, to Sept. 14, 1958, water-stage recorder above 8.2 ft (2.50 m) at present datum. Sept. 15, 1958 to Sept. 30, 1960, water-stage recorder above 4.3 ft (1.31 m).

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--26 years, 83.2 ft³/s (2.356 m³/s), 60,280 acre-ft/yr (74.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,600 ft³/s (1,940 m³/s) June 16, 1957, gage height, 19.96 ft (6.084 m), present datum, from high point on surge, from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of contracted-opening measurements at gage heights 15.36 ft (4.682 m) and 19.96 ft (6.084 m), present datum; maximum gage height, 20.25 ft (6.172 m) Feb. 19, 1971, backwater from ice; no flow July 24, 25, Aug. 30, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 19, 1951, reached a stage of 15.36 ft (4.682 m), present datum, from floodmarks, discharge, 24,400 ft³/s (691 m³/s) on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 2,800 ft³/s (79.3 m³/s) Mar. 20, ice jam, no other peak above base of 2,000 ft³/s (56.6 m³/s); maximum gage height recorded, 17.85 ft (5.441 m) Mar. 19, ice jam, but may have been slightly higher during period of fragmentary gage height record on Mar. 20; minimum daily discharge, 13 ft³/s (0.37 m³/s) Dec. 6, Sept. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	36	36	26	22	40	92	364	328	23	29	17
2	51	36	31	28	18	42	188	188	196	22	23	17
3	42	33	28	32	19	38	283	142	111	22	23	16
4	36	32	30	30	22	32	184	123	85	22	22	16
5	31	31	18	37	20	40	123	105	76	57	22	15
6	30	30	13	35	21	39	78	98	68	48	19	15
7	42	31	15	32	22	38	74	126	60	52	19	14
8	41	43	17	30	23	37	92	139	57	40	16	13
9	37	72	16	27	25	42	117	120	52	35	16	13
10	40	50	22	24	26	44	149	105	48	29	18	13
11	41	48	30	28	28	50	129	92	44	24	17	16
12	36	46	35	34	27	58	85	82	43	22	16	25
13	34	54	38	32	26	74	68	76	43	20	16	24
14	31	58	41	30	24	100	64	74	42	19	17	22
15	32	60	44	28	23	150	62	70	41	20	50	20
16	31	56	44	30	21	220	72	64	40	19	62	19
17	30	60	41	29	21	350	85	62	43	17	41	22
18	30	58	35	31	20	520	95	68	42	22	36	30
19	30	68	33	28	23	1000	98	72	36	22	33	27
20	29	58	27	24	22	2000	80	66	35	19	30	24
21	30	20	29	26	23	1620	66	60	33	46	27	24
22	29	30	34	28	27	923	66	56	41	450	22	24
23	30	46	33	31	33	406	68	56	44	175	20	19
24	31	40	30	33	39	218	66	57	40	92	20	19
25	33	30	27	27	38	171	58	57	38	54	22	19
26	31	32	25	24	35	146	56	56	36	43	29	19
27	31	35	23	23	42	139	54	78	32	36	30	19
28	30	38	35	25	39	135	52	95	30	34	29	20
29	30	42	34	23	---	120	104	251	27	31	28	19
30	35	41	32	25	---	111	971	153	25	30	25	22
31	43	---	28	23	---	105	---	213	---	30	20	---
TOTAL	1075	1314	924	883	729	9008	3779	3368	1836	1575	797	582
MEAN	34.7	43.8	29.8	28.5	26.0	291	126	109	61.2	50.8	25.7	19.4
MAX	51	72	44	37	42	2000	971	364	328	450	62	30
MIN	29	20	13	23	18	32	52	56	25	17	16	13
AC-FT	2130	2610	1830	1750	1450	17870	7500	6680	3640	3120	1580	1150
CAL YR 1977 TOTAL	16903.5		MEAN 46.3	MAX 437	MIN 8.4	AC-FT 33530						
WTR YR 1978 TOTAL	25870.0		MEAN 70.9	MAX 2000	MIN 13	AC-FT 51310						

MISSOURI RIVER MAIN STEM

69

06467000 LEWIS AND CLARK LAKE NEAR YANKTON, SD

LOCATION.--Lat 42°50'56", long 97°28'54", in SW¼ sec.7, T.33 N., R.1 W., Cedar County, NE, Hydrologic Unit 10170101, in powerhouse of Gavins Point Dam on Missouri River, 3.75 mi (6.0 km) southwest of Yankton, 13.6 mi (21.9 km) upstream from James River, 32.5 mi (52.3 km) downstream from Niobrara River, and at mile 811.0 (1,304.9 km).

DRAINAGE AREA.--279,500 mi² (723,900 km²), approximately.

PERIOD OF RECORD.--July 1955 to current year (monthend contents only). Prior to October 1955, published as Gavins Point Reservoir near Yankton.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Dec. 9, 1955, recorder at temporary location on wall of intake structure unit 3.

REMARKS.--Reservoir is formed by earthfill dam; storage began in July 1955. Maximum capacity, 541,000 acre-ft (667 hm³) below elevation 1,210.0 ft (368.81 m), top of spillway gates. Normal maximum, 477,000 acre-ft (588 hm³) below elevation 1,208.0 ft (368.20 m). Inactive storage, 156,000 acre-ft (192 hm³) below elevation 1,195.0 ft (364.24 m). Dead storage, 18,000 acre-ft (22.2 hm³) below elevation 1,180.0 ft (359.66 m) crest of spillway. Figures given herein represent elevations at powerhouse and total contents adjusted for wind effect.

The spillway consists of 14 taintor gates, each 40 ft (12.2 m) wide by 30 ft (9.1 m) high; spillway capacity, 280,000 ft³/s (7,930 m³/s) at pool elevation 1,210.0 ft (368.81 m). Crest of spillway is at elevation 1,180.0 ft (359.66 m). Normal releases are through 3 power units, installation completed in January 1957; maximum release through power units is 35,000 ft³/s (991 m³/s) at pool elevation, 1,210.0 ft (368.81 m). Water is used for flood control, navigation, power, and incidental uses.

COOPERATION.--Elevations and contents furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 565,000 acre-ft (697 hm³) Apr. 1, 1960, elevation, 1,210.7 ft (369.02 m), affected by wind; minimum since initial filling, 61,950 acre-ft (76.4 hm³) Apr. 23, 1956, elevation, 1,188.1 ft (362.13 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 494,000 acre-ft (609 hm³) Mar. 22, 23, elevation, 1,209.2 ft (368.56 m); minimum, 350,000 acre-ft (432 hm³) Feb. 28, Mar. 2, elevation, 1,204.2 ft (367.04 m).

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1208.2	463000	
Oct. 31	1208.4	464000	+1000
Nov. 30	1208.0	453000	-11000
Dec. 31	1208.5	471000	+18000
CAL YR 1977			+30000
Jan. 31	1207.8	448000	-23000
Feb. 28	1204.2	350000	-98000
Mar. 31	1205.2	376000	+26000
Apr. 30	1205.4	383000	+7000
May 31	1205.6	385000	+2000
June 30	1205.9	396000	+11000
July 31	1206.6	414000	+18000
Aug. 31	1207.7	446000	+32000
Sept. 30	1207.7	447000	+1000
WTR YR 1978			-16000

NOTE.--Reservoir frozen over Dec. 6 to Apr. 4.

MISSOURI RIVER MAIN STEM

06467500 MISSOURI RIVER AT YANKTON, SD

LOCATION.--Lat 42°51'58", long 97°23'37", in SW1/4SW1/4 sec.18, T.93 N., R.55 W., Yankton County, Hydrologic Unit 10170101, near left bank in downstream end of left pier of Meridian Highway Bridge on U.S. Highway 81, 5.2 mi (8.4 km) downstream from Gavins Point Dam, 6.0 mi (9.7 km) upstream from James River, and at mi 805.8 (1.296,5 km).

DRAINAGE AREA.--279,500 mi² (723,900 km²), approximately.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1309. Gage-height records collected at same site March 1873 to November 1886, March 1905 to May 1908 (fragmentary), August 1921 to date (except winter months prior to 1932), are contained in reports of the U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,139.68 ft (347.374 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1932, nonrecording gage, and Sept. 20, 1932, to Mar. 9, 1967, water-stage recorder at present site and at datum 20.0 ft (6.10 m) higher.

REMARKS.--Records good. Flow completely regulated by Lewis and Clark Lake 5.2 mi (8.4 km) upstream since July 1955 (see station 06467000). Many diversions for irrigation and water supply above station. Corps of Engineers gage-height telemeter at station. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--48 years, 26,190 ft³/s (741.7 m³/s), 18,970,000 acre-ft/yr (23.4 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480,000 ft³/s (13,600 m³/s) Apr. 13, 1952; maximum gage height, 35.5 ft (10.82 m) Apr. 13, 14, 1952 (present datum); minimum daily discharge, 2,700 ft³/s (76.5 m³/s) Nov. 15, 16, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 50.5 ft (15.39 m) Apr. 5, 1881 (ice jam), present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53,900 ft³/s (1,530 m³/s) Aug. 8, gage height, 21.21 ft (6.465 m); maximum gage height, 21.26 ft (6.480 m) Sept. 14; minimum daily discharge, 11,200 ft³/s (317 m³/s) Dec. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31000	31000	11400	15000	16000	16000	24100	25000	36900	43500	50900	51700
2	31600	30600	11400	15000	16000	16000	24200	25600	36800	43400	51300	51600
3	30800	30700	11300	15000	16000	16000	23900	25600	36800	43500	50700	51600
4	29900	30700	11200	15000	16000	16000	23800	26000	36600	43400	50700	51500
5	30800	30700	13800	15000	16000	16000	24000	26700	36600	43400	50600	51500
6	31300	30700	15000	15000	16000	16000	23600	26700	36600	41300	50700	51600
7	30900	30700	15000	14900	16000	16000	21000	26800	38000	39500	50800	51700
8	30300	30600	15000	15000	16000	16000	22000	27200	39400	43900	52300	51900
9	30500	29500	15000	15000	16000	16000	21600	27300	39200	44800	52900	51700
10	30300	29800	15000	15000	16000	16000	19600	27400	39100	44800	52700	51900
11	30600	30400	15000	15000	16000	16000	18700	27400	38400	45000	52600	51900
12	30700	30600	15000	15000	16000	16000	21600	27400	34000	45100	52600	51900
13	31400	30500	15000	15000	16000	16000	22900	27200	35300	46200	52700	51800
14	31200	30400	15000	15000	16000	16000	22500	27500	37400	46400	52900	51700
15	31100	30500	15000	15000	16000	16000	22200	27400	39500	46600	52600	52100
16	31200	31000	15000	15000	16000	16000	23300	27700	39600	47500	52700	52100
17	31100	31300	15000	16000	16000	16000	24300	27900	39800	47500	52800	52100
18	31500	31500	15000	16000	16000	16000	24700	27900	39800	48500	53000	52100
19	31600	31500	15000	16000	16000	12300	24100	27800	39900	48500	52800	52100
20	31800	31600	15000	16000	16000	12600	24500	28000	40000	49500	52600	52000
21	31800	31200	15000	16000	16000	12500	22900	28600	40200	49500	52600	52200
22	31800	31300	15000	16000	16000	17200	22200	29000	41200	48000	52600	52200
23	31400	30400	15000	16000	16000	26100	22900	29600	41300	47000	52800	52100
24	31200	27900	15000	16000	16000	27600	24000	32300	41600	50500	52600	52200
25	31700	25000	15000	16000	16000	27400	24800	32600	41800	50500	52400	52300
26	31400	22300	15000	16000	16000	26100	24800	32700	41800	50500	52100	52300
27	31400	19200	15000	16000	16000	24100	24500	34400	42300	52100	52100	52200
28	31400	16600	15000	16000	16000	24100	25000	36900	42200	51600	52000	52100
29	31500	13800	15000	16000	---	24100	25300	37300	43400	51400	52000	52200
30	31300	11800	15000	16000	---	24100	25500	37100	43500	51300	51900	52000
31	30600	---	15000	16000	---	24100	---	37100	---	51300	51700	---
TOTAL	965100	843800	449100	479900	448000	570300	698500	908100	1179000	1456000	1615700	1558300
MEAN	31130	28130	14490	15480	16000	18400	23280	29290	39300	46970	52120	51940
MAX	31800	31600	15000	16000	16000	27600	25500	37300	43500	52100	53000	52300
MIN	29900	11800	11200	14900	16000	12300	18700	25000	34000	39500	50600	51500
AC-FT	1914000	1674000	890800	951900	888600	1131000	1385000	1801000	2339000	2888000	3205000	3091000
CAL YR 1977 TOTAL	9781500			MEAN 26800		MAX 36700		MIN 11200		AC-FT 19400000		
WTR YR 1978 TOTAL	11171800			MEAN 30610		MAX 53000		MIN 11200		AC-FT 22160000		

MISSOURI RIVER MAIN STEM

71

06486000 MISSOURI RIVER AT SIOUX CITY, IA
(National stream-quality accounting network station)

LOCATION.--Lat 42°29'10", long 96°24'47", in NW1/4SE1/4 sec.16, T.29 N., R.9 E., sixth principal meridian, Dakota County, Ne, Hydrologic Unit 10230001, on right bank on upstream side of bridge on U.S. Highway 77 at South Sioux City, Ne, 2.0 mi (3.2 km) downstream from Big Sioux River and at mi 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 discharge 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.

REVISED RECORDS.--WSP 716: 1929-30. WSP 876: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,056.98 ft (322.168 m) National Geodetic Vertical Datum of 1929. 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 (6.090 m) higher, and Oct. 1, 1969 to Sept. 30, 1970 at datum 20.00 ft (6.096 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by upstream main-stem reservoirs. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--81 years, 32,000 ft³/s (906.2 m³/s), 23,180,000 acre-ft/yr (28.6 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441,000 ft³/s (12,500 m³/s) Apr. 14, 1952, gage height, 24.28 ft (7.401 m), datum then in use; minimum, 2,500 ft³/s (70.8 m³/s) Dec. 29, 1941; minimum gage height observed, 10.68 ft (3.255 m), Dec. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62,500 ft³/s (1,770 m³/s) July 23, gage height, 25.42 ft (7.748 m); minimum daily, 10,000 ft³/s (283 m³/s) Dec. 6; minimum gage height observed, 10.68 ft (3.255 m), Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33300	31400	14200	15400	16000	17300	36100	32000	41600	45500	55900	52600
2	31800	31200	13600	14400	16000	17000	34700	32100	41000	45000	57400	52900
3	31600	31400	13300	16200	16000	17200	34100	31600	41100	44600	53800	52900
4	32800	30700	13000	16600	16000	17300	33900	31300	41400	44600	51700	53600
5	32200	30800	12800	16700	16000	17700	34400	31300	42000	45000	52000	53800
6	32800	30800	10400	16700	16500	17700	35700	31300	42100	46200	52500	53900
7	34000	30800	11000	16600	16500	17500	35600	31800	41700	43200	53800	54200
8	33500	30600	14900	15900	16500	17600	34100	31300	42600	43800	54400	54200
9	30400	34400	14900	14300	16500	18000	34500	31100	44400	48600	55000	54200
10	30800	30700	13700	15000	16500	18200	35500	31500	43800	48900	55300	53800
11	30200	29600	16200	15500	17000	18100	34000	31900	43000	48400	54800	53300
12	31600	31000	18500	16000	17000	18000	30600	32100	42200	48100	54800	54100
13	31800	31800	19000	16500	17000	18300	31200	32200	41700	47500	53800	54800
14	32600	32400	18500	16700	17000	18600	32600	31600	41800	47800	54500	55400
15	32700	32800	17700	16700	17000	19100	31800	32000	41600	47500	56300	55100
16	32100	33200	18200	16000	17000	19900	30700	32000	42600	46900	55800	54700
17	31900	34100	18400	15000	17000	18900	32200	32100	44100	46700	55700	53900
18	31800	34200	18200	15500	17000	21400	33600	32000	42600	47300	55700	53700
19	32000	34200	17800	16000	17000	30900	34400	32100	41900	48600	55300	52900
20	32200	34900	17300	16500	17500	38700	34300	31200	41900	49500	55500	53600
21	32600	34900	16300	16500	17500	34600	35000	31000	41400	52800	54600	54200
22	32200	33700	16400	16500	17500	30800	34200	31700	41700	59000	54400	55300
23	32000	33400	18900	16500	17500	33200	32400	32100	43200	61200	54500	55300
24	32400	32200	17200	16500	17500	42800	31600	32900	43800	56300	55700	55700
25	31000	29400	16900	16500	17300	45000	32100	35400	44000	57000	56000	55800
26	31600	25800	14900	16500	17300	43900	32600	35800	44000	58100	55800	56500
27	31800	23600	16400	16000	17500	42300	33200	35200	43700	56900	55900	55500
28	31500	20700	16500	15000	17300	38400	32400	36900	43700	55600	55300	54400
29	31600	19500	17000	15500	---	38600	32400	39200	44000	56000	54600	53900
30	32200	16400	16900	16000	---	37800	32600	40000	45400	55400	54400	53600
31	32800	---	16800	16000	---	37300	---	40400	---	55400	53600	---
TOTAL	993800	910600	495800	495700	472400	822100	1002500	1025100	1280000	1557400	1698800	1627800
MEAN	32060	30350	15990	15990	16870	26520	33420	33070	42670	50240	54800	54260
MAX	34000	34900	19000	16700	17500	45000	36100	40400	45400	61200	57400	56500
MIN	30200	16400	10400	14300	16000	17000	30600	31000	41000	43200	51700	52600
AC-FT	1971000	1806000	983400	983200	937000	1631000	1988000	2033000	2539000	3089000	3370000	3229000
CAL YR 1977 TOTAL	10187800	MEAN	27910	MAX	37800	MIN	9000	AC-FT	20210000			
WTR YR 1978 TOTAL	12382000	MEAN	33920	MAX	61200	MIN	10400	AC-FT	24560000			

OMAHA CREEK BASIN

06601000 OMAHA CREEK AT HOMER, NE

LOCATION.--Lat 42°19'29", long 96°29'43", in SW1/4SE1/4 sec.11, T.27 N., R.8 E., Dakota County, Hydrologic Unit 10230001, on left bank 80 ft (24 m) downstream from bridge on main street of Homer.

DRAINAGE AREA.--168 mi² (435 km²).

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-72: Drainage area. WDR NE-75-1: 1971-73.

GAGE.--Water-stage recorder. Datum of gage is 1,082.45 ft (329.931 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 4, 1952, at bridge 0.5 mi (0.8 km) downstream at datum 8.03 ft (2.448 m) lower. Aug. 4, 1952, to Nov. 3, 1966, at site 80 ft (24 m) upstream at present datum.

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

AVERAGE DISCHARGE.--33 years, 34.3 ft³/s (0.971 m³/s), 24,850 acre-ft/yr (30.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,100 ft³/s (513 m³/s) Feb. 19, 1971, gage height, 26.47 ft (8.068 m), from floodmark, from rating curve extended above 3,700 ft³/s (105 m³/s) on basis of slope-area measurements at gage heights 16.38 ft (4.993 m) and 23.62 ft (7.199 m); minimum daily, 0.1 ft³/s (0.003 m³/s) Sept. 16, 18, 19, 1948, Sept. 9, 13, 14, 1955, Oct. 7, 8, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood known occurred June 4, 1940, stage, about 32.5 ft (9.91 m), present site and datum, discharge estimated as 51,000 ft³/s (1,440 m³/s) at site 2.5 miles upstream from present site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,720 ft³/s (134 m³/s) Mar. 18, gage height, 17.60 ft (5.364 m) at 2245, no other peak above base of 1,000 ft³/s (28.3 m³/s); minimum daily, 1.9 ft³/s (0.054 m³/s) Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	14	9.5	4.2	4.0	5.2	17	26	24	7.7	4.9	2.8
2	7.2	4.9	8.7	4.0	4.5	5.0	16	22	15	7.3	11	2.6
3	5.6	3.4	7.0	4.4	4.0	5.6	26	21	13	7.0	7.5	2.9
4	3.6	3.5	5.2	4.8	3.2	5.2	24	22	12	6.8	4.8	2.7
5	3.2	3.3	4.0	5.8	3.6	5.8	48	22	11	6.7	4.1	2.6
6	3.2	3.7	3.4	5.2	2.9	6.4	349	22	11	8.6	4.0	2.6
7	13	3.8	5.2	4.8	3.0	7.4	42	29	11	16	3.7	2.6
8	19	5.2	5.8	4.6	3.2	11	38	36	9.9	9.6	4.0	2.5
9	6.3	28	5.0	4.5	3.4	19	40	30	9.8	7.4	3.3	2.5
10	4.6	16	5.6	3.8	3.2	30	43	25	9.1	6.9	3.6	2.5
11	5.1	10	6.0	4.4	3.2	45	39	24	8.4	6.6	3.3	2.4
12	4.8	8.6	6.6	5.6	4.0	70	29	24	7.7	7.1	3.0	2.3
13	4.5	9.9	7.0	5.4	4.0	100	19	23	8.1	7.8	3.0	11
14	3.7	11	7.6	5.4	3.7	140	19	23	8.3	6.3	3.1	42
15	3.3	15	8.4	5.0	4.0	190	19	22	8.5	5.5	110	8.0
16	3.2	20	15	4.8	4.3	300	19	22	8.4	4.5	29	3.5
17	2.9	16	40	4.5	4.4	450	36	22	50	3.7	7.1	2.6
18	3.2	13	17	5.8	4.0	1960	47	21	18	3.9	4.4	3.4
19	3.4	11	9.4	6.2	3.4	1980	40	21	9.9	4.5	3.9	3.7
20	3.1	15	6.0	5.0	3.8	1010	31	20	18	4.8	3.5	3.3
21	3.2	11	5.0	5.4	4.4	441	28	20	11	6.7	3.1	3.4
22	3.3	9.0	5.2	5.6	4.3	169	27	19	11	16	3.3	2.9
23	3.7	7.4	5.4	5.8	4.9	75	30	19	12	13	3.0	2.8
24	3.8	6.2	5.2	5.0	5.6	40	29	20	11	7.6	2.9	2.7
25	3.9	5.0	4.5	4.8	5.0	33	26	20	11	6.4	3.0	2.6
26	3.9	3.4	4.1	4.5	4.9	20	25	18	12	5.4	4.1	2.4
27	4.1	4.0	3.9	4.1	5.2	27	24	18	8.9	4.6	4.7	2.1
28	3.7	5.0	3.9	4.4	5.4	29	24	19	8.0	4.5	4.7	1.9
29	3.3	6.4	4.2	4.0	---	25	23	84	8.5	4.4	3.6	2.0
30	7.6	7.8	4.6	4.1	---	21	25	29	7.9	4.5	2.9	2.1
31	99	---	4.5	3.6	---	20	---	22	---	4.4	3.0	---
TOTAL	248.4	280.5	232.9	149.5	113.5	7245.6	1202	765	372.4	216.2	259.5	133.4
MEAN	8.01	9.35	7.51	4.82	4.05	234	40.1	24.7	12.4	6.97	8.37	4.45
MAX	99	28	40	6.2	5.6	1980	349	84	50	16	110	42
MIN	2.9	3.3	3.4	3.6	2.9	5.0	16	18	7.7	3.7	2.9	1.9
AC-FT	493	556	462	297	225	14370	2380	1520	739	429	515	265
CAL YR 1977	TOTAL	4417.1	MEAN	12.1	MAX	396	MIN	1.7	AC-FT	8760		
WTR YR 1978	TOTAL	11218.9	MEAN	30.7	MAX	1980	MIN	1.9	AC-FT	22250		

TEKAMAH CREEK BASIN

73

06608000 TEKAMAH CREEK AT TEKAMAH, NE

LOCATION.--Lat 41°46'30", long 96°13'10", in SE1/4 sec.19, T.21 N., R.11 E., Burt County, Hydrologic Unit 10230001, on left bank 30 ft (9 m) upstream from bridge 1 block east of U.S. Highway 73 in Tekamah.

DRAINAGE AREA.--23.0 mi² (59.6 km²).

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

REVISED RECORDS.--WSP 1630: Drainage area.

GAGE.--Water-stage recorder and crest-stage indicator. Datum of gage is 1,032.26 ft (314.633 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 15, 1949, nonrecording gage at site 30 ft (9 m) downstream at present datum.

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

AVERAGE DISCHARGE.--29 years, 6.43 ft³/s (0.182 m³/s), 4,660 acre-ft/yr (5.75 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,180 ft³/s (175 m³/s) June 5, 1963, gage height, 16.62 ft (5.066 m); no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,600 ft³/s (73.6 m³/s) Mar. 18 at 1915, gage height, 12.65 ft (3.856 m), backwater from ice, no other peak above base of 400 ft³/s (11.3 m³/s); minimum daily, 0.45 ft³/s (0.013 m³/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.98	.97	1.8	.92	.62	2.4	6.9	5.1	6.7	2.6	.98	1.3
2	.98	.88	2.4	1.0	.60	2.2	6.4	5.2	5.1	2.3	1.5	16
3	.64	.88	1.4	1.1	.62	2.0	6.4	5.1	4.6	2.0	1.3	2.3
4	.45	.88	1.4	1.0	.60	2.0	6.2	4.9	4.4	1.9	.95	1.2
5	.49	.88	1.5	1.0	.60	1.9	6.0	4.9	4.3	1.9	.99	.93
6	.51	1.1	1.9	1.0	.58	1.8	8.1	5.4	4.2	2.0	.85	.80
7	10	1.6	1.7	.90	.56	2.2	6.0	9.1	4.2	2.5	.74	.77
8	3.3	8.0	1.2	.82	.62	2.5	59	8.6	4.0	2.0	.76	.64
9	1.0	16	1.0	.78	.72	2.9	16	6.5	3.5	2.0	.90	.58
10	.72	5.1	.80	.74	.88	3.5	8.9	5.6	3.3	1.8	1.3	.58
11	.62	3.7	.52	.70	1.1	4.0	6.4	5.3	3.2	1.7	1.2	1.1
12	.64	3.4	.96	.72	1.3	5.0	5.4	5.0	2.9	2.8	1.2	2.9
13	.64	3.0	3.0	.76	1.5	8.0	4.9	5.3	2.8	2.1	1.0	50
14	.61	3.0	8.0	.78	1.8	9.0	5.4	4.5	2.8	1.6	1.1	4.8
15	.53	5.1	9.0	.80	2.0	12	5.2	4.3	2.5	1.5	73	1.7
16	.46	3.7	10	.86	2.1	20	5.4	4.5	2.4	1.2	3.5	1.7
17	.57	2.8	33	.90	2.4	50	15	4.1	2.4	1.2	1.6	2.3
18	.57	2.3	55	.88	2.3	600	11	4.0	2.4	.88	1.1	13
19	.57	2.2	5.6	.84	2.2	500	8.2	4.2	2.6	1.1	1.0	2.2
20	.52	2.4	2.5	.90	2.0	426	6.7	4.4	4.3	1.9	.92	2.6
21	.53	2.2	2.2	.88	2.0	127	6.1	4.0	4.2	2.8	1.0	1.8
22	.69	1.6	2.0	.80	2.1	39	6.9	3.8	4.0	3.9	.98	1.2
23	.93	2.0	2.2	.76	2.2	20	7.2	4.0	4.5	2.5	1.2	1.2
24	1.0	2.3	2.8	.78	2.4	11	6.2	3.9	3.9	1.6	2.1	1.1
25	.89	1.0	3.5	.70	2.5	8.0	5.9	3.1	3.7	1.3	3.0	1.1
26	.83	1.4	2.5	.66	2.4	8.2	5.4	4.3	3.4	1.2	1.3	1.1
27	.84	2.0	1.0	.64	2.6	8.0	5.3	4.1	2.8	1.0	4.4	1.1
28	1.6	2.5	1.3	.62	2.5	7.7	5.3	13	2.8	1.0	1.8	1.7
29	1.7	2.8	1.2	.62	---	7.4	5.3	16	2.7	.76	1.0	1.1
30	4.4	1.8	1.0	.60	---	7.0	5.7	8.1	2.5	.88	.91	1.2
31	1.7	---	.98	.60	---	7.0	---	12	---	.92	.86	---
TOTAL	39.91	87.49	163.36	25.06	43.80	1907.7	262.8	182.3	145.8	54.84	114.44	120.00
MEAN	1.29	2.92	5.27	.81	1.56	61.5	8.76	5.88	4.86	1.77	3.69	4.00
MAX	10	16	55	1.1	2.6	600	59	16	43	3.9	.73	50
MIN	.45	.88	.52	.60	.56	1.8	4.9	3.1	2.4	.76	.74	.58
AC-FT	79	174	324	50	87	3780	521	362	289	109	227	238
CAL YR 1977	TOTAL	1509.96	MEAN 4.14	MAX 440	MIN .01	AC-FT 3000						
WTR YR 1978	TOTAL	3147.50	MEAN 8.62	MAX 600	MIN .45	AC-FT 6240						

MISSOURI RIVER MAIN STEM

06610000 MISSOURI RIVER AT OMAHA, NE

LOCATION.--Lat 41°15'32", long 95°55'20", in SE1/4NW1/4 sec.23, T.15 N., R.13 E., Douglas County, Hydrologic Unit 10230006, 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 mi 615.9 (991.0 km).

DRAINAGE AREA.--322,800 mi² (836,100 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.

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 958.24 ft (292.072 m) National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Sept. 30, 1936.

REMARKS.--Records good. Flow regulated by upstream main-stem reservoirs. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--50 years, 29,490 ft³/s (835.2 m³/s), 21,370,000 acre-ft/yr (26.3 km³/yr).

EXTREMES FOR 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 88,400 ft³/s (2,500 m³/s) Mar. 19, gage height, 14.19 ft (4.325 m); maximum gage height, 14.38 ft (4.383 m) Mar. 20; minimum daily discharge, 6,140 ft³/s (174 m³/s) Jan. 31; minimum gage height, 0.17 ft (0.052 m) Jan. 28, from graph based on outside gage height readings.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35000	36000	20400	18800	16200	18300	38000	35300	42400	46100	59200	55700
2	34700	33400	18000	18200	16200	18000	37300	34500	42700	46600	57500	55600
3	33600	32000	15700	16000	15600	17400	36600	33800	43000	46200	58000	55300
4	32500	32500	13800	15400	14800	17100	36700	33100	42900	45400	56500	55200
5	32800	32000	12600	17100	14600	14200	36000	33000	43100	45700	54100	55200
6	32600	32100	11400	17800	17100	14400	36800	33200	42700	47200	52700	55500
7	34500	32900	9100	17600	16900	16400	38000	34400	43000	50600	52900	55600
8	36200	34600	6140	18000	16400	18400	40000	34600	42600	48700	54000	55400
9	36600	39400	6630	17400	15800	18400	37800	34800	42800	50900	53900	55300
10	34200	43900	10000	16100	17600	17800	37700	33900	44300	49300	55600	54700
11	33300	37800	10400	14900	19500	18000	38900	33300	44300	50400	55600	54500
12	32700	34200	9400	15200	20900	18800	38700	33500	43800	51000	56500	54800
13	33300	33700	9400	16900	21200	19800	34800	33700	43100	52300	56200	74500
14	32800	35000	18900	17400	20400	21100	34400	34100	42100	51600	56400	81200
15	32500	34800	19600	17000	19300	24300	36800	33600	41400	51700	58700	67500
16	32100	35300	19000	17000	19200	28100	35500	33000	41700	52100	60200	62400
17	32200	35600	19200	16500	19400	32200	34100	32900	42400	51400	59800	59700
18	32300	35900	18600	16000	18800	34700	38100	33500	47600	51200	58500	59400
19	31800	35300	23400	16000	18300	54800	38800	33700	47600	52300	57700	58400
20	32200	35100	21200	16500	18400	76900	38200	33500	46900	52600	57900	58800
21	33000	35000	19400	17000	18300	76900	37400	33100	47200	52700	56800	56200
22	33500	34100	17800	17000	18700	65800	37000	32300	47000	58000	56200	56300
23	34700	33100	16300	17000	18000	50100	35800	32500	45200	58800	56200	56600
24	34400	31800	17800	17000	19000	48300	34600	32600	45500	62300	56200	56600
25	34800	30400	20400	17000	19300	51100	33700	33100	45500	64100	55800	57100
26	33600	28100	18900	16000	19600	52700	34200	34300	46200	63300	55500	56900
27	33500	25600	17000	12000	18700	49800	34500	36800	47300	64200	56400	56900
28	33400	23800	15400	6710	17900	41500	34700	37000	46700	63500	56800	56100
29	33600	22400	16800	9050	---	39800	35000	39000	45900	62000	56900	55600
30	33900	21600	17800	12400	---	39300	35200	41400	45300	61100	55700	54800
31	34400	---	18500	13600	---	38800	---	43600	---	60200	55800	---
TOTAL	1040700	987400	488970	490560	506100	1053200	1095300	1071100	1332200	1663500	1750200	1747800
MEAN	33570	32910	15770	15820	18080	33970	36510	34550	44410	53660	56460	58260
MAX	36600	43900	23400	18800	21200	76900	40000	43600	47600	64200	60200	81200
MIN	31800	21600	6140	6710	14600	14200	33700	32300	41400	45400	52700	54500
AC-FT	2064000	1959000	969900	973000	1004000	2089000	2173000	2125000	2642000	3300000	3472000	3467000
CAL YR 1977 TOTAL	10580370			MEAN 28990		MAX 43900	MIN 6140	AC-FT 20990000				
WTR YR 1978 TOTAL	13227030			MEAN 36240		MAX 81200	MIN 6140	AC-FT 26240000				

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'25", long 104°02'57", in SW1/4NE1/4SE1/4 sec.4, T.23 N., R.58 W., Scottsbluff County, NE, Hydrologic Unit 10180009, on right bank 650 ft (198 m) upstream from bridge on NE State Highway 86, 700 ft (213 m) downstream from Wyoming-Nebraska State line, and 0.5 mi (0.8 km) south of Henry, NE.

DRAINAGE AREA.--22,218 mi² (57,545 km²), of which 1,929 mi² (4,996 km²), is probably noncontributing.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft (1,225 m), from topographic map. Prior to Nov. 6, 1929, nonrecording gage and Nov. 6, 1929, to Feb. 22, 1972, water-stage recorder, at sites 0.5 mi (0.8 km) upstream at different datums.

REMARKS.--Records fair except those for January and February, which are poor. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Gering-Mitchell diverts from right bank 0.8 mi (1.3 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 17,900 ft³/s (507 m³/s) June 2, 1929, gage height, 7.04 ft (2.146 m), site and datum then in use; minimum daily, 13 ft³/s (0.37 m³/s) May 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,260 ft³/s (64.0 m³/s) May 28; maximum gage height, 3.96 ft (1.207 m) May 27, 28; minimum daily discharge, 195 ft³/s (5.52 m³/s) Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	396	284	280	237	202	222	218	238	1810	1050	1240	971
2	401	291	280	227	210	210	218	248	1540	1190	1260	923
3	365	295	284	238	231	198	222	252	1150	1260	1280	854
4	392	295	280	248	235	205	222	266	884	1290	1270	817
5	406	295	280	252	238	218	231	273	698	1290	1200	817
6	392	291	270	255	238	222	228	299	659	1310	1130	774
7	392	288	270	255	230	231	222	331	679	1390	1050	760
8	376	291	257	241	225	252	245	335	634	1400	971	732
9	365	284	247	232	220	284	299	327	574	1340	931	725
10	356	284	255	223	235	307	331	331	534	1330	971	698
11	348	288	263	220	238	276	339	339	491	1330	1010	705
12	348	284	276	230	238	266	315	352	449	1300	1010	705
13	344	276	291	238	225	262	311	444	420	1220	1060	666
14	339	276	295	245	215	258	307	574	387	1240	1160	647
15	327	276	295	230	210	252	299	580	348	1260	1180	666
16	319	284	295	215	215	241	295	528	319	1270	1120	628
17	315	280	288	210	210	238	299	496	335	1330	1060	616
18	311	284	284	220	210	245	295	501	327	1330	1020	647
19	307	288	284	210	213	245	291	1000	415	1480	1010	640
20	307	264	270	220	217	241	291	1320	454	1520	1000	647
21	303	256	258	225	228	238	288	1690	604	1640	1000	634
22	295	276	273	235	238	238	280	1640	562	1590	1040	604
23	291	284	273	241	248	241	262	1840	643	1340	1040	598
24	288	291	269	241	255	241	258	1990	672	1240	979	586
25	284	288	262	235	248	241	252	2050	698	1180	947	592
26	280	291	252	227	238	238	248	2100	712	1150	947	610
27	276	295	245	218	241	235	252	2150	698	1160	963	562
28	276	288	242	213	235	231	252	2170	753	1150	988	501
29	273	284	255	220	---	228	252	2060	846	1180	979	475
30	273	280	258	210	---	225	222	2120	996	1200	988	444
31	280	---	255	195	---	218	---	2110	---	1230	1060	---
TOTAL	10225	8531	8386	7106	6386	7447	8044	30954	20291	40190	32864	20244
MEAN	330	284	271	229	228	240	268	999	676	1296	1060	675
MAX	406	295	295	255	255	307	339	2170	1810	1640	1280	971
MIN	273	256	242	195	202	198	218	238	319	1050	931	444
AC-FT	20280	16920	16630	14090	12670	14770	15960	61400	40250	79720	65190	40150
CAL YR 1977	TOTAL	176538	MEAN 484	MAX 1620	MIN 177	AC-FT 350200						
WTR YR 1978	TOTAL	200668	MEAN 550	MAX 2170	MIN 195	AC-FT 398000						

PLATTE RIVER BASIN

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at Farmers Canal diversion dam 1.0 mile downstream from discharge station.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	HARD- NESS (MG/L AS CACO3) (00900)
NOV 08...	0830	299	840	--	3.5	2	11.0	K20	280
DEC 07...	0830	280	850	--	.0	3	12.6	32	320
29...	1530	262	890	--	4.0	2	11.2	K12	300
JAN 31...	0800	180	910	--	.0	1	12.3	K4	310
MAR 01...	0845	212	740	--	.0	4	10.3	K9	285
27...	1700	235	900	--	15.0	10	10.3	--	280
MAY 09...	0810	319	900	--	6.0	15	10.4	K300	520
JUN 06...	0815	616	750	8.0	13.0	10	8.5	K370	250
JUL 18...	0810	1370	840	8.3	17.5	20	8.0	K300	230
AUG 15...	0820	1200	800	8.3	15.0	20	8.4	170	250
SEP 12...	0840	685	800	8.3	11.5	20	8.6	--	270

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (MG/L AS CACO3) (00410)
NOV 08...	42	78	21	100	2.6	7.6	290	0	240
DEC 07...	66	81	21	83	2.1	8.1	310	0	250
29...	47	85	21	110	2.8	7.0	290	9	250
JAN 31...	56	66	35	95	2.4	7.4	310	0	250
MAR 01...	39	91	14	115	3.0	7.5	300	0	250
27...	26	76	21	110	2.9	8.1	310	0	250
MAY 09...	290	73	19	97	2.6	6.1	280	0	230
JUN 06...	53	69	19	66	1.8	5.2	240	0	200
JUL 18...	77	60	20	72	2.1	5.4	180	3	150
AUG 15...	78	69	18	70	1.9	5.8	210	0	170
SEP 12...	73	74	20	74	2.0	4.7	240	0	190

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
NOV 08...	230	21	.5	25	606	.82	489	2.3	.00
DEC 07...	180	22	.6	29	588	.80	445	2.0	.00
29...	220	24	.6	28	660	.90	467	2.5	.01
JAN 31...	210	23	.4	30	631	.86	307	2.5	.00
MAR 01...	230	27	.5	25	663	.90	380	1.8	.31
27...	230	20	.5	27	650	.88	412	1.5	.15
MAY 09...	220	11	.6	20	593	.81	511	1.8	.04
JUN 06...	150	21	.4	1.2	580	.79	965	1.0	.08
JUL 18...	230	13	.6	5.4	501	.68	1850	.56	.05
AUG 15...	220	13	.6	9.9	510	.69	1650	.72	.10
SEP 12...	200	18	.6	14	529	.72	978	1.2	.05

K Results based on colony count outside the acceptable range (non-ideal colony count).

LOCATION.--Lat 41°56'21", long 103°59'13", in SE1/4NE1/4 sec.25, T.23 N., R.58 W., Scotts Bluff County, Hydrologic Unit 108100012, on right bank 10 ft (3 m) upstream from county highway bridge, 1.8 mi (2.9 km) upstream from south, 2.2 mi (3.5 km) downstream from Owl Creek, and 3.2 mi (5.1 km) northeast of Lyman.

PERIOD OF RECORD.--February 1931 to current year.

REVISED RECORDS.--WSP 926: 1940 (M). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,010 ft (1,222 m), from topographic map. See WSP 2118 for history of changes prior to Apr. 17, 1967.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--47 years, 67.5 ft³/s (1.912 m³/s), 48,900 acre-ft/yr (60.3 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,110 ft³/s (145 m³/s) June 6, 1967, gage height, 10.82 ft (3.298 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.4 ft³/s (0.011 m³/s) Feb. 1, 2, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 780 ft³/s (22.1 m³/s) July 6, gage height, 5.17 ft (1.576 m); minimum daily discharge, 13 ft³/s (0.37 m³/s) Apr. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	46	35	20	18	20	20	15	152	206	118	162
2	91	45	36	20	18	20	20	15	129	198	148	157
3	86	44	35	20	18	25	20	17	153	185	216	162
4	80	44	34	29	18	27	20	21	200	189	177	159
5	77	43	34	29	18	29	18	23	216	179	166	150
6	75	42	30	29	18	31	18	28	202	400	175	138
7	72	42	25	31	18	31	17	36	223	232	181	142
8	70	40	30	29	18	35	17	26	274	185	153	145
9	69	48	30	27	19	78	18	23	290	168	135	164
10	67	45	25	25	19	92	18	21	274	152	142	196
11	66	46	30	22	20	69	17	20	263	132	124	227
12	65	45	30	20	20	67	17	20	255	105	111	251
13	44	43	35	25	21	60	17	18	242	73	113	240
14	63	42	41	25	21	51	18	17	245	63	124	274
15	60	42	40	25	22	47	17	16	242	59	137	269
16	59	42	36	24	22	42	17	14	225	61	110	269
17	58	42	33	23	22	41	15	15	247	56	100	285
18	57	41	33	22	28	42	15	22	230	54	100	258
19	55	40	33	21	34	39	15	16	227	64	114	206
20	54	37	30	20	40	35	15	14	225	235	123	211
21	52	37	48	19	46	33	15	117	193	326	129	223
22	51	38	36	18	52	31	15	307	157	258	115	237
23	52	38	33	18	56	29	14	386	184	240	107	225
24	52	37	31	18	50	28	14	342	204	213	108	211
25	52	38	25	18	45	30	14	269	269	211	111	209
26	51	39	20	18	40	28	13	209	263	179	117	171
27	49	39	20	18	32	26	14	191	261	155	114	169
28	48	38	20	18	27	26	14	209	258	129	121	213
29	48	37	20	18	---	23	14	220	242	120	131	230
30	47	37	20	18	---	22	14	220	211	131	134	200
31	47	---	20	18	---	20	---	181	---	118	134	---
TOTAL	1941	1237	948	685	780	1177	490	3048	6756	5076	4088	6153
MEAN	62.6	41.2	30.6	22.1	27.9	38.0	16.3	98.3	225	164	132	205
MAX	104	48	48	31	56	92	20	386	290	400	216	285
MIN	47	37	20	18	18	20	13	14	129	54	100	138
AC-FT	3850	2450	1880	1360	1550	2330	972	6050	13400	10070	8110	12200
CAL YR 1977	TOTAL	31308	MEAN 85.8	MAX 388	MIN 10	AC-FT 62100						
YR 1978	TOTAL	32379	MEAN 88.7	MAX 400	MIN 13	AC-FT 64220						

PLATTE RIVER BASIN

06678000 SHEEP CREEK NEAR MORRILL, NE

LOCATION.--Lat 41°57'50", long 103°56'20", in NW1/4SW1/4 sec.16, T.23 N., R.57 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 40 ft (12 m) upstream from Burlington Northern Inc. bridge, 50 ft (15 m) downstream from bridge on U.S. Highway 26, 1 mi (2 km) west of Morrill, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--362 mi² (938 km²), of which about 25 mi² (65 km²) is noncontributing.

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area. MSP 2118: 1936 (N), 1946 (N).

GAGE.--Water-stage recorder. Datum of gage is 3,995.04 ft (1,217.688 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 14, 1940, nonrecording gage at site 20 ft (6 m) upstream at same datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--47 years, 55.0 ft³/s (1.558 m³/s), 39,850 acre-ft/yr (49.1 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 516 ft³/s (14.6 m³/s) July 21, 1978, gage height, 6.62 ft (2.018 m); maximum gage height, 6.75 ft (2.057 m) Aug. 2, 1932, from floodmark, due to break in Interstate Canal (discharge not determined); minimum daily discharge, 0.1 ft³/s (0.003 m³/s) Dec. 16, 23, 1956, Jan. 18, Mar. 12, 1957, result of diversion for construction upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 516 ft³/s (14.6 m³/s) July 21, gage height, 6.62 ft (2.018 m); minimum daily, 1.7 ft³/s (0.048 m³/s) May 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	98	90	82	78	73	72	32	2.0	2.9	3.8	3.2
2	103	98	90	82	78	73	71	2.6	2.0	2.9	3.8	4.3
3	104	98	90	82	78	73	70	2.2	2.0	2.9	3.8	4.3
4	106	98	89	82	78	73	70	2.2	2.2	3.0	3.8	4.3
5	106	98	90	82	77	73	69	2.2	2.2	3.2	3.8	4.2
6	106	99	90	82	78	73	68	2.2	2.2	3.4	3.8	3.8
7	106	98	91	82	78	73	68	2.1	2.2	2.9	3.8	3.4
8	106	101	92	81	78	74	69	1.8	2.2	2.9	3.4	3.4
9	106	98	92	82	78	74	71	1.7	2.6	3.0	3.6	3.4
10	106	99	92	82	78	74	71	1.7	2.6	2.7	3.6	3.4
11	106	98	90	82	78	74	70	1.8	2.6	2.9	3.6	3.0
12	107	98	90	82	78	74	70	1.8	2.6	2.9	3.6	3.0
13	107	98	88	82	75	74	70	2.0	2.6	3.2	3.6	3.8
14	107	98	90	81	75	74	71	2.1	2.6	3.2	3.6	3.4
15	107	97	87	81	75	74	74	2.2	2.4	3.4	3.0	3.0
16	107	98	86	78	75	74	73	2.2	2.4	3.6	2.9	2.9
17	107	97	84	80	75	74	72	2.4	2.4	3.6	2.9	2.9
18	107	97	85	79	75	74	71	2.4	2.4	5.3	3.0	2.7
19	105	97	84	79	75	74	71	2.4	2.6	2.4	2.9	2.7
20	103	96	84	80	75	74	71	2.4	2.6	6.8	2.7	2.6
21	103	96	84	79	75	75	71	2.6	2.6	34.7	2.7	2.6
22	103	96	85	78	75	74	74	2.6	2.6	170	2.7	2.6
23	102	94	84	79	75	74	73	2.6	5.2	31	2.7	2.6
24	102	94	84	78	74	75	74	2.6	2.7	33	2.7	2.4
25	100	94	85	78	73	75	74	2.6	2.4	13	2.9	88
26	100	92	85	78	73	75	74	2.6	2.2	3.2	2.9	124
27	100	92	85	78	73	75	77	2.6	2.6	3.0	3.0	125
28	100	92	86	78	74	75	78	2.6	2.6	3.0	3.0	128
29	100	91	85	78	---	75	79	2.2	2.6	3.0	3.0	126
30	99	90	84	78	---	74	79	2.2	2.7	3.4	3.0	126
31	98	---	83	78	---	73	---	2.0	---	3.8	3.0	---
TOTAL	3231	2890	2704	2483	2127	2293	2165	99.6	75.6	700.1	100.6	794.9
MEAN	104	96.3	87.2	80.1	76.0	74.0	72.2	3.21	2.52	22.6	3.25	26.5
MAX	112	101	92	82	78	75	79	32	5.2	34.7	3.8	128
MIN	98	90	83	78	73	73	68	1.7	2.0	2.7	2.7	2.4
AC-FT	6410	5730	5360	4930	4220	4550	4290	198	150	1390	200	1580

CAL YR 1977 TOTAL 20376.7 MEAN 55.8 MAX 125 MIN 1.0 AC-FT 40420
WTR YR 1978 TOTAL 19663.8 MEAN 53.9 MAX 347 MIN 1.7 AC-FT 39000

79

LOCATION.--Lat 41°56'45", long 103°49'35", at southeast corner of sec.20, T.23 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 5 ft (2 m) upstream from bridge on county road, 0.5 mi (0.8 km) west of Mitchell, and 0.8 mi (1.3 km) upstream from mouth.

GAGE.--Water-stage recorder. Datum of gage is 3,943.75 ft (1,202.055 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1958, at datum 1.00 ft (0.305 m) higher.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s (56.9 m³/s) June 24, 1951, gage height, 8.55 ft (2.606 m), present datum; minimum daily, 1.6 ft³/s (0.045 m³/s) June 28, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 346 ft³/s (9.80 m³/s) July 19, gage height, 3.44 ft (1.049 m); minimum daily, 11 ft³/s (0.31 m³/s) Jan. 8.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	23	13	12	20	20	22	20	40	52	75	78
2	43	23	15	12	20	21	21	19	45	54	74	74
3	42	23	16	12	20	20	22	20	47	56	90	73
4	38	23	14	12	21	21	21	24	53	61	89	73
5	39	21	14	12	22	22	20	24	48	54	76	66
6	37	21	13	12	21	23	20	28	40	58	71	62
7	35	21	13	12	22	23	20	28	38	52	64	61
8	29	21	13	11	21	23	19	44	33	50	56	66
9	27	21	14	12	21	26	19	67	32	53	54	65
10	26	21	14	12	21	26	17	78	33	63	53	68
11	26	20	15	13	21	22	17	60	32	64	57	76
12	28	21	16	13	21	22	17	42	30	62	58	80
13	27	20	16	12	21	22	17	26	29	58	57	82
14	26	20	17	12	21	22	18	27	28	54	63	82
15	27	20	17	12	21	22	17	27	28	56	68	73
16	27	20	17	13	21	21	17	23	28	58	69	73
17	26	20	16	13	21	21	17	27	30	61	65	76
18	26	19	16	12	21	21	17	25	28	65	86	76
19	26	19	15	13	21	21	16	24	27	196	94	76
20	26	18	14	14	22	20	17	25	27	114	90	77
21	25	18	12	16	22	20	17	24	26	96	82	77
22	25	18	12	18	23	20	18	21	26	88	83	88
23	25	19	14	20	24	20	17	27	38	72	82	111
24	25	18	15	23	24	20	17	36	68	72	76	109
25	24	22	15	21	22	22	17	32	72	72	78	111
26	24	23	16	21	22	22	17	37	57	74	87	117
27	24	23	16	21	22	21	17	50	56	77	81	120
28	23	20	16	21	21	22	19	52	64	76	75	116
29	23	17	14	20	---	22	19	43	54	75	78	112
30	23	14	12	21	---	22	19	39	53	73	87	94
31	23	---	12	21	---	21	---	40	---	71	84	---
TOTAL	890	607	452	469	600	670	548	1059	1210	2187	2302	2512
MEAN	28.7	20.2	14.6	15.1	21.4	21.6	18.3	34.2	40.3	70.5	74.3	83.7
MAX	45	23	17	23	24	26	22	78	72	196	94	120
MIN	23	14	12	11	20	20	16	19	26	50	53	61
AC-FT	1770	1200	897	930	1190	1330	1090	2100	2400	4340	4570	4980
CAL YR 1977	TOTAL	9861	MEAN 27.0	MAX 96	MIN 12	AC-FT 19560						
WTR YR 1978	TOTAL	13506	MEAN 37.0	MAX 196	MIN 11	AC-FT 26790						

PLATTE RIVER BASIN

06679500 NORTH PLATTE RIVER AT MITCHELL, NE

LOCATION.--Lat 41°55'38", long 103°48'48", in NE1/4NE1/4 sec.33, T.23 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, near right bank of main channel on downstream side of pier of bridge on State Highway 29, 0.5 mi (0.8 km) south of Mitchell.

DRAINAGE AREA.--24,300 mi² (62,900 km²), approximately, of which about 22,300 mi² (57,800 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1901 to September 1910, May to December 1911, February 1912 to July 1913 (gage heights only), May 1916 to October 1918 (irrigation seasons only), May 1920 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,929.3 ft (1,197.65 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to May 27, 1960. May 27, 1960 to Aug. 24, 1971, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft³/s (779 m³/s) June 3, 1909, gage height, 6.45 ft (1.966 m), datum then in use, from graph based on gage readings, from rating curve extended above 17,000 ft³/s (481 m³/s); minimum daily observed, 25 ft³/s (0.71 m³/s) Sept. 25-29, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,070 ft³/s (58.6 m³/s) May 28, gage height, 5.03 ft (1.533 m); minimum daily, 208 ft³/s (5.89 m³/s) May 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	807	604	545	488	430	442	430	359	1690	374	363	430
2	833	600	550	480	422	434	434	227	1520	363	418	414
3	771	604	545	480	434	414	430	211	1310	378	514	402
4	745	604	536	492	438	410	422	208	1110	374	572	414
5	776	609	536	501	438	418	426	208	897	378	519	398
6	750	618	514	505	442	426	426	217	671	513	492	363
7	760	614	514	505	434	430	426	230	628	475	459	355
8	766	623	514	501	430	475	422	230	623	471	418	359
9	755	609	514	488	434	536	463	233	642	446	351	363
10	750	618	514	484	438	661	501	269	647	438	336	382
11	730	618	523	480	442	637	523	262	595	450	329	410
12	720	618	527	497	438	623	510	262	558	406	318	442
13	720	614	532	497	430	590	510	262	519	336	300	430
14	705	618	536	497	418	563	510	370	492	293	346	454
15	695	609	554	497	418	541	501	446	438	283	402	446
16	693	614	545	475	414	527	488	430	382	283	340	454
17	686	614	527	459	414	519	480	394	394	286	305	467
18	681	604	523	471	410	519	480	402	370	300	315	475
19	681	595	519	459	414	510	471	572	367	454	322	459
20	671	568	492	459	418	501	471	844	363	572	322	446
21	656	563	480	454	418	484	467	1230	363	975	322	467
22	647	572	492	459	430	480	467	1430	333	1090	311	480
23	642	568	492	463	454	475	450	1640	390	776	315	488
24	637	577	492	463	497	471	446	1900	514	642	304	480
25	633	572	497	454	484	480	442	1970	480	563	297	554
26	623	577	488	438	463	471	434	1920	430	467	315	590
27	618	577	488	450	467	467	434	1940	394	406	311	715
28	618	563	484	446	454	459	438	2030	418	382	318	865
29	614	554	492	446	---	450	438	1990	410	378	402	980
30	614	554	497	446	---	442	434	1950	398	374	410	1000
31	609	---	497	438	---	434	---	1970	---	370	418	---
TOTAL	21606	17852	15959	14672	12223	15289	13774	26606	18346	14296	11464	14982
MEAN	697	595	515	473	437	493	459	858	612	461	370	499
MAX	833	623	554	505	497	661	523	2030	1690	1090	572	1000
MIN	609	554	480	438	410	410	422	208	333	283	297	355
AC-FT	42860	35410	31650	29100	24240	30330	27320	52770	36390	28360	22740	29720
CAL YR 1977 TOTAL	170311			MEAN 467	MAX 1580	MIN 201	AC-FT 337800					
WTR YR 1978 TOTAL	197069			MEAN 540	MAX 2030	MIN 208	AC-FT 390900					

PLATTE RIVER BASIN

81

06679500 NORTH PLATTE RIVER AT MITCHELL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL (UG/L) (39350)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)
MAY 09...	0915	--	--	.0	0	.00	.00	.0	.0	0	.00
SEP 12...	1030	350	13.0	.0	0	.00	.00	.1	.0	0	.00

DATE	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- AZINON, TOTAL (UG/L) (39570)	DI- ELDRIN, TOTAL (UG/L) (39380)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)
MAY 09...	.1	.00	.3	.00	.0	.00	.00	.0	.00	.00	.0
SEP 12...	.0	.00	7.2	.00	.0	.00	.00	1.2	--	.00	.2

DATE	ETHION, TOTAL (UG/L) (39398)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	MALA- THION, TOTAL (UG/L) (39530)	METHYL PARA- THION, TOTAL (UG/L) (39600)	METHYL TRI- THION, TOTAL (UG/L) (39790)	PARA- THION, TOTAL (UG/L) (39540)
MAY 09...	.00	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00
SEP 12...	.00	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00

DATE	TOX- APHENE, TOTAL (UG/L) (39400)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	TOTAL TRI- THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39731)	2,4,5-T TOTAL (UG/L) (39740)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39741)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39761)
MAY 09...	0	0	.00	.00	0	.00	0	--	.00	.0
SEP 12...	0	7	.00	.00	0	.00	0	.00	.00	.0

PLATTE RIVER BASIN

06680000 TUB SPRINGS NEAR SCOTTSBLUFF, NE

LOCATION.--Lat 41°54'55", long 103°42'55", in SW1/4SW1/4 sec.33, T.23 N., R.55 W., Scotts Bluff County, Hydrologic Unit 10180009, 50 ft (15 m) upstream from bridge, 0.2 mi (0.3 km) downstream from headgates of Enterprise Canal, 1.5 mi (2.4 km) upstream from mouth, and 3.5 mi (5.6 km) northwest of Scottsbluff.

PERIOD OF RECORD.--October 1948 to current year.

REVISED RECORDS.--WSP 1310: 1949(N).

GAGE.--Water-stage recorder. Datum of gage is 3,926.54 ft (1,196.809 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Sept. 9, 1952.

REMARKS.--Records good. Natural flow of stream affected by diversions for irrigation, spill from Enterprise Canal, and return flow from irrigated areas.

AVERAGE DISCHARGE.--30 years, 37.5 ft³/s (1.062 m³/s), 27,170 acre-ft/yr (33.5 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,610 ft³/s (45.6 m³/s) June 21, 1952, gage height not determined, on basis of slope-area measurement of peak flow caused by break in Interstate Canal; minimum daily, 0.70 ft³/s (0.020 m³/s) May 7, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 406 ft³/s (11.5 m³/s) Aug. 14, gage height, 3.42 ft (1.042 m); minimum daily, 14 ft³/s (0.40 m³/s) May 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	48	36	34	32	27	28	22	65	51	53	70
2	64	47	37	34	31	27	27	14	56	42	57	72
3	60	47	37	34	28	27	27	15	53	32	67	72
4	59	47	37	33	32	28	27	18	57	32	55	71
5	59	47	36	33	30	28	26	18	80	33	60	67
6	60	46	36	33	28	28	26	21	43	34	68	61
7	59	45	36	33	26	31	26	22	60	34	57	55
8	58	46	36	33	26	32	26	20	67	39	40	39
9	57	46	36	31	26	37	27	18	54	39	34	43
10	56	46	36	32	26	33	26	18	52	40	33	50
11	55	46	36	32	26	30	25	28	50	38	35	53
12	54	45	36	31	26	30	25	29	45	32	38	54
13	54	44	35	31	26	30	25	51	41	27	43	57
14	54	44	37	31	26	30	25	46	39	25	105	61
15	52	43	36	31	27	29	25	41	43	27	79	65
16	49	44	34	30	27	29	25	35	67	34	60	68
17	48	43	33	30	26	29	24	37	71	30	49	72
18	49	43	34	30	26	28	24	41	66	36	45	74
19	49	42	34	30	25	28	24	42	67	53	44	77
20	49	41	36	29	25	28	24	45	67	77	44	85
21	49	41	35	30	26	28	24	43	66	101	37	86
22	50	40	36	31	29	28	25	46	66	93	46	80
23	51	40	34	36	31	28	25	46	70	69	43	83
24	49	39	34	36	32	28	26	46	76	69	42	80
25	50	38	34	34	29	30	26	46	84	60	40	96
26	49	39	34	31	26	28	27	48	72	65	42	86
27	48	39	34	35	27	28	28	58	67	45	44	80
28	48	38	34	34	27	28	28	64	57	29	47	89
29	49	37	36	34	---	28	28	63	50	27	51	95
30	49	37	36	34	---	27	29	65	52	28	54	75
31	48	---	34	33	---	27	---	63	---	26	63	---
TOTAL	1647	1288	1095	1003	772	897	778	1169	1803	1367	1575	2116
MEAN	53.1	42.9	35.3	32.4	27.6	28.9	25.9	37.7	60.1	44.1	50.8	70.5
MAX	64	48	37	36	32	37	29	65	84	101	105	96
MIN	48	37	33	29	25	27	24	14	39	25	33	39
AC-FT	3270	2550	2170	1990	1530	1780	1540	2320	3580	2710	3120	4200

CAL YR 1977 TOTAL 13936 MEAN 38.2 MAX 247 MIN 21 AC-FT 27640
WTR YR 1978 TOTAL 15510 MEAN 42.5 MAX 105 MIN 14 AC-FT 30760

06681000 WINTERS CREEK NEAR SCOTTSBLUFF, NE

LOCATION.--Lat 41°51'08", long 103°37'35", in NW1/4SE1/4 sec.30, T.22 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 700 ft (213 m) downstream from bridge on U.S. Highway 26, 1 mi (2 km) upstream from mouth, and 1.5 mi (2.4 km) east of Scottsbluff.

PERIOD OF RECORD.--October 1931 to current year. Prior to October 1971, published as Winter Creek near Scottsbluff.

GAGE.--Water-stage recorder. Datum of gage is 3,860.8 ft (1,176.77 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 19, 1938, nonrecording gage at site 700 ft (210 m) upstream at different datum. Nov. 19, 1938, to Sept. 30, 1958, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--47 years, 53.0 ft³/s (1.501 m³/s), 38,400 acre-ft/yr (47.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft³/s (32.9 m³/s) June 21, 1977, gage height, 8.07 ft (2.460 m), from high-water mark; maximum gage height, 9.34 ft (2.847 m), present datum, Jan. 7, 1949, backwater from snowdrifts; minimum daily discharge, 0.9 ft³/s (0.025 m³/s) July 5, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 462 ft³/s (13.1 m³/s) July 20, gage height, 5.04 ft (1.536 m); minimum daily, 10.0 ft³/s (0.28 m³/s) July 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	57	49	37	37	43	44	44	51	12	41	106
2	73	57	49	37	37	43	44	49	51	10	69	101
3	71	56	49	38	39	43	45	45	50	12	72	74
4	70	57	48	38	41	43	43	44	61	14	85	62
5	71	56	48	39	42	43	43	43	56	14	85	57
6	72	56	48	40	42	43	43	44	55	70	67	53
7	73	55	48	41	45	44	43	43	61	53	54	51
8	67	56	47	41	46	47	43	41	63	37	43	50
9	57	55	46	42	44	50	44	40	54	31	38	52
10	60	55	47	42	43	46	44	38	51	27	31	53
11	65	47	47	43	42	46	43	37	50	28	33	54
12	65	45	47	44	40	45	43	36	50	21	41	60
13	57	51	46	44	38	45	43	37	47	20	44	95
14	52	51	47	42	37	45	44	38	47	19	59	96
15	52	51	47	42	36	45	43	38	45	17	68	81
16	52	51	46	41	42	45	42	39	48	22	56	62
17	52	51	43	42	43	46	40	41	54	24	55	59
18	52	50	42	41	42	46	39	44	49	61	57	66
19	53	50	42	40	42	46	38	42	46	132	63	76
20	54	50	41	39	42	47	39	42	50	188	69	109
21	55	50	41	38	42	47	41	47	24	193	60	82
22	56	51	40	38	42	47	43	28	15	174	48	63
23	55	52	40	37	46	46	42	23	15	183	50	56
24	56	52	39	37	47	47	42	15	21	79	52	53
25	57	51	39	37	45	47	43	15	21	50	51	52
26	57	53	38	37	45	46	42	15	19	50	52	52
27	57	53	37	36	43	45	43	29	17	36	55	52
28	57	53	36	36	44	45	43	68	21	26	57	105
29	58	53	36	36	---	45	43	59	26	22	62	115
30	56	51	36	37	---	44	43	55	13	34	72	84
31	57	---	36	37	---	43	---	52	---	36	89	---
TOTAL	1855	1576	1345	1219	1174	1403	1275	1231	1231	1695	1778	2131
MEAN	59.8	52.5	43.4	39.3	41.9	45.3	42.5	39.7	41.0	54.7	57.4	71.0
MAX	73	57	49	44	47	50	45	68	63	193	89	115
MIN	52	45	36	36	36	43	38	15	13	10	31	50
AC-FT	3680	3130	2670	2420	2330	2780	2530	2440	2440	3360	3530	4230
CAL YR 1977 TOTAL	17321.2		MEAN 47.5	MAX 600	MIN 9.6	AC-FT 34360						
WTR YR 1978 TOTAL	17913.0		MEAN 49.1	MAX 193	MIN 10	AC-FT 35530						

PLATTE RIVER BASIN

85

06682000 NORTH PLATTE RIVER NEAR MINATARE, NE

LOCATION.--Main channel gage: Lat 41°47'26", long 103°31'11", in NE1/4SE1/4 sec.13, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on left bank 220 ft (67 m) upstream from bridge on State Highway 326 and 1.8 mi (2.9 km) southwest of Minatare. Nine Mile channel gage: Lat 41°47'32", long 103°31'08", in NE1/4SE1/4 sec.13, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on left bank 50 ft (15 m) upstream from bridge on State Highway 326 and 750 ft (229 m) north of main channel bridge.

DRAINAGE AREA.--24,700 mi² (64,000 km²), approximately, of which about 22,740 mi² (58,900 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May to August 1916, May 1917 to September 1918, May to October 1919, April to September 1922, June 1923 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1710, WDR NE-76-1: Drainage area.

GAGE.--Main channel: Water-stage recorder. Datum of gage is 3,810.7 ft (1,161.50 m) National Geodetic Vertical Datum of 1929. Nov. 2, 1966 to July 13, 1976 water-stage recorder at datum 1.00 ft (0.305 m) higher. See WDR NE-72 for history of changes prior to Nov. 2, 1966.
Nine Mile channel: Water-stage recorder. Datum of gage is 3,812.3 ft (1,161.99 m) National Geodetic Vertical Datum of 1929. See WDR NE-72 for history of changes prior to Aug. 25, 1971.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,500 ft³/s (552 m³/s) July 2, 1917, from graph based on mean daily discharge and discharge measurement published by State engineer of Nebraska; minimum daily, 11 ft³/s (0.31 m³/s) Aug. 16-18, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 18, 1921, may have been greater than flood of July 2, 1917.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,730 ft³/s (77.3 m³/s) May 28; minimum daily, 338 ft³/s (9.57 m³/s) July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	877	876	749	727	754	673	666	2220	641	546	890
2	1070	895	864	752	719	743	672	557	2140	691	640	884
3	1060	907	865	745	730	732	668	458	1890	566	783	825
4	1040	907	854	761	741	724	661	436	1760	532	859	795
5	1060	917	860	764	752	726	652	409	1530	498	837	778
6	1040	916	836	780	746	732	649	445	1270	835	790	743
7	1020	919	835	781	746	741	649	463	1140	790	738	675
8	1000	943	833	777	744	761	646	441	1120	702	643	668
9	978	917	809	773	748	819	688	416	1070	651	565	674
10	981	927	807	774	758	915	717	430	1080	615	523	700
11	985	931	805	760	766	909	739	454	1030	603	500	752
12	980	931	819	778	761	912	746	444	954	544	493	795
13	979	936	817	800	753	866	732	467	927	488	472	838
14	969	934	825	792	744	839	738	533	858	408	514	863
15	967	923	836	799	728	817	740	618	804	367	668	836
16	961	935	831	786	719	805	732	642	743	349	594	812
17	948	940	810	787	718	792	722	641	811	338	542	841
18	942	933	801	783	709	786	707	708	736	361	557	877
19	944	931	799	775	713	781	701	727	709	859	588	865
20	944	914	765	759	708	778	700	1070	694	1100	565	889
21	935	891	771	729	705	762	705	1390	654	1600	541	889
22	926	900	774	726	716	748	713	1790	576	1980	524	866
23	919	898	763	739	758	738	695	1960	534	1500	526	859
24	906	904	762	738	802	737	677	2210	861	1230	547	860
25	904	902	754	728	805	770	671	2350	828	1000	554	855
26	903	915	751	719	777	736	667	2360	734	854	568	924
27	897	919	754	718	775	725	668	2380	678	742	618	1020
28	889	904	751	728	772	717	665	2680	637	597	648	1260
29	883	890	758	731	---	707	668	2580	631	537	772	1500
30	887	882	757	733	---	692	673	2510	600	570	911	1460
31	880	---	754	729	---	681	---	2460	---	547	865	---
TOTAL	29857	27438	24896	23493	20840	23945	20734	35695	30219	23095	19491	26493
MEAN	963	915	803	758	744	772	691	1151	1007	745	629	883
MAX	1070	943	876	800	805	915	746	2680	2220	1980	911	1500
MIN	880	877	751	718	705	681	646	409	534	338	472	668
AC-FT	59220	54420	49380	46600	41340	47490	41130	70800	59940	45810	38660	52550
CAL YR 1977 TOTAL	261913			MEAN 718	MAX 1800	MIN 248	AC-FT 519500					
WTR YR 1978 TOTAL	306196			MEAN 839	MAX 2680	MIN 338	AC-FT 607300					

PLATTE RIVER BASIN

06682500 NINEHILE DRAIN NEAR MCGREW, NE

LOCATION.--Lat 41°46'15", long 103°25'18", in SE1/4SE1/4 sec.23, T.21 N., R.53 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 15 ft (5 m) upstream from highway bridge, 0.5 mi (0.8 km) upstream from mouth, and 1.5 mi (2.4 km) north of McGrew.

PERIOD OF RECORD.--January 1932 to current year.

REVISED RECORDS.--WSP 926: 1936.

GAGE.--Water-stage recorder. Altitude of gage is 3,780 ft (1,152 m), from topographic map. Prior to Apr. 14, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--46 years, 118 ft³/s (3.342 m³/s), 85,490 acre-ft/yr (0.105 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 933 ft³/s (26.4 m³/s) June 21, 1977, gage height, 4.97 ft (1.515 m); minimum daily, 24 ft³/s (0.68 m³/s) July 5, 1961, May 13, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 747 ft³/s (21.2 m³/s) July 20, gage height, 4.29 ft (1.308 m); minimum daily, 50 ft³/s (1.42 m³/s) May 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	109	95	87	78	77	73	88	103	108	220	222
2	162	112	97	87	78	77	72	81	107	99	268	219
3	160	110	96	87	78	76	72	76	132	126	281	217
4	158	110	93	88	78	76	72	62	86	93	310	220
5	156	110	92	87	76	75	74	73	80	93	307	217
6	155	110	90	86	76	75	73	97	90	129	282	218
7	156	109	92	85	74	76	73	102	149	119	271	217
8	152	109	91	84	76	81	73	94	152	120	226	224
9	150	105	88	85	74	93	75	87	128	127	203	227
10	150	107	90	85	73	86	72	82	126	132	193	233
11	149	106	90	86	72	81	72	74	106	152	199	237
12	145	106	90	86	71	80	71	60	89	150	199	234
13	145	105	90	85	71	79	71	50	88	126	202	236
14	140	106	90	85	71	79	71	52	85	113	224	239
15	140	105	91	84	72	77	72	51	86	108	242	238
16	136	107	91	84	73	78	71	53	84	117	221	222
17	130	106	91	84	72	81	71	64	130	120	219	229
18	123	106	93	86	73	78	69	87	110	169	215	237
19	110	105	92	86	73	78	70	75	102	282	215	232
20	111	99	87	86	73	77	70	77	95	388	217	232
21	110	102	90	90	74	76	71	184	88	418	217	228
22	113	102	92	90	78	75	73	154	94	320	204	234
23	116	102	92	86	83	75	70	101	83	306	198	231
24	115	99	91	85	83	75	69	106	93	282	197	226
25	116	98	90	84	79	77	69	84	98	264	196	218
26	118	101	91	82	78	75	74	84	96	279	199	212
27	118	100	91	82	79	75	85	131	103	269	205	207
28	120	98	90	80	78	74	86	265	98	206	210	211
29	119	97	90	80	---	73	87	127	108	209	203	208
30	112	96	90	80	---	72	87	107	108	231	212	196
31	108	---	87	80	---	72	---	101	---	219	216	---
TOTAL	4161	3137	2823	2632	2114	2399	2208	2929	3097	5874	6971	6721
MEAN	134	105	91.1	84.9	75.5	77.4	73.6	94.5	103	189	225	224
MAX	168	112	97	90	83	93	87	265	152	418	310	239
MIN	108	96	87	80	71	72	69	50	80	93	193	196
AC-FT	8250	6220	5600	5220	4190	4760	4380	5810	6140	11650	13830	13330
CAL YR 1977	TOTAL	42735	MEAN 117	MAX 444	MIN 58	AC-FT	84760					
WTR YR 1978	TOTAL	45066	MEAN 123	MAX 418	MIN 50	AC-FT	89390					

PLATTE RIVER BASIN

87

06682505 NORTH PLATTE RIVER AT MC GREW, NE

LOCATION.--Lat 41°45'42", long 103°25'02", in SW1/4 sec.25, T.21 N., R.53 W., Scotts Bluff County, Hydrologic Unit 10180009, at bridge on county road 1.2 miles north of State Highway 92, 0.3 miles downstream from Ninemile Creek and 0.9 miles north of McGrew.

PERIOD OF RECORD.--Chemical analyses: June 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
11...	0900	1090	1060	7.4	7.0	30	11.0	4.4	800	7000
NOV										
28...	0900	1030	1030	7.5	5.0	20	11.7	6.5	340	5900
DEC										
19...	0900	885	1020	7.3	3.0	15	11.2	2.8	450	4000
JAN										
16...	1420	862	1000	7.8	.0	25	13.8	4.7	K10	780
FEB										
15...	0900	584	1010	7.7	.5	20	13.6	1.5	300	2300
MAR										
20...	0845	842	1020	7.6	10.0	45	10.0	1.7	1400	7400
APR										
17...	0900	793	1000	7.5	8.0	20	10.8	3.9	590	2300
MAY										
18...	0915	699	716	7.6	14.0	80	9.4	1.5	1800	4500
JUN										
19...	0900	782	925	7.5	18.0	75	8.5	3.4	970	900
JUL										
17...	0900	458	978	7.5	21.0	90	8.2	1.4	1200	740
AUG										
07...	0900	954	925	7.7	20.0	100	8.7	2.0	1400	5100
SEP										
18...	0900	963	680	7.3	12.0	60	9.6	2.2	1400	11000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
11...	23	660	.90	1940	1.6	.17	.93	1.1	2.7	.11
NOV										
28...	23	--	.89	1820	3.5	.18	1.0	1.2	4.7	.13
DEC										
19...	23	672	.91	1610	3.2	.18	.57	.75	4.0	.11
JAN										
16...	22	671	.91	1560	3.1	.33	.64	.97	4.1	.14
FEB										
15...	21	--	.90	1040	3.3	.06	.29	.35	3.7	.12
MAR										
20...	26	658	.89	1500	2.8	.04	.74	.78	3.6	.18
APR										
17...	22	644	.88	1380	2.5	.03	.94	.97	3.5	.09
MAY										
18...	21	--	.69	957	1.9	.04	1.2	1.2	3.1	.38
JUN										
19...	20	599	.81	1270	1.7	.08	.92	1.0	2.7	.03
JUL										
17...	25	656	.89	811	2.1	.03	1.6	1.6	3.7	.30
AUG										
07...	22	--	.79	1490	1.9	.01	1.3	1.3	3.2	.30
SEP										
18...	24	635	.86	1650	2.0	.01	.99	1.0	3.0	.17

PLATTE RIVER BASIN

06682505 NORTH PLATTE RIVER AT MC GREW, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
NOV 28...	0900	9	300	33	87	21	100	2.5	10	330	0
FEB 15...	0900	2	320	53	90	22	100	2.5	10	320	0
MAY 18...	0915	8	230	14	63	17	79	2.3	8.8	260	0
AUG 07...	0900	50	290	69	80	22	93	2.4	9.9	270	0

DATE	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 28...	270	210	.6	41	656	.05	6	190	2	0
FEB 15...	260	220	.5	41	662	.08	--	150	--	--
MAY 18...	210	160	.4	29	507	.08	4	120	2	0
AUG 07...	220	190	.5	29	580	.03	--	150	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 28...	8	20	14	4	.0	.0	.0	6	0	20
FEB 15...	--	20	--	20	--	--	--	--	--	--
MAY 18...	2	50	10	10	.2	.2	.0	2	0	20
AUG 07...	--	20	--	10	--	--	--	--	--	--

LOCATION.--Lat 41°44'10"N, long 103°19'53"W, in SE1/4NE1/4 sec.5, T.20 N., R.52 W., Morrill County, Hydrologic Unit 10180009, on right bank 600 ft (183 m) upstream from mouth and 1.2 mi (1.9 km) south of Bayard.

REVISED RECORDS.--WSP 1310; 1937 (H), 1941.

GAGE.--Water-stage recorder and concrete flume. Datum of gage is 3,746.28 ft (1,141.866 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 7, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--47 years, 28.4 ft³/s (0.804 m³/s), 20,580 acre-ft/yr (25.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 391 ft³/s (11.1 m³/s) July 3, 1956, gage height, 4.32 ft (1.317 m); no flow June 1, 2, July 4-8, 1934, May 16, 17, 1936, Aug. 8, 9, 1960, Apr. 29, 30, May 4, 5, 1962, May 23-31, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 344 ft³/s (9.74 m³/s) May 28, gage height, 3.96 ft (1.207 m), from high water mark in well; minimum daily, 0.07 ft³/s (0.002 m³/s) Apr. 20.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	27	24	21	22	15	21	.40	53	12	63	59
2	22	27	24	21	21	15	21	.53	56	17	71	60
3	23	26	24	22	21	15	20	.66	65	21	70	63
4	22	27	24	23	21	23	20	1.6	68	18	69	63
5	29	27	24	23	21	18	20	4.0	69	19	67	58
6	35	28	23	23	20	20	19	4.2	52	22	62	55
7	35	28	23	22	20	24	19	4.2	36	19	59	44
8	26	30	22	22	19	25	19	4.0	41	18	56	39
9	24	28	21	22	17	29	23	4.0	30	21	54	39
10	25	28	22	21	18	25	21	4.2	24	23	51	38
11	27	29	23	21	17	24	20	4.3	30	25	51	38
12	28	30	23	20	18	25	20	2.6	30	24	51	43
13	27	29	23	19	18	24	8.2	.45	31	28	53	49
14	27	29	24	20	18	24	.22	.52	17	24	52	46
15	28	28	23	20	18	23	.15	.64	15	23	49	42
16	36	28	20	18	17	22	.13	.75	13	25	48	39
17	49	27	19	13	17	23	.11	.80	32	24	51	41
18	53	27	19	15	18	24	.10	1.8	16	31	53	50
19	52	27	19	14	18	23	.08	1.4	14	66	57	61
20	50	25	18	15	18	23	.07	1.3	12	89	55	77
21	50	25	18	16	17	23	.08	21	9.5	90	53	83
22	49	25	18	18	18	23	.09	30	10	73	52	79
23	44	25	18	18	23	23	.10	8.7	8.8	59	55	63
24	37	26	18	18	26	22	.12	7.8	10	59	54	38
25	37	25	19	20	20	24	.13	5.8	13	47	53	36
26	36	27	19	20	13	22	.15	10	13	43	54	28
27	35	26	20	26	18	22	.16	30	9.1	46	55	28
28	34	25	20	24	16	22	.16	300	6.9	42	59	29
29	30	25	21	23	---	22	.17	120	10	37	63	28
30	27	25	22	23	---	22	.25	40	9.2	44	65	27
31	26	---	21	22	---	21	---	45	---	54	62	---
TOTAL	1042	809	656	623	528	690	253.47	660.65	803.5	1143	1767	1443
MEAN	33.6	27.0	21.2	20.1	18.9	22.3	8.45	21.3	26.8	36.9	57.0	48.1
MAX	53	30	24	26	26	29	23	300	69	90	71	83
MIN	19	25	18	13	13	15	.07	.40	6.9	12	48	27
AC-FT	2070	1600	1300	1240	1050	1370	503	1310	1590	2270	3500	2860
CAL YR 1977	TOTAL	8604.34	MEAN	23.6	MAX	87	MIN	.40	AC-FT	17070		
WTR YR 1978	TOTAL	10418.62	MEAN	28.5	MAX	300	MIN	.07	AC-FT	20670		

PLATTE RIVER BASIN

06684000 RED WILLOW CREEK NEAR BAYARD, NE

LOCATION.--Lat 41°42'50", long 103°15'10", in NE1/4NE1/4 sec.13, T.20 N., R.52 W., Morrill County, Hydrologic Unit 10180009, on left bank 75 ft (23 m) downstream from timber bridge, 0.2 mi (0.3 km) downstream from Wild Horse drain, 0.8 mi (1.3 km) upstream from mouth, and 4.5 mi (7.2 km) southeast of Bayard.

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1937(M).

GAGE.--Water-stage recorder. Datum of gage is 3,717.29 ft (1,133.030 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 18, 1938, nonrecording gage and Nov. 18, 1938, to Apr. 15, 1946, water-stage recorder at site 65 ft (19.8 m) upstream at datum 2.00 ft (0.610 m) higher, and Apr. 16, 1946, to May 1, 1977, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by diversions and ground-water withdrawals for irrigation, return flow from irrigated areas, and occasional waste into creek from Tri-State canal.

AVERAGE DISCHARGE.--47 years, 88.1 ft³/s (2.495 m³/s), 63,830 acre-ft/yr (78.7 ha³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,320 ft³/s (65.7 m³/s) July 3, 1956, gage height, 8.33 ft (2.539 m), present datum; maximum gage height, 8.8 ft (2.68 m) May 10, 1942, from floodmark, present datum; minimum daily discharge, 15 ft³/s (0.42 m³/s) Apr. 23, 1935, Apr. 26, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,090 ft³/s (57.5 m³/s) May 21, gage height, 7.84 ft (2.390 m); minimum daily, 38 ft³/s (1.08 m³/s) May 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	97	83	73	67	61	61	49	212	91	178	201
2	144	98	84	73	67	62	64	38	202	90	201	197
3	149	98	83	74	68	62	62	41	188	98	213	184
4	143	101	82	73	69	63	62	66	218	97	239	193
5	142	99	83	74	68	65	61	90	211	91	234	184
6	148	99	83	75	66	65	61	154	238	89	219	179
7	152	99	85	74	67	70	59	166	242	98	214	171
8	154	103	84	74	66	82	60	164	238	104	165	169
9	146	100	83	75	67	90	66	172	242	103	118	174
10	145	99	82	75	67	92	64	172	250	106	96	176
11	144	99	82	77	65	78	62	150	191	109	89	201
12	151	99	83	77	64	76	62	112	144	100	89	216
13	148	96	82	76	62	74	62	117	121	93	85	236
14	149	95	83	76	60	72	64	108	111	89	93	242
15	139	95	82	76	60	71	63	105	92	86	108	229
16	121	92	82	75	60	69	62	104	81	87	130	223
17	110	90	81	74	57	70	62	114	127	84	144	239
18	106	90	81	70	57	70	60	128	87	93	147	245
19	104	91	79	70	57	70	59	139	96	146	152	238
20	103	90	75	68	57	69	62	131	79	196	156	250
21	104	89	77	70	56	68	67	439	83	434	170	252
22	104	89	77	69	56	68	70	248	83	321	148	255
23	103	88	78	65	60	67	64	158	93	227	140	252
24	102	88	76	62	62	66	64	150	95	218	125	225
25	102	85	75	61	60	68	61	160	92	230	114	218
26	101	86	75	69	59	60	56	163	83	229	118	203
27	101	85	78	68	61	66	50	234	79	190	129	165
28	100	83	76	68	61	65	58	505	101	153	153	136
29	100	84	74	69	---	64	62	294	105	162	159	126
30	100	84	73	68	---	64	60	262	101	182	166	139
31	98	---	73	67	---	61	---	227	---	172	194	---
TOTAL	3858	2791	2474	2215	1746	2148	1850	5160	4285	4568	4686	6118
MEAN	124	93.0	79.8	71.5	62.4	69.3	61.7	166	143	147	151	204
MAX	154	103	85	77	69	92	70	505	250	434	239	255
MIN	98	83	73	61	56	60	50	38	79	84	85	126
AC-FT	7650	5540	4910	4390	3460	4260	3670	10230	8500	9060	9290	12140
CAL YR 1977	TOTAL	35866	MEAN	98.3	MAX	414	MIN	35	AC-FT	71140		
WTR YR 1978	TOTAL	41899	MEAN	115	MAX	505	MIN	38	AC-FT	83110		

06684500 NORTH PLATTE RIVER AT BRIDGEPORT, NE

LOCATION.--Main channel gage: Lat 41°40'54", long 103°05'52", in NW1/4NW1/4 sec.28, T.20 N., R.50 W., Morrill County, Hydrologic Unit 10180009, on left bank 0.3 mi (0.5 km) upstream from bridge on U.S. Highway 26, 0.8 mi (1.3 km) north of Bridgeport. Browns Creek channel gage: Lat 41°40'55", long 103°05'53", in NW1/4NW1/4 sec.28, T. 20 N., R. 50 W., Morrill County, on left bank 0.2 mi (0.3 km) upstream from culvert on U. S. Highway 26 and 0.8 mi (1.3 km) north of Bridgeport.

DRAINAGE AREA.--25,300 mi² (65,500 km²), approximately, of which about 23,300 mi² (60,300 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1896 to October 1900 (no winter records most years), May 1902 to November 1906, June to August 1915, May 1916 to current year. Monthly discharge only for some years, published in WSP 1310. Published as "near Camp Clark" 1896-1900.

REVISED RECORDS.--WSP 1390: 1897, 1915. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Main channel: Water-stage recorder. Datum of gage is 3,656.14 ft (1,114.391 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Oct. 7, 1927. Browns Creek channel: Water-stage recorder. Datum of gage is 3,663.51 ft (1,116.638 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to June 1, 1943.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two independently rated channels for which separate records are computed; figures herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,900 ft³/s (705 m³/s) June 26, 1899, gage height, 5.39 ft (1.643 m), site and datum then in use, from graph based on gage readings; minimum daily, 55 ft³/s (1.56 m³/s) May 28, 1934, Aug. 15, 1940, but may have been less during periods of no record for Browns Creek channel.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,540 ft³/s (129 m³/s) May 28; minimum daily, 450 ft³/s (12.7 m³/s) July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	1120	1090	825	960	933	807	816	2640	630	827	1230
2	1430	1100	1090	825	960	913	816	780	2480	687	924	1230
3	1480	1100	1090	879	1010	856	798	708	2310	634	1080	1200
4	1440	1130	1060	915	1040	817	789	686	2100	585	1250	1190
5	1440	1100	1030	933	1010	857	772	716	1950	502	1300	1160
6	1490	1080	1010	915	980	861	740	782	1770	522	1240	1100
7	1550	1150	1010	915	980	881	732	854	1550	763	1220	1040
8	1460	1240	1000	888	940	853	764	842	1500	721	1090	1020
9	1430	1180	900	840	940	1010	843	822	1450	652	898	1020
10	1420	1150	900	780	960	1130	879	788	1380	686	756	1040
11	1400	1170	900	820	930	1140	852	722	1340	705	695	1070
12	1400	1160	1000	940	950	1150	834	699	1220	678	681	1080
13	1450	1150	1090	1020	900	1100	843	681	1150	612	661	1090
14	1450	1180	1080	1060	850	1010	951	654	1070	530	694	1160
15	1400	1190	1080	1000	790	996	942	683	991	470	813	1170
16	1440	1190	1080	800	790	978	933	712	901	453	845	1180
17	1400	1190	1060	760	800	987	924	703	1010	450	798	1190
18	1340	1150	1070	700	860	1000	906	740	972	474	783	1280
19	1330	1130	1060	740	920	942	897	755	914	806	833	1270
20	1270	1060	1030	780	935	960	834	818	834	1270	865	1310
21	1240	1030	1000	800	908	1020	834	1140	840	1820	855	1320
22	1200	1120	1050	840	911	951	834	2020	803	2090	812	1220
23	1210	1120	1050	860	946	870	816	1790	685	1940	761	1210
24	1210	1150	1010	900	1030	798	816	1950	719	1680	767	1210
25	1220	1140	960	900	1060	852	834	2120	814	1480	773	1230
26	1220	1150	942	900	1020	888	897	2190	832	1270	770	1240
27	1240	1170	951	960	1030	879	915	2250	787	1090	809	1240
28	1270	1120	942	1000	989	852	879	3880	740	920	889	1290
29	1270	1100	924	1000	---	861	807	3510	665	786	956	1590
30	1220	1100	924	1000	---	843	798	2930	638	832	1180	1630
31	1180	---	897	960	---	816	---	2740	---	832	1210	---
TOTAL	41900	34120	31280	27455	26399	29004	25286	41481	37055	27570	28035	36210
MEAN	1352	1137	1009	886	943	936	843	1338	1235	889	904	1207
MAX	1550	1240	1090	1060	1060	1150	951	3880	2640	2090	1300	1630
MIN	1180	1030	897	700	790	798	732	654	638	450	661	1020
AC-FT	83110	67680	62040	54460	52360	57530	50150	82280	73500	54690	55610	71820
CAL YR 1977 TOTAL	337636			925	1820	299	AC-FT	669700				
WTR YR 1978 TOTAL	385795			1057	3880	450	AC-FT	765200				

PLATTE RIVER BASIN

06684500 NORTH PLATTE RIVER AT BRIDGEPORT, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)
NOV							
30...	1515	1100	995	7.9	6.0	20	11.7
DEC							
14...	1100	1080	1040	7.9	4.5	25	12.1
JAN							
18...	1310	651	1080	8.0	.5	9	12.9
MAR							
02...	1320	861	997	7.7	1.5	30	13.5
28...	1015	851	1000	7.8	11.5	25	10.2
JUN							
02...	0845	2280	840	7.7	14.0	50	9.9
23...	1330	581	932	7.9	27.0	60	8.0
JUL							
18...	1530	371	940	8.0	27.0	85	9.0
AUG							
16...	0930	743	900	7.7	17.0	95	9.3

06685000 PUMPKIN CREEK NEAR BRIDGEPORT, NE

LOCATION.--Lat 41°37'38", long 103°02'10", in SW1/4 sec.12, T.19 N., R.50 W., Morrill County, Hydrologic Unit 10180013, on left bank 250 ft (76 m) downstream from bridge on U.S. Highway 385 and State Highway 92, 0.5 mi (0.8 km) upstream from mouth, and 4 mi (6 km) southeast of Bridgeport.

DRAINAGE AREA.--1,020 mi² (2,640 km²), approximately.

PERIOD OF RECORD.--February 1931 to current year.

REVISED RECORDS.--WSP 1390: 1932, 1934(M), 1935, 1936(M), 1938-39. WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Sheet piling control since December 1964. Datum of gage is 3,635.99 ft (1,108.250 m) National Geodetic Vertical Datum of 1929. Prior to June 25, 1934, nonrecording gage on downstream side of bridge 240 ft (73 m) upstream and June 25, 1934, to May 18, 1936, water-stage recorder at upstream side of bridge 260 ft (79 m) upstream, both at datum 0.29 ft (0.088 m) higher.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--47 years, 29.6 ft³/s (0.838 m³/s), 21,450 acre-ft/yr (26.4 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,880 ft³/s (223 m³/s) June 9, 1965, gage height, 9.98 ft (3.042 m), from floodmark, from rating curve extended above 3,500 ft³/s (99.1 m³/s) on basis of rating extension for main channel and determination of flow over road; no flow July 22, 24-26, Aug. 5-8, 1975; July 9, 11, 22, 23, 28, 29, 1976; July 2-6, Aug. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 94 ft³/s (2.66 m³/s) May 12, gage height, 2.55 ft (0.777 m); maximum gage height, 2.85 ft (0.869 m) Jan. 26, backwater from ice; minimum daily, 0.06 ft³/s (0.002 m³/s) on Aug. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	8.0	15	14	15	16	17	14	32	1.7	.30	9.0
2	9.1	8.1	15	15	14	15	18	14	31	1.7	.06	8.0
3	8.3	8.2	14	15	16	15	17	13	30	1.8	.06	6.5
4	8.4	10	15	14	15	16	17	14	32	1.6	1.4	5.5
5	8.5	13	15	15	14	18	17	13	31	1.5	8.1	4.6
6	8.7	13	14	15	14	17	17	14	32	2.0	4.2	4.4
7	8.8	13	13	15	15	16	17	14	30	1.8	1.0	6.3
8	8.6	14	15	14	15	19	17	13	30	1.5	.64	8.2
9	8.7	13	15	14	15	29	18	13	28	1.2	.45	8.0
10	8.5	15	15	15	14	25	19	13	27	1.2	.32	7.8
11	8.8	13	15	15	14	23	17	32	26	1.1	.22	7.9
12	8.9	14	16	16	14	22	16	55	25	1.0	.08	8.0
13	9.0	14	15	14	14	22	16	49	26	1.1	.14	8.4
14	8.9	15	15	14	14	22	16	46	26	1.2	.72	11
15	8.9	15	16	14	15	20	16	27	23	1.2	1.3	11
16	9.1	15	16	14	16	20	16	11	13	.97	1.4	7.9
17	8.9	15	15	16	16	21	16	18	13	.73	1.3	6.3
18	8.7	14	15	20	16	23	17	26	14	.08	1.2	6.2
19	8.4	14	15	18	16	23	17	20	12	3.9	1.4	5.8
20	8.3	12	15	16	15	21	17	18	8.4	18	4.2	6.1
21	7.9	17	14	15	15	20	16	18	9.0	27	8.0	5.8
22	8.1	16	16	15	15	19	17	22	7.1	21	4.3	5.6
23	8.2	16	15	15	16	18	17	11	5.5	27	1.1	5.4
24	8.0	15	14	16	17	17	16	16	18	24	1.8	7.8
25	7.9	15	14	16	18	18	16	22	21	21	1.6	12
26	7.7	15	15	18	17	18	15	25	24	20	1.5	12
27	7.3	16	15	18	18	18	13	27	16	15	2.4	6.0
28	7.4	15	15	16	17	18	13	52	13	7.3	7.4	4.9
29	7.7	15	15	16	---	18	13	38	4.7	2.0	13	4.6
30	7.9	15	15	16	---	17	13	25	1.7	.84	13	4.7
31	8.4	---	15	15	---	17	---	32	---	.72	11	---
TOTAL	279.0	411.3	462	479	430	601	487	725	609.4	211.14	93.59	215.7
MEAN	9.00	13.7	14.9	15.5	15.4	19.4	16.2	23.4	20.3	6.81	3.02	7.19
MAX	27	17	16	20	18	29	19	55	32	27	13	12
MIN	7.3	8.0	13	14	14	15	13	11	1.7	.08	.06	4.4
AC-FT	553	816	916	950	853	1190	966	1440	1210	419	186	428

CAL YR 1977 TOTAL 4383.63 MEAN 12.0 MAX 51 MIN .00 AC-FT 8690
WTR YR 1978 TOTAL 5004.13 MEAN 13.7 MAX 55 MIN .06 AC-FT 9930

PLATTE RIVER BASIN

06686000 NORTH PLATTE RIVER AT LISCO, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°29'18", long 102°37'25", in NW1/4SE1/4 sec.33, T.18 N., R.46 W., Garden County, Hydrologic Unit 10180009, near right bank on downstream side of pier of highway bridge, 0.5 mi (0.8 km) south of Lisco.

DRAINAGE AREA.--26,700 mi² (69,200 km²), approximately, of which about 24,700 mi² (64,000 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to September 1916, June to October 1917, September 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,474.5 ft (1,059.03 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 8, 1931, nonrecording gage at present site at different datum and Sept. 8, 1931, to May 3, 1932, at present site at datum 1.0 ft (0.30 m) higher. May 4, 1932 to May 28, 1974, water-stage recorder at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,100 ft³/s (569 m³/s) June 27, 29, 1917, from graph based on daily gage readings, from rating curve extended above 15,000 ft³/s (425 m³/s); minimum daily, 8 ft³/s (0.23 m³/s) Aug. 4, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,740 ft³/s (134 m³/s) May 29, gage height, 3.76 ft (1.146 m); maximum gage height, 4.36 ft (1.329 m) Dec. 25, backwater from ice; minimum daily discharge, 355 ft³/s (10.1 m³/s) July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1340	1220	1210	1060	1060	1020	931	964	2910	559	920	1310
2	1370	1200	1210	1060	1060	1000	986	909	2820	567	997	1350
3	1380	1160	1240	1060	1060	980	942	855	2670	575	1030	1380
4	1380	1160	1250	1060	1040	900	942	835	2580	559	1200	1280
5	1350	1180	1240	1100	1020	1100	942	805	2450	527	1400	1240
6	1350	1210	1170	1100	1000	1200	898	909	2210	602	1400	1170
7	1410	1250	1140	1100	1000	1250	909	1140	1800	685	1340	1120
8	1450	1340	1100	900	960	1280	920	1100	1620	785	1240	1050
9	1480	1340	1000	780	920	1340	1110	1030	1540	695	997	1020
10	1490	1310	900	680	920	1380	1100	975	1480	665	835	1020
11	1480	1340	850	640	920	1310	1030	898	1460	647	775	1040
12	1460	1340	1000	700	960	1370	1010	825	1340	647	715	1120
13	1490	1320	1100	800	980	1370	986	755	1240	593	685	1170
14	1480	1320	1120	900	1000	1270	964	755	1170	535	675	1220
15	1400	1320	1140	1000	1000	1220	997	745	1080	467	795	1250
16	1380	1350	1160	1080	1020	1160	1040	775	997	418	898	1270
17	1350	1310	1100	900	1040	1100	1040	825	942	390	898	1280
18	1350	1320	1100	800	1040	1150	1020	942	986	355	909	1340
19	1350	1350	1040	840	1080	1120	942	953	931	410	909	1340
20	1370	1290	1040	880	1100	1120	953	909	898	1630	909	1350
21	1400	1160	1000	900	1200	1100	975	1060	855	1610	909	1430
22	1380	1150	1000	900	1200	1110	1080	1800	855	2050	909	1430
23	1350	1200	1100	1060	1250	1060	1010	2070	795	2670	855	1380
24	1310	1350	1200	1140	1250	1030	975	2030	695	2340	815	1380
25	1290	1310	1100	1200	1250	1060	909	2230	675	1800	765	1310
26	1310	1370	1100	1160	1200	1060	887	2360	745	1590	745	1280
27	1320	1400	1040	1160	1100	1030	909	2590	765	1320	725	1290
28	1340	1350	1000	1160	1060	986	964	3780	685	1080	835	1280
29	1340	1290	1000	1120	---	942	898	4430	611	920	942	1380
30	1340	1270	1000	1100	---	942	931	3460	567	855	1010	1570
31	1270	---	1040	1080	---	942	---	3100	---	909	1280	---
TOTAL	42760	38480	33690	30420	29690	34902	29200	46814	40372	29455	29317	38050
MEAN	1379	1283	1087	981	1060	1126	973	1510	1346	950	946	1268
MAX	1490	1400	1250	1200	1250	1380	1110	4430	2910	2670	1400	1570
MIN	1270	1150	850	640	920	900	887	745	567	355	675	1020
AC-PT	84810	76330	66820	60340	58890	69230	57920	92860	80080	58420	58150	75470
CAL YR 1977 TOTAL	360466			988	1950	240	AC-FT	715000				
WTR YR 1978 TOTAL	423150			1159	4430	355	AC-FT	839300				

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1970 to current year.

WATER TEMPERATURES: October 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,100 micromhos Jan. 6, 1971; minimum daily, 275 micromhos Mar. 1, 1978.

WATER TEMPERATURES: Maximum, 31.0°C July 19, 1972; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,080 micromhos Jan. 1, 3; minimum daily, 275 micromhos Mar. 1.

WATER TEMPERATURES: Maximum, 29.5°C June 25; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT										
18...	1245	1350	921	7.7	12.0	35	--	10.6	1.0	K17
NOV										
15...	1045	1310	984	7.8	7.0	15	--	12.2	5.8	23
DEC										
13...	1315	1470	1030	7.7	.5	30	--	12.1	2.4	51
JAN										
17...	1345	744	934	7.9	.5	4	--	12.0	1.2	27
FEB										
14...	1345	1010	970	7.8	.5	15	--	10.7	.5	20
MAR										
21...	1345	1100	940	7.6	14.5	35	--	10.2	1.4	K1
APR										
18...	1100	976	955	7.8	6.0	50	--	9.3	2.8	830
MAY										
17...	1400	835	896	7.9	14.0	40	--	10.6	1.0	120
JUN										
20...	1215	906	892	8.0	23.0	90	110	8.9	2.7	410
JUL										
18...	1015	3.6	896	8.0	20.0	80	90	9.4	2.5	K300
AUG										
08...	1100	1260	880	8.0	25.5	100	120	8.2	2.5	420
15...	1210	815	848	8.0	20.5	110	--	--	--	--
SEP										
19...	1250	1350	840	8.0	14.0	70	60	10.3	2.3	200

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	STREP- TOCOCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
OCT										
18...	130	--	--	--	--	--	--	--	300	0
NOV										
15...	340	290	37	82	21	98	2.5	11	310	0
DEC										
13...	1300	320	61	90	22	100	2.5	11	310	0
JAN										
17...	190	320	69	90	22	94	2.3	11	300	0
FEB										
14...	460	300	58	87	21	92	2.3	10	300	0
MAR										
21...	2900	290	34	81	21	100	2.6	11	310	0
APR										
18...	400	300	52	83	22	89	2.2	9.7	300	0
MAY										
17...	160	250	29	69	19	81	2.2	11	270	0
JUN										
20...	800	280	75	81	20	90	2.3	10	--	--
JUL										
18...	210	290	96	80	21	88	2.3	11	--	--
AUG										
08...	1140	290	31	82	21	90	2.3	10	--	--
15...	--	--	--	--	--	--	--	--	--	--
SEP										
19...	2900	270	35	83	14	90	2.4	9.8	--	--

PLATTE RIVER BASIN

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKA- LINITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS S04) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 18...	250	200	23	.6	40	644	--	.88	2350	2.4
NOV 15...	250	210	23	.5	40	643	639	.87	2270	2.7
DEC 13...	250	230	27	.6	39	673	672	.92	2670	2.8
JAN 17...	250	210	18	.6	40	645	634	.88	1300	2.8
FEB 14...	250	200	22	.6	41	635	622	.86	1730	--
MAR 21...	250	220	22	.5	33	635	641	.86	1890	2.5
APR 18...	250	200	23	.2	10	618	585	.84	1630	2.4
MAY 17...	220	180	18	.5	34	568	546	.77	1280	3.2
JUN 20...	210	210	22	.5	31	603	591	.82	1480	1.7
JUL 18...	190	210	23	.6	36	588	584	.80	5.72	1.4
AUG 08...	260	210	19	.6	33	612	622	.83	2080	1.7
AUG 15...	--	--	--	--	--	--	--	--	--	--
SEP 19...	230	220	21	.5	36	628	613	.85	2290	2.0

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 18...	.07	--	--	--	--	--	.03	.03	3.7
NOV 15...	.02	--	--	--	.53	--	.17	.10	3.4
DEC 13...	.21	--	--	--	.41	--	.11	.06	3.9
JAN 17...	.07	--	--	--	.48	--	.08	.05	2.6
FEB 14...	--	--	--	--	--	--	.09	.05	4.5
MAR 21...	.06	.50	.56	.10	.46	3.1	.19	.04	5.7
APR 18...	.00	1.1	1.1	.69	.41	3.5	.27	.03	--
MAY 17...	.01	1.3	1.3	.20	1.1	4.5	.40	.24	--
JUN 20...	.00	2.3	2.3	1.6	.72	4.0	.25	.02	9.6
JUL 18...	.00	1.0	1.0	.00	1.1	2.4	.19	.01	6.3
AUG 08...	.01	1.3	1.3	.87	.43	3.0	.83	.40	--
AUG 15...	--	--	--	--	--	--	--	--	--
SEP 19...	.01	.98	.99	.42	.57	3.0	.21	.03	8.3

PLATTE RIVER BASIN

97

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
NOV 15...	1045	9	2	7	500	400	100	1	0	1	8
FEB 14...	1345	7	1	6	100	0	100	3	1	2	0
MAY 17...	1400	6	1	5	200	0	200	4	1	3	20
AUG 08...	1100	8	3	5	200	0	200	8	8	0	10

DATE	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE) (01044)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 15...	0	8	0	0	0	3	1	2	730	600	130
FEB 14...	0	0	0	0	0	2	1	1	610	590	20
MAY 17...	0	20	2	0	2	9	6	3	2100	2100	10
AUG 08...	10	0	4	4	0	15	10	5	5600	5600	20

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN) (01054)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
NOV 15...	7	--	--	70	60	8	.0	.0	.0	4
FEB 14...	20	10	10	60	60	0	.0	.0	.0	5
MAY 17...	32	20	12	120	110	10	.0	.0	.0	0
AUG 08...	62	62	0	270	270	0	.0	.0	.0	3

DATE	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE) (01146)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG) (01076)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN) (01091)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
NOV 15...	1	3	0	0	0	20	10	10	--	--
FEB 14...	0	5	1	1	0	20	0	20	--	--
MAY 17...	0	0	0	0	0	40	20	20	6.9	3.7
AUG 08...	0	3	0	0	0	50	40	10	5.1	3.4

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL (UG/L) (39350)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)	
NOV 15...	1045	ND	ND	ND	ND	ND	ND	ND	ND	ND	
FEB 14...	1345	--	ND	--	ND	--	ND	--	ND	--	
MAY 17...	1400	ND	ND	ND	ND	ND	ND	ND	ND	ND	
AUG 08...	1100	--	ND	--	ND	--	ND	--	ND	--	
DATE		DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- AZINON, TOTAL (UG/L) (39570)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39571)	DI- ELDRIN TOTAL (UG/L) (39380)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39399)
NOV 15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 14...	ND	--	ND	--	ND	--	ND	--	ND	--	--
MAY 17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	ND	--	ND	--	ND	--	ND	--	ND	--	--
DATE		HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- EPOXIDE TOTAL (UG/L) (39420)	HEPTA- EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	MALA- THION, TOTAL (UG/L) (39530)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39531)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)
NOV 15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 14...	ND	--	ND	--	ND	--	ND	--	ND	--	--
MAY 17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	ND	--	ND	--	ND	--	ND	--	ND	--	--
DATE		METHYL PARA- THION, TOTAL (UG/L) (39600)	METHYL PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39601)	METHYL TRI- THION, TOTAL (UG/L) (39790)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA- THION, TOTAL (UG/L) (39540)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39541)	TOX- APHENE, TOTAL (UG/L) (39400)	TOX- APHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	TOTAL TRI- THION (UG/L) (39786)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39787)
NOV 15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 14...	ND	--	ND	--	ND	--	ND	--	ND	--	--
MAY 17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	ND	--	ND	--	ND	--	ND	--	ND	--	--
DATE		2,4-D, TOTAL (UG/L) (39730)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39731)	2,4,5-T TOTAL (UG/L) (39740)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39741)	SILVEX, TOTAL (UG/L) (39760)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39761)	ATRA- ZINE, TOTAL (UG/L) (39630)	ATRA- ZINE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39631)	SIMA- ZINE COUL- SON COND. (UG/L) (39025)	SIMA- ZINE IN BOTTOM MATERI- AL (UG/ KG DRY SOLIDS) (39046)
NOV 15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 14...	ND	--	ND	--	ND	--	ND	--	ND	--	--
MAY 17...	--	--	--	--	--	--	--	ND	--	ND	--
AUG 08...	--	--	--	--	--	--	--	ND	--	ND	--

ND Not detected.

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JUNE 1978

DATE TIME	NOV 15,77 1045	MAR 21,78 1345	MAY 16,78 1100	JUN 20,78 1215
TOTAL CELLS/ML	5600	2400	3100	15000
DIVERSITY: DIVISION	1.4	1.0	1.6	1.6
..CLASS	1.4	1.0	1.6	1.6
..ORDER	1.8	1.1	2.1	1.9
...FAMILY	3.6	3.0	2.4	3.0
....GENUS	4.0	3.3	2.6	3.1

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	950	6
...MICRACINIAEAE								
....GOLENKINIA	220	4	--	-	--	-	*	0
...OOCYSTACEAE								
....ANKISTRODESMUS	74	1	--	-	640#	21	*	0
....KIRCHNERIELLA	74	1	--	-	--	-	*	0
...OOCYSTIS	--	-	--	-	44	1	840	6
...SELENASTRUM	--	-	--	-	22	1	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	88	3	--	-
...SCENEDESMUS	590	11	91	4	88	3	3400#	23
...TETRASTRUM	--	-	--	-	--	-	110	1
...VOLVOCALES								
...CHLAMYDOMONADACEAE								
...CARTERIA	--	-	--	-	--	-	*	0
...CHLAMYDOMONAS	74	1	26	1	130	4	110	1
...PHACOTACEAE								
...PHACOTUS	--	-	--	-	--	-	*	0
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	300	5	39	2	1200#	38	810	5
...STEPHANODISCUS	--	-	--	-	--	-	*	0
...PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	74	1	26	1	--	-	--	-
...COCCONEIS	74	1	65	3	--	-	84	1
...RHOICOSPHENIA	74	1	13	1	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	74	1	13	1	--	-	84	1
...CYMBELLA	300	5	100	4	--	-	200	1
...EPITHEMIA	--	-	*	0	--	-	--	-
...DIATOMACEAE								
....DIATOMA	670	12	91	4	--	-	110	1
...OPEPHORA	--	-	--	-	--	-	*	0
...FRAGILARIAEAE								
....FRAGILARIA	--	-	180	8	--	-	1200	8
...SYNEDRA	220	4	39	2	--	-	*	0
...GOMPHONEMACEAE								
....GOMPHONEMA	150	3	200	8	--	-	*	0
...NAVICULACEAE								
....CALONEIS	--	-	*	0	--	-	*	0
...NAVICULA	820	15	890#	37	22	1	140	1
...NEIDIUM	74	1	--	-	--	-	--	-
...NITZSCHIAEAE								
....DENTICULA	220	4	26	1	--	-	--	-
...NITZSCHIA	520	9	170	7	260	9	1500	10
...SURIRELLACEAE								
....SURIRELLA	74	1	13	1	--	-	140	1
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROCOCCOCCALES								
...CHROCOCCOCCAEAE								
....AGMENELLUM					88	3	--	-
...ANACYSTIS	150	3	--	-	460#	15	--	-
...HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	590	11	91	4	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	--	-	130	5	--	-	--	-
....OSCILLATORIA	--	-	220	9	--	-	4600#	31

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

PLATTE RIVER BASIN

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JUNE 1978

DATE TIME	NOV 15, 77 1045		MAR 21, 78 1345		MAY 16, 78 1100		JUN 20, 78 1215	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
EUGLENOPHYTA (EUGLENOIDS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
....CRYPTOMONADACEAE								
.....CRYPTOMONAS	--	-	*	0	--	-	*	0
..EUGLENOPHYCEAE								
...EUGLENALES								
....EUGLENACEAE								
.....EUGLENA	150	3	--	-	22	1	--	-
....TRACHELOMONAS	--	-	*	0	*	0	110	1
PYRRHOPHYTA (FIRE ALGAE)								
..DINOPHYCEAE								
...PERIDINIALES								
....PERIDINIACEAE								
.....PERIDINIUM	--	-	--	-	22	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	LENGTH OF EXPO- SURE (DAYS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
NOV 15...	28	21.4	3.72	--	--
MAY 16...	28	14.7	1.48	50.2	47.3
AUG 15...	28	14.2	1.07	62.3	54.5

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG						AUG					
25...	0600	815	7.8	19.0	8.5	25...	2000	755	8.0	23.0	8.0
25...	0800	810	7.9	19.0	8.6	25...	2200	885	8.0	22.0	7.9
25...	1000	795	7.9	21.5	9.0	25...	2400	735	8.0	21.0	7.9
25...	1200	795	7.9	23.0	8.9	26...	0200	795	8.0	20.0	8.1
25...	1400	835	7.9	25.0	8.9	26...	0400	735	7.9	19.0	9.2
25...	1600	742	8.0	26.0	8.7	26...	0600	760	7.9	18.0	9.5
25...	1800	805	8.0	24.5	8.6	26...	0800	715	8.0	18.5	9.0

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	905	735	898	1080	935	275	918	938	795	795	855	845
2	928	827	868	1040	938	357	920	960	815	808	808	838
3	900	890	886	1080	933	377	928	895	815	808	835	847
4	918	830	886	1060	900	565	910	900	803	830	835	828
5	897	835	890	1000	930	800	858	920	800	860	837	838
6	938	785	818	810	905	875	958	868	805	858	847	825
7	868	889	920	945	928	822	918	878	809	855	849	818
8	948	875	910	948	924	805	925	898	845	865	853	807
9	926	860	1030	948	950	832	869	945	850	865	859	818
10	908	880	915	920	942	828	863	960	842	848	858	837
11	968	818	915	1020	925	825	900	960	848	858	875	827
12	943	890	905	1030	943	830	908	968	845	865	798	805
13	925	906	918	818	873	827	897	937	857	835	815	809
14	906	855	908	845	935	846	886	925	868	895	818	807
15	938	875	875	940	938	865	885	908	850	847	830	818
16	935	905	867	945	942	875	882	885	850	839	868	807
17	938	847	906	920	947	878	888	800	880	900	870	786
18	937	795	906	925	937	850	909	818	882	850	858	815
19	938	838	906	968	965	834	920	810	885	848	869	808
20	935	950	904	907	998	865	907	804	878	800	855	830
21	948	768	918	885	999	867	881	792	890	738	858	821
22	935	937	908	960	995	850	905	787	888	718	857	826
23	905	947	915	980	886	855	903	808	838	908	855	818
24	925	910	915	938	900	835	902	775	878	803	862	809
25	935	800	943	958	885	865	902	835	872	900	850	827
26	935	749	943	969	878	867	906	780	897	900	850	827
27	938	762	943	908	885	850	906	827	897	900	857	817
28	938	749	950	988	895	865	870	825	890	898	863	822
29	932	742	950	988	---	868	878	825	899	868	865	816
30	932	735	919	988	---	870	875	835	847	818	865	525
31	947	---	980	988	---	865	---	805	---	808	873	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	11.0	2.0	1.0	.0	1.0	12.0	11.0	13.0	25.0	23.0	20.0
2	13.0	13.0	5.0	2.0	1.0	1.0	12.0	11.0	15.0	28.0	21.0	24.0
3	14.0	9.0	5.0	1.0	1.0	1.0	12.0	12.0	16.0	25.0	18.0	25.0
4	14.0	7.0	5.0	3.0	1.0	1.0	14.0	8.0	16.0	20.0	18.0	25.0
5	12.0	7.0	3.0	3.0	1.0	1.0	14.0	8.0	18.0	20.0	19.0	25.0
6	12.0	8.0	.0	1.0	.0	1.0	14.0	8.0	16.0	21.0	20.0	27.0
7	13.0	9.0	1.0	1.0	.0	2.0	16.0	12.0	18.0	21.0	21.0	19.0
8	11.0	5.0	1.0	1.0	.0	2.0	13.0	9.0	15.0	20.0	23.0	19.0
9	11.0	4.0	.0	1.0	.0	3.0	12.0	14.0	17.0	24.0	21.0	24.0
10	10.0	8.0	.0	1.0	.0	3.0	9.0	13.0	18.0	19.0	22.0	24.0
11	7.0	8.0	.0	1.0	.0	4.0	10.0	13.0	19.0	21.0	24.0	20.0
12	9.0	8.0	.0	1.0	.0	5.0	12.0	16.0	19.0	22.0	24.0	16.0
13	13.0	8.0	2.0	1.0	.0	5.0	12.0	14.0	21.0	22.0	24.0	16.0
14	13.0	8.0	2.0	1.0	.0	8.0	11.0	20.0	24.0	23.0	21.0	14.0
15	10.0	6.0	2.0	1.0	.0	6.0	8.0	18.0	24.0	25.0	19.0	16.0
16	12.0	6.0	2.0	2.0	1.0	4.0	8.0	18.0	26.0	29.0	19.0	17.0
17	11.0	6.0	2.0	2.0	1.0	7.0	7.0	17.0	26.0	26.0	20.0	15.0
18	10.0	6.0	3.0	1.0	1.0	6.0	7.0	17.0	26.0	26.0	19.0	15.0
19	10.0	3.0	3.0	1.0	1.0	9.0	6.0	15.0	19.0	26.0	21.0	15.0
20	10.0	1.0	2.0	.0	1.0	16.0	10.0	18.0	18.0	22.0	20.0	12.0
21	10.0	1.0	2.0	1.0	1.0	19.0	11.0	21.0	23.0	20.0	26.0	11.0
22	10.0	1.0	.0	1.0	1.0	18.0	11.0	17.0	23.0	18.0	25.0	14.0
23	10.0	1.0	.0	1.0	1.0	10.0	11.0	18.0	22.0	21.0	22.0	14.0
24	10.0	1.0	1.0	1.0	1.0	10.0	14.0	21.0	20.0	27.0	24.0	15.0
25	8.0	7.0	1.0	.0	1.0	10.0	15.0	21.0	29.5	25.0	22.0	17.0
26	9.0	6.0	1.0	.0	1.0	10.0	15.0	21.0	23.0	27.0	20.0	15.0
27	11.0	6.0	2.0	.0	1.0	11.0	15.0	21.0	26.0	23.0	20.0	15.0
28	8.0	4.0	2.0	.0	1.0	13.0	14.0	21.0	22.0	23.0	22.0	16.0
29	11.0	6.0	1.0	.0	---	15.0	15.0	20.0	23.0	23.0	21.0	18.0
30	13.0	5.0	1.0	.0	---	15.0	12.0	18.0	23.0	24.0	19.0	14.0
31	10.0	---	1.0	.0	---	15.0	---	18.0	---	20.0	24.0	---

PLATTE RIVER BASIN

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT 18...	1245	1350	12.0	352	1280	40	61	68	71	75
NOV 15...	1045	1310	7.0	393	1390	32	44	57	91	100
DEC 15...	1315	1470	.5	284	1130	27	42	80	100	--
JAN 17...	1345	744	.5	136	273	30	55	73	100	--
FEB 14...	1345	1010	.5	182	496	30	43	64	92	100
MAR 21...	1345	1100	14.5	627	1860	32	38	42	60	95
APR 18...	1100	976	6.0	492	1300	25	37	40	46	75
MAY 17...	1400	835	14.0	682	1540	22	30	35	66	100
JUN 20...	1215	906	23.0	704	1720	--	--	--	--	--
JUL 18...	1015	365	20.0	190	187	87	--	--	--	--
AUG 08...	1100	1260	25.5	472	1610	89	97	98	100	--
SEP 19...	1250	1350	14.0	444	1620	61	86	95	99	100

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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. FALL DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. FALL DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. FALL DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. FALL DIAM. % FINER THAN 16.0 MM (80172)
NOV 15...	1045	1310	5	--	0	6	37	75	90	98	100	--
FEB 14...	1345	1010	5	--	0	4	23	58	76	89	97	100
MAY 17...	1400	835	5	0	1	5	25	61	80	92	98	100
AUG 08...	1100	1260	5	--	0	3	16	54	82	95	100	--

06687000 BLUE CREEK NEAR LEWELLEN, NE

LOCATION.--Lat 41°20'07", long 102°10'21", in NE1/4 sec.30, T.16 N., R.42 W., Garden County, Hydrologic Unit 10180009, on right bank 130 ft (40 m) downstream from county highway bridge, 0.5 mi (0.8 km) downstream from bridge on U.S. Highway 26, 0.8 mi (1.3 km) upstream from mouth, and 1.5 mi (2.4 km) west of Lewellen.

DRAINAGE AREA.--1,190 mi² (3,082 km²), revised, approximately, of which about 80 mi² (207 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year.

REVISED RECORDS.--WSP 1310: 1941(N). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,310.04 ft (1,008.900 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Apr. 10, 1958.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--48 years, 69.4 ft³/s (1.965 m³/s), 50,280 acre-ft/yr (62.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 720 ft³/s (20.4 m³/s) May 20, 1938, gage height, 6.46 ft (1.969 m), present datum, from rating curve extended above 500 ft³/s (14.2 m³/s); maximum gage height, 6.93 ft (2.112 m), present datum, Dec. 21, 1945, backwater from ice; no flow for short periods in 1940, 1947, 1957, 1960-61, 1963, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 199 ft³/s (5.64 m³/s) May 29, gage height, 4.22 ft (1.286 m); maximum gage height, 5.76 ft (1.756 m) Dec. 7, backwater from ice; minimum daily discharge, 0.10 ft³/s (0.003 m³/s) June 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	97	94	84	84	92	98	91	56	2.6	1.9	9.7
2	64	99	94	92	80	96	100	91	57	.18	1.2	10
3	62	101	97	102	82	92	100	91	58	.18	.84	12
4	55	102	98	106	84	90	101	89	66	2.2	.88	13
5	54	104	93	102	86	96	98	89	75	.18	.79	14
6	59	107	90	98	88	107	100	94	69	.30	.71	14
7	63	109	80	98	80	103	98	104	63	.89	.75	11
8	59	112	82	90	76	108	98	92	66	2.0	.67	8.8
9	64	109	86	100	80	118	108	83	71	.73	.59	8.8
10	76	103	88	80	80	125	120	81	67	.73	.69	8.9
11	84	104	90	70	82	118	107	82	60	.50	.96	10
12	85	103	100	66	82	118	100	80	59	.50	1.6	12
13	89	99	100	66	80	117	97	79	47	.41	1.6	14
14	89	96	94	64	80	111	97	81	33	.36	1.0	15
15	89	92	90	64	88	112	95	81	27	.30	1.4	12
16	89	89	97	64	96	108	95	81	27	.27	2.2	12
17	88	89	97	66	96	112	94	81	26	.29	2.2	15
18	88	88	97	68	98	118	90	85	19	.33	1.4	17
19	88	88	100	72	98	116	91	81	6.1	2.6	.43	19
20	88	82	93	72	98	111	90	71	.55	.84	.44	20
21	88	80	87	80	98	104	89	70	.25	97	.45	21
22	88	84	88	90	98	104	97	71	.16	83	.51	21
23	89	94	88	110	100	100	95	67	.12	79	.54	20
24	90	86	90	120	102	98	89	63	.10	73	.64	20
25	90	89	92	120	106	99	86	58	.38	52	.73	20
26	91	92	92	120	108	99	84	54	.30	47	.89	19
27	93	95	96	90	101	99	84	56	.30	47	.89	19
28	94	93	102	88	97	98	89	116	.30	45	.84	19
29	97	96	96	88	---	98	87	176	.11	31	.79	19
30	98	96	98	86	---	100	88	95	.18	8.0	2.6	20
31	97	---	91	86	---	99	---	70	---	2.6	5.5	---
TOTAL	2493	2878	2880	2702	2528	3266	2865	2603	954.85	664.15	36.63	454.2
MEAN	80.4	95.9	92.9	87.2	90.3	105	95.5	84.0	31.8	21.4	1.18	15.1
MAX	98	112	102	120	108	125	120	176	75	97	5.5	21
MIN	45	80	80	64	76	90	84	54	.10	.18	.43	8.8
AC-FT	4940	5710	5710	5360	5010	6480	5680	5160	1890	1320	73	901
CAL YR 1977	TOTAL	25451.80	MEAN	69.7	MAX	200	MIN	.22	AC-FT	50480		
WTR YR 1978	TOTAL	24324.83	MEAN	66.6	MAX	176	MIN	.10	AC-FT	48250		

PLATTE RIVER BASIN

06687500 NORTH PLATTE RIVER AT LEWELLEN, NE

LOCATION.--Lat 41°18'37", long 102°09'00", in SE1/4NW1/4 sec.33, T.16 N., R.42 W., Garden County, Hydrologic Unit 10180009, on right bank 28 ft (9 m) upstream from county highway bridge, 1 mi (2 km) south of Lewellen, and approximately 1.5 mi (2.4 km) upstream from high-water line of Lake McConaughy.

DRAINAGE AREA.--28,600 mi² (74,100 km²), approximately, of which about 25,400 mi² (65,800 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July to September 1931, December 1940 to current year.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,290.16 ft (1,002.841 m) National Geodetic Vertical Datum of 1929. July to September 1931 nonrecording gage near present site at different datum. December 1940 to Sept. 19, 1973, water-stage recorders on two channels at site 0.9 mi (1.4 km) downstream at datum approximately 6 ft (1.8 m) lower.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft³/s (382 m³/s) June 4, 1971; minimum daily, 44 ft³/s (1.25 m³/s) July 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,040 ft³/s (143 m³/s) May 29, gage height, 6.63 ft (2.021 m); maximum gage height, 6.74 ft (2.054 m) Mar. 7, backwater from ice; minimum daily discharge, 310 ft³/s (8.78 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	1320	1320	1040	1400	1500	1100	1060	3030	580	1040	1300
2	1340	1300	1340	1000	1300	1400	1100	1100	2880	538	1100	1260
3	1360	1320	1380	920	1250	1300	1100	1040	2730	538	1080	1300
4	1400	1350	1440	900	1250	1300	1080	955	2620	538	1080	1280
5	1420	1400	1480	900	1200	1400	1020	995	2450	462	1160	1220
6	1500	1400	1300	900	1150	1500	875	1100	2300	438	1320	1200
7	1520	1450	1300	920	1150	1600	822	1420	2000	565	1320	1100
8	1420	1480	1100	900	1150	1600	975	1440	1720	625	1260	1040
9	1400	1480	1050	880	1150	1600	1260	1280	1700	700	1100	975
10	1420	1360	1000	900	1150	1650	1460	1140	1660	595	915	955
11	1540	1320	950	900	1150	1700	1220	1040	1610	580	788	995
12	1590	1340	900	1000	1100	1750	1160	1020	1520	685	735	1040
13	1610	1340	1000	1100	1100	1800	1160	955	1420	625	670	1100
14	1630	1340	1100	1140	1100	1850	1200	975	1340	550	735	1180
15	1590	1340	1200	1200	1100	1980	1280	875	1240	425	770	1260
16	1560	1320	1300	1250	1100	1660	1300	735	1120	395	822	1180
17	1520	1400	1250	1140	1100	1460	1320	718	1040	335	895	1180
18	1500	1380	1200	1000	1150	1460	1280	915	1040	318	895	1220
19	1500	1320	1150	960	1200	1420	1120	1020	1080	310	875	1280
20	1480	1200	1100	1000	1250	1360	1160	1040	935	1980	858	1300
21	1500	900	1020	1100	1350	1320	1200	975	875	1920	858	1320
22	1500	1000	1100	1200	1350	1280	1340	1320	895	2000	858	1340
23	1460	1100	1200	1300	1400	1240	1340	2160	840	2220	858	1360
24	1460	1200	1300	1350	1400	1180	1200	2080	805	2250	788	1360
25	1320	1300	1300	1400	1450	1180	1020	2050	640	1980	788	1360
26	1300	1400	1250	1400	1450	1160	1040	2300	685	1740	788	1380
27	1320	1450	1200	1400	1500	1160	1030	2510	700	1590	788	1380
28	1280	1500	1200	1450	1500	1140	1180	3470	655	1360	770	1380
29	1280	1500	1200	1450	---	1140	1040	4560	625	1200	752	1420
30	1300	1280	1140	1500	---	1140	995	4490	610	1020	788	1560
31	1300	---	1100	1500	---	1120	---	3400	---	975	1060	---
TOTAL	44600	39790	36870	35000	34900	44350	34377	50138	42765	30037	28514	37225
MEAN	1439	1326	1189	1129	1246	1431	1146	1617	1426	969	920	1241
MAX	1630	1500	1480	1500	1500	1980	1460	4560	3030	2250	1320	1560
MIN	1280	900	900	880	1100	1120	822	718	610	310	670	955
AC-FT	88460	78920	73130	69420	69220	87970	68190	99450	84820	59580	56560	73840
CAL YR 1977 TOTAL	397524			1089	2080	211	AC-FT	788500				
WTR YR 1978 TOTAL	458566			1256	4560	310	AC-FT	909600				

06690000 LAKE MCCONAUGHY NEAR KEYSTONE, NE

LOCATION.--Lat 41°12'45", long 101°40'03", in NW1/4SW1/4 sec.3, T.14 N., R.38 W., Keith County, Hydrologic Unit 10180014, near right bank at outlet tower of Kingsley Dam on North Platte River, 4.5 mi (7.2 km) west of Keystone.

DRAINAGE AREA.--33,300 mi² (86,200 km²), approximately, of which about 25,800 mi² (66,800 km²) contributes directly to surface runoff.

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

GAGE.--Electric tape gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam; storage began Feb. 9, 1941. Capacity, 1,948,000 acre-ft (2.40 km³) between elevations 3,130.0 ft (954.02 m), sill of outlet gates, and 3,270.0 ft (996.70 m), top of morning-glory spillway gates. Elevation of crest of morning-glory spillway is 3,254.0 ft (991.82 m). Dead storage negligible. Figures given herein represent total contents. Water is used for power development and irrigation in South-Central Nebraska by the Central Nebraska Public Power and Irrigation District.

COOPERATION.--Records of elevations and capacity table furnished by the Central Nebraska Public Power and Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,920,000 acre-ft (2.37 km³) July 12-16, 1971, elevation, 3,269.1 ft (996.42 m); minimum observed since operation of reservoir began, 32,860 acre-ft (40.5 hm³) Sept. 29, 1941, elevation, 3,153.4 ft (961.16 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 1,504,000 acre-ft (1.85 km³) June 7-10, elevation, 3,255.0 ft (992.12 m); minimum observed, 1,112,000 acre-ft (1.37 km³) Sept. 19-23, elevation, 3,239.1 ft (987.28 m).

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

	Date	Elevation (feet)	Contents	Change in contents (acre-feet)
Sept.	30	3,243.5	1,213,000	-
Oct.	31	3,244.9	1,247,000	+34,000
Nov.	30	3,246.1	1,275,000	+28,000
Dec.	31	3,247.1	1,300,000	+25,000
CAL YR 1977	.....	-	-	-67,000
Jan.	31	3,247.8	1,317,000	+17,000
Feb.	28	3,249.5	1,360,000	+43,000
Mar.	31	3,252.2	1,429,000	+69,000
Apr.	30	3,253.7	1,469,000	+40,000
May	31	3,254.3	1,485,000	+16,000
June	30	3,252.3	1,432,000	-53,000
July	31	3,245.1	1,251,000	-181,000
Aug.	31	3,240.7	1,148,000	-103,000
Sept.	30	3,239.8	1,128,000	-20,000
WTR YR 1978	.....	-	-	-85,000

PLATTE RIVER BASIN

06690500 NORTH PLATTE RIVER NEAR KEYSTONE, NE

LOCATION.--Lat 41°12'30", long 101°37'50", in SW1/4 sec.1, T.14 N., R.38 W., Keith County, Hydrologic Unit 10180014, on right bank 0.2 mi (0.3 km) downstream from diversion dam of Sutherland Reservoir supply canal and 2.5 mi (4.0 km) southwest of Keystone.

DRAINAGE AREA.--29,300 mi² (75,900 km²), approximately, of which about 25,800 mi² (66,800 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to August 1917, July to September 1939, May to September 1940, January to April 1941, March 1942 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1942, 1946-47. WSP 1630: 1958. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,105.59 ft (946.584 m) National Geodetic Vertical Datum of 1929, (Nebraska Public Power District bench mark). See WSP 1918 for history of changes prior to May 1, 1964.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Flow completely regulated by Lake McConaughy (station 06690000) since Feb. 9, 1941. Supply canal for Nebraska Public Power District diverts 0.2 mi (0.3 km) upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft³/s (575 m³/s) June 30, 1917, from graph based on daily gage readings; no flow for many days in 1975-78.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,040 ft³/s (114 m³/s) July 6, gage height, 6.28 ft (1.914 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	499	3.6	34	.00	.00	.00	.60	.00	147	2450	1610	423
2	416	1.8	1.6	.00	.00	.00	.00	.00	147	2450	1280	408
3	413	2.4	.08	.00	.00	.00	.00	.00	147	2440	1060	397
4	412	.20	.00	.00	.00	.00	.00	.00	147	2440	837	391
5	414	.00	.00	.00	.00	.00	.00	.00	147	2510	833	360
6	493	.00	.00	.00	.00	.00	.30	.00	152	2640	828	364
7	582	.00	.00	.00	.00	.00	.00	17	154	2610	828	365
8	531	59	.00	.00	.00	.00	.00	91	154	2630	825	376
9	521	64	.00	.00	.00	.00	.00	1.6	154	2620	781	405
10	559	12	.00	.00	.00	.00	.00	.00	154	2540	703	420
11	534	1.4	.00	.00	.00	.00	.00	1.9	169	2370	707	460
12	520	.00	.00	.00	.00	.00	.00	64	169	2350	708	494
13	517	3.2	.00	.00	.00	.00	.00	1.4	216	2360	719	427
14	517	29	.00	.00	.00	.00	.00	.00	273	2360	761	240
15	433	2.8	.05	.00	.00	.00	.00	83	364	2360	745	171
16	291	63	15	.00	.00	.00	.00	151	496	2360	544	185
17	137	26	37	.00	.00	.00	1.7	151	756	2320	529	183
18	41	.20	.20	.00	.00	.00	21	153	731	2250	604	215
19	.00	2.8	1.1	.00	.00	.00	.00	154	792	2270	799	213
20	5.2	163	73	.00	.00	.00	.00	152	1190	2090	968	211
21	1.9	1.0	7.1	.00	.00	.00	.00	155	1340	1720	1130	222
22	.00	1.1	.00	.00	.00	.00	.00	155	1330	1570	1120	217
23	.00	2.0	.00	.00	2.3	.00	.00	156	1360	1550	1210	214
24	.00	1.2	.00	.00	.05	.00	.00	161	1510	1490	1300	171
25	2.7	.80	.40	.00	.00	.00	.00	161	1520	1390	1110	131
26	5.6	14	.00	.00	.00	1.6	.00	162	1630	1530	861	140
27	2.0	12	.00	.00	.00	1.0	.00	167	2000	1700	869	140
28	.00	.00	.00	.00	.00	.20	.00	225	2150	1700	660	141
29	.00	.00	.00	.00	---	.00	.00	186	2200	1710	376	176
30	17	3.2	.00	.00	---	.00	.00	155	2380	1720	362	409
31	55	---	.00	.00	---	.20	---	151	---	1730	381	---
TOTAL	7919.40	469.70	169.53	.00	2.35	3.00	23.60	2854.90	24079	66230	26048	8669
MEAN	255	15.7	5.47	.000	.084	.097	.79	92.1	803	2136	840	289
MAX	582	163	73	.00	2.3	1.6	21	225	2380	2640	1610	494
MIN	.00	.00	.00	.00	.00	.00	.00	.00	147	1390	362	131
AC-FT	15710	932	336	.00	4.7	6.0	47	5660	47760	131400	51670	17190

CAL YR 1977 TOTAL 125303.43 MEAN 343 MAX 2650 MIN .00 AC-FT 248500
WTR YR 1978 TOTAL 136468.48 MEAN 374 MAX 2640 MIN .00 AC-FT 270700

06690500 NORTH PLATTE RIVER NEAR KEYSTONE, NE--Continued

WATER QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT					JUL				
03...	1055	411	778	16.0	12...	1140	2340	669	13.0
11...	1250	536	779	16.0	21...	1135	1760	739	14.5
MAY					27...	1100	1700	770	14.5
16...	1055	150	735	11.0	28...	0900	1690	440	16.0
25...	1147	163	685	14.0	AUG				
26...	1050	151	770	14.0	02...	1210	1380	778	16.0
JUN					10...	1100	699	664	16.0
02...	1149	147	680	12.0	17...	1108	551	700	18.0
09...	1131	155	755	12.5	23...	1120	1120	730	18.5
15...	1025	315	750	15.0	SEP				
23...	1035	1310	675	13.5	01...	1030	427	748	18.5
28...	1210	2120	735	14.0	11...	0944	424	749	18.0
JUL					20...	1332	210	740	16.0
05...	1140	2480	765	13.5					

DATE	TIME	PH (UNITS) (00400)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
MAY								
26...	1050	8.0	2	220	35	55	19	89
JUL								
28...	0900	7.7	5	220	29	56	19	83

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)
MAY									
26...	2.6	11	220	0	180	170	20	.5	24
JUL									
28...	2.4	11	230	0	190	170	20	.5	26

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
MAY								
26...	500	204	.68	.72	.14	140	10	20
JUL								
28...	506	2310	.69	1.5	.05	140	30	20

PLATTE RIVER BASIN

06691000 NORTH PLATTE RIVER NEAR SUTHERLAND, NE

LOCATION.--Lat 41°12'37", long 101°06'53", in sec.4, T.14 N., R.33 W., Lincoln County, Hydrologic Unit 10180014, on left bank 80 ft (24 m) downstream from bridge on county road, 2.5 mi (4.0 km) upstream from Birdwood Creek, and 3.5 mi (5.6 km) north of Sutherland.

DRAINAGE AREA.--29,800 mi² (77,200 km²), approximately, of which about 26,120 mi² (67,700 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--June to October 1917, July 1931 to August 1933 (irrigation seasons only), May to September 1935, May 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 976: 1942. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,920 ft (890 m), from topographic map. Prior to Apr. 29, 1936, nonrecording gage near present site at different datums. Apr. 29, 1936, to Oct. 6, 1971, water-stage recorder at site 80 ft (24 m) upstream at present datum.

REMARKS.--Records good except those above 1,000 ft³/s (28.3 m³/s) and those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft³/s (575 m³/s) June 29, 1917, from discharge graph based on daily gage readings, from rating curve extended above 16,000 ft³/s (453 m³/s); no flow July 24-28, 30, 31, 1931, Aug. 7, 1934, July 20-28, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,460 ft³/s (69.7 m³/s) July 20, gage height, 3.67 ft (1.119 m); minimum daily, 35 ft³/s (0.99 m³/s) May 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	751	180	140	110	110	180	142	97	100	1850	1250	107
2	632	156	165	110	110	180	175	64	97	1980	1150	111
3	550	147	151	110	110	185	159	47	97	2040	1090	114
4	525	145	143	110	110	190	147	48	94	2040	833	135
5	506	146	130	120	104	195	142	43	94	2030	642	111
6	510	147	90	120	102	200	138	56	94	2070	589	101
7	583	150	88	130	100	210	137	94	90	2110	557	95
8	624	170	100	125	106	210	137	71	70	2110	530	94
9	583	188	100	125	106	220	140	108	64	2130	507	100
10	584	207	76	105	110	230	137	76	63	2120	439	138
11	639	176	110	120	110	240	132	45	57	2100	395	139
12	633	157	120	130	116	250	129	40	58	1970	373	168
13	635	146	140	130	120	233	122	54	51	1930	340	181
14	626	144	170	130	125	195	120	50	53	1880	308	155
15	631	156	94	130	130	190	125	38	101	1840	378	103
16	562	149	170	120	135	170	131	35	152	1850	270	80
17	469	169	160	120	135	177	129	52	269	1860	161	77
18	348	169	150	120	140	177	127	70	521	1840	137	73
19	259	148	140	120	145	185	137	80	507	1820	189	69
20	218	132	115	120	145	181	127	75	610	2300	355	68
21	197	140	140	120	150	183	127	72	907	2030	545	65
22	181	150	140	120	155	181	108	83	995	1640	651	64
23	171	160	140	120	160	170	117	95	980	1470	648	61
24	165	180	130	125	160	164	103	81	1080	1370	750	58
25	160	176	110	125	160	157	68	70	1120	1240	839	53
26	154	153	105	110	165	157	68	61	1140	1100	654	50
27	148	164	120	114	170	156	103	71	1240	1160	534	47
28	149	174	130	120	180	151	86	197	1510	1240	510	47
29	150	150	135	120	---	148	93	219	1640	1190	323	46
30	152	148	115	120	---	143	86	154	1690	1190	142	79
31	156	---	115	120	---	141	---	114	---	1210	95	---
TOTAL	12651	4777	3932	3719	3669	5749	3692	2460	15544	54710	16184	2789
MEAN	408	159	127	120	131	185	123	79.4	518	1765	522	93.0
MAX	751	207	170	130	180	250	175	219	1690	2300	1250	181
MIN	148	132	76	105	100	141	68	35	51	1100	95	46
AC-FT	25090	9480	7800	7380	7280	11400	7320	4880	30830	108500	32100	5530
CAL YR 1977	TOTAL	136983	MEAN	375	MAX	2450	MIN	35	AC-FT	271700		
WTR YR 1978	TOTAL	129876	MEAN	356	MAX	2300	MIN	35	AC-FT	257600		

LOCATION.--Lat 41°13'20", long 101°04'12", in NE1/4NW1/4 sec.2, T.14 N., R.33 W., Lincoln County, Hydrologic Unit 10180014, on left bank 60 ft (18 m) downstream from bridge on county road, 1 mi (2 km) upstream from mouth, and 5 mi (8 km) northwest of Hershey.

DRAINAGE AREA.--940 mi² (2,435 km²), approximately, of which about 80 mi² (207 km²) contributes directly to surface runoff.

REVISED RECORDS.--WSP 1390: 1948(N), 1949, 1951-52(N). WDR NE-67, WDR NE 76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,920 ft (890 m), from topographic map. Jan. 1, 1931, to Dec. 16, 1934, nonrecording gage and Dec. 17, 1934, to Nov. 4, 1953, water-stage recorder, at site 50 ft (15 m) upstream at present datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft³/s (50.1 m³/s) Apr. 1, 1949, gage height, 4.35 ft (1.326 m), from rating curve extended above 680 ft³/s (19.3 m³/s); maximum gage height, 5.12 ft (1.561 m) Dec. 15, 1940, backwater from ice; minimum daily discharge, 61 ft³/s (1.73 m³/s) Jan. 19, 1935, Apr. 7, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 232 ft³/s (6.57 m³/s) Oct. 1, gage height, 1.14 ft (0.347 m); maximum gage height, 4.46 ft (1.359 m) Mar. 4, backwater from ice; minimum daily discharge, 99 ft³/s (2.80 m³/s) July 17.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	153	154	155	160	203	158	175	150	115	150	118
2	145	156	157	150	165	200	173	173	150	114	185	123
3	139	157	161	155	170	200	170	170	151	114	173	123
4	143	156	162	162	175	200	168	168	148	115	140	123
5	142	159	159	161	170	200	168	167	149	119	118	123
6	141	157	160	162	160	169	170	172	160	111	117	115
7	143	154	171	164	160	157	169	165	153	115	116	109
8	143	159	170	152	155	168	172	169	145	114	114	109
9	143	145	155	154	150	176	177	160	138	113	111	115
10	147	144	160	158	155	181	164	159	136	110	110	122
11	149	149	170	140	150	169	164	160	133	108	108	123
12	147	149	180	145	150	183	172	158	130	107	107	122
13	154	146	179	150	155	185	161	149	126	106	105	119
14	155	148	164	155	155	169	168	152	125	103	106	117
15	154	148	164	165	155	167	166	151	127	101	113	116
16	154	147	177	150	150	167	169	151	126	101	108	116
17	152	144	168	180	150	168	173	151	128	99	105	123
18	152	146	154	155	150	177	170	158	126	100	107	130
19	152	147	160	160	150	175	159	154	124	100	111	123
20	155	144	157	155	150	162	158	150	120	141	112	127
21	157	140	148	160	155	176	171	150	115	141	112	125
22	154	150	148	165	160	167	174	154	117	131	112	122
23	152	149	150	165	175	161	163	164	121	120	113	120
24	152	149	151	170	223	155	167	153	125	120	114	120
25	152	147	154	175	214	161	171	144	124	121	117	120
26	153	147	154	170	206	159	168	137	123	116	120	121
27	152	148	156	165	210	162	168	144	119	115	123	117
28	153	148	155	160	203	161	181	161	117	136	121	117
29	155	149	155	160	---	162	176	151	117	131	120	117
30	154	152	167	160	---	160	176	151	113	130	120	117
31	154	---	160	165	---	158	---	150	---	139	120	---
TOTAL	4684	4487	4980	4913	4681	5358	5064	4871	3936	3606	3708	3592
MEAN	151	150	161	158	167	173	169	157	131	116	120	120
MAX	186	159	180	175	223	203	181	175	160	141	185	130
MIN	139	140	148	140	150	155	158	137	113	99	105	109
AC-FT	9290	8900	9880	9740	9280	10630	10040	9660	7810	7150	7350	7120

CAL YR 1977	TOTAL	56659	MEAN	155	MAX	276	MIN	115	AC-FT	112400
WTR YR 1978	TOTAL	53880	MEAN	148	MAX	223	MIN	99	AC-FT	106900

PLATTE RIVER BASIN

06692500 LINCOLN COUNTY DRAIN NO. 1 NEAR NORTH PLATTE, NE

LOCATION.--Lat 41°09'40", long 100°47'25", in NE1/4NE1/4 sec.30, T.14 N., R.30 W., Lincoln County, Hydrologic Unit 10180014, on left bank 25 ft (8 m) upstream from highway bridge, 0.8 mi (1.3 km) upstream from mouth, and 1.5 mi (2.4 km) northwest of city of North Platte.

PERIOD OF RECORD.--March 1931 to September 1932 (published as Lincoln County drain at North Platte), April 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,805 ft (855.0 m), from topographic map. Prior to Apr. 29, 1955, nonrecording gage at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. Discharge is chiefly return flow from irrigated area.

AVERAGE DISCHARGE.--24 years, 63.2 ft³/s (1.790 m³/s), 45,790 acre-ft/yr (56.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 588 ft³/s (16.7 m³/s) June 22, 1965, gage height, 4.05 ft (1.234 m); minimum daily, 8.0 ft³/s (0.23 m³/s) Mar. 15, 1977, result of freeze out.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 244 ft³/s (6.91 m³/s) July 20, gage height, 2.52 ft (0.768 m); minimum daily, 22 ft³/s (0.62 m³/s) Apr. 19, 20, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	41	34	25	24	24	25	42	60	47	117	127
2	63	41	33	26	24	24	26	46	64	54	131	137
3	62	41	33	26	24	24	25	42	67	60	169	144
4	61	40	32	26	24	25	24	45	67	54	175	134
5	61	40	31	25	24	25	24	50	66	60	175	115
6	61	39	30	26	24	24	25	46	72	62	162	121
7	62	39	30	26	25	24	24	60	77	66	148	130
8	61	39	30	25	26	24	24	53	74	66	135	126
9	59	38	29	26	25	25	24	52	70	72	130	141
10	58	38	28	26	25	27	24	50	70	72	125	155
11	56	36	28	26	25	32	24	44	67	76	116	154
12	57	36	28	25	26	37	24	37	54	77	98	156
13	56	36	28	25	25	35	24	41	64	107	108	155
14	56	35	28	25	26	32	24	39	67	75	100	147
15	54	35	29	25	26	32	23	35	63	65	102	151
16	54	35	29	25	25	31	23	40	59	69	113	145
17	53	36	28	25	25	31	24	43	61	81	109	141
18	52	36	27	25	24	31	23	51	66	87	105	147
19	50	38	27	25	23	30	22	45	73	97	119	144
20	49	38	27	25	25	29	22	40	72	175	129	144
21	48	38	27	25	25	28	23	39	63	171	120	140
22	47	40	27	25	26	27	23	47	55	149	112	144
23	46	38	27	25	25	28	22	46	55	146	110	141
24	45	38	27	26	25	27	22	43	63	158	102	139
25	44	37	26	26	25	27	29	48	65	143	98	132
26	44	37	26	26	24	27	46	46	61	127	103	124
27	43	36	26	26	24	27	29	47	59	100	113	121
28	43	36	26	24	24	26	34	58	69	92	123	125
29	42	35	26	24	---	26	39	60	76	93	116	122
30	42	34	26	24	---	25	39	59	59	98	110	121
31	42	---	25	24	---	24	---	60	---	114	109	---
TOTAL	1640	1126	878	783	693	858	784	1454	1958	2913	3782	4123
MEAN	52.9	37.5	28.3	25.3	24.8	27.7	26.1	46.9	65.3	94.0	122	137
MAX	69	41	34	26	26	37	46	60	77	175	175	156
MIN	42	34	25	24	23	24	22	35	54	47	98	115
AC-FT	3250	2230	1740	1550	1370	1700	1560	2880	3880	5780	7500	8180

CAL YR 1977 TOTAL 22329.0 MEAN 61.2 MAX 176 MIN 8.0 AC-FT 44290
WTR YR 1978 TOTAL 20992.0 MEAN 57.5 MAX 175 MIN 22 AC-FT 41640

LOCATION.--Lat 41°09'13", long 100°45'16", in sec.28, T.14 N., R.30 W., Lincoln County, Hydrologic Unit 10180018, on right bank 150 ft (46 m) downstream from bridge on U.S. Highway 83, 0.5 mi (0.8 km) north of city of North Platte, and 4.5 mi (7.2 km) upstream from confluence with South Platte River.

PERIOD OF RECORD.--February 1895 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 2,792.14 ft (851.044 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Roads bench mark). See WSP 2118 for history of changes prior to June 3, 1968.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 29,600 ft³/s (838 m³/s) June 11, 1909, discharge measurement; minimum daily, 20 ft³/s (0.57 m³/s) Sept. 20, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,990 ft³/s (84.7 m³/s) July 21, gage height, 5.17 ft (1.576 m); minimum daily, 171 ft³/s (4.84 m³/s) June 15.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	839	377	377	330	320	400	433	339	284	1680	1470	299
2	839	397	370	340	330	410	463	327	284	1790	1470	345
3	749	383	397	350	320	420	448	274	279	1900	1480	364
4	710	383	404	360	340	420	397	251	265	1920	1380	370
5	710	390	390	360	340	430	357	251	265	1930	1090	333
6	710	397	350	360	350	440	370	255	255	1930	990	327
7	780	397	330	360	340	440	377	364	251	2010	929	289
8	859	411	320	350	340	440	370	345	251	2050	849	274
9	859	418	300	340	330	460	370	316	232	2080	809	305
10	809	418	300	320	330	480	364	321	224	2080	769	339
11	819	425	320	310	340	510	339	284	215	2140	691	364
12	839	411	340	330	340	530	333	265	182	2100	619	377
13	809	397	370	350	340	560	327	251	190	2070	576	397
14	790	383	370	350	350	550	345	251	186	2050	536	411
15	790	383	370	350	350	540	345	251	171	1930	528	377
16	780	390	360	340	350	528	364	241	175	1930	551	333
17	682	377	360	300	350	479	383	228	194	1930	425	327
18	593	404	350	290	360	495	377	251	294	1920	316	357
19	512	397	350	290	360	495	370	255	440	1880	299	327
20	448	377	350	290	360	463	357	237	487	2400	440	327
21	440	333	350	300	360	448	351	219	663	2830	610	327
22	433	330	350	310	370	448	351	246	919	2250	780	327
23	411	450	360	310	370	440	327	274	990	1850	839	316
24	383	440	360	320	370	448	316	250	1070	1720	869	327
25	377	420	350	320	380	448	305	237	1170	1600	959	305
26	383	410	350	320	380	448	305	219	1180	1370	1060	294
27	370	433	350	320	390	448	294	237	1180	1290	839	270
28	357	404	350	310	400	463	316	305	1390	1340	790	289
29	364	397	340	310	---	448	339	357	1620	1340	720	294
30	377	397	340	310	---	440	327	333	1600	1380	433	310
31	370	---	330	320	---	433	---	300	---	1390	299	---
TOTAL	19191	11929	10908	10120	9860	14402	10720	8534	16906	58080	24415	9901
MEAN	619	398	352	326	352	465	357	275	564	1874	788	330
MAX	859	450	404	360	400	560	463	364	1620	2830	1480	411
MIN	357	330	300	290	320	400	294	219	171	1290	299	270
AC-FT	38070	23660	21640	20070	19560	28570	21260	16930	33530	115200	48430	19640
CAL YR 1977	TOTAL	224672	MEAN	61								

PLATTE RIVER BASIN

06762500 LODGEPOLE CREEK AT BUSHNELL, NE

LOCATION.--Lat 41°13'43", long 103°48'03", in sec.33, T.15 N., R.57 W., Kimball County, Hydrologic Unit 10190016, on right bank 1.5 mi (2.4 km) east of Bushnell and 1.5 mi (2.4 km) upstream from Oliver Reservoir.

DRAINAGE AREA.--1,361 mi² (3,525 km²).

PERIOD OF RECORD.--October 1931 to current year. Records for March to September 1931 at site 1.5 mi (2.4 km) upstream not equivalent owing to diversions. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1933, 1935, 1937-38, 1941, 1948-49. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,812.3 ft (1,466.79 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 26, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. Diversions for irrigation of about 12,600 acres (51.0 km²) above station.

AVERAGE DISCHARGE.--47 years, 11.2 ft³/s (0.317 m³/s), 8,110 acre-ft/yr (10.00 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s (467 m³/s) Sept. 15, 1950, gage height, 9.98 ft (3.042 m), from rating curve extended above 2,700 ft³/s (76.5 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.09 ft³/s (0.003 m³/s) July 20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,270 ft³/s (149 m³/s) July 6, gage height, 7.61 ft (2.320 m), from floodmark in gage well, from rating curve extended above 700 ft³/s (19.8 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.80 ft³/s (0.023 m³/s) July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.9	3.4	3.2	4.2	4.5	4.7	5.0	5.0	1.3	20	2.5
2	2.2	2.9	3.9	3.2	3.9	4.0	5.0	4.7	5.0	1.3	16	2.2
3	2.5	2.7	3.9	3.2	4.2	3.9	4.7	4.5	5.0	1.2	7.1	2.2
4	2.7	3.2	3.7	3.9	4.7	3.9	4.7	5.0	7.7	1.1	6.2	2.5
5	2.7	2.7	2.9	4.2	4.7	5.3	4.7	5.3	19	1.1	5.3	1.8
6	2.9	3.2	3.4	4.5	4.5	5.0	4.5	5.9	11	493	5.6	1.4
7	2.7	3.2	3.9	4.7	4.7	4.7	4.7	5.6	6.2	33	7.1	1.4
8	2.5	5.6	2.9	3.7	4.7	5.0	5.0	5.0	5.6	7.1	7.7	1.6
9	2.5	2.2	2.2	3.7	4.7	5.0	5.3	4.5	5.0	4.5	8.6	2.2
10	1.8	3.9	2.7	3.4	5.0	5.0	5.6	4.2	5.3	2.9	8.0	2.2
11	2.5	4.2	3.4	3.2	5.3	4.7	5.3	3.9	4.7	3.2	7.7	2.2
12	2.5	4.2	3.9	3.9	5.0	5.0	5.0	4.2	4.2	2.7	7.4	2.9
13	2.0	3.7	3.4	4.2	4.5	5.0	4.5	3.7	5.0	1.8	6.8	3.2
14	2.2	3.7	3.9	3.9	4.2	5.0	4.5	3.7	5.3	1.6	21	2.7
15	1.8	3.4	3.9	4.2	4.2	5.0	5.0	3.7	5.0	1.4	20	3.4
16	2.2	3.7	3.4	2.9	4.2	4.7	5.3	3.4	4.5	1.4	4.2	3.4
17	1.8	3.2	2.5	4.2	3.7	5.0	5.0	3.7	5.3	1.0	4.2	3.2
18	1.6	3.2	4.7	3.9	3.4	5.0	4.7	5.9	6.5	1.80	3.9	3.4
19	1.6	2.9	3.4	3.7	3.0	5.0	4.7	4.7	7.1	13	3.9	3.4
20	1.6	3.2	2.9	3.9	3.0	5.0	4.7	5.0	5.0	22	3.9	3.4
21	2.2	2.5	3.2	3.7	3.2	5.0	4.7	6.2	4.7	5.3	4.2	3.9
22	2.0	2.7	4.2	3.4	5.3	5.0	5.0	7.4	4.7	4.5	3.4	3.9
23	1.6	3.2	4.2	3.7	5.6	4.7	4.5	7.4	5.0	5.0	2.9	3.9
24	1.6	3.7	3.4	3.4	5.6	4.7	4.2	7.4	4.7	3.9	3.2	3.9
25	1.6	3.7	3.9	3.0	5.0	4.7	3.7	7.4	3.9	3.7	1.8	3.9
26	1.8	3.9	3.7	3.0	5.0	4.7	3.9	7.7	4.2	3.2	2.9	3.7
27	2.0	3.7	3.4	3.7	5.0	4.7	3.7	49	2.7	2.9	2.5	3.7
28	2.2	3.9	3.7	3.7	4.7	4.7	3.9	91	1.4	9.6	3.7	3.7
29	2.5	3.9	4.2	4.5	---	4.5	3.7	9.0	1.4	9.6	3.2	3.7
30	2.9	3.9	4.5	4.5	---	4.7	3.9	5.9	1.4	4.7	3.2	3.7
31	2.7	---	3.4	3.9	---	4.7	---	5.6	---	3.9	2.9	---
TOTAL	67.6	103.0	110.1	116.2	125.2	147.8	138.8	295.6	161.5	651.70	208.5	89.2
MEAN	2.18	3.43	3.55	3.75	4.47	4.77	4.63	9.54	5.38	21.0	6.73	2.97
MAX	2.9	5.6	4.7	4.7	5.6	5.3	5.6	91	19	493	21	3.9
MIN	1.6	2.2	2.2	2.9	3.0	3.9	3.7	3.4	1.4	.80	1.8	1.4
AC-FT	134	204	218	230	248	293	275	586	320	1290	414	177

CAL YR 1977 TOTAL 1192.88 MEAN 3.27 MAX 25 MIN .58 AC-FT 2370
WTR YR 1978 TOTAL 2215.20 MEAN 6.07 MAX 493 MIN .80 AC-FT 4390

PLATTE RIVER BASIN

113

06762550 LODGEPOLE CREEK AT KIMBALL, NE

LOCATION.--Lat 41°14'50", long 103°38'32", in NW1/4SW1/4NW1/4 sec.28, T.15 N., R.55 W., Kimball County, Hydrologic Unit 10190016, at bridge on county road 0.8 miles north of U.S. Highway 30 at east edge of Kimball.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 KF AGAR UM-MF (COLS./ 100 ML) (31625)	STREP- FORM, FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 11...	1300	.52	912	7.8	9.0	20	14.3	20	56000	16000
NOV 28...	1310	7.6	624	7.8	3.5	40	12.3	14	140000	K350000
DEC 19...	1245	2.5	720	7.7	.0	20	11.4	11	K120000	K160000
JAN 16...	1100	4.9	640	7.5	.0	15	10.6	7.2	78000	65000
FEB 15...	1300	3.7	680	7.6	1.0	25	11.6	9.2	120000	66000
MAR 20...	1310	9.7	505	8.3	12.0	30	12.7	22	>6000	K12000
APR 17...	1250	8.1	580	8.1	10.5	30	12.1	11	90000	4800
MAY 18...	1300	7.0	532	7.9	18.0	20	10.3	5.4	23000	K6000
JUN 19...	1240	2.7	595	8.0	23.0	40	8.1	8.4	14000	4000
JUL 17...	1300	22	345	7.9	26.0	80	8.5	9.5	K9700	1100
AUG 07...	1315	10	460	8.4	25.0	30	11.0	6.5	65000	4000
SEP 18...	1300	3.5	540	8.0	17.0	25	10.3	8.2	120000	5200

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 11...	78	534	.73	.75	.01	.02	11	11	11	7.0
NOV 28...	26	--	.51	7.63	1.8	1.3	1.5	2.8	4.6	.81
DEC 19...	37	444	.60	3.00	2.2	1.8	2.0	3.8	6.0	1.4
JAN 16...	26	412	.56	5.45	2.3	1.5	.20	1.7	4.0	.77
FEB 15...	27	--	.31	2.29	1.6	1.2	.90	2.1	3.7	.76
MAR 20...	25	309	.42	8.09	.84	.63	.77	1.4	2.2	.50
APR 17...	29	343	.47	7.50	1.4	.70	1.3	2.0	3.4	.63
MAY 18...	29	--	.44	6.16	.99	.24	1.4	1.6	2.6	.39
JUN 19...	32	344	.47	2.51	1.6	.63	1.4	2.0	3.6	.98
JUL 17...	9.1	195	.27	11.6	.27	.16	1.8	2.0	2.3	.49
AUG 07...	19	--	.37	7.37	.66	.03	1.5	1.5	2.2	.53
SEP 18...	31	371	.50	3.51	1.5	1.3	1.1	2.4	3.9	1.3

PLATTE RIVER BASIN

06762550 LODGEPOLE CREEK AT KIMBALL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBAL- UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
NOV 28...	1310	20	230	20	67	16	34	1.0	8.3	260	0
FEB 15...	1300	2	130	5	37	8.6	19	.7	3.9	150	0
MAY 18...	1300	35	190	0	51	15	34	1.1	9.2	240	0
AUG 07...	1315	40	180	3	55	10	21	.7	11	210	2

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 28...	210	48	.8	43	372	.61	6	130	1	0
FEB 15...	120	39	.4	19	228	.26	--	120	--	--
MAY 18...	200	36	.8	32	326	.36	6	120	1	0
AUG 07...	180	24	.6	27	273	.41	--	100	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE- RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 28...	8	80	7	20	.1	.1	.0	2	0	20
FEB 15...	--	30	--	10	--	--	--	--	--	--
MAY 18...	4	60	8	40	.2	.2	.0	1	0	20
AUG 07...	--	20	--	0	--	--	--	--	--	--

PLATTE RIVER BASIN

115

06763500 LODGEPOLE CREEK AT RALTON, NE

LOCATION.--Lat 41°02'00", long 102°24'00", in NE1/4NW1/4 sec.12, T.12 N., R.45 W., Deuel County, Hydrologic Unit 10190016, on right bank 20 ft (6 m) downstream from county road bridge at Ralton, 2.1 mi (3.4 km) north of Colorado-Nebraska State line, and 5.5 mi (8.8 km) southeast of Chappell.

DRAINAGE AREA.--3,307 mi² (8,565 km²).

PERIOD OF RECORD.--March to September 1931, June 1951 to current year.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,590 ft (1,094 m), from topographic map. March to September 1931, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. Diversion for irrigation of about 28,300 acres (98.3 km²) above station.

AVERAGE DISCHARGE.--27 years (1951-78), 8.62 ft³/s (0.244 m³/s), 6,250 acre-ft/yr (7.71 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,560 ft³/s (129 m³/s) Aug. 15, 1968, gage height, 6.49 ft (1.978 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of slope-area measurement of peak flow; no flow at times in 1931, 1955, 1957, 1960, 1963-65, 1968, 1973-75, 1976 (entire year), 1977, 1978 (entire year).

EXTREMES FOR CURRENT YEAR.--No flow for entire water year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1977 TOTAL 6.79 MEAN .019 MAX 6.6 MIN .00 AC-FT 13
WTR YR 1978 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00

PLATTE RIVER BASIN

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO

LOCATION.--Lat 40°58'46", long 102°15'15", in NW1/4NE1/4 and SE1/4NE1/4 (two channels) sec.33, T.12 N., R.44 W., Sedgwick County, Hydrologic Unit 10190018, on left bank of channel no. 4 (left channel) 215 ft (66 m) downstream from bridge, and on right bank of channel no. 2, 800 ft (244 m) downstream from bridge on U.S. Highway 385, 0.9 mi (1.4 km) southeast of Julesburg, 3.0 mi (4.8 km) upstream from Colorado-Nebraska State line, and 8 mi (13 km) downstream from Lodgepole Creek.

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

PERIOD OF RECORD.--April 1902 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Julesburg" 1903-08, 1915-16, and as "at Ovid" 1922-24.

REVISED RECORDS.--WSP 1310: 1902, 1906-07, 1948(P). WSP 1440: 1903-04. WSP 1730: Drainage area.

GAGE.--Two water-stage recorders. Datum of gages is 3,446.76 ft (1,050.572 m) National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to Oct. 14, 1956. Since Oct. 1, 1956, water-stage recorders on channels nos. 2 and 4. Channel no. 2: Oct. 1, 1956, to Sept. 22, 1965, at site 300 ft (90 m) downstream at present datum. Channel no. 4: Oct. 1, 1956, to Dec. 10, 1958, at site 135 ft (41.1 m) downstream at present datum. Since May 11, 1973, supplementary water-stage recorder on channel no. 2 at bridge 800 ft (240 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of 1,200,000 acres (4,860 km²) above station, and return flow from irrigated areas.

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

AVERAGE DISCHARGE.--76 years, 473 ft³/s (13.40 m³/s), 342,700 acre-ft/yr (0.423 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,600 ft³/s (1,060 m³/s) June 20, 1965, gage height, 10.44 ft (3.182 m), from floodmarks in gage well; no flow Aug. 18-20, 1902, July 25 to Aug 7, 1903.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 588 ft³/s (16.7 m³/s) June 19 at 2300, gage height, 3.93 ft (1.198 m); maximum gage height, 5.63 ft (1.716 m) Jan. 14 (backwater from ice); minimum daily discharge, 11 ft³/s (0.31 m³/s) Sept. 20-22, 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	73	89	119	190	250	113	32	153	49	14	15
2	36	73	84	113	205	260	120	33	153	32	16	14
3	38	73	85	107	210	260	120	28	153	33	19	14
4	42	75	83	100	205	270	129	23	152	34	20	13
5	53	75	83	111	195	290	124	23	161	31	18	13
6	69	76	76	123	185	310	118	26	188	31	16	13
7	93	78	72	152	185	300	102	38	264	27	14	12
8	105	82	78	137	180	292	97	88	369	27	12	13
9	123	82	72	139	160	253	97	74	399	25	12	13
10	151	80	72	129	155	240	106	80	401	27	18	13
11	161	80	91	133	155	237	93	82	313	29	17	14
12	172	80	106	125	155	228	88	80	238	27	14	14
13	175	80	122	115	155	229	79	73	177	28	12	14
14	168	80	146	110	150	226	74	70	127	30	16	14
15	137	80	159	115	150	203	66	50	88	27	20	14
16	118	80	151	120	150	172	60	36	141	27	15	13
17	106	80	125	120	150	158	57	36	395	24	13	14
18	98	80	109	115	155	152	54	38	556	29	16	14
19	92	82	105	110	160	148	49	31	574	54	21	12
20	89	72	92	105	165	140	49	30	542	51	18	11
21	89	72	72	110	170	137	47	30	406	39	19	11
22	89	74	81	120	185	131	50	32	353	34	18	11
23	89	76	115	130	190	129	45	31	197	31	16	12
24	89	92	126	135	210	124	48	34	86	30	18	12
25	82	121	115	135	225	122	43	35	61	30	24	11
26	82	141	106	155	230	120	34	44	51	32	24	11
27	79	133	107	165	235	115	30	66	41	29	20	14
28	76	109	121	160	240	114	31	160	40	28	19	17
29	75	93	124	155	---	112	32	134	35	27	15	17
30	75	93	142	155	---	110	31	135	35	27	16	22
31	75	---	142	165	---	107	---	148	---	24	16	---
TOTAL	2967	2565	3251	3983	5100	5939	2186	1820	6849	973	526	405
MEAN	95.7	85.5	105	128	182	192	72.9	58.7	228	31.4	17.0	13.5
MAX	175	141	159	165	240	310	129	160	574	54	24	22
MIN	36	72	72	100	150	107	30	23	35	24	12	11
AC-FT	5890	5090	6450	7900	10120	11780	4340	3610	13580	1930	1040	803

CAL YR 1977 TOTAL 56443 MEAN 155 MAX 939 MIN 23 AC-FT 112000
WTR YR 1978 TOTAL 36564 MEAN 100 MAX 574 MIN 11 AC-FT 72520

PLATTE RIVER BASIN

117

06764880 SOUTH PLATTE RIVER AT ROSCOE, NE

LOCATION.--Lat 41°07'33", long 101°34'35", in NW1/4SW1/4 sec.4, T.13 N., R.37 W., Keith County, Hydrologic Unit 10190018, at bridge on access road between U.S. Highway 30 and Interstate 80, about 0.5 miles southeast of Roscoe.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 17...	1115	107	2000	7.4	10.5	30	11.6	2.4	450	1400
NOV 14...	1110	76	1940	7.5	7.0	10	13.1	5.8	200	130
DEC 20...	1130	100	2360	7.6	.0	15	13.4	2.2	290	400
JAN 23...	1215	106	1700	7.3	.0	5	10.3	3.4	K10000	5200
FEB 21...	1215	151	2160	7.7	.5	15	12.0	.8	K1600	3400
MAR 28...	1130	147	2150	7.8	13.0	20	10.6	2.4	320	180
APR 24...	1130	72	2050	7.8	11.0	5	12.0	3.9	--	37
MAY 22...	1110	38	1560	7.6	15.0	5	10.9	2.3	1300	960
JUN 27...	1130	68	1800	7.5	24.0	10	8.5	2.2	1700	250
JUL 24...	0930	8.8	1620	7.8	22.0	5	17.1	4.0	730	57
AUG 30...	0930	.74	1700	7.6	22.5	4	8.7	1.7	140	960

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 17...	91	1630	2.22	471	.85	.04	.85	.89	1.7	.14
NOV 14...	86	--	2.03	306	1.4	.05	.80	.85	2.3	.13
DEC 20...	92	1750	2.38	472	2.6	.31	.99	1.3	3.9	.17
JAN 23...	85	1720	2.34	492	2.1	.08	.00	.08	2.2	.16
FEB 21...	92	--	2.26	677	2.0	.10	.54	.64	2.6	.15
MAR 28...	90	1580	2.15	627	1.8	.09	1.1	1.2	3.0	.17
APR 24...	91	1550	2.11	301	1.5	.08	.74	.82	2.3	.12
MAY 22...	79	--	1.78	134	.58	.03	.52	.55	1.1	.21
JUN 27...	75	1340	1.82	246	.63	.04	.50	.54	1.2	.18
JUL 24...	72	1190	1.62	28.3	.03	.00	.56	.56	.59	.27
AUG 30...	81	--	1.67	2.46	.05	.01	1.3	1.3	1.4	.16

PLATTE RIVER BASIN

06764880 SOUTH PLATTE RIVER AT ROSCOE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
NOV 14...	1110	7	790	590	200	71	180	2.8	20	250	0
FEB 21...	1215	4	800	550	210	67	210	3.2	16	310	0
MAY 22...	1110	4	630	450	160	55	190	3.3	16	220	0
AUG 30...	0930	6	610	410	160	51	160	2.8	18	240	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 14...	210	790	.7	21	1490	.10	2	290	0	4
FEB 21...	250	890	.7	24	1660	.13	--	300	--	--
MAY 22...	180	690	.7	14	1310	.18	3	280	1	0
AUG 30...	200	620	.9	24	1230	.16	--	300	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE- RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 14...	3	30	6	10	.0	.0	.0	2	0	20
FEB 21...	--	20	--	30	--	--	--	--	--	--
MAY 22...	3	10	12	300	1.7	1.7	.0	0	0	20
AUG 30...	--	220	--	240	--	--	--	--	--	--

LOCATION.--Lat 41°07'05", long 100°46'22", in NE1/4NE1/4 sec.8, T.13 N., R.30 W., Lincoln County, Hydrologic Unit 10190018, on left bank 0.5 mi (0.8 km) upstream from bridge on U.S. Highway 83, 0.7 mi (1.1 km) northwest of intersection of U.S. Highway 83 and Interstate 80 south of North Platte, and 5.5 mi (8.8 km) upstream from confluence with North Platte River.

PERIOD OF RECORD.--June to November 1897, June to August 1914, May to September 1915, and May 1917 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 2,787.73 ft (849.700 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Dec. 11, 1956. Dec. 11, 1956, to Mar. 29, 1973, at site 0.5 mi (0.8 km) downstream at same datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 37,100 ft³/s (1,050 m³/s) June 3, 1935, gage height, 14.02 ft (4.273 m), present datum; no flow at times in summers of most years prior to 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 274 ft³/s (7.76 m³/s) July 20, gage height, 6.60 ft (2.012 m); maximum gage height, 7.13 ft (2.173 m) Feb. 24, backwater from ice; minimum daily discharge, 90 ft³/s (2.55 m³/s) Dec. 9.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	256	125	135	100	120	154	150	145	194	140	140	133
2	219	124	141	120	120	150	168	145	192	170	171	149
3	161	117	139	140	125	149	163	155	192	130	173	149
4	147	120	130	145	125	150	163	168	184	130	168	144
5	127	124	125	150	120	150	163	170	194	130	171	152
6	131	124	120	140	120	149	158	173	196	125	170	146
7	139	120	100	100	100	142	150	168	196	125	162	158
8	129	128	100	100	100	135	145	160	188	120	160	157
9	119	128	90	100	110	135	145	144	186	120	163	149
10	117	124	100	100	120	166	145	127	186	118	162	144
11	123	130	120	110	124	202	146	130	185	118	149	149
12	117	113	146	124	124	214	155	142	180	118	144	154
13	124	113	134	151	124	212	146	136	184	116	131	157
14	128	113	120	158	124	204	139	130	184	116	136	152
15	128	113	120	150	124	196	146	142	180	114	134	152
16	125	109	140	140	124	192	146	145	175	114	139	147
17	123	97	150	130	124	190	150	150	165	112	138	149
18	127	91	160	120	124	221	146	155	160	110	133	154
19	123	108	180	110	125	188	136	154	150	99	133	154
20	121	112	141	110	130	188	135	154	144	204	133	163
21	120	104	140	120	130	190	135	155	145	206	131	168
22	120	161	166	120	135	190	135	158	145	174	124	163
23	131	136	165	125	135	180	135	160	160	162	123	149
24	132	136	186	125	135	168	140	160	173	163	120	150
25	133	145	178	125	140	170	140	146	162	160	118	150
26	129	140	160	125	140	168	140	155	166	155	118	146
27	128	149	150	125	140	155	140	182	147	147	121	141
28	130	132	145	125	150	155	140	188	147	128	130	138
29	132	136	135	120	---	150	145	192	145	118	139	133
30	126	140	120	120	---	140	145	184	140	114	139	133
31	131	---	100	120	---	140	---	192	---	117	138	---
TOTAL	4196	3712	4236	3848	3512	5293	4390	4865	5145	4173	4411	4483
MEAN	135	124	137	124	125	171	146	157	172	135	142	149
MAX	256	161	186	158	150	221	168	192	196	206	173	168
MIN	117	91	90	100	100	135	135	127	140	99	118	133
AC-FT	8320	7360	8400	7630	6970	10500	8710	9650	10210	8280	8750	8890
CAL YR 1977	TOTAL	62419	MEAN	171	MAX	1380	MIN	90	AC-FT	123800		
WTR YR 1978												

PLATTE RIVER BASIN

06766000 PLATTE RIVER AT BRADY, NE

LOCATION.--Lat 41°01'10", long 100°22'16" (north channel only), on two channels in secs. 11 and 23, T. 12 N., R. 27 W., Lincoln County, Hydrologic Unit 10200101, on downstream side of highway bridges 0.5 mi (0.8 km) and 2.5 mi (4.0 km), respectively, south of Brady and 18 mi (29 km) downstream from confluence of North Platte and South Platte Rivers.

DRAINAGE AREA.--56,200 mi² (145,600 km²), approximately, of which about 51,400 mi² (133,100 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May to September 1937, May 1938 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1941(M). WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Two water-stage recorders. Datum of gage on north channel is 2,639.19 ft (804.425 m) and on south channel, 2,641.66 ft (805.178 m) National Geodetic Vertical Datum of 1929. No information available on gages operated by State engineer prior to Nov. 18, 1938. Nov. 18, 1938 to Sept. 30, 1942, gage on north channel at datum 1 ft (0.3 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Tri-County main supply canal, capacity, about 2,000 ft³/s (56.6 m³/s), diverts 18 mi (29 km) above station; diversion started Nov. 26, 1940. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft³/s (527 m³/s) May 14, 1973; no flow Aug. 22-24, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,870 ft³/s (81.3 m³/s) July 22; minimum daily, 81 ft³/s (2.29 m³/s) Sept. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	146	169	134	118	135	210	190	233	1450	1480	243
2	199	143	162	134	116	135	226	183	219	1590	1460	226
3	183	142	146	130	116	131	227	181	214	1650	1440	230
4	175	145	149	130	118	130	213	180	208	1650	1380	226
5	177	149	116	136	124	124	206	183	232	1760	970	230
6	182	153	120	136	120	125	194	191	249	1900	652	223
7	189	157	128	136	112	124	191	205	240	1930	543	191
8	178	166	132	135	120	124	189	206	265	1990	499	179
9	171	162	134	134	128	125	199	201	225	1980	474	175
10	170	155	134	130	130	129	185	191	201	1960	427	171
11	154	155	148	128	134	170	178	176	185	1970	414	166
12	140	151	158	138	132	230	173	164	179	1980	338	162
13	140	151	151	142	134	344	170	158	170	1930	372	165
14	139	152	150	140	140	382	196	161	162	1930	464	167
15	139	151	148	136	144	398	189	159	156	1900	481	162
16	132	151	149	124	144	399	197	153	170	1880	349	116
17	131	152	154	122	144	399	232	150	171	1860	331	107
18	128	146	150	122	144	370	243	175	143	1830	316	113
19	134	146	144	124	144	325	228	168	132	1830	369	111
20	133	146	136	122	144	294	217	160	161	2100	426	106
21	136	106	134	126	146	278	195	159	160	2580	450	125
22	132	118	143	132	147	264	182	169	153	2660	483	103
23	135	132	143	142	146	244	163	201	176	1930	601	93
24	138	142	143	144	147	227	162	203	288	1580	639	93
25	138	144	144	138	148	218	171	197	388	1320	684	87
26	138	149	146	122	145	212	171	184	496	1130	698	81
27	138	156	144	118	141	205	171	255	588	978	598	81
28	141	162	142	118	136	205	177	288	706	950	444	117
29	146	159	142	122	---	213	177	283	961	1020	419	97
30	147	162	140	120	---	216	178	259	1170	1010	326	138
31	147	---	140	118	---	214	---	246	---	1190	235	---
TOTAL	4767	4449	4439	4033	3762	7089	5810	5979	9001	53418	18762	4484
MEAN	154	148	143	130	134	229	194	193	300	1723	605	149
MAX	237	166	169	144	148	399	243	288	1170	2660	1480	243
MIN	128	106	116	118	112	124	162	150	132	950	235	81
AC-FT	9460	8820	8800	8000	7460	14060	11520	11860	17850	106000	37210	8890

CAL YR 1977 TOTAL 136829 MEAN 375 MAX 2830 MIN 88 AC-FT 271400
WTR YR 1978 TOTAL 125993 MEAN 345 MAX 2660 MIN 81 AC-FT 249900

PLATTE RIVER BASIN

121

06766500 PLATTE RIVER NEAR COZAD, NE

LOCATION.--North Channel gage: Lat 40°50'08", long 99°59'13" in S1/2 sec.18, T.10 N., R.23 W., Dawson County, Hydrologic Unit 10200101, on left bank 30 ft (9 m) upstream from highway bridge, 1.5 mi (2.4 km) south of Cozad. South Channel gage: Lat 40°49'47", long 99°59'18" in S1/2 sec.18, T.10 N., R.23 W., Dawson County, on downstream side of highway bridge, 1.5 mi (2.4 km) south of Cozad. Prior to June 16, north channel gage on downstream side of highway bridge 30 ft (9 m) downstream.

DRAINAGE AREA.--56,500 mi² (146,300 km²), approximately, of which about 51,700 mi² (133,900 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July to September 1932, May 1937 to current year (prior to April 1939, irrigation seasons only). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Two water-stage recorders. Datum of gage on south channel is 2,473.07 ft (753.792 m) and on north channel, 2,475.72 ft (754.599 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Roads bench mark). May 11, 1976 to June 16, 1977, north channel gage on downstream side of highway bridge 30 ft (9 m) downstream at same datum. See WSP 2118 for history of changes prior to May 10, 1966. May 10, 1966 to May 10, 1976 at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s (521 m³/s) May 29, 1973; no flow at times in 1937-40.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,470 ft³/s (41.6 m³/s) Mar. 15; minimum daily, 24 ft³/s (0.68 m³/s) June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	261	219	237	153	160	238	342	332	58	32	135	109
2	284	216	237	164	167	232	362	331	50	28	432	55
3	281	217	235	196	165	221	366	323	51	31	414	36
4	260	223	233	224	175	227	361	323	54	31	487	36
5	250	223	226	202	175	229	345	321	55	43	432	39
6	239	224	119	183	174	245	335	343	58	44	216	36
7	256	224	159	188	176	242	321	380	84	43	154	32
8	246	241	169	186	170	249	317	392	74	53	191	34
9	231	240	208	189	180	254	339	267	58	103	152	38
10	228	238	218	178	190	287	345	205	51	106	166	43
11	216	243	229	182	199	338	330	157	49	74	143	47
12	216	243	240	188	199	435	320	146	44	99	102	44
13	213	242	239	194	209	622	312	136	44	122	88	50
14	213	242	239	200	210	1090	389	134	44	120	71	61
15	213	249	242	201	220	1440	387	93	44	109	50	57
16	219	249	261	207	230	1300	396	61	44	91	40	52
17	219	248	284	182	220	1160	433	69	40	67	40	57
18	216	238	255	183	210	1020	464	78	34	54	39	79
19	216	248	242	187	230	784	454	128	33	61	37	42
20	216	238	218	192	239	739	413	94	39	306	38	30
21	208	227	189	192	249	692	381	63	38	597	63	27
22	208	219	207	196	259	625	355	64	56	1080	47	34
23	204	226	227	195	271	522	344	70	81	1250	38	38
24	208	229	248	195	253	420	328	56	95	670	40	32
25	208	232	236	192	263	398	328	59	133	417	69	30
26	205	232	210	153	270	387	335	54	140	166	94	28
27	205	231	210	157	274	366	333	105	78	71	73	32
28	205	236	190	156	263	344	325	166	39	58	41	41
29	210	240	183	155	---	334	322	162	28	52	32	97
30	216	240	194	160	---	334	322	127	24	62	37	122
31	224	---	194	160	---	334	---	90	---	86	74	---
TOTAL	6994	7017	6778	5690	6000	16108	10704	5329	1720	6126	4035	1458
MEAN	226	234	219	184	214	520	357	172	57.3	198	130	48.6
MAX	284	249	284	224	274	1440	464	392	140	1250	487	122
MIN	204	216	119	153	160	221	312	54	24	28	32	27
AC-FT	13870	13920	13440	11290	11900	31950	21230	10570	3410	12150	8000	2890
CAL YR 1977	TOTAL	93622	MEAN	256	MAX	1730	MIN	33	AC-FT	185700		
WTR YR 1978	TOTAL	77959	MEAN	214	MAX	1440	MIN	24	AC-FT	154600		

PLATTE RIVER BASIN

06768000 PLATTE RIVER NEAR OVERTON, NE

LOCATION.--Lat 40°40'57", long 99°32'19", in NW1/4NE1/4 sec.12, T.8 N., R.20 W., Dawson County, Hydrologic Unit 10200101, on left bank 600 ft (183 m) downstream from county highway bridge, 4 mi (6 km) south of Overton and 4 mi (6 km) downstream from Plum Creek.

DRAINAGE AREA.--57,700 mi² (149,400 km²), approximately, of which about 52,900 mi² (137,000 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1914 (gage heights only), October 1914 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Elm Creek" 1914-15.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,298.83 ft (700.683 m) National Geodetic Vertical Datum of 1929. July 1914 to October 1917 nonrecording gages at site 8 mi (13 km) downstream at different datum. June 1918 to Sept. 12, 1928, nonrecording gage at site 600 ft (180 m) upstream (south channel only) at datum 3.0 ft (0.91 m) higher. Sept. 13, 1928, to Sept. 30, 1930, nonrecording gage and Oct. 1, 1930, to Sept. 30, 1968, water-stage recorder, at site 600 ft (180 m) upstream (south channel only) at datum 1.0 ft (0.30 m) higher. Oct. 1, 1968 to Feb. 3, 1976 water-stage recorder on south channel at site 600 ft (180 m) upstream at datum 1.0 ft (0.30 m) higher, and Feb. 4 to June 2, 1976 (south channel gage discontinued) at present datum. Oct. 1, 1968, to July 10, 1974, north channel gage at site 600 ft (180 m) upstream at datum 1.0 ft (0.30 m) higher and July 11, 1974 to June 1, 1976 at same datum.

REMARKS.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,600 ft³/s (1,060 m³/s) June 5, 1935, gage height, 6.25 ft (1.905 m) south channel; maximum gage height, 6.43 ft (1.960 m) May 15, 1973, north channel, datum then in use; no flow at times in 1919, 1922, 1925, 1927-28, 1930-41.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,600 ft³/s (102 m³/s) Mar. 15, gage height, 3.24 ft (0.988 m); maximum gage height, 4.81 ft (1.466 m) Jan. 19, backwater from ice; minimum daily discharge, 82 ft³/s (2.32 m³/s) July 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	1030	1180	1030	960	1100	1200	1270	577	130	325	183
2	1100	1040	1140	1220	1000	1040	1270	1100	503	120	457	217
3	1040	1080	1160	1220	1000	1100	1370	919	480	120	788	170
4	990	972	1200	1080	1020	1200	1410	972	446	110	836	140
5	937	972	1220	1040	1080	1290	1490	1030	469	89	1030	125
6	972	1040	1200	1200	1040	1240	1470	1080	515	89	972	120
7	1040	1030	1370	1240	1000	1240	1540	1120	480	93	742	115
8	937	1030	1200	1200	960	1310	1560	1220	528	82	602	256
9	972	1010	1430	1160	980	1350	1720	1140	540	82	457	363
10	972	1080	1650	1160	960	1250	1620	954	552	93	446	373
11	937	1120	1450	1160	1000	1450	1510	885	480	115	383	436
12	1030	1160	1180	1000	980	1410	1540	788	480	130	343	446
13	1080	1100	1060	1000	980	1600	1600	836	469	140	306	469
14	1010	1100	1100	1000	1000	2080	1600	885	469	146	289	590
15	1060	1100	1120	1100	980	2740	1510	713	393	152	316	727
16	1030	1120	1220	1080	980	3020	1690	629	403	152	325	773
17	1060	1120	1220	1060	920	2740	1600	629	334	146	297	836
18	990	1140	1220	1040	960	2580	1650	515	297	135	263	852
19	1080	1180	1220	1000	1000	2490	1600	602	272	120	272	757
20	1080	1080	1120	980	1100	2460	1350	577	272	152	280	773
21	656	1290	937	980	1160	2350	1370	528	217	353	272	902
22	990	1310	1370	960	1200	2030	1310	528	189	1030	240	852
23	972	1220	1080	960	1200	1600	1290	564	189	1580	232	820
24	954	1080	1200	960	1250	1330	1240	540	196	1620	203	820
25	1060	1030	1200	900	1250	1270	1270	515	217	1310	210	852
26	1080	1060	1160	880	1250	1270	1310	445	224	1100	217	788
27	1080	1030	1080	880	1250	1290	1270	492	217	616	217	852
28	1100	1080	1100	880	1160	1240	1220	552	217	373	203	852
29	1160	990	1180	860	---	1150	1270	590	189	306	183	902
30	1200	1270	1080	900	---	1240	1240	629	146	289	176	902
31	1200	---	1240	920	---	1160	---	642	---	289	176	---
TOTAL	31829	32864	37287	32050	29620	50620	43090	23890	10960	11262	12058	17263
MEAN	1027	1095	1203	1034	1058	1633	1436	771	365	363	389	575
MAX	1200	1310	1650	1240	1250	3020	1720	1270	577	1620	1030	902
MIN	656	972	937	860	920	1040	1200	446	146	82	176	115
AC-FT	63130	65190	73960	63570	58750	100400	85470	47390	21740	22340	23920	34240
CAL YR 1977 TOTAL	404273		MEAN	1108	MAX	4710	MIN	134	AC-FT	801900		
WTR YR 1978 TOTAL	332793		MEAN	912	MAX	3020	MIN	82	AC-FT	660100		

PLATTE RIVER BASIN

123

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952, 1958 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1958 to current year.

WATER TEMPERATURES: January 1958 to current year.

INSTRUMENTATION.-- Temperature recorder from April 5, 1967 to Aug. 2, 1976; Mar. 21, 1978 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,480 micromhos May 15, 1966 (south chan.); minimum daily, 214 micromhos July 23, 1968 (south chan.).

WATER TEMPERATURES: Maximum, 37.0°C June 13, 1959 (south chan.), July 9, 1960 (north chan.); minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,000 micromhos June 16 (south chan.); minimum daily, 455 micromhos Mar. 13 (north chan.)

WATER TEMPERATURES: Maximum daily, 35.5°C July 2, 12; minimum daily, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT										
18...	1320	800	812	7.3	14.5	7	280	73	75	22
NOV										
16...	1230	1210	903	7.1	7.0	5	290	73	80	23
DEC										
15...	1200	1180	942	7.2	2.0	4	290	75	79	22
FEB										
06...	1530	1580	818	7.2	.0	5	270	88	68	24
21...	1600	1720	946	7.2	.0	2	320	92	86	26
MAR										
22...	1000	1570	750	7.4	11.0	9	270	65	75	20
MAY										
16...	1300	1050	912	7.2	18.0	2	300	74	82	24
JUN										
20...	1430	207	888	7.4	27.0	5	310	89	83	25
JUL										
18...	1220	148	908	7.2	23.0	5	280	58	74	23
AUG										
21...	1120	283	1030	7.2	23.0	5	300	75	79	24
SEP										
19...	1410	480	852	7.4	17.0	4	280	62	74	22

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT									
18...	67	1.8	14	250	0	210	180	22	.6
NOV									
16...	66	1.7	14	270	0	220	190	27	.6
DEC									
15...	63	1.6	14	260	0	210	170	23	.5
FEB									
06...	78	2.1	11	220	0	180	210	27	.5
21...	90	2.2	14	280	0	230	240	28	.6
MAR									
22...	57	1.5	14	250	0	210	150	22	.5
MAY									
16...	74	1.8	15	280	0	230	200	30	.6
JUN									
20...	85	2.1	14	270	0	220	210	39	.6
JUL									
18...	81	2.1	17	270	0	220	190	28	.6
AUG									
21...	87	2.2	16	270	0	220	220	31	.6
SEP									
19...	82	2.2	15	260	0	210	210	27	.6

PLATTE RIVER BASIN

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS- SOLVED (MG/L AS S102) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 18...	34	542	.74	1170	.86	.06	120	10	0
NOV 16...	36	575	.78	1880	1.2	.05	120	20	8
DEC 15...	36	543	.74	1730	1.6	.08	110	10	0
FEB 06...	30	560	.76	2390	.76	.02	130	0	10
21...	38	667	.91	3100	1.5	.07	150	0	10
MAR 22...	34	502	.68	2130	1.3	.25	110	60	20
MAY 16...	33	602	.82	1710	1.2	.14	130	0	0
JUN 20...	31	625	.85	349	.63	.07	130	20	950
JUL 18...	34	583	.79	233	.51	.11	150	<10	5
AUG 21...	29	623	.85	476	.78	.07	140	20	10
SEP 19...	30	593	.81	769	.79	.07	140	210	10

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	10.0	12.0	8.5	19.5	14.5	34.0	20.5	28.0	23.5	26.0	17.0
2	15.0	7.0	15.0	8.0	17.0	13.0	35.5	20.0	26.5	20.5	28.5	18.5
3	16.5	10.0	14.0	9.0	26.5	13.5	33.5	20.5	23.0	19.0	30.0	20.0
4	16.5	10.0	11.0	8.5	26.5	16.5	33.0	20.0	23.0	19.0	31.0	20.5
5	13.5	10.0	12.0	8.0	20.0	16.5	33.5	20.5	25.5	19.0	30.5	21.5
6	12.0	8.5	11.0	6.0	27.0	21.0	28.0	19.5	28.0	20.5	28.5	18.5
7	12.5	9.5	14.5	6.0	26.0	17.0	33.0	18.0	29.0	21.0	28.0	18.0
8	15.5	10.0	14.0	9.5	27.0	14.5	34.0	19.0	29.0	23.5	26.5	16.5
9	16.5	10.5	17.0	6.5	28.0	17.0	28.0	20.5	30.0	21.5	28.5	17.0
10	13.5	9.5	21.0	10.0	29.0	16.5	29.0	17.0	29.5	20.0	29.0	18.5
11	13.0	9.0	21.5	14.0	28.5	17.0	28.5	22.0	29.5	21.0	28.0	18.5
12	15.0	10.5	17.0	11.5	29.5	15.5	35.5	20.5	31.5	23.5	28.5	20.5
13	12.5	9.0	20.0	8.0	27.0	20.0	31.5	20.5	32.0	23.5	25.5	17.0
14	10.0	7.0	22.0	11.5	31.0	17.0	32.0	21.5	26.5	22.0	26.5	15.5
15	8.5	7.0	23.0	13.0	33.5	20.0	34.5	22.0	25.5	18.5	26.0	17.0
16	8.0	5.0	20.5	15.5	34.0	21.5	31.0	23.0	29.0	18.5	27.0	19.0
17	8.0	5.0	18.5	10.5	30.0	20.0	35.0	25.0	27.5	18.0	19.0	15.5
18	11.0	8.0	15.0	11.0	31.0	18.0	29.5	23.0	26.0	18.0	25.5	16.0
19	14.0	10.0	24.5	14.0	29.5	16.5	29.5	23.0	26.0	18.5	18.5	14.0
20	14.5	11.5	23.5	13.0	29.0	19.0	31.5	21.0	27.0	18.5	16.5	12.0
21	10.5	8.0	24.0	13.5	27.0	16.0	27.0	21.5	27.5	18.5	21.0	10.0
22	13.5	8.5	17.0	14.5	27.0	19.5	24.0	21.5	30.0	20.5	20.0	11.0
23	16.0	8.5	28.0	20.0	30.0	20.0	26.0	21.0	31.0	21.0	23.5	11.0
24	15.5	11.0	25.5	19.0	34.0	20.5	28.0	21.5	32.5	23.5	22.0	14.0
25	17.0	10.5	28.0	16.5	34.5	21.5	29.5	21.5	32.0	23.0	23.5	13.0
26	17.0	11.5	27.0	17.0	31.5	22.0	29.5	22.5	32.0	23.0	24.5	17.0
27	17.0	11.0	23.0	18.0	30.5	24.5	30.5	22.5	31.0	21.5	23.5	14.0
28	15.5	11.0	24.5	15.5	32.0	22.0	30.0	22.0	28.0	20.5	23.0	13.0
29	18.0	11.0	21.5	16.0	33.0	21.5	29.5	22.0	25.0	19.0	22.0	14.5
30	18.0	12.0	26.5	21.5	31.5	20.0	30.0	22.5	26.0	17.0	22.0	11.0
31	---	---	21.5	15.0	---	---	25.0	20.0	25.5	15.5	---	---
MONTH	18.0	5.0	28.0	6.0	34.5	13.0	35.5	17.0	32.5	15.5	31.0	10.0

06767998 PLATTE RIVER NEAR OVERTON, NE (NORTH CHANNEL)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	810	815	790	888	814	785	808	740	845	910	765	855
2	815	825	815	908	818	795	805	760	840	940	757	878
3	815	818	810	918	830	800	795	775	865	928	765	910
4	848	832	810	908	850	803	804	790	845	920	868	918
5	798	788	695	908	850	795	817	775	840	920	836	978
6	846	820	757	832	822	785	818	768	885	928	845	918
7	847	815	750	905	848	795	818	770	848	928	905	937
8	845	768	815	902	845	730	826	770	848	918	905	935
9	845	800	808	896	816	777	797	780	850	950	882	940
10	852	810	898	900	848	700	800	820	838	900	865	905
11	835	818	765	885	840	698	832	735	825	898	869	905
12	855	818	808	905	855	643	838	855	845	853	870	907
13	850	840	806	865	838	455	840	850	865	878	875	890
14	855	825	768	865	821	484	795	840	855	850	910	928
15	845	825	677	895	816	468	800	840	885	850	868	915
16	845	818	662	899	850	530	830	868	892	867	938	890
17	852	775	698	885	841	562	835	887	880	895	948	884
18	848	818	740	865	829	562	860	870	868	898	945	898
19	850	820	745	795	820	566	855	860	885	857	935	898
20	853	815	700	803	856	668	850	860	880	865	918	895
21	848	830	707	810	813	687	856	862	880	780	905	877
22	848	869	720	816	860	699	865	858	835	750	895	877
23	845	795	700	816	814	705	858	853	840	780	905	910
24	850	835	789	835	818	704	857	890	848	775	925	915
25	835	845	708	820	820	706	855	848	837	800	907	910
26	828	815	790	818	812	706	848	868	838	818	897	825
27	822	755	858	820	837	747	855	875	845	839	888	898
28	828	845	825	816	841	747	855	748	815	857	896	838
29	818	845	838	812	---	750	855	780	814	880	918	838
30	825	818	825	818	---	757	840	798	830	885	906	850
31	825	---	882	815	---	755	---	780	---	877	906	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	11.0	4.0	.0	.0	.0	12.0	10.0	16.0	23.0	25.0	24.0
2	13.0	5.0	2.0	.0	.0	.0	14.0	10.0	19.0	26.0	23.0	21.0
3	12.0	6.0	4.0	.0	.0	.0	13.0	16.0	27.0	22.0	24.0	30.0
4	17.0	12.0	4.0	.0	.0	2.0	18.0	13.0	24.0	26.0	24.0	31.0
5	18.0	11.0	.0	.0	.0	3.0	18.0	13.0	21.0	29.0	22.0	22.0
6	17.0	12.0	.0	1.0	.0	2.0	20.0	10.0	18.0	21.0	21.0	30.0
7	12.0	12.0	.0	.0	.0	2.0	21.0	8.0	25.0	33.0	22.0	19.0
8	7.0	9.0	.0	.0	.0	1.0	16.0	9.0	27.0	21.0	22.0	27.0
9	17.0	5.0	.0	.0	.0	6.0	12.0	10.0	28.0	27.0	29.0	19.0
10	13.0	7.0	.0	.0	.0	2.0	12.0	23.0	28.0	21.0	21.0	23.0
11	12.0	6.0	1.0	1.0	.0	1.0	8.0	16.0	24.0	22.0	29.0	22.0
12	6.0	7.0	1.0	.0	.0	1.0	11.0	14.0	29.0	35.0	25.0	28.0
13	17.0	7.0	1.0	.0	.0	1.0	16.0	12.0	21.0	21.0	31.0	25.0
14	13.0	6.0	2.0	.0	.0	1.0	10.0	18.0	26.0	31.0	24.0	15.0
15	13.0	7.0	7.0	.0	.0	5.0	9.0	23.0	31.0	33.0	24.0	17.0
16	10.0	6.0	1.0	.0	.0	6.0	9.0	23.0	.0	30.0	22.0	27.0
17	11.0	6.0	2.0	.0	.0	6.0	9.0	14.0	29.0	22.0	22.0	17.0
18	10.0	7.0	3.0	.0	.0	1.0	10.0	20.0	25.0	23.0	25.0	16.0
19	17.0	6.0	1.0	.0	.0	9.0	10.0	27.0	22.0	23.0	28.0	14.0
20	11.0	2.0	.0	.0	1.0	2.0	14.0	15.0	17.0	22.0	23.0	16.0
21	16.0	1.0	1.0	.0	1.0	7.0	10.0	20.0	27.0	22.0	33.0	22.0
22	12.0	1.0	2.0	.0	2.0	9.0	8.0	20.0	28.0	22.0	23.0	12.0
23	10.0	3.0	2.0	.0	1.0	.0	9.0	28.0	29.0	23.0	33.0	14.0
24	11.0	1.0	.0	.0	1.0	8.0	15.0	26.0	24.0	27.0	29.0	15.0
25	16.0	1.0	.0	.0	.0	5.0	16.0	19.0	24.0	30.0	30.0	14.0
26	14.0	1.0	.0	.0	2.0	13.0	12.0	27.0	23.0	30.0	23.0	24.0
27	16.0	1.0	.0	.0	3.0	9.0	17.0	19.0	20.0	30.0	29.0	15.0
28	14.0	1.0	1.0	.0	1.0	17.0	20.0	17.0	31.0	30.0	21.0	24.0
29	16.0	4.0	1.0	.0	---	9.0	15.0	21.0	.0	22.0	18.0	21.0
30	15.0	4.0	1.0	.0	---	19.0	15.0	17.0	29.0	24.0	27.0	23.0
31	10.0	---	1.0	.0	---	20.0	---	16.0	---	23.0	19.0	---

PLATTE RIVER BASIN

06767999 PLATTE RIVER NEAR OVERTON, NE (SOUTH CHANNEL)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	825	760	605	908	838	836	765	750	845	817	755	878
2	825	775	800	910	836	848	765	765	895	807	759	820
3	830	772	770	895	847	848	765	725	987	815	765	808
4	808	748	805	948	847	815	749	740	992	808	785	790
5	795	738	805	948	858	845	747	780	967	832	810	835
6	798	770	780	947	862	840	748	768	948	817	822	832
7	835	770	768	938	855	840	748	805	985	755	825	830
8	828	775	820	938	846	845	778	798	948	765	815	835
9	792	735	738	935	858	828	758	805	949	785	815	808
10	792	740	795	910	854	765	758	780	960	805	828	800
11	846	735	748	908	860	755	790	805	969	811	750	798
12	832	735	735	915	858	630	790	825	975	898	768	780
13	798	772	585	924	584	627	756	808	982	775	778	776
14	825	772	655	924	850	625	785	750	986	798	815	796
15	832	775	804	930	852	690	804	758	982	798	788	775
16	832	738	822	987	845	753	733	770	1000	767	798	777
17	825	740	825	918	842	808	732	830	986	835	818	772
18	828	735	815	918	840	795	770	783	978	838	808	798
19	790	718	815	947	838	818	770	777	978	825	808	795
20	830	728	815	918	855	795	770	832	985	825	838	779
21	835	730	815	908	844	818	762	795	958	792	808	799
22	810	735	813	950	854	808	820	795	962	790	813	822
23	827	735	832	952	847	795	815	780	978	805	788	820
24	828	718	838	978	854	805	752	780	970	800	818	820
25	775	765	820	955	857	805	775	788	870	795	800	818
26	812	768	820	920	867	768	810	820	878	790	815	785
27	775	768	845	907	867	781	758	812	908	815	830	818
28	812	768	810	893	847	760	754	795	927	815	848	790
29	775	758	810	879	---	737	803	790	958	909	825	794
30	780	755	815	862	---	748	806	825	975	798	815	790
31	820	---	805	849	---	748	---	675	---	800	850	---

06768015 SPRING CREEK BELOW LEXINGTON, NE

LOCATION.--Lat 40°45'13", long 99°40'22", in NW1/4SW1/4NW1/4 sec.13, T.9 N., R.21 W., Dawson County, Hydrologic Unit 10200101, at bridge on county road 0.5 miles south of U.S. Highway 30, 0.1 miles downstream from Dawson County Drain No. 401, and 3.2 miles southeast of Lexington.

PERIOD OF RECORD.--Water year 1973 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 19...	1215	6.0	1140	8.0	10.0	5	14.0	23	K700	K500
NOV 22...	1130	8.5	1200	8.0	1.0	5	15.7	12	K160	440
DEC 20...	1230	11	1180	7.9	.0	5	13.1	4.6	3200	88000
JAN 18...	1245	8.0	1620	7.7	.0	15	9.1	4.1	K25	83000
FEB 15...	1230	3.0	1570	7.4	.0	9	11.7	2.5	K1180	4200
MAR 15...	1430	110	408	7.2	.0	90	8.7	28	150000	6000
APR 25...	1130	16	1260	7.9	10.0	10	12.9	6.5	--	2400
MAY 23...	1245	14	680	7.9	22.0	60	8.5	9.0	K120000	3600
JUL 18...	1315	7.6	1380	8.0	22.0	30	8.9	3.3	120000	1800
AUG 16...	1215	74	1030	7.9	21.0	60	7.9	14	K52000	3300
SEP 26...	1215	45	833	8.1	17.0	80	8.7	1.2	14000	2500

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 19...	41	--	1.09	13.0	.23	.06	.52	.58	.81	.34
NOV 22...	46	888	1.21	20.4	.68	.02	.66	.68	1.4	.41
DEC 20...	56	944	1.28	28.0	2.0	.65	.95	1.6	3.6	.81
JAN 18...	62	--	1.62	25.7	2.7	.75	.19	.94	3.6	.89
FEB 15...	54	1130	1.54	9.15	4.3	.56	.94	1.5	5.8	.49
MAR 15...	17	284	.39	84.3	2.9	1.8	5.7	7.5	10	2.3
APR 25...	43	--	1.20	38.0	.61	.03	.68	.71	1.3	.45
MAY 23...	29	651	.89	24.6	.63	.12	1.2	1.3	1.9	.45
JUL 18...	41	--	1.32	19.9	3.3	.00	1.4	1.4	4.7	.30
AUG 16...	30	712	.97	142	1.2	.14	1.9	2.0	3.2	.33
SEP 26...	23	617	.84	75.0	.63	.03	.86	.89	1.5	.30

PLATTE RIVER BASIN

06768015 SPRING CREEK BELOW LEXINGTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
OCT 19...	1215	12	470	120	130	35	75	1.5	35	420	0
JAN 18...	1245	8	550	120	150	43	170	3.2	43	530	0
APR 25...	1130	9	490	110	130	40	97	1.9	40	460	0
JUL 18...	1315	12	420	79	120	28	160	3.4	29	410	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT 19...	340	240	.6	40	804	.33	--	170	--	--
JAN 18...	430	410	.7	48	1190	.60	15	310	2	20
APR 25...	380	270	.6	32	880	.42	--	170	--	--
JUL 18...	340	350	.6	40	971	.22	14	270	2	10

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 19...	--	10	--	20	--	--	--	--	--	--
JAN 18...	3	40	13	100	.8	.8	.0	5	0	20
APR 25...	--	30	--	50	--	--	--	--	--	--
JUL 18...	2	40	7	20	.2	.2	.0	3	0	10

LOCATION.--Lat 40°39'55", long 99°15'20", in E1/2 sec.16, T.8 N., R.17 W., Buffalo-Phelps County line, Hydrologic Unit 10200101, near right bank on downstream side of pier of highway bridge, 2.5 mi (4.0 km) south of Odessa and 5 mi (8 km) downstream from Elm Creek.

PERIOD OF RECORD.--March 1937 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 2,197.07 ft (669.667 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1938, nonrecording gage and Oct. 7, 1938, to Sept. 30, 1942, water-stage recorder, at present site at datum 1.00 ft (0.305 m) higher.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,700 ft³/s (643 m³/s) June 24, 1947, gage height, 5.52 ft (1.682 m); maximum gage height, 5.89 ft (1.795 m) Mar. 5, 1952, backwater from ice; no flow for periods in each year prior to 1947 and in 1953-57. 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 4,100 ft³/s (116 m³/s) Mar. 17, gage height, 3.18 ft (0.969 m), backwater from ice; maximum gage height, 4.33 ft (1.320 m) Dec. 20, ice jam; minimum daily discharge, 2.0 ft³/s (0.057 m³/s) July 2.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	982	854	1080	1200	800	1200	1260	1130	414	9.0	162	30
2	918	854	1010	1200	800	1200	1410	1090	342	2.0	180	30
3	790	902	1090	1200	900	1100	1410	934	318	4.0	342	54
4	806	822	1170	1200	900	1200	1260	1010	294	3.0	486	60
5	790	854	1150	1200	900	1300	1130	1110	250	5.0	552	22
6	806	838	776	1200	920	1400	1080	1280	250	6.0	566	15
7	902	762	776	1250	940	1500	1030	1360	250	6.0	486	10
8	870	998	740	1250	960	1600	1090	1280	230	9.0	402	5.0
9	838	1280	760	1200	960	1700	2200	1010	240	15	282	12
10	822	1110	760	1200	980	1750	1860	734	260	18	250	84
11	776	1130	800	1100	980	1750	1540	552	250	12	180	106
12	776	1130	860	1160	980	1750	1360	608	190	9.0	154	230
13	870	1060	860	1160	980	2100	1260	664	170	18	146	240
14	934	1010	900	1160	940	2500	1490	580	170	42	122	260
15	934	1010	960	1160	940	2900	1600	552	154	42	220	474
16	966	1080	1020	1100	900	3300	1810	450	114	36	154	608
17	934	1030	1100	1100	900	3500	2180	402	114	30	98	608
18	870	1050	1160	1100	900	3230	2090	402	98	26	48	552
19	822	1050	1250	1060	960	3120	1720	402	66	12	36	474
20	806	1050	1250	1020	1040	2750	1560	524	42	12	54	474
21	806	1050	1060	1000	1120	2450	1410	474	30	48	60	486
22	734	934	1160	1000	1200	2290	1300	390	26	250	42	538
23	854	1050	1200	1000	1200	1860	1240	390	30	902	26	510
24	806	1110	1200	1000	1200	1560	1300	378	30	1470	8.0	486
25	822	1190	1200	900	1250	1410	1240	438	26	1410	8.0	486
26	748	1150	1200	800	1300	1320	1150	342	22	934	10	474
27	734	1130	1200	800	1300	1400	1170	366	22	594	15	450
28	806	1130	1250	800	1250	1400	1060	474	15	230	22	438
29	918	1130	1250	800	---	1280	1080	474	12	66	72	426
30	822	1060	1250	800	---	1170	1080	390	9.0	48	78	426
31	870	---	1200	800	---	1280	---	414	---	78	30	---
TOTAL	26132	30808	32642	32920	28400	58270	42370	20604	4438.0	6346.0	5291.0	9068.0
MEAN	843	1027	1053	1062	1014	1880	1412	665	148	205	171	302
MAX	982	1280	1250	1250	1300	3500	2200	1360	414	1470	566	608
MIN	734	762	740	800	800	1100	1030	342	9.0	2.0	8.0	5.0
AC-FT	51830	61110	64750	65300	56330	115600	84040	40870	8800	1259		

PLATTE RIVER BASIN

06770205 PLATTE RIVER (NORTH CHANNEL) NEAR KEARNEY, NE

LOCATION.--Lat 40°40'30", long 99°00'24", in SW1/4NW1/4SW1/4 sec.10, T.8 N., R.15 W., Buffalo County, Hydrologic Unit 10200101, on county road 0.2 miles north of Interstate Highway I-80 (no access) and about 4.5 miles southeast of Kearney.

PERIOD OF RECORD.--Water year 1973 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 19...	0945	187	825	8.0	11.0	10	10.4	26	K250000	2000
NOV 22...	0900	19	1150	7.6	6.0	2	8.7	11	120000	8200
DEC 20...	1000	16	1150	7.6	6.0	3	9.8	7.1	41000	84000
JAN 18...	1020	16	1200	7.6	4.0	4	7.2	4.8	40000	12000
FEB 15...	1000	17	1160	7.6	8.0	5	8.7	7.2	K380000	K110000
MAR 15...	1215	40	904	7.6	7.0	12	11.2	6.2	K300000	42000
APR 25...	0900	81	1000	7.8	10.0	5	10.6	8.6	K320000	5200
MAY 23...	1015	192	894	8.1	19.5	10	8.9	8.8	K240000	1500
JUL 18...	1045	50	904	8.0	25.0	20	8.5	5.2	300000	1000
AUG 16...	0945	180	872	8.2	22.0	40	7.9	3.6	K93000	1400
SEP 26...	0930	216	862	8.1	18.0	35	8.9	2.0	500000	2800

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 19...	27	--	--	--	.51	.07	--	--	--	.22
NOV 22...	17	745	1.01	38.2	1.9	3.2	.90	4.1	6.0	9.8
DEC 20...	72	761	1.04	32.9	1.6	3.1	1.3	4.4	6.0	2.7
JAN 18...	82	--	1.05	33.5	1.6	4.9	.00	4.9	6.5	2.2
FEB 15...	72	742	1.01	34.1	1.7	4.3	1.1	5.4	7.1	2.1
MAR 15...	41	592	.81	63.9	2.1	1.9	1.5	3.4	5.5	1.5
APR 25...	39	--	.86	138	1.4	.42	.49	.91	2.3	.40
MAY 23...	31	596	.81	309	.65	.28	1.0	1.3	2.0	.37
JUL 18...	41	--	.81	80.5	.40	.26	1.0	1.3	1.7	.52
AUG 16...	28	582	.79	283	.74	.10	1.6	1.7	2.4	.28
SEP 26...	29	548	.75	320	.40	.19	1.5	1.7	2.1	.24

06770205 PLATTE RIVER (NORTH CHANNEL) NEAR KEARNEY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
OCT 19...	0945	8	--	--	--	--	76	--	13	250	0
JAN 18...	1020	10	330	78	90	26	130	3.1	16	310	0
APR 25...	0900	6	320	95	87	26	83	2.0	14	280	0
JUL 18...	1045	12	260	78	64	24	92	2.5	17	220	0

DATE	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT 19...	210	190	.6	27	--	.19	--	130	--	--
JAN 18...	250	250	.9	27	775	2.3	2	250	1	10
APR 25...	230	220	.5	24	632	.35	--	140	--	--
JUL 18...	180	220	.6	29	596	.39	5	160	1	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 19...	--	10	--	10	--	--	--	--	--	--
JAN 18...	5	60	13	270	.1	.1	.0	2	0	30
APR 25...	--	40	--	120	--	--	--	--	--	--
JUL 18...	2	60	16	20	.0	.0	.0	2	0	20

PLATTE RIVER BASIN

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE

LOCATION.--Lat 40°52'28", long 98°16'54", in SW1/4SW1/4 sec.31, T.11 N., R.8 W., Merrick County, Hydrologic Unit 10200101, on left bank 118 ft (36 m) downstream from bridge on U.S. Highway 34, 2 mi (3 km) upstream from Burlington Northern Inc. bridge, and 5 mi (8 km) southeast of Grand Island.

DRAINAGE AREA.--58,800 mi² (152,300 km²), approximately, of which about 54,000 mi² (139,900 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 956: 1935. WSP 1390: 1942. WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,831.89 ft (558.360 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Highways bench mark). Prior to Oct. 23, 1933, nonrecording gage at bridge 30 ft (9 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 6, 1935, gage height, 5.99 ft (1.826 m), from rating curve extended above 18,000 ft³/s (510 m³/s); maximum gage height, 6.16 ft (1.878 m) Mar. 27, 1960, backwater from ice; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,100 ft³/s (314 m³/s) Mar. 17, gage height, 5.45 ft (1.661 m), backwater from ice; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	867	949	900	680	820	1350	1370	1320	687	44	225	.00
2	968	938	880	680	860	1300	1380	1320	822	33	188	.00
3	917	918	840	700	900	1300	1440	1290	690	22	151	.00
4	907	879	820	740	960	1300	1430	1300	568	11	135	.00
5	857	915	760	740	1000	1350	1450	1270	543	.00	126	.00
6	854	893	520	720	980	1350	1530	1260	560	3.7	182	.00
7	997	889	330	680	960	1400	1480	1380	495	8.4	236	.00
8	1040	1030	220	660	920	1450	1370	1320	466	5.4	291	.00
9	977	1090	210	640	940	1500	1990	1270	466	4.0	332	.00
10	964	1040	700	620	960	1700	2510	1210	446	3.0	339	.00
11	922	1020	1200	640	980	2100	2160	1110	430	1.6	333	.00
12	948	982	1350	660	1000	3500	1710	1040	391	.80	320	.00
13	950	966	1400	680	980	6000	1570	1030	364	.00	298	46
14	918	983	1450	660	960	7500	1820	1010	287	.00	274	99
15	941	963	1400	660	920	8800	1940	980	262	.00	310	132
16	921	924	1300	680	880	9800	2300	957	252	.00	345	219
17	895	863	1250	700	880	10500	2610	966	233	.00	288	284
18	868	865	1200	760	920	9700	3360	881	210	.00	226	405
19	881	862	1160	800	960	8800	3020	624	192	.00	173	444
20	843	850	1100	840	1000	5400	2410	574	181	.00	126	484
21	832	820	1100	860	1000	4400	2050	556	166	.00	83	490
22	828	860	1160	900	1060	3400	1830	588	175	10	48	460
23	794	880	1200	940	1100	2800	1640	610	168	15	30	452
24	745	860	1140	940	1200	2400	1510	583	154	18	16	436
25	807	820	1000	920	1300	2000	1450	599	139	168	8.0	440
26	818	760	880	900	1400	1900	1370	611	118	532	6.2	420
27	853	820	900	880	1350	1800	1320	598	102	692	4.0	472
28	891	860	920	860	1350	1580	1320	552	86	581	2.0	507
29	880	940	920	840	---	1580	1310	540	72	460	.00	526
30	893	920	880	840	---	1500	1330	541	58	359	.00	532
31	915	---	800	820	---	1400	---	622	---	274	.00	---
TOTAL	27691	27359	29890	23640	28540	110860	53980	28512	9783	3245.90	5095.20	6848.00
MEAN	893	912	964	763	1019	3576	1799	920	326	105	164	228
MAX	1040	1090	1450	940	1400	10500	3360	1380	822	692	345	532
MIN	745	760	210	620	820	1300	1310	540	58	.00	.00	.00
AC-FT	54930	54270	59290	46890	56610	219900	107100	56550	19400	6440	10110	13580
CAL YR 1977	TOTAL	388114.00	MEAN	1063	MAX	3940	MIN	31	AC-FT	769800		
WTR YR 1978	TOTAL	355444.10	MEAN	974	MAX	10500	MIN	.00	AC-FT	705000		

PLATTE RIVER BASIN

133

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1972 to current year.

WATER TEMPERATURES: July 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,050 micromhos Jan. 12, 1973; minimum daily, 575 micromhos May 24, 1977.

WATER TEMPERATURES: Maximum, 34.5°C July 23, 1972; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 985 micromhos June 21; minimum daily, 615 micromhos Mar. 17.

WATER TEMPERATURES: Maximum, 23.0°C Aug. 13; minimum, 0.5°C Jan. 24, 25, 29, 30, 31.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT										
13...	1030	947	797	7.9	10.0	20	15	11.6	1.5	120
NOV										
23...	1015	895	817	7.9	.0	8	15	--	--	130
DEC										
08...	1120	220	914	7.9	.0	6	7	12.7	--	K20
JAN										
18...	1005	760	871	7.4	.0	6	7	11.3	5.4	K58
FEB										
16...	1010	897	817	7.4	.0	2	8	11.4	3.2	100
MAR										
08...	1020	1480	827	7.5	.0	4	10	12.4	5.8	93
APR										
20...	1130	2450	844	8.0	8.5	10	30	12.3	1.5	970
MAY										
11...	1020	1080	821	8.2	17.0	5	25	10.7	5.8	K57
JUN										
21...	0950	166	864	8.1	21.5	3	8	9.7	5.8	K710
JUL										
26...	1000	505	758	8.1	27.0	10	30	9.8	1.9	K1800
AUG										
03...	0940	153	813	8.2	17.0	12	10	10.3	5.2	1200
SEP										
14...	1010	96	746	8.3	18.5	4	30	10.9	11	2400

DATE	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
OCT										
13...	580	250	66	64	23	92	2.5	12	230	0
NOV										
23...	140	270	70	69	23	87	2.3	11	240	0
DEC										
08...	K97	330	92	86	28	97	2.3	15	290	0
JAN										
18...	980	300	87	79	25	89	2.2	12	260	0
FEB										
16...	920	290	92	76	24	79	2.0	11	240	0
MAR										
08...	170	280	83	74	23	73	1.9	11	240	0
APR										
20...	>10000	290	87	79	23	80	2.0	13	250	0
MAY										
11...	220	280	83	74	23	75	2.0	14	240	0
JUN										
21...	640	290	94	77	24	89	2.3	15	240	0
JUL										
26...	1700	200	60	47	20	85	2.6	16	170	0
AUG										
03...	540	240	72	63	21	88	2.5	15	210	0
SEP										
14...	K1100	220	61	57	20	79	2.3	12	200	0

K Results based on colony count outside the acceptable range (non-ideal colony count).

PLATTE RIVER BASIN

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKA- LINITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT 13...	190	230	26	.6	24	585	.80	1500	.07	.00
NOV 23...	200	220	25	.6	24	578	.79	1400	.45	.05
DEC 08...	240	290	30	.7	29	719	.98	427	.85	.04
JAN 18...	210	230	23	.7	28	615	.84	1260	.79	.03
FEB 16...	200	210	27	.6	29	575	.78	1390	.78	.10
MAR 08...	200	210	28	.6	25	563	.77	2250	.86	.12
APR 20...	210	210	28	.5	25	582	.79	3850	.84	.03
MAY 11...	200	220	27	.6	20	572	.78	1670	.44	.01
JUN 21...	200	230	33	.6	22	609	.83	273	.00	.00
JUL 26...	140	210	24	.6	24	511	.70	697	.01	.00
AUG 03...	170	210	31	.6	25	557	.76	230	.07	.00
SEP 14...	160	210	30	.5	21	528	.72	137	.02	.00

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
OCT 13...	.83	.83	.90	.26	.05	10	130	30	20	3.7
NOV 23...	.44	.49	.94	.13	.09	10	0	20	20	3.5
DEC 08...	.80	.84	1.7	.09	.08	0	160	20	4	3.0
JAN 18...	.16	.19	.98	.07	.05	20	150	20	40	5.0
FEB 16...	.33	.43	1.2	.11	.08	0	130	10	20	5.0
MAR 08...	.53	.65	1.5	.08	.08	20	120	40	0	4.0
APR 20...	.86	.89	1.7	.24	.11	10	120	20	0	4.0
MAY 11...	.89	.90	1.3	.18	.05	0	130	10	10	6.0
JUN 21...	.48	.48	.48	.08	.03	30	150	0	20	2.1
JUL 26...	2.0	2.0	2.0	.23	.01	10	160	30	0	4.8
AUG 03...	.77	.77	.84	.10	.01	20	140	20	20	1.7
SEP 14...	1.4	1.4	1.4	.20	.01	20	140	20	0	3.1

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE- D RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 13...	1030	5	0	10	2	2	.0	.0	.0	0	0	30
NOV 23...	1015	4	0	4	1	2	.0	.0	.0	3	0	20
DEC 08...	1120	5	0	0	2	3	.0	.0	.0	4	0	20
JUL 26...	1000	5	0	0	4	2	.1	.0	.1	2	0	10

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	825	810	799	909	854	900	855	805	950	888	820	875
2	815	805	820	918	863	850	845	805	867	889	826	890
3	817	795	820	875	860	905	835	793	875	880	848	885
4	855	806	830	895	860	910	828	800	878	865	855	868
5	855	795	945	915	858	918	831	804	868	878	843	870
6	858	795	950	810	863	918	755	775	845	870	860	878
7	780	805	895	867	858	908	819	778	935	835	810	872
8	825	795	890	878	858	905	835	785	957	875	820	875
9	848	785	950	878	860	885	775	803	957	877	800	880
10	858	785	900	870	858	875	766	818	957	880	815	876
11	865	799	895	870	861	885	809	818	950	895	764	879
12	865	800	950	870	859	895	882	818	956	865	778	882
13	875	807	892	865	860	878	876	817	968	888	798	880
14	868	820	890	858	858	855	827	823	968	902	750	885
15	855	805	880	870	858	885	850	892	908	920	800	865
16	855	805	890	870	861	828	815	885	959	947	780	867
17	857	805	888	870	858	815	812	868	957	950	835	875
18	853	808	900	868	866	840	850	878	968	945	828	875
19	853	808	890	875	867	880	872	878	966	970	848	895
20	847	855	890	875	867	725	905	878	980	956	855	870
21	847	760	895	908	866	732	899	885	985	915	860	879
22	847	815	895	878	867	764	899	885	855	945	854	875
23	847	812	920	868	875	780	887	878	885	885	855	870
24	878	812	920	877	868	804	892	870	962	948	840	868
25	848	850	920	865	864	825	895	872	918	956	810	865
26	843	855	918	900	908	825	878	872	925	907	773	860
27	843	842	920	880	867	815	875	870	895	855	828	858
28	835	842	877	905	864	815	857	872	878	828	860	858
29	835	842	868	905	---	820	849	872	844	845	857	863
30	838	842	870	905	---	820	852	850	849	855	868	857
31	830	---	869	910	---	828	---	835	---	858	852	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	11.0	4.0	1.0	1.0	1.0	12.0	11.0	13.0	20.5	19.5	21.0
2	13.0	8.0	4.0	1.0	1.0	1.0	10.0	10.0	13.5	20.0	20.0	21.5
3	12.5	7.5	4.5	1.0	1.0	1.0	11.5	11.5	15.0	20.0	17.0	21.5
4	13.0	7.0	4.0	1.0	1.0	1.0	11.5	11.0	15.5	20.5	16.0	21.5
5	12.0	12.5	1.0	1.0	1.0	1.0	11.5	10.0	16.0	19.5	16.5	21.0
6	11.0	11.5	1.0	1.0	1.0	1.0	11.5	10.0	16.0	19.5	17.0	21.0
7	11.0	13.0	1.0	1.0	1.0	1.0	12.0	9.0	16.5	18.0	19.0	20.5
8	10.0	12.5	1.0	1.0	1.0	1.0	16.0	10.0	16.5	19.0	19.5	20.5
9	9.0	3.0	1.0	1.0	1.0	1.5	16.0	9.5	16.5	19.5	21.0	20.0
10	11.5	2.0	1.0	1.0	1.0	1.5	10.5	12.0	17.0	21.0	19.5	20.0
11	7.5	4.0	1.5	1.0	1.0	1.5	9.0	16.0	17.0	18.0	20.0	19.0
12	8.5	5.0	1.5	1.0	1.0	2.0	9.5	12.0	15.5	20.0	20.0	19.0
13	9.0	5.0	2.0	1.0	1.0	2.0	10.0	11.0	16.5	19.0	23.0	18.5
14	11.0	9.0	2.0	1.0	1.0	2.5	10.5	13.5	19.0	20.5	21.0	18.0
15	9.0	7.0	2.0	1.0	1.0	2.5	9.0	15.5	20.5	20.0	19.0	18.0
16	9.0	7.0	1.5	1.0	1.0	3.0	9.0	15.0	21.0	20.5	18.0	19.0
17	10.0	4.0	2.0	.5	1.0	2.5	8.0	15.0	21.0	20.0	20.5	15.0
18	9.5	3.5	2.0	.5	1.0	2.0	8.0	15.0	21.0	22.0	20.0	17.0
19	10.0	5.0	1.5	.5	1.0	2.0	7.5	15.0	19.0	20.0	14.5	16.0
20	11.0	4.0	1.0	1.0	1.0	5.0	7.0	15.0	16.0	21.0	16.0	14.0
21	11.5	2.0	1.0	1.0	1.0	7.0	7.0	15.5	16.0	22.0	19.0	10.0
22	10.5	1.5	2.0	1.0	1.0	8.5	8.5	17.0	17.0	20.0	20.0	11.5
23	10.0	1.5	2.0	1.0	1.0	8.0	8.5	17.5	19.0	20.0	20.0	12.0
24	9.5	1.5	2.0	.5	1.0	5.0	10.0	17.5	20.5	17.0	20.0	15.5
25	10.0	1.5	2.0	.5	1.0	4.5	9.5	18.0	22.0	19.0	20.5	15.0
26	11.0	1.5	2.0	1.0	1.0	6.0	11.5	18.0	21.0	20.5	21.0	15.0
27	11.5	1.5	2.0	1.0	1.0	7.5	11.5	18.0	20.0	21.0	21.0	15.0
28	13.0	3.0	2.0	1.0	1.0	9.0	10.5	17.5	21.0	21.0	21.0	14.5
29	14.0	2.5	2.0	.5	---	9.5	15.0	17.0	21.0	20.5	18.0	15.0
30	14.0	2.5	2.0	.5	---	10.5	14.5	13.5	21.0	19.5	18.0	12.0
31	12.0	---	2.0	.5	---	12.0	---	15.5	---	19.5	18.5	---

PLATTE RIVER BASIN

06772000 WOOD RIVER NEAR ALDA, NE

LOCATION.--Lat 40°51'10", long 98°28'20", in NE1/4SE1/4 sec.7, T.10 N., R.10 W., Hall County, Hydrologic Unit 10200102, on right bank 1.2 mi (1.9 km) south of Alda, 2.2 mi (3.5 km) upstream from old north channel of the Platte River, and 19 mi (31 km) upstream from present mouth.

DRAINAGE AREA.--628 mi² (1,627 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,897.66 ft (578.407 m) National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark).

REMARKS.--Records poor. Numerous small pump diversions for irrigation above station.

AVERAGE DISCHARGE.--25 years, 10.9 ft³/s (0.309 m³/s), 7,900 acre-ft/yr (9.74 hm³/yr); median of yearly mean discharges, 7.9 ft³/s (0.224 m³/s), 5,700 acre-ft/yr (7.03 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,630 ft³/s (46.2 m³/s) June 16, 1967, gage height, 12.22 ft (3.725 m); no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 912 ft³/s (25.8 m³/s), Mar. 15 at 1130, gage height, 10.92 ft (3.328 m), no other peak above base of 300 ft³/s (8.50 m³/s); no flow for most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	6.0	1.6	.36	.00	1.2	.53
2	.00	.00	.00	.00	.00	.00	5.0	1.3	3.0	.00	1.4	.17
3	.00	.00	.00	.00	.00	.00	4.0	1.0	1.3	.00	.83	.00
4	.00	.00	.00	.00	.00	.00	2.8	.83	.53	.00	.37	.00
5	.00	.00	.00	.00	.00	.00	2.4	.47	.06	.00	.42	.00
6	.00	.00	.00	.00	.00	.00	1.7	.47	.00	.00	.24	.00
7	.00	.00	.00	.00	.00	.00	.53	.83	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.01	.66	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	1.7	.37	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	3.6	.20	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	8.8	.01	.00	22	.00	.00
12	.00	.00	.00	.00	.00	.00	18	.00	.00	51	.00	.00
13	.00	.00	.00	.00	.00	1.3	16	.00	.00	29	.00	.00
14	.00	.00	.00	.00	.00	318	9.0	.00	.00	17	.28	.00
15	.00	.00	.00	.00	.00	755	5.2	.00	.00	9.2	1.4	.00
16	.00	.00	.00	.00	.00	807	6.5	.00	.00	4.0	3.6	.00
17	.00	.00	.00	.00	.00	702	11	.00	.00	1.4	30	.22
18	.00	.00	.00	.00	.00	610	15	.00	.00	.37	33	1.2
19	.00	.00	.00	.00	.00	570	68	.00	.00	.08	12	1.2
20	.00	.00	.00	.00	.00	462	80	.00	.00	.11	4.4	.74
21	.00	.00	.00	.00	.00	183	50	.00	.00	1.7	1.4	.02
22	.00	.00	.00	.00	.00	112	36	.00	.00	2.8	.01	.00
23	.00	.00	.00	.00	.00	70	21	.00	.00	5.0	.00	.00
24	.00	.00	.00	.00	.00	48	12	.00	.00	4.0	.00	.00
25	.00	.00	.00	.00	.00	34	9.5	.00	.00	1.6	.00	.00
26	.00	.00	.00	.00	.00	40	7.2	.00	.00	.27	.49	.00
27	.00	.00	.00	.00	.00	30	5.5	.00	.00	.08	3.8	.00
28	.00	.00	.00	.00	.00	19	4.6	.00	.00	.01	6.2	.00
29	.00	.00	.00	.00	.00	13	3.4	.00	.00	.00	4.2	.00
30	.00	.00	.00	.00	.00	10	2.7	.00	.00	.00	2.2	.00
31	.00	.00	.00	.00	.00	8.5	.00	.00	.00	.06	.66	.00
TOTAL	.00	.00	.00	.00	.00	4792.80	417.14	7.74	5.25	149.68	108.10	4.08
MEAN	.000	.000	.000	.000	.000	155	13.9	.25	.18	4.83	3.49	.14
MAX	.00	.00	.00	.00	.00	807	80	1.6	3.0	51	33	1.2
MIN	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	9510	827	15	10	297	214	8.1
CAL YR 1977	TOTAL	4600.33	MEAN	12.6	MAX	440	MIN	.00	AC-FT	9120		
WTR YR 1978	TOTAL	5484.79	MEAN	15.0	MAX	807	MIN	.00	AC-FT	10880		

06772000 WOOD RIVER NEAR ALDA, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1974 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)
MAR 21...	1320	172	199	6.8	9.0	480	10.4	140	3600	30
APR 12...	1030	20	708	7.5	13.0	88	11.1	73	K21000	70
MAY 03...	1050	.99	792	8.4	12.0	31	15.0	110	K270	71
JUL 26...	1210	.22	1210	8.6	27.5	11	13.9	59	K780	110
AUG 16...	1130	3.4	1310	8.7	23.5	11	15.5	46	K4200	150

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
MAR 21...	130	4.2	29	115	0	94	8.3	6.6	138
APR 12...	13	69	27	236	0	194	80	71	424
MAY 03...	14	60	30	268	13	242	93	81	500
JUL 26...	27	110	41	372	28	352	250	99	847
AUG 16...	28	130	17	354	41	360	210	160	873

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
MAR 21...	.19	64.1	293	2.4	1.4	6.2	7.6	10	2.1
APR 12...	.58	22.9	473	3.3	.86	3.1	4.0	7.3	2.9
MAY 03...	.68	1.34	522	4.8	.06	2.7	2.8	7.6	2.0
JUL 26...	1.15	.50	885	5.0	.02	3.1	3.1	8.1	1.1
AUG 16...	1.19	8.01	894	1.9	.20	3.0	3.2	5.1	1.2

PLATTE RIVER BASIN

06772200 WOOD RIVER NEAR GRAND ISLAND, NE

LOCATION.--Lat 40°56'05", long 98°16'56", in SW1/4NW1/4SW1/4 sec.7, T.11 N., R.8 W., Merrick County, Hydrologic Unit 10200102, at bridge on county road, 1.0 miles south of U.S. Highway 30, 3.0 miles east of Grand Island.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT										
13...	0820	27	832	7.2	16.0	6.7	6.8	19	2.5	K54000
NOV										
16...	0900	29	791	7.3	16.0	8.0	7.6	41	17	4900
DEC										
15...	0920	14	991	7.3	7.5	6.1	9.3	35	13	9300
JAN										
05...	0920	12	1110	7.3	5.5	5.0	8.8	37	8.7	K120000
FEB										
07...	0900	8.1	1100	7.1	5.0	10	8.8	46	29	48000
MAR										
01...	1115	40	844	7.2	15.0	20	8.2	0	9.9	8000
APR										
12...	0830	83	734	7.2	15.5	15	8.5	25	8.5	32000
MAY										
03...	0845	47	784	7.3	13.5	10	8.5	24	8.2	K25000
JUN										
14...	0920	31	825	7.2	20.0	4.9	8.0	29	12	K6200
JUL										
06...	0950	41	712	7.1	22.5	17	5.8	19	10	K97000
AUG										
16...	0955	21	892	7.2	22.5	5.5	6.8	29	7.4	23000
SEP										
07...	0910	15	1030	7.3	22.5	5.7	6.4	47	15	50000

DATE	STREP- TOCOCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT										
13...	12000	73	18	71	14	292	0	239	170	62
NOV										
16...	1900	81	17	64	12	282	0	231	150	49
DEC										
15...	5600	83	--	100	17	322	0	264	160	97
JAN										
05...	4600	88	20	120	18	290	0	238	180	120
FEB										
07...	K24000	84	19	120	19	287	0	235	190	120
MAR										
01...	4400	79	17	74	12	287	0	235	150	54
APR										
12...	--	16	16	59	14	281	0	230	130	44
MAY										
03...	2800	88	17	55	12	296	0	243	140	45
JUN										
14...	800	79	17	73	11	298	0	244	170	57
JUL										
06...	19000	66	16	65	10	248	0	203	140	42
AUG										
16...	1600	78	16	79	12	304	0	249	140	77
SEP										
07...	5000	120	16	98	11	302	0	248	200	91

K Results based on colony count outside the acceptable range (non-ideal colony count).

06772200 WOOD RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 13...	545	.74	39.7	597	4.8	.17	1.1	1.3	6.1	11
NOV 16...	543	.74	42.5	555	3.0	.46	.74	1.2	4.2	1.4
DEC 15...	629	.86	23.8	638	4.7	1.3	1.4	2.7	7.4	1.9
JAN 05...	714	.97	23.1	721	6.8	.81	1.9	2.7	9.5	3.3
FEB 07...	734	1.00	16.1	744	7.2	.98	2.0	3.0	10	3.3
MAR 01...	558	.76	60.3	583	2.6	2.5	.70	3.2	5.8	.99
APR 12...	504	.69	113	547	2.1	.22	.78	1.0	3.1	.71
MAY 03...	515	.70	65.4	535	3.1	.59	1.0	1.6	4.7	.99
JUN 14...	558	.76	46.7	573	3.6	.09	1.9	2.0	5.6	1.1
JUL 06...	483	.66	53.5	564	2.5	.03	1.2	1.2	3.7	.98
AUG 16...	584	.79	33.1	601	2.7	2.3	1.1	3.4	6.1	1.1
SEP 07...	671	.91	27.2	700	1.6	3.0	.80	3.8	5.4	2.1

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, SUS- PENDE TOTAL (MG/L AS MG) (00926)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV 16...	0900	5	280	49	82	--	18	66	1.7	12
FEB 07...	0900	12	290	55	84	--	19	120	3.1	19
MAY 03...	0845	6	270	27	80	.0	18	56	1.5	14
AUG 16...	0955	5	260	11	78	.0	16	79	2.1	13

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)
NOV 16...	.5	25	542	.90	150	20	50	--	--
FEB 07...	.7	28	723	3.2	300	190	130	5	0
MAY 03...	.5	23	523	.88	120	50	80	--	--
AUG 16...	.6	28	582	1.1	170	20	40	1	0

PLATTE RIVER BASIN

06772500 WOOD RIVER NEAR CHAPMAN, NE

LOCATION.--Lat 40°57'56", long 98°12'22", in NE1/4SE1/4 sec.34, T.12 N., R.8 W., Merrick County, Hydrologic Unit 10200102, at county road bridge 2.5 miles west and 4.0 miles south of center of Chapman.

DRAINAGE AREA.--700 sq mi, approximately.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 05...	0935	25	921	7.6	14.0	15	8.2	3.5	11000	5400
NOV 03...	0900	28	903	7.6	12.0	10	8.9	28	10000	4200
DEC 30...	1030	13	1150	7.5	2.5	8	11.0	12	K560000	18000
JAN 24...	1115	8.7	1080	7.3	.0	4	10.3	11	9000	7000
FEB 16...	1215	9.4	1240	7.4	.0	5	11.3	4.2	K8700	1800
MAR 29...	1030	53	672	7.3	11.0	45	9.1	17	K94000	17000
APR 20...	0935	195	515	7.3	8.5	150	9.8	18	K41000	20000
MAY 24...	0930	34	817	7.3	20.0	10	7.7	27	61000	2000
JUN 21...	1150	26	817	7.6	23.0	10	9.5	6.2	24000	K130
JUL 13...	1020	57	720	7.4	23.5	95	6.4	29	37000	7200
AUG 23...	0910	15	1050	7.4	29.0	20	7.7	9.2	K267000	2100
SEP 27...	1000	5.1	1260	7.7	16.0	8	8.6	3.6	K48000	4600

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 05...	79	--	.83	41.2	3.0	.68	.82	1.5	4.5	4.4
NOV 03...	77	605	.82	45.7	2.6	.31	.79	1.1	3.7	6.5
DEC 30...	150	743	1.01	26.1	6.6	1.4	1.1	2.5	9.1	3.2
JAN 24...	130	--	.94	16.2	6.8	2.1	.70	2.8	9.6	3.2
FEB 16...	170	771	1.05	19.6	5.7	3.7	2.6	6.3	12	3.0
MAR 29...	39	435	.59	62.2	2.7	1.6	1.4	3.0	5.7	1.6
APR 20...	28	--	.47	180	3.3	.02	6.2	6.2	9.5	2.0
MAY 24...	66	559	.76	51.3	3.3	.22	1.2	1.4	4.7	1.1
JUN 21...	47	554	.75	38.9	2.9	.04	1.1	1.1	4.0	1.2
JUL 13...	53	--	.61	69.3	5.0	1.6	3.6	5.2	10	2.5
AUG 23...	110	667	.91	27.0	2.4	1.7	1.0	2.7	5.1	1.9
SEP 27...	150	799	1.09	11.0	4.3	3.8	1.0	4.8	9.1	5.0

06772500 WOOD RIVER NEAR CHAPMAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
OCT 05...	0935	6	290	110	85	18	84	2.2	12	220	0
JAN 24...	1115	9	290	110	85	19	120	3.1	18	220	0
APR 20...	0935	90	200	56	60	13	33	1.0	17	180	0
JUL 13...	1020	70	240	73	70	15	53	1.5	27	200	0

DATE	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT 05...	180	200	.6	23	610	2.3	--	160	--	--
JAN 24...	180	180	.6	27	689	3.1	3	310	2	10
APR 20...	150	89	.3	13	342	.82	--	90	--	--
JUL 13...	160	110	.5	23	450	1.9	7	150	0	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 05...	--	30	--	40	.0	--	--	--	--	--
JAN 24...	8	80	3	130	.1	.0	.1	5	0	40
APR 20...	--	70	--	10	--	--	--	--	--	--
JUL 13...	4	80	0	0	2.4	2.0	.4	2	0	20

PLATTE RIVER BASIN

06774000 PLATTE RIVER NEAR DUNCAN, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°22'04", long 97°29'40", in SE1/4SW1/4 sec.12, T.16 N., R.2 W., Platte County, Hydrologic Unit 10200103, on left bank 25 ft (8 m) downstream from highway bridge, 1.5 mi (2.4 km) south of Duncan, and 12 mi (19 km) upstream from Loup River.

DRAINAGE AREA.--60,900 mi² (157,700 km²), approximately, of which about 56,100 mi² (145,300 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1895 to December 1909 (irrigation seasons only 1895-1900), July 1910 to December 1911 (gage heights and discharge measurements only), April 1912 to September 1915, June 1928 to current year. Published as "near Columbus" 1895-1915.

REVISED RECORDS.--WSP 956: 1935. WSP 1390: 1897, 1899-1901, 1903-5, 1929-32, 1935(M), 1936. WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,478.82 ft (450.744 m) (revised) National Geodetic Vertical Datum of 1929. June 1895 to December 1909, April 1912 to September 1915, and June to October 1928 nonrecording gage at site 7 mi (11 km) downstream at different datums. Oct. 25, 1928, to Feb. 20, 1935, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 44,100 ft³/s (1,250 m³/s) June 23, 1905, gage height, 6.50 ft (1.981 m), site and datum then in use; no flow at times in 1931, 1933-42, 1944, 1952-57, 1959, 1963, 1974, 1976, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,700 ft³/s (558 m³/s) Mar. 20, gage height, 5.45 ft (1.661 m); no flow Sept. 10, 11; minimum daily discharge, 13 ft³/s (0.37 m³/s) Aug. 6, 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	882	992	1520	420	640	880	1680	2150	880	37	191	21
2	864	1020	1330	500	600	900	1620	1980	844	22	148	22
3	899	988	1230	540	620	800	1570	1860	782	15	111	16
4	972	966	1000	580	660	720	1430	1810	815	13	88	12
5	1030	975	860	600	620	780	1740	1740	765	22	72	9.6
6	1030	992	600	640	580	860	2640	1700	660	91	53	7.0
7	1290	1010	660	580	580	920	2400	2040	606	52	35	4.0
8	1310	1170	500	540	600	1000	3840	2050	549	24	29	2.3
9	1290	1430	380	520	620	1200	4410	1910	508	20	74	1.1
10	1300	1360	390	500	660	1500	4630	1690	442	20	151	.00
11	1190	1290	410	520	700	1900	4020	1510	384	17	191	.00
12	1130	1100	420	560	700	2500	3270	1390	330	21	215	.20
13	1050	1230	450	540	680	3500	2540	1350	324	18	208	.90
14	1050	1210	480	520	660	4500	2600	1360	292	17	157	1.8
15	991	1210	520	520	660	5400	2990	1310	274	16	179	2.5
16	1030	1200	560	500	620	7000	3610	1190	266	15	170	4.0
17	1070	1150	600	500	540	9000	4140	1070	238	14	166	6.8
18	1090	1130	580	520	620	18000	4340	983	203	13	107	10
19	1090	1050	540	500	660	17000	4540	938	187	13	73	10
20	1090	943	520	490	700	18500	4210	843	149	20	61	11
21	1070	980	500	540	680	12600	3650	826	149	31	42	12
22	1050	1040	560	600	820	6930	3250	746	550	71	32	13
23	1030	1000	600	680	800	4240	2850	728	522	74	26	14
24	1070	860	560	740	860	3310	2370	730	328	54	23	27
25	1110	680	540	720	820	2810	2080	822	229	39	22	57
26	1030	600	520	700	860	2400	1850	768	120	29	18	83
27	992	660	500	680	900	2170	1730	870	68	26	25	101
28	893	860	520	660	860	2060	1690	853	61	23	20	128
29	887	1200	540	660	---	2000	1690	834	55	21	20	152
30	910	1750	520	680	---	1990	2410	773	44	144	20	164
31	1030	---	470	700	---	1840	---	822	---	192	21	---
TOTAL	32720	32046	19380	17950	19320	139210	85790	39646	11624	1184	2748	893.20
MEAN	1055	1068	625	579	690	4491	2860	1279	387	38.2	88.6	29.8
MAX	1310	1750	1520	740	900	18500	4630	2150	880	192	215	164
MIN	864	600	380	420	540	720	1430	728	44	13	18	.00
AC-FT	64900	63560	38440	35600	38320	276100	170200	78640	23060	2350	5450	1770

CAL YR 1977 TOTAL 429741.00 MEAN 1177 MAX 4380 MIN 13 AC-FT 852400
WTR YR 1978 TOTAL 402511.20 MEAN 1103 MAX 18500 MIN .00 AC-FT 798400

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1977 to current year.

WATER TEMPERATURES: November 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 978 micromhos June 24, 1978; minimum daily, 290 micromhos Mar. 21, 1978.

WATER TEMPERATURES: Maximum, 31.0°C July 17, 20, 23, 30, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 978 micromhos June 24; minimum daily, 290 micromhos Mar. 21.

WATER TEMPERATURES: Maximum, 31.0°C July 17, 20, 23, 30; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT											
14...	1120	1020	667	8.0	11.0	13	--	--	--	--	--
NOV											
03...	1530	977	828	8.4	12.5	--	15	--	10.8	5.5	5
DEC											
14...	1130	491	--	7.8	.5	4	4	--	12.5	2.8	K10
JAN											
26...	1030	703	885	7.5	.5	--	5	--	9.6	--	K500
FEB											
14...	1630	660	861	7.7	.0	--	3	--	9.2	2.0	320
MAR											
07...	1040	927	860	7.7	.5	5	4	--	9.3	2.5	50
23...	1320	3930	690	8.2	7.5	33	65	--	9.3	4.2	K70
APR											
26...	1315	1790	620	8.4	15.5	--	15	--	9.9	2.1	--
MAY											
30...	1220	760	685	8.2	20.5	--	15	8.1	9.9	3.5	K100
JUN											
27...	1450	179	508	8.3	26.5	--	7	4.3	8.0	--	833
AUG											
03...	1430	69	875	8.3	27.0	--	--	1.7	7.5	2.8	K85
28...	1300	20	690	8.6	28.0	5	5	4.0	8.0	2.8	320
SEP											
25...	1600	114	809	8.7	26.0	--	5	1.4	13.2	4.4	280

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CAC03) (00410)
OCT											
14...	--	230	54	61	18	61	1.8	11	210	0	170
NOV											
03...	1500	250	60	65	21	88	2.4	11	230	0	190
DEC											
14...	--	270	74	72	22	77	2.0	12	240	0	200
JAN											
26...	K500	300	95	79	25	84	2.1	12	250	0	210
FEB											
14...	520	290	89	75	24	80	2.1	11	240	0	200
MAR											
07...	160	290	90	77	23	79	2.0	11	240	0	200
23...	5400	230	63	61	18	55	1.6	16	200	0	160
APR											
26...	--	240	51	68	17	44	1.2	13	230	0	190
MAY											
30...	K100	240	63	66	19	63	1.8	9.9	--	--	180
JUN											
27...	K160	200	44	57	15	43	1.3	11	--	--	160
AUG											
03...	K50000	260	97	65	23	89	2.4	15	--	--	160
28...	132	200	48	53	16	64	2.0	11	--	--	150
SEP											
25...	760	230	79	57	21	87	2.5	15	--	--	150

K Results based on colony count outside the acceptable range (non-ideal colony count).

PLATTE RIVER BASIN

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SULFATE DIS- SOLVED (MG/L AS S04) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 14...	160	21	.5	24	--	464	.63	1280	--	.82
NOV 03...	200	27	.6	20	536	546	.73	1410	.17	--
DEC 14...	210	28	.5	23	543	563	.74	720	.88	--
JAN 26...	230	30	.6	27	616	611	.84	1170	.92	--
FEB 14...	210	31	.6	26	576	576	.78	1030	1.0	--
MAR 07...	200	26	.5	24	576	559	.78	1440	.98	--
23...	150	20	.4	19	453	438	.62	4810	1.3	--
APR 26...	120	18	.5	22	414	416	.56	2000	1.5	--
MAY 30...	160	24	.5	17	472	468	.64	969	.34	--
JUN 27...	110	21	.5	26	383	380	.52	185	1.1	--
AUG 03...	230	35	.6	24	584	578	.79	109	.05	--
28...	200	27	.5	25	444	487	.60	24.0	.54	--
SEP 25...	240	37	.6	21	561	569	.76	173	.01	--

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN, AM- MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 14...	--	--	--	--	--	--	--	.15	110	--
NOV 03...	.01	--	--	--	.29	--	.14	.09	--	5.3
DEC 14...	.15	--	--	--	.38	--	.12	.11	120	3.2
JAN 26...	.06	.71	.77	.00	--	1.7	.14	.11	--	3.0
FEB 14...	.06	.43	.49	.29	.20	1.5	--	.17	--	3.7
MAR 07...	.06	.51	.57	.25	.32	1.6	.14	.12	130	--
23...	.33	2.4	2.7	1.8	.89	4.0	.51	.30	120	--
APR 26...	.03	.84	.87	.10	.77	2.4	.37	.28	--	--
MAY 30...	.01	--	--	--	.45	--	.20	.08	--	9.9
JUN 27...	.04	.58	.62	.13	.49	1.7	.34	.27	--	--
AUG 03...	.00	.75	.75	.24	.51	.80	.08	.01	--	5.3
28...	.04	.57	.61	.10	.51	1.2	.10	.06	110	--
SEP 25...	.02	1.2	1.2	.69	.51	1.2	.12	.01	--	8.9

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
DEC 14...	1130	3	0	3	100	0	100	4	2	2	0
MAR 07...	1040	4	1	3	100	0	100	3	0	3	0
23...	1320	4	1	3	400	100	300	1	1	0	0
JUN 27...	1450	1	0	--	200	0	200	0	0	--	5
AUG 28...	1300	4	0	4	200	100	90	11	10	<1	10

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHROMIUM, SUS- PENDE RECOV. (UG/L AS CR) (01031)	CHROMIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE) (01044)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
DEC 14...	0	0	0	0	0	12	10	2	330	310	20
MAR 07...	0	0	1	0	1	7	2	5	360	350	10
MAR 23...	0	0	3	3	0	10	10	0	3000	3000	40
JUN 27...	5	0	0	0	0	9	0	9	490	420	70
AUG 28...	10	0	0	0	<1	13	7	6	150	140	<10

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGANESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN) (01054)	MANGANESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)
DEC 14...	39	20	19	30	10	20	.0	.0	.0	2
MAR 07...	19	0	19	50	20	30	.0	.0	.0	3
MAR 23...	14	12	2	220	200	20	.0	.0	.0	4
JUN 27...	10	9	1	90	50	40	.0	.0	.0	1
AUG 28...	260	260	0	130	110	20	.1	.1	.0	1

DATE	SELENIUM, SUS- PENDE TOTAL (UG/L AS SE) (01146)	SELENIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG) (01076)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN) (01091)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
DEC 14...	0	2	0	0	0	50	30	20	--	--
MAR 07...	0	3	1	1	0	20	10	10	3.6	1.2
MAR 23...	0	4	1	1	0	20	10	10	7.1	3.5
JUN 27...	0	1	0	0	0	20	0	20	5.3	.2
AUG 28...	0	1	0	0	0	60	60	<3	4.2	.7

PLATTE RIVER BASIN

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO MAY 1978

DATE TIME	NOV 3,77 1530	MAR 7,78 1040	MAR 23,78 1320	MAY 30,78 1220
TOTAL CELLS/ML	58000	2100	18000	51000
DIVERSITY: DIVISION	1.3	1.2	1.4	1.3
..CLASS	1.3	1.2	1.4	1.3
..ORDER	2.0	1.5	1.8	1.7
...FAMILY	2.4	1.9	2.7	2.7
....GENUS	2.9	0.0	3.2	3.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....CHARACIACEAE								
....SCHROEDERIA	*	0	--	-	--	-	--	-
....COELASTRACEAE								
....COELASTRUM	*	0	--	-	--	-	--	-
....HYDRODICTYACEAE								
....PEDIASTRUM	*	0	--	-	--	-	--	-
....MICRACTINIAEAE								
....GOLENKINIA	--	-	--	-	--	-	2000	4
....MICRACTINIUM	--	-	--	-	--	-	3600	7
....OOCYSTACEAE								
....ANKISTRODESMUS	680	1	--	-	320	2	1100	2
....CHODATELLA	--	-	--	-	*	0	--	-
....DICTYOSPHAERIUM	460	1	--	-	--	-	2800	5
....FRANCEIA	--	-	--	-	--	-	560	1
....KIRCHNERIELLA	--	-	--	-	260	1	*	0
....NEPHROCITIUM	--	-	--	-	380	2	--	-
....OOCYSTIS	570	1	--	-	*	0	2800	5
....SELENASTRUM	2200	4	--	-	--	-	280	1
....SCENEDESMACEAE								
....ACTINASTRUM	*	0	--	-	--	-	5600	11
....CRUCIGENIA	--	-	--	-	320	2	--	-
....SCENEDESMUS	3900	7	90	4	1100	6	9100#	18
....TETRASTRUM	1300	2	--	-	260	1	560	1
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	*	0	78	4	380	2	--	-
...VOLVOCACEAE								
....PANDORINA	--	-	--	-	--	-	2200	4
...CHLOROCOCCALES								
....OOCYSTACEAE								
....GLOEOACTINIUM	460	1	--	-	--	-	--	-
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
....BIDDULPHIACEAE								
....BIDDULPHIA	--	-	--	-	--	-	*	0
...COSCINODISCAEAE								
....CYCLOTELLA	1000	2	120	6	320	2	1400	3
....MELOSIRA	460	1	--	-	--	-	--	-
...PENNALES								
....ACHNANTHACEAE								
....ACHNANTHES	460	1	11	1	*	0	--	-
....COCCONEIS	*	0	11	1	--	-	--	-
....CYMBELLACEAE								
....AMPHORA	*	0	--	-	130	1	--	-
....CYMBELLA	--	-	--	-	320	2	--	-
....RHOPALODIA	*	0	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	190	1	280	1
....OPEPHORA	--	-	--	-	*	0	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	150	7	450	2	--	-
....FRAGILARIA	4900	8	180	8	8000#	45	10000#	20
....SYNEDRA	*	0	--	-	130	1	--	-
...GOMPHONEMACEAE								
....GOMPHONEMA	*	0	34	2	320	2	--	-
....NAVICULACEAE								
....ANOMOEONEIS	*	0	--	-	--	-	--	-
....DIPLONEIS	*	0	--	-	--	-	--	-
....NAVICULA	570	1	11	1	450	2	--	-
...NITZSCHACEAE								
....HANTZSCHIA	*	0	--	-	*	0	--	-
....NITZSCHIA	800	1	67	3	260	1	1400	3
...SURIPELLACEAE								
....SURIPELLA	*	0	34	2	570	3	--	-
..CHRYSOPHYCEAE								
...CHRYSOMONADALES								
....OCHROMONADACEAE								
....OCHROMONAS	*	0	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO MAY 1978

DATE TIME	NOV 3,77 1530	MAR 7,78 1040	MAR 23,78 1320	MAY 30,78 1220
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)				
..CYANOPHYCEAE				
...CHROCCOCCALES				
...CHROCCOCCAEAE				
....AGMENELLUM	--	-	--	-
....ANACYSTIS	26000#	44	--	-
...HORMOGONALES			2100	12
....OSCILLATORIACEAE	--	-	1300#	63
....LYNGBYA	3400	6	--	-
....OSCILLATORIA	10000#	17	--	-
EUGLENOPHYTA (EUGLENOIDS)				
..CRYPTOPHYCEAE				
...CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
....CRYPTOMONAS	*	0	--	-
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS	*	0	130	1
PYRRHOPHYTA (FIRE ALGAE)				
..DINOPHYCEAE				
...PERIDINIALES				
...PERIDINIAEAE				
....PERIDINIUM	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
SEP						SEP					
25...	1200	840	8.5	21.0	12.2	26...	0200	815	8.0	16.0	8.3
25...	1400	840	8.6	25.0	12.8	26...	0400	800	8.0	15.0	8.7
25...	1600	840	8.7	26.0	13.2	26...	0600	840	8.0	14.0	8.9
25...	1800	800	8.7	25.0	12.3	26...	0800	800	7.9	13.5	9.3
25...	2000	820	8.5	21.5	8.5	26...	1000	800	8.2	15.5	11.2
25...	2200	825	8.4	19.5	8.0	26...	1200	785	8.3	15.5	12.2
25...	2400	830	8.2	17.5	8.0						

PLATTE RIVER BASIN

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	741	655	958	896	957	686	447	580	540	735	556
2	---	735	667	958	903	900	685	533	583	548	770	540
3	---	760	656	846	915	900	688	608	638	535	768	538
4	---	760	676	847	857	895	688	603	638	545	777	542
5	---	745	665	835	868	908	735	665	632	539	778	535
6	---	735	698	835	855	895	513	675	640	565	765	611
7	---	728	745	900	857	905	575	568	648	565	712	628
8	---	668	730	901	858	859	478	568	648	563	630	630
9	---	568	724	895	861	855	431	582	652	606	725	627
10	---	618	717	945	860	750	375	608	678	568	702	630
11	---	608	810	895	857	750	457	608	678	579	770	630
12	---	620	751	905	862	745	476	618	683	560	712	627
13	---	600	668	905	868	750	574	620	695	532	708	625
14	695	605	678	915	861	678	560	630	695	540	730	620
15	---	615	690	918	854	527	485	628	695	537	728	620
16	---	635	718	920	857	458	560	668	642	535	722	846
17	---	635	695	899	860	498	576	678	645	537	728	853
18	---	662	695	895	859	443	518	638	635	528	772	854
19	---	565	738	917	864	438	512	638	645	532	765	848
20	---	700	738	924	861	335	610	635	628	522	745	857
21	---	728	708	915	860	290	518	636	628	511	735	855
22	---	720	743	915	853	295	457	618	457	515	740	858
23	---	695	820	908	857	332	835	618	437	508	728	855
24	---	658	820	905	855	430	626	617	978	512	728	767
25	---	660	824	907	850	545	667	624	850	512	720	740
26	---	765	830	918	867	550	665	559	598	510	728	743
27	---	765	837	925	855	584	437	555	592	512	728	743
28	---	738	837	908	865	580	682	538	588	508	727	745
29	---	695	818	929	---	578	688	547	588	610	727	746
30	---	676	818	919	---	656	438	540	568	747	727	750
31	---	---	815	912	---	670	---	542	---	747	718	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		10.5	2.0	2.0	.0	.0	15.0	14.0	18.0	28.0	26.0	28.0
2		11.5	3.0	2.0	.0	1.0	16.0	12.0	19.0	27.0	25.0	27.0
3		13.5	2.0	2.0	.0	1.0	15.0	12.0	20.0	26.0	28.0	30.0
4		13.0	3.0	.0	1.0	.0	16.0	12.0	20.0	27.0	26.0	28.0
5		10.0	3.0	.0	.0	.0	16.0	14.0	20.0	28.0	24.0	30.0
6		10.0	1.5	3.0	.0	1.0	15.0	12.0	19.0	26.0	26.0	27.0
7		11.0	.0	2.0	1.0	.0	15.0	13.0	20.0	27.0	25.0	28.0
8		10.0	2.0	.0	1.0	.0	16.0	15.0	20.0	28.0	26.0	27.0
9		5.0	1.5	.0	.0	1.0	14.0	14.0	20.0	25.0	24.0	26.0
10		10.5	.5	.0	.0	1.0	14.0	15.0	21.0	27.0	26.0	26.0
11		5.0	.0	.0	.0	2.0	17.0	18.0	22.0	28.0	24.0	25.0
12		5.0	2.5	.0	.0	2.0	16.0	15.0	22.0	27.0	25.0	25.0
13		5.0	5.0	.0	.0	3.0	16.0	17.0	22.0	27.0	25.0	25.0
14		5.0	3.0	.0	.0	2.0	15.0	18.0	22.0	28.0	26.0	24.0
15		5.0	4.0	.0	.0	3.0	14.0	24.0	23.0	28.0	24.0	25.0
16		10.0	4.0	.0	.0	2.0	12.0	18.0	23.0	28.0	26.0	24.0
17		5.0	3.0	.0	.0	2.0	12.0	15.0	22.0	31.0	26.0	24.0
18		5.0	4.0	.0	.0	2.0	14.0	18.0	24.0	30.0	27.0	24.0
19		5.5	4.0	.0	.0	2.0	12.0	18.0	25.0	30.0	26.0	24.0
20		5.0	3.0	.0	.0	5.0	10.0	19.0	23.0	31.0	27.0	24.0
21		.0	3.0	.0	.0	4.0	14.0	19.0	24.0	29.0	25.0	24.0
22		.0	3.0	.0	.0	2.0	12.0	21.0	21.0	29.0	24.0	24.0
23		.0	2.0	.0	.0	1.0	12.0	20.0	21.0	31.0	25.0	22.0
24		.5	3.0	.0	2.0	3.0	10.0	21.0	24.0	29.0	25.0	22.0
25		1.5	3.0	1.0	.0	.0	14.0	20.0	26.0	30.0	24.0	22.0
26		2.0	3.0	.0	.0	4.0	18.0	20.0	25.0	29.0	26.0	22.0
27		1.0	3.0	.0	.0	5.0	14.0	20.0	24.0	30.0	26.0	22.0
28		4.0	2.0	.0	1.0	6.0	15.0	20.0	27.0	29.0	25.0	22.0
29		3.0	3.0	.0	---	6.0	14.0	23.0	28.0	30.0	26.0	22.0
30		4.0	3.0	.0	---	5.0	15.0	20.0	25.0	31.0	26.0	22.0
31		---	3.0	.0	---	5.0	---	18.0	---	29.0	26.0	---

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
NOV 03...	1500	977	12.5	92	243	58	--	--	--	--
DEC 14...	1115	491	.5	50	66	57	70	87	100	--
MAR 23...	1320	3930	7.5	491	5210	32	37	57	91	100
APR 27...	1030	1690	12.0	274	1250	53	63	72	99	100
MAY 31...	0910	822	20.0	106	235	81	88	95	100	--
JUN 28...	0900	61	26.0	29	4.8	78	--	--	--	--
AUG 03...	1420	111	27.0	25	7.5	75	--	--	--	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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)
NOV 03...	1500	977	5	0	4	39	80	92	99	100
DEC 14...	1115	491	14	0	3	21	62	82	96	100
MAR 27...	1030	1690	4	0	3	33	78	88	96	100
MAY 31...	0910	822	3	0	7	36	68	83	94	100
JUN 28...	0900	61	4	0	5	35	75	89	99	100
AUG 03...	1420	111	5	0	4	29	76	94	99	100

PLATTE RIVER BASIN

06775500 MIDDLE LOUP RIVER AT DUNNING, NE

LOCATION.--Lat 41°49'50", long 100°06'00", in NW1/4SE1/4 sec.33, T.22 N., R.24 W., Blaine County, Hydrologic Unit 10210001, on left bank just upstream from bridge on State Highway 2 at northeast corner of Dunning, 1 mi (2 km) upstream from Dismal River.

DRAINAGE AREA.--1,850 mi² (4,790 km²), approximately, of which about 80 mi² (210 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,607.14 ft (794.656 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 12, 1946, nonrecording gage, and Sept. 12, 1946, to Sept. 30, 1962, water-stage recorder at site 0.2 mi (0.3 km) upstream at datum 0.03 ft (0.009 m) higher.

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

AVERAGE DISCHARGE.--33 years, 398 ft³/s (11.27 m³/s), 288,400 acre-ft/yr (0.356 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft³/s (28.9 m³/s) Apr. 20, 1971, gage height, 2.50 ft (0.762 m); maximum gage height, 7.02 ft (2.140 m) Mar. 31, 1949, backwater from ice, site and datum then in use; minimum daily discharge, 100 ft³/s (2.83 m³/s) Dec. 5, 6, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,000 ft³/s (28.3 m³/s) July 21, gage height, 2.46 ft (0.750 m); maximum gage height, 3.70 ft (1.128 m) Jan. 1, ice jam; minimum daily discharge, 290 ft³/s (8.21 m³/s) Dec. 9, Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	460	394	416	350	410	380	431	470	488	372	403	358
2	414	397	403	360	400	400	464	455	476	379	406	367
3	397	397	419	380	470	360	440	454	473	415	407	363
4	399	390	441	340	450	380	430	476	475	377	384	362
5	393	381	469	370	400	420	429	455	461	369	380	359
6	384	391	407	390	400	400	424	470	468	386	379	358
7	400	388	360	350	380	450	413	491	431	393	380	353
8	393	457	330	300	410	470	424	476	416	375	383	355
9	380	442	290	290	450	520	470	430	399	367	394	360
10	387	416	310	320	470	600	463	439	389	356	386	362
11	385	379	350	340	480	470	431	455	391	346	380	365
12	360	407	400	370	460	461	443	467	376	351	372	361
13	356	386	450	360	440	479	450	412	368	347	373	358
14	363	391	480	380	430	437	464	403	369	351	401	358
15	376	408	499	370	390	438	476	400	376	348	502	358
16	368	421	483	360	370	439	468	398	382	344	466	362
17	361	416	467	380	360	415	486	401	416	350	424	384
18	362	386	438	350	390	433	488	419	414	349	414	394
19	357	407	464	340	410	496	453	424	373	354	408	384
20	362	433	420	330	390	489	428	397	370	375	396	367
21	375	378	390	350	410	551	433	394	372	683	394	365
22	374	382	430	380	430	526	479	424	392	693	390	361
23	396	405	430	400	450	508	446	425	394	494	392	365
24	404	411	400	390	470	487	447	402	451	445	384	367
25	380	413	380	370	490	470	449	413	422	422	385	367
26	383	403	400	320	440	423	449	394	401	410	385	365
27	379	411	440	370	420	417	436	409	380	396	397	364
28	385	402	430	400	410	438	454	453	376	385	397	375
29	384	411	420	410	---	445	473	483	379	374	395	390
30	398	425	410	420	---	431	477	440	361	377	370	400
31	401	---	390	430	---	433	---	470	---	389	360	---
TOTAL	11916	12128	12816	11270	11880	14066	13518	13499	12239	12372	12267	11007
MEAN	384	404	413	364	424	454	451	435	408	399	396	367
MAX	460	457	499	430	490	600	488	491	488	693	502	400
MIN	356	378	290	290	360	360	413	394	361	344	360	353
AC-FT	23640	24060	25420	22350	23560	27900	26810	26780	24280	24540	24330	21830

CAL YR 1977 TOTAL 150947 MEAN 414 MAX 683 MIN 190 AC-FT 299400
WTR YR 1978 TOTAL 148978 MEAN 408 MAX 693 MIN 290 AC-FT 295500

06775500 MIDDLE LOUP RIVER AT DUNNING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-56, 1965 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1949 to September 1956, October 1965 to current year.

SUSPENDED SEDIMENT DISCHARGE: March 1950 to September 1952, October 1953 to September 1954.

INSTRUMENTATION.--Temperature recorder from Oct. 1, 1965.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum, 34.0°C June 21, 1956; minimum, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 3,800 mg/L Feb. 23, 1952; minimum daily, 56 mg/L Jan. 23, 1952.

SEDIMENT LOADS: Maximum daily, 5,160 tons (4,700 tonnes) Mar. 31, 1952; minimum daily, 21 tons (19 tonnes) Jan. 23, 1952.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 30.0°C July 2; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	12.0	10.0	8.0	3.0	.5	.0	.0	.5	.5	.5	.5
2	13.5	11.5	9.5	5.5	3.0	.5	.0	.0	.5	.5	.5	.5
3	14.0	11.0	10.0	6.5	5.0	1.5	.0	.0	.5	.5	1.0	1.0
4	13.0	11.0	10.5	6.0	5.5	2.0	.0	.0	.5	.5	1.5	1.5
5	12.0	10.0	11.0	7.0	2.0	.0	.0	.0	.5	.5	1.5	1.5
6	11.0	9.5	10.5	10.5	.0	.0	.0	.0	.5	.5	1.5	1.5
7	14.0	9.0	11.0	10.5	.0	.0	.0	.0	.5	.5	1.5	1.5
8	10.0	8.0	11.0	4.0	.0	.0	.0	.0	.5	.5	1.5	1.5
9	13.5	7.0	4.0	1.5	.0	.0	.0	.0	.5	.5	1.5	1.5
10	12.0	8.5	4.0	1.0	.0	.0	.0	.0	.5	.5	1.5	1.5
11	9.0	5.5	7.0	4.0	.0	.0	.0	.0	.5	.5	8.0	2.0
12	10.5	5.5	7.0	4.0	.0	.0	.0	.0	.5	.5	9.0	6.0
13	13.5	8.0	9.0	4.5	.0	.0	.0	.0	.5	.5	8.0	5.0
14	14.0	9.5	9.0	7.0	.0	.0	.0	.0	.5	.5	4.5	4.5
15	12.0	8.0	7.0	6.0	1.5	.0	.0	.0	.5	.5	6.5	5.0
16	13.5	7.0	7.0	4.5	3.5	1.5	.0	.0	.5	.5	7.0	4.5
17	13.0	9.0	5.0	3.0	3.0	1.0	.0	.0	.5	.5	10.0	4.0
18	13.0	8.0	4.5	3.5	1.5	.0	.0	.0	.5	.5	12.0	6.5
19	14.0	8.5	4.0	3.5	1.5	.5	.0	.0	.5	.5	11.0	8.0
20	15.0	9.5	4.0	1.0	.5	.5	.5	.5	.5	.5	12.0	6.0
21	13.0	10.5	1.0	1.0	.5	.5	.5	.5	.5	.5	14.0	6.5
22	12.0	9.0	1.0	1.0	.5	.5	.5	.5	.0	.0	13.0	9.0
23	10.0	9.0	1.0	1.0	.5	.5	.5	.5	.0	.0	10.0	7.0
24	9.0	9.0	1.5	1.0	.5	.5	.5	.5	.0	.0	11.0	5.5
25	13.5	8.0	1.5	.5	.0	.0	.5	.5	.5	.5	9.0	5.5
26	14.5	9.5	1.5	.5	.0	.0	.5	.5	.5	.5	13.5	5.5
27	13.0	10.0	2.0	.5	.0	.0	.5	.5	.5	.5	15.5	8.5
28	11.0	10.5	5.0	1.5	.0	.0	.5	.5	.5	.5	16.0	9.5
29	13.5	9.5	5.0	1.5	.0	.0	.5	.5	---	---	15.5	9.0
30	13.5	11.0	5.0	3.0	.0	.0	.5	.5	---	---	18.0	10.5
31	11.0	8.0	---	---	.0	.0	.5	.5	---	---	18.0	11.5
MONTH	15.5	5.5	11.0	.5	5.5	.0	.5	.0	.5	.0	18.0	.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.0	10.0	14.5	9.5	16.5	13.0	29.0	21.5	25.5	19.0	23.0	16.5
2	16.0	8.5	16.5	9.0	19.0	11.5	30.0	20.5	23.5	20.0	25.5	18.0
3	16.0	10.5	15.5	10.0	22.0	14.5	28.0	21.0	23.5	16.5	25.0	19.0
4	15.0	10.0	12.0	10.0	20.0	16.5	28.0	20.0	23.5	16.5	26.5	19.5
5	14.5	10.0	15.5	9.0	19.5	16.5	26.5	20.0	25.5	16.5	25.0	19.5
6	16.5	10.0	12.0	8.5	23.5	15.0	25.5	21.0	26.0	19.0	23.5	18.5
7	19.0	11.0	13.5	8.0	21.0	16.5	26.0	19.0	29.0	19.5	22.0	17.0
8	18.0	13.0	10.5	8.0	23.5	15.0	27.0	19.5	27.0	21.0	21.5	16.5
9	15.0	8.5	16.5	7.0	23.5	17.0	24.5	19.5	25.5	20.0	24.5	16.5
10	10.0	6.0	19.0	11.0	25.5	18.0	23.5	16.5	26.5	19.0	24.5	18.5
11	14.0	5.5	20.0	13.5	23.5	18.0	25.5	17.0	26.5	19.0	22.0	18.0
12	13.5	8.5	18.0	12.0	24.5	15.5	29.0	20.0	28.0	21.0	21.5	15.5
13	13.5	8.0	19.0	9.0	23.5	16.5	26.5	20.5	28.0	21.5	20.0	15.5
14	10.5	9.0	19.5	13.5	27.0	18.0	29.0	20.5	26.5	20.0	20.5	13.5
15	9.0	6.5	21.0	14.0	28.5	21.0	29.0	21.0	25.0	18.0	23.0	15.5
16	6.5	6.5	20.0	13.5	27.0	20.5	26.5	23.5	22.0	15.5	21.0	16.5
17	8.5	6.5	18.0	13.5	24.0	18.0	29.0	21.0	25.0	19.0	18.0	13.5
18	8.5	5.0	21.0	13.5	24.0	16.5	27.0	21.0	21.5	16.5	19.0	13.5
19	7.0	5.0	21.0	14.5	25.5	16.5	28.0	21.0	21.5	13.5	16.5	12.0
20	12.0	4.5	21.5	14.0	24.0	15.5	24.5	20.5	22.0	15.0	16.5	11.0
21	9.5	5.5	21.0	15.5	23.0	17.0	22.0	20.0	27.0	18.5	16.5	10.5
22	9.0	6.5	16.5	16.5	24.5	18.0	20.5	18.5	26.5	20.0	15.5	10.5
23	13.0	5.5	23.5	15.5	28.5	20.0	24.0	16.0	28.0	20.0	19.0	11.0
24	10.5	7.0	23.5	19.0	28.5	20.0	26.5	18.0	28.0	21.5	19.0	13.5
25	15.0	8.0	24.0	17.0	29.0	20.0	28.0	20.5	25.5	19.5	19.0	13.5
26	15.0	9.5	25.0	18.0	26.0	20.0	28.5	20.0	25.5	21.0	21.0	14.0
27	14.5	9.0	22.0	19.0	26.0	20.0	28.5	21.0	26.0	19.0	18.5	14.5
28	17.0	10.0	21.0	18.0	28.5	20.5	28.5	20.0	23.5	18.0	18.5	13.5
29	14.5	11.5	19.5	13.5	28.0	21.0	25.5	21.0	23.0	16.5	17.0	14.0
30	13.5	10.5	21.0	15.5	28.0	20.5	25.5	19.5	23.5	18.0	18.0	10.5
31	---	---	19.0	14.5	---	---	23.5	18.5	21.5	16.0	---	---
MONTH	19.0	4.5	25.0	7.0	29.0	11.5	30.0	16.0	29.0	13.5	26.5	10.5

PLATTE RIVER BASIN

06775900 DISMAL RIVER NEAR THEDFORD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	GROSS ALPHA, DIS- SOLVED (UG/L) U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L) U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L) AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L) AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L) AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L) AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URIANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)	PCB, TOTAL (UG/L) (39516)
NOV 15...	1030	140	140	3.4	9.0	5.4	4.6	4.6	3.9	.03	.26	.0

DATE	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39350)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39360)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39365)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39370)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)
NOV 15...	0	.00	.00	.0	.0	0	.00	.0	.00	.0	.00	.0

DATE	DI- AZINON, TOTAL (UG/L) (39570)	DI- ELDRIN, TOTAL (UG/L) (39380)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATERIAL (UG/L) (39420)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATERIAL (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)
NOV 15...	.00	.00	.0	.00	.00	.0	.00	.00	.0	.00	.0	.00

DATE	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	MALA- THION, TOTAL (UG/L) (39530)	METHYL PARA- THION, TOTAL (UG/L) (39600)	METHYL TRI- THION, TOTAL (UG/L) (39790)	PARA- THION, TOTAL (UG/L) (39540)	TOX- APHENE, TOTAL (UG/L) (39400)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	TOTAL TRI- THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV 15...	.0	.00	.00	.00	.00	0	0	.00	.00	.00	.00	.00

155

LOCATION.--Lat 41°49'23", long 100°06'05", in sec.4, T.21 N., R.24 W., Blaine County, Hydrologic Unit 10210002, on right bank 100 ft (30 m) downstream from bridge on State Highway 2 at southeast corner of Dunnings and 1 mi (2 km) upstream from mouth.

PERIOD OF RECORD.--March to June 1932, September 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,606.3 ft (794.40 m) National Geodetic Vertical Datum of 1929. Mar. 1 to June 30, 1932, nonrecording gage at site 0.2 mi (0.3 km) upstream at datum 0.5 ft (0.15 m) lower. Sept. 13, 1945 to Apr. 19, 1956, nonrecording gage on bridge 100 ft (30 m) upstream at present datum.

AVERAGE DISCHARGE.--33 years (1945-78), 322 ft³/s (9.119 m³/s), 233,300 acre-ft/yr (0.288 km³/yr).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 606 ft³/s (17.2 m³/s) Oct. 1, gage height, 1.34 ft (0.408 m); maximum gage height recorded, 2.80 ft (0.853 m) Jan. 10, backwater from ice, but may have been higher during periods of no gage height record Feb. 5-20 and Feb. 22 to Mar. 13; minimum daily discharge, 230 ft³/s (6.51 m³/s) Dec. 9.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	442	343	355	270	350	260	337	352	349	266	305	305
2	335	326	336	280	330	280	363	342	339	285	320	310
3	329	333	347	310	380	260	353	344	339	310	300	310
4	327	338	364	290	370	280	327	352	351	266	285	320
5	312	341	348	320	330	310	323	347	367	257	285	310
6	303	367	301	340	330	300	335	360	347	290	280	295
7	324	373	310	300	340	330	335	376	337	275	285	285
8	307	405	260	250	350	360	339	355	336	275	280	285
9	307	340	230	270	360	400	351	325	334	270	300	285
10	325	304	250	260	370	450	295	340	325	262	305	295
11	288	338	290	280	380	370	297	355	335	252	295	300
12	287	346	330	300	360	360	303	359	312	266	290	295
13	317	355	370	290	340	370	299	320	295	257	290	285
14	327	370	400	300	320	360	341	333	310	252	310	290
15	327	365	350	290	270	360	324	345	320	257	360	290
16	328	374	424	270	250	355	320	343	310	266	320	295
17	344	341	391	280	240	369	360	339	335	266	305	335
18	335	348	350	270	260	433	346	386	310	266	295	325
19	340	355	360	250	280	434	312	380	300	262	295	300
20	345	338	320	240	270	428	314	337	290	280	285	290
21	343	301	306	270	280	442	318	337	285	345	290	295
22	334	334	372	300	310	440	343	398	300	380	295	285
23	352	304	360	320	320	387	332	390	305	305	300	285
24	338	317	325	310	330	372	341	365	340	285	300	300
25	343	307	305	290	330	373	330	355	320	275	300	305
26	366	311	331	270	310	345	344	357	305	266	305	305
27	360	324	368	280	290	366	342	373	280	266	320	310
28	359	329	361	300	270	370	361	406	280	270	345	315
29	358	349	357	320	---	353	384	453	270	266	310	315
30	377	349	342	340	---	361	360	373	266	270	310	320
31	358	---	311	370	---	361	---	380	---	295	305	---
TOTAL	10437	10225	10524	9030	8920	11239	10029	11177	9492	8603	9370	9040
MEAN	337	341	339	291	319	363	334	361	316	278	302	301
MAX	442	405	450	370	380	450	384	453	367	380	360	335
MIN	287	301	230	240	240	260	295	320	266	252	280	285
AC-FT	20700	20280	20870	17910	17690	22290	19890	22170	18830	17060	18590	17930
CAL YR 1977	TOTAL	127917	MEAN	350	MAX	669	MIN	230	AC-FT	253700	</	

PLATTE RIVER BASIN

06777000 MIDDLE LOUP RIVER NEAR MILBURN, NE

LOCATION.--Lat 41°49'02", long 99°58'15", in NE1/4SW1/4 sec.3, T.21 N., R.23 W., Blaine County, Hydrologic Unit 10210003, at Laughran bridge 9 miles upstream from Rifle Creek and 15 miles northwest of Milburn.

DRAINAGE AREA.--3,690 sq mi, approximately, of which 135 sq mi contributes directly to surface runoff.

PERIOD OF RECORD.--Water year 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)
OCT							
03...	1625	730	167	7.2	15.0	20	9.5
20...	1440	704	175	7.6	17.5	15	10.2
25...	1510	754	161	7.6	16.0	15	10.6
NOV							
01...	1020	805	171	7.2	9.0	15	11.7
10...	1140	826	164	7.2	3.0	20	13.5
14...	1525	810	163	7.3	10.0	20	11.0
DEC							
06...	1450	863	166	7.3	.5	30	13.8
21...	1215	769	189	7.5	1.5	25	14.3
JAN							
30...	1100	800	236	7.8	.5	7	13.8
FEB							
23...	1110	822	177	7.2	.5	15	12.0
MAR							
16...	1500	896	173	7.5	6.5	35	12.9
APR							
25...	1115	821	186	7.6	12.5	25	11.2
MAY							
02...	1405	816	187	7.6	17.0	20	9.9
JUN							
15...	1050	729	177	7.4	24.5	15	8.5
JUL							
06...	0930	754	169	7.7	23.0	25	8.9
11...	1030	757	178	7.3	19.0	25	9.5
18...	1455	688	179	7.4	27.5	15	8.5
24...	1345	743	189	7.6	28.5	80	8.0
31...	1040	734	179	7.6	19.0	30	9.0
AUG							
08...	1150	694	179	7.6	24.5	15	8.8
16...	0955	862	171	7.5	16.5	25	9.7
24...	1040	711	175	7.3	26.0	25	8.8
29...	1150	718	173	7.4	19.0	20	9.5
SEP							
05...	1440	670	160	7.3	26.0	15	8.8
12...	1050	666	181	7.5	18.0	20	9.5
19...	1145	704	172	7.2	13.0	15	10.8
26...	1110	736	174	7.2	16.0	10	10.1

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
FEB											
23...	1110	6	65	0	21	3.0	6.5	.4	5.1	92	0
JUL											
06...	0930	11	71	0	23	3.3	7.3	.4	5.6	89	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)
FEB											
23...	75	7.9	.9	.3	52	145	.20	322	.72	.16	20
JUL											
06...	73	6.8	1.2	.3	56	150	.20	305	.63	.11	30

06778500 MIDDLE LOUP RIVER NEAR COMSTOCK, NE

LOCATION.--Lat 41°28'49", long 99°12'43", in NE1/4NE1/4 sec.1, T.17 N., R.17 W., Custer County, Hydrologic Unit 10210003, at bridge on Custer-Valley County line 0.3 miles downstream from diversions for canals 3 and 4, 1.3 miles, south of Burlington Northern Inc. crossing, and 5.5 miles southeast of Comstock.

DRAINAGE AREA.--4,650 sq mi, approximately, of which 430 sq mi contributes directly to surface runoff.

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

						SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)		PH (UNITS) (00400)		TEMPER- ATURE (DEG C) (00010)		TUR- BID- ITY (JTU) (00070)		OXYGEN, DIS- SOLVED (MG/L) (00300)	
DATE		TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)												
OCT															
07...		1450	1070	178		7.3		15.0		30		10.0			
20...		1120	840	189		7.4		12.5		25		11.0			
NOV															
01...		1305	934	190		7.4		9.5		20		11.6			
10...		1655	1070	187		7.2		4.0		30		13.0			
17...		1620	1590	186		7.3		5.5		35		12.2			
DEC															
12...		1025	379	272		6.8		.5		10		12.5			
22...		1140	638	217		7.6		1.0		7		13.7			
JAN															
12...		0945	826	210		7.4		.5		5		13.1			
FEB															
24...		1350	889	188		7.3		.5		10		12.1			
MAR															
22...		1150	3850	167		6.8		1.0		40		13.1			
APR															
27...		1410	450	212		7.4		12.0		20		11.1			
MAY															
25...		1325	502	189		7.8		23.5		10		9.6			
JUN															
15...		1555	239	207		7.8		29.0		10		9.0			
JUL															
11...		1325	52	217		7.6		26.5		20		9.4			
18...		1130	50	224		7.6		24.5		10		9.1			
27...		1240	45	228		8.1		30.0		40		8.9			
31...		1330	52	232		8.1		20.5		25		9.1			
AUG															
08...		1620	62	209		8.3		30.0		10		9.0			
17...		1110	365	191		7.3		24.0		20		9.0			
24...		1435	55	213		7.5		31.0		15		9.5			
29...		1400	62	212		7.4		24.0		10		9.6			
SEP															
07...		1415	118	198		7.4		26.0		10		9.2			
12...		1335	185	198		7.4		24.0		20		8.9			
22...		1105	344	190		7.2		13.0		15		11.1			
28...		1455	356	193		7.6		19.5		15		10.0			
DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS F) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)				
FEB															
24...	1350	3	75	0	24	3.7	7.0	.4	5.3	100	0				
JUL															
18...	1130	5	91	0	29	4.5	8.9	.4	6.5	130	0				
DATE	TIME	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)			
FEB															
24...	82	6.9	1.4	.3	52	153	.21	367	.70	.16	20				
JUL															
18...	110	7.2	1.3	.4	60	182	.25	24.6	.05	.09	30				

PLATTE RIVER BASIN

159

06779000 MIDDLE LOUP RIVER AT ARCADIA, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
MAY 24...	1300	466	198	8.2	24.0	85	0	27	4.3
AUG 16...	1445	331	220	7.5	25.5	95	0	31	4.3

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LILITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
MAY 24...	8.0	.4	--	120	0	98	7.4	1.4	.22
AUG 16...	7.6	.3	6.6	120	0	98	7.6	1.5	.73

PLATTE RIVER BASIN

06783000 MUD CREEK NEAR BROKEN BOW, NE

LOCATION.--Lat 41°22'30", long 99°35'10", in NW1/4SW1/4NW1/4 sec.11, T.16 N., R.20 W., Custer County, Hydrologic Unit 10210005, at bridge on State Highway 2, about 3 miles southeast of Broken Bow.

PERIOD OF RECORD.--Water year 1973 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 06...	1320	1.5	683	8.3	11.0	15	11.7	16	37000	50000
NOV 17...	1020	1.5	726	7.8	4.0	9	11.2	18	K370	7800
DEC 20...	1330	1.2	718	7.5	.5	20	12.9	7.6	1600	K37000
JAN 27...	1130	.86	510	7.6	.5	5	11.8	8.6	15000	5800
FEB 23...	1405	.94	1310	7.3	1.0	15	6.9	28	K65000	K22000
MAR 09...	1505	1.9	1060	7.3	3.5	35	5.5	41	K54000	K37000
APR 25...	1530	2.8	752	7.9	13.5	9	12.1	7.0	K530	3400
MAY 23...	1205	2.3	617	7.4	19.5	10	5.4	8.8	9700	8000
JUN 06...	1035	3.7	670	7.5	18.0	15	7.1	10	8700	7200
JUL 27...	1005	1.6	671	7.6	24.0	10	5.8	9.8	3600	6800
AUG 17...	1350	2.2	698	7.7	24.5	10	9.0	14	8000	8800
SEP 28...	1035	1.4	721	7.9	15.0	15	3.9	9.2	1200	3600

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 06...	70	486	.66	2.01	.72	.17	2.9	3.1	3.8	5.3
NOV 17...	62	--	.66	1.97	1.0	.41	2.3	2.7	3.7	2.3
DEC 20...	51	475	.65	1.54	1.1	.76	1.6	2.4	3.5	1.5
JAN 27...	4.1	360	.49	.84	1.2	.96	.44	1.4	2.6	.21
FEB 23...	300	--	1.12	2.09	.65	9.1	1.9	11	12	3.6
MAR 09...	170	617	.84	3.17	.25	9.7	8.3	18	18	3.8
APR 25...	47	484	.66	3.66	1.2	3.0	4.8	7.8	9.0	2.7
MAY 23...	34	--	.54	2.47	1.3	2.6	2.2	4.8	6.1	1.4
JUN 06...	41	436	.59	4.36	1.9	.00	6.0	6.0	7.9	1.8
JUL 27...	44	403	.55	1.74	.75	.27	1.4	1.7	2.5	.87
AUG 17...	60	--	.58	2.60	1.8	2.6	3.4	6.0	7.8	1.4
SEP 28...	80	483	.66	1.83	.26	.75	3.2	3.9	4.2	1.0

PLATTE RIVER BASIN

161

06783000 MUD CREEK NEAR BROKEN BOW, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBAL- TUNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
NOV 17...	1020	27	270	0	84	14	57	1.5	15	340	0
FEB 23...	1405	25	260	0	84	11	170	4.6	18	330	0
MAY 23...	1205	12	230	0	72	13	40	1.1	16	300	0
AUG 17...	1350	10	210	0	66	11	52	1.6	17	280	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUD- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 17...	280	37	.3	49	486	1.6	--	180	--	--
FEB 23...	270	32	.4	44	823	3.6	5	220	0	0
MAY 23...	250	34	.3	39	397	1.4	--	120	--	--
AUG 17...	230	34	.2	50	428	1.0	8	180	<1	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 17...	--	30	--	90	--	--	--	--	--	--
FEB 23...	1	60	3	260	.0	.0	.0	1	0	20
MAY 23...	--	0	--	300	--	--	--	--	--	--
AUG 17...	5	20	0	40	.1	.0	.1	1	0	7

PLATTE RIVER BASIN

06783500 HUD CREEK NEAR SWEETWATER, NE

LOCATION.--Lat 41°02'15", long 98°59'35", in NE1/4SE1/4 sec.3, T.12 N., R.15 W., Buffalo County, Hydrologic Unit 10210005, on right bank 12 ft (4 m) downstream from bridge on State Highway 2, 0.9 mi (1.4 km) southeast of Sweetwater, and 11.6 mi (18.7 km) upstream from mouth.

DRAINAGE AREA.--707 mi² (1,831 km²), of which 655 mi² (1,696 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,013.69 ft (613.773 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Minor irrigation developments above station.

AVERAGE DISCHARGE.--32 years, 40.9 ft³/s (1.158 m³/s), 29,630 acre-ft/yr (36.5 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 27,000 ft³/s (765 m³/s) June 22, 1947, gage height, 23.20 ft (7.071 m); maximum discharge computed, 5,600 ft³/s (159 m³/s) June 24, 1968, gage height, 20.07 ft (6.117 m); no flow at times in 1955-56.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1929, that of June 22, 1947, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,230 ft³/s (63.2 m³/s) Mar. 16 at 1200, gage height, 17.88 ft (5.450 m), no other peak above base of 550 ft³/s (15.6 m³/s); minimum daily, 0.57 ft³/s (0.016 m³/s) July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	21	23	17	20	25	52	42	54	18	20	18
2	27	21	22	19	20	26	55	41	49	14	20	18
3	27	20	21	19	21	24	55	40	39	14	18	18
4	38	20	21	18	22	23	51	39	36	14	20	18
5	20	19	20	19	21	25	56	39	33	9.9	22	17
6	16	19	19	20	21	27	123	39	32	14	20	16
7	17	20	20	18	21	28	47	41	32	22	17	16
8	18	20	19	17	21	28	44	41	31	8.3	15	16
9	17	22	18	17	22	35	136	41	30	7.0	12	16
10	17	22	19	16	22	45	80	41	30	6.6	14	16
11	18	25	20	18	23	70	76	38	29	5.5	33	16
12	18	29	20	20	22	200	69	38	29	5.1	133	33
13	18	23	21	19	22	500	60	37	27	4.8	423	21
14	18	21	22	18	21	900	96	36	27	5.0	182	16
15	18	21	22	17	20	1590	77	36	27	.65	112	15
16	19	20	21	16	18	2140	147	36	26	.57	78	15
17	19	20	21	15	18	2070	110	35	26	1.1	64	14
18	20	20	20	16	19	1470	115	35	25	1.4	49	15
19	19	20	19	16	20	988	102	36	25	1.4	36	15
20	19	20	18	15	20	818	115	36	50	21	32	14
21	19	19	19	16	19	834	74	35	35	28	30	15
22	19	20	21	17	23	583	70	35	26	96	26	15
23	19	19	22	20	26	261	64	34	24	83	22	15
24	19	18	21	19	29	176	56	33	24	92	20	15
25	20	17	20	21	28	121	52	35	24	68	22	15
26	19	19	19	20	27	88	48	35	23	35	29	15
27	20	22	20	19	28	72	45	94	22	23	23	15
28	20	24	21	20	24	66	45	64	23	16	21	14
29	20	26	22	19	---	60	44	50	23	14	21	14
30	20	24	20	20	---	56	42	44	21	8.9	23	14
31	20	---	18	21	---	52	---	43	---	11	22	---
TOTAL	620	631	629	562	618	13401	2206	1269	902	649.22	1579	490
MEAN	20.0	21.0	20.3	18.1	22.1	432	73.5	40.9	30.1	20.9	50.9	16.3
MAX	38	29	23	21	29	2140	147	94	54	96	423	33
MIN	16	17	18	15	18	23	42	33	21	.57	12	14
AC-FT	1230	1250	1250	1110	1230	26580	4380	2520	1790	1290	3130	972
CAL YR 1977 TOTAL	11842.30			MEAN 32.4	MAX 525	MIN 4.3	AC-FT 23490					
WTR YR 1978 TOTAL	23556.22			MEAN 64.5	MAX 2140	MIN .57	AC-FT 46720					

06784000 SOUTH LOUP RIVER AT ST. MICHAEL, NE

LOCATION.--Lat 41°01'53", long 98°44'25", in NE1/4NE1/4 sec.11, T.12 N., R.13 W., Buffalo County, Hydrologic Unit 10210004, 15 ft (5 m) upstream and 65 ft (20 m) right from right upstream corner of county highway bridge, 0.6 mi (1.0 km) northeast of St. Michael, and 3.4 mi (5.5 km) upstream from Sweet Creek.

DRAINAGE AREA.--2,350 mi² (6,090 km²), approximately, of which about 1,610 mi² (4,170 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year.

REVISED RECORDS.--WDR NE-74: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,921.26 ft (585.600 m) National Geodetic Vertical Datum of 1929. Prior to June 22, 1947, water-stage recorder, and June 25 to Sept. 30, 1947, nonrecording gage, at site 40 ft (12 m) downstream at datum 2.00 ft (0.610 m) higher. Oct. 1, 1947, to July 3, 1958, nonrecording gage at site 40 ft (12 m) downstream at present datum. July 4, 1958, to Sept. 7, 1960, water-stage recorder at site 560 ft (171 m) upstream at present datum. Sept. 8, 1960, to June 24, 1968, water-stage recorder at site 60 ft (18 m) upstream at present datum. June 25 to Nov. 21, 1968, nonrecording gage at site 40 ft (12 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Minor irrigation developments above station.

AVERAGE DISCHARGE.--35 years, 243 ft³/s (6.882 m³/s), 176,100 acre-ft/yr (0.217 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 50,000 ft³/s (1,420 m³/s) June 22, 1947, gage height, 12.0 ft (3.66 m), present datum, from graph based on gage readings; maximum discharge computed, 27,500 ft³/s (779 m³/s) June 24, 1968, gage height, 11.00 ft (3.353 m); minimum daily, 6.6 ft³/s (0.19 m³/s) Aug. 30, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,200 ft³/s (317 m³/s) Mar. 16, gage height, 13.15 ft (4.008 m) backwater from ice; minimum daily, 48 ft³/s (1.36 m³/s) Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	158	227	165	140	230	346	305	365	127	93	102
2	173	176	213	170	130	240	386	286	365	106	112	99
3	198	186	214	180	145	220	379	260	324	92	121	102
4	208	186	206	170	170	200	349	255	295	87	122	104
5	210	189	190	170	165	250	316	258	282	78	121	99
6	180	194	48	180	160	270	437	277	274	73	119	95
7	212	190	60	160	155	260	320	318	260	74	111	87
8	195	208	80	140	140	260	279	312	249	84	102	82
9	173	236	100	145	150	300	436	288	241	68	95	76
10	155	247	110	135	160	330	817	274	219	63	91	73
11	135	212	130	160	170	600	405	273	205	63	99	74
12	122	206	140	180	180	1300	373	280	201	65	156	76
13	116	193	150	170	175	3000	320	278	189	66	403	104
14	114	190	165	180	170	6000	516	259	179	65	652	98
15	127	186	175	165	160	8500	545	246	173	64	248	88
16	134	187	190	130	150	10600	648	232	175	62	369	88
17	150	193	190	125	145	5600	524	214	169	61	229	88
18	181	199	185	150	140	3380	588	218	165	59	175	93
19	178	198	180	135	170	2750	492	231	167	58	156	93
20	172	205	160	125	165	2360	418	230	165	86	129	95
21	161	190	170	140	150	1790	334	233	225	158	124	97
22	161	190	180	155	190	1330	293	239	195	245	113	100
23	174	200	185	145	230	874	299	244	165	390	97	101
24	185	190	190	155	240	655	319	236	173	344	82	102
25	191	200	175	145	270	517	302	246	172	249	84	99
26	179	220	160	130	250	463	295	265	162	171	108	99
27	173	236	180	125	280	410	294	361	159	121	117	98
28	164	285	190	130	250	385	283	438	155	92	115	99
29	162	310	180	125	---	344	323	392	203	73	112	98
30	165	267	170	135	---	345	296	353	155	66	113	93
31	147	---	170	145	---	397	---	381	---	82	114	---
TOTAL	5157	6227	5063	4665	5000	54160	11932	8682	6426	3492	4882	2802
MEAN	166	208	163	150	179	1747	398	280	214	113	157	93.4
MAX	212	310	227	180	280	10600	817	438	365	390	652	104
MIN	114	158	48	125	130	200	279	214	155	58	82	73
AC-FT	10230	12350	10040	9250	9920	107400	23670	17220	12750	6930	9680	5560
CAL YR 1977	TOTAL	90619	MEAN 248	MAX 1950	MIN 41	AC-FT 179700						
WTR YR 1978	TOTAL	118488	MEAN 325	MAX 10600	MIN 48	AC-FT 235000						

PLATTE RIVER BASIN

06784000 SOUTH LOUP RIVER AT ST. MICHAEL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-53, 1974 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT DISCHARGE: June 1946 to June 1953.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 19,300 mg/L June 19, 1946; minimum daily, 13 mg/L Dec. 30, 31, 1951.

SEDIMENT LOADS: Maximum daily, 672,000 tons (612,000 tonnes) June 22, 1947; minimum daily, 6.1 tons (5.5 tonnes) Dec. 30, 31, 1951.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

		DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)				
OCT													
		05...	1310	208	406	7.9	13.0	90	10.7				
		19...	1510	178	400	8.0	15.0	40	10.4				
		25...	1150	186	405	7.7	11.5	40	11.2				
NOV													
		03...	1140	189	413	7.8	9.5	40	12.0				
		16...	1320	193	420	7.8	8.0	45	12.0				
DEC													
		06...	1340	75	432	--	.0	25	14.8				
		14...	1250	166	446	7.2	2.0	15	12.3				
		30...	1320	170	453	7.3	.5	25	13.5				
JAN													
		18...	1230	148	433	7.3	.0	15	9.1				
FEB													
		07...	1050	156	434	7.6	.0	15	6.9				
MAR													
		23...	1140	856	308	7.2	6.5	160	10.7				
APR													
		12...	1350	397	427	7.7	15.0	160	9.8				
MAY													
		24...	1200	228	457	8.0	23.5	30	9.8				
JUN													
		14...	1210	181	429	8.0	25.5	40	10.7				
JUL													
		06...	1300	76	398	8.0	26.5	35	9.7				
		13...	1330	66	357	8.0	29.0	35	10.2				
		19...	1100	59	370	7.8	23.5	25	9.6				
		25...	1140	239	278	7.5	27.0	160	7.5				
AUG													
		03...	1210	128	372	8.3	22.0	50	10.9				
		07...	1205	113	352	8.4	26.5	40	10.5				
		15...	1305	216	304	7.8	23.0	140	8.3				
		22...	1020	120	372	7.9	23.5	50	9.7				
		30...	1100	116	382	8.1	21.0	35	10.5				
SEP													
		06...	1135	95	383	8.1	26.0	30	9.5				
		14...	1340	93	340	8.3	23.0	45	11.0				
		21...	1055	99	396	8.2	13.0	35	11.8				
		27...	1350	97	393	8.2	21.5	30	11.0				
DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)		
FEB													
07...	1050	6	190	0	62	9.7	12	.4	8.0	250	0		
JUL													
06...	1300	18	190	0	61	8.8	13	.4	11	230	0		
DATE	TIME	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AC-FT) (70301)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	
FEB													
07...	210	19	4.6	.3	52	297	.40	125	1.3	.23	40		
JUL													
06...	190	19	5.2	.3	55	287	.39	58.9	.02	.20	60		

PLATTE RIVER BASIN

165

06784200 SHERMAN RESERVOIR NEAR LOUP CITY, NE

LOCATION.--Lat 41°18'10", long 98°52'45", in SW1/4NW1/4 sec. 1, T.15 N., R.14 W., Sherman County, Hydrologic Unit 10210003, in control house of outlet works of Sherman Dam, 5 mi (8 km) northeast of Loup City.

ELEVATION AND CONTENTS RECORDS

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Mercury-column pressure gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.-- Reservoir is formed by earthfill dam; closure date of dam, August 1960. First diversions from Middle Loup River, Nov. 8, 1962. Usable capacity, 65,237 acre-ft (80.4 km³) between elevations 2,118.5 ft (645.72 m), mill of canal outlet works, and 2,162.3 ft (659.07 m), crest of spillway. Dead and inactive storage, 3,839 acre-ft (4.73 km³) below elevation 2,118.5 ft (645.72 m). Figures given herein represent total contents. Water used for irrigation of Farwell Unit of Bureau of Reclamation.

COOPERATION.--Records of elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 70,230 acre-ft (86.6 km³) June 22, 1975, elevation, 2,162.7 ft (659.19 m); minimum observed since appreciable storage was attained, 10,010 acre-ft (12.3 km³) Sept. 1, 1971, elevation, 2,128.4 ft (648.74 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 69,940 acre-ft (86.2 km³) June 23-26, elevation, 2,162.6 ft (659.16 m); minimum observed, 34,730 acre-ft (42.8 km³) Sept. 1-9, elevation, 2,147.6 ft (654.59 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

	Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.	30	2,156.9	54,670	-
Oct.	31	2,156.1	52,720	-1,950
Nov.	30	2,155.0	51,290	-1,430
Dec.	31	2,154.8	49,650	-1,640
CAL YR 1977		-	-	+2,730
Jan.	31	2,154.2	48,270	-1,380
Feb.	28	2,153.7	47,140	-1,130
Mar.	31	2,154.0	47,810	+670
Apr.	30	2,158.0	57,430	+9,620
May	31	2,162.4	69,360	+11,930
June	30	2,162.4	69,360	0
July	31	2,151.7	42,800	-26,560
Aug.	31	2,147.8	35,090	-7,710
Sept.	30	2,153.6	46,920	+11,830
WTR YR 1978		-	-	-7,750

PLATTE RIVER BASIN

06784200 SHERMAN RESERVOIR NEAR LOUP CITY, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CaCO3) (00900)	HARDNESS, NONCARBONATE (MG/L AS CaCO3) (00902)	CALCIUM DISSOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DISSOLVED (MG/L AS Mg) (00925)	SODIUM, DISSOLVED (MG/L AS Na) (00930)
MAY 24...	1450	239	8.1	16.0	91	0	28	5.1	8.3
AUG 16...	1550	220	7.5	24.5	90	0	29	4.3	7.8

DATE	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CaCO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS Cl) (00940)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
MAY 24...	.4	--	130	0	107	4.6	1.5	.06
AUG 16...	.4	7.0	120	0	98	11	3.2	.42

LOCATION.--Lat 41°11'55", long 98°26'50", in NE1/4SW1/4 sec.10, T.14 N., R.10 W., Howard County, Hydrologic Unit 10210003, on left bank at St. Paul, 450 ft (137 m) upstream from bridge on U.S. Highway 281 and 6 mi (10 km) upstream from confluence with North Loup River.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WSP 1036: 1943. WSP 1390: 1896, 1903, 1928(M), 1944. WDR NE-72: Drainage area.

REMARKS.—Records good except those for winter period, which are fair. Diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,000 ft³/s (2,040 m³/s) June 23, 1947, gage height, 12.69 ft (3.866 m), site then in use, present datum, from rating curve extended above 55,000 ft³/s (1,560 m³/s); minimum daily since 1929, 59 ft³/s (1.67 m³/s) July 10, 1970.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
NEAR WALNUTS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1600	1430	1720	1000	900	1000	1250	1480	1070	497	339	254
2	1630	1230	1740	880	860	960	1650	1320	860	423	346	264
3	1530	1220	1610	940	940	920	2150	1280	870	289	361	300
4	1280	1340	1560	840	1000	860	2080	1410	860	226	428	300
5	1270	1410	1450	900	960	1060	1980	1740	920	180	434	300
6	1310	1140	270	1000	860	1220	2230	1460	975	215	390	300
7	1470	1060	240	900	880	1120	2380	1800	997	279	317	282
8	1650	1240	350	780	880	1250	1800	1950	942	255	273	276
9	1410	1610	450	740	880	1400	3400	1380	910	244	262	254
10	1160	1430	480	700	1040	1700	3570	1100	820	230	276	259
11	1140	1320	520	840	1120	2000	2600	840	740	226	325	259
12	1090	1210	540	1000	1120	2300	1800	590	712	250	495	336
13	1040	1220	560	900	1080	3500	1800	740	696	252	654	920
14	1120	1190	580	940	1040	6000	2130	880	631	251	790	532
15	1220	1300	680	840	980	9000	2330	650	552	234	890	446
16	1190	1600	780	780	900	15000	2850	660	521	226	1190	425
17	1120	1800	800	720	860	18000	2570	580	467	200	1090	418
18	1130	1800	780	760	860	12500	3150	630	418	185	770	476
19	1130	1750	740	700	1000	9200	2530	780	491	185	639	476
20	1050	1800	680	680	960	6720	1800	1010	513	270	567	549
21	1210	1800	700	760	900	6000	1320	894	543	530	532	576
22	1340	1750	760	880	1240	4500	1220	810	809	711	508	567
23	1260	1850	1000	840	1180	3400	1250	760	916	891	446	558
24	1170	2050	1300	880	1140	2150	1310	702	626	1220	404	516
25	1230	1950	1200	800	1060	1900	1020	820	601	875	348	508
26	1150	1950	1100	760	1020	1820	990	760	661	595	342	517
27	1040	2000	1060	740	1180	1950	850	931	706	444	342	475
28	1070	2150	1140	740	1060	1820	790	1320	676	343	318	483
29	1140	2180	1200	760	---	1700	810	1150	643	269	294	461
30	1250	2040	1200	860	---	2050	980	1220	616	255	276	481
31	1320	---	1100	940	---	1680	---	1360	---	273	270	---
TOTAL	38720	47820	28290	25800	27900	124680	56590	33007	21762	11523	14916	12773
MEAN	1249	1594	913	832	996	4022	1886	1065	725	372	481	426
HAX	1650	2180	1740	1000	1240	18000	3570	1950	1070	1220	1190	920
MIN	1040	1060	240	680	860	860	790	580	418	180	262	254
AC-FT	76800	94850	56110	51170	55340	247300	112200	65470	43160	22860	29590	25340
CAL YR 1977	TOTAL	429246	MEAN	1176	HAX	4600	MIN	208	AC-FT	851400		
STR YR 1978	TOTAL	443781	MEAN	1216	HAX	18000	MIN	180	AC-FT	880200		

PLATTE RIVER BASIN

06785000 MIDDLE LOUP RIVER AT ST. PAUL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

		DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)		
OCT											
		03...	1110	1430	264	7.7	13.0	70	10.9		
		19...	1230	1160	269	7.4	13.0	35	11.2		
		25...	1445	1280	259	7.5	14.5	55	10.6		
NOV											
		02...	1240	1280	263	7.5	10.0	40	9.9		
		14...	1050	1250	270	7.6	5.5	50	13.0		
DEC											
		06...	1120	210	370	--	.0	25	15.1		
		14...	1020	591	406	7.4	.5	10	14.0		
		27...	1320	1070	318	7.3	.0	15	14.3		
JAN											
		16...	1140	763	315	7.0	.0	8	13.7		
FEB											
		09...	1235	899	263	6.7	.0	10	10.9		
MAR											
		20...	1135	6720	223	7.0	4.0	200	12.0		
APR											
		10...	1135	3640	331	7.5	11.5	180	10.9		
MAY											
		22...	1045	838	324	7.9	19.5	25	9.8		
		25...	0830	744	322	8.2	20.5	--	--		
JUN											
		12...	1115	733	324	8.1	21.0	30	10.0		
JUL											
		03...	1110	297	364	7.8	28.0	35	8.7		
		12...	1410	251	357	8.0	31.5	45	9.1		
		20...	1120	279	339	7.5	24.5	65	8.9		
		24...	1110	1340	314	7.6	24.0	130	8.5		
AUG											
		02...	1350	342	347	8.1	27.5	50	8.6		
		10...	1120	274	353	7.6	22.0	40	9.4		
		14...	1055	680	319	7.9	26.5	140	8.3		
		17...	1645	1050	302	7.3	28.5	--	--		
		22...	1300	508	354	8.1	26.0	40	9.9		
		31...	1045	277	377	7.8	19.0	35	9.8		
SEP											
		05...	1040	306	377	8.1	25.0	35	8.9		
		13...	1430	1010	234	8.0	19.5	180	7.2		
		21...	1145	588	304	7.5	12.0	35	12.0		
		25...	1130	481	316	8.1	18.0	25	10.6		

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
FEB											
09...	1235	5	120	0	39	6.5	9.0	.4	6.7	160	0
MAY											
25...	0830	--	150	0	48	8.2	12	.4	--	200	0
JUL											
03...	1110	13	160	0	52	8.4	13	.4	10	200	0
AUG											
17...	1645	--	130	0	39	7.1	12	.5	11	160	0

DATE	ALKA- LITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)
FEB											
09...	130	11	2.3	.3	56	213	.29	517	.83	.19	40
MAY											
25...	164	13	3.8	--	--	--	--	--	.05	--	--
JUL											
03...	160	22	4.1	.3	52	261	.36	209	.10	.21	50
AUG											
17...	131	13	5.3	--	--	--	--	--	2.3	--	--

LOCATION.--Lat 41°46'37", long 99°22'45", in NE1/4SE1/4 sec.22, T.21 N., R.18 W., Loup County, Hydrologic Unit 10210006, on left bank 64 ft (20 m) downstream from bridge on U.S. Highway 183 and 0.4 mi (0.6 km) north of Taylor.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 2,248.21 ft (685.254 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 28, 1938, nonrecording gage at same site and datum. Sept. 28, 1938, to July 16, 1958, water-stage recorder at site 450 ft (137 m) upstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. North Loup Public Power and Irrigation District canal began diversion from river in April 1939 at point 5 mi (8 km) above station. Several smaller diversions above station for irrigation.

AVERAGE DISCHARGE.--41 years (1937-77), 459 ft³/s (13.00 m³/s), 332,500 acre-ft/yr (0.410 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,870 ft³/s (81.3 m³/s) May 7, 1977, gage height, 5.98 ft (1.823 m), from floodmark, but may have been greater during ice breakup Mar. 10, 1955; maximum gage height, 9.5 ft (2.90 m) Feb. 25, 1957, ice jam, from floodmarks; minimum daily discharge, 45 ft³/s (1.27 m³/s) July 26, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,220 ft³/s (62.9 m³/s) Mar. 19, gage height, 7.17 ft (2.185 m), backwater from ice; minimum daily, 131 ft³/s (3.71 m³/s) July 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	683	622	450	300	460	520	589	640	510	319	150	313
2	618	605	430	350	430	500	665	613	502	306	202	302
3	549	609	420	400	450	540	656	519	502	314	208	297
4	507	607	400	410	440	450	636	484	502	297	166	299
5	476	629	300	400	450	480	618	540	519	309	164	302
6	464	658	230	430	400	560	598	544	485	337	149	295
7	486	690	300	400	420	580	716	583	510	323	139	281
8	468	781	290	360	440	600	630	584	463	361	132	261
9	458	741	300	370	450	640	730	550	418	358	186	278
10	470	640	350	390	470	720	699	517	341	298	271	284
11	456	613	370	430	480	780	687	493	344	238	351	305
12	449	605	390	440	490	820	609	519	330	220	468	339
13	464	597	450	450	480	900	599	494	312	192	391	328
14	481	626	440	430	450	1300	596	478	325	196	372	316
15	507	616	500	400	400	1450	609	452	317	183	437	335
16	509	592	540	400	350	1500	683	452	323	185	530	344
17	504	575	600	370	350	1300	784	446	343	167	455	365
18	481	542	620	380	340	1250	828	477	342	146	399	403
19	481	542	600	390	400	1100	744	512	349	151	355	373
20	493	512	560	410	450	1000	719	490	321	195	328	354
21	523	395	400	420	450	900	698	435	294	339	333	356
22	525	380	350	460	470	718	720	409	361	719	328	354
23	542	400	400	470	490	646	760	410	381	577	301	346
24	558	450	430	460	500	598	728	434	375	426	285	346
25	556	410	400	450	520	608	665	449	381	371	259	347
26	561	400	350	400	540	608	636	485	445	308	278	339
27	579	440	370	390	540	589	659	544	450	236	349	345
28	576	460	400	470	560	589	663	636	399	186	337	347
29	583	480	410	450	---	608	682	646	336	147	324	353
30	625	460	400	460	---	608	653	636	319	131	320	361
31	668	---	350	480	---	598	---	646	---	133	317	---
TOTAL	16300	16677	12800	12820	12670	24060	20259	16117	11799	8668	9284	9868
MEAN	526	556	413	414	453	776	675	520	393	280	299	329
MAX	683	781	620	480	560	1500	828	646	519	719	530	403
MIN	449	380	230	300	340	450	589	409	294	131	132	261
AC-FT	32330	33080	25390	25430	25130	47720	40180	31970	23400	17190	18410	19570
CAL YR 1977	TOTAL	181397	MEAN	497	MAX	1190	MIN	194	AC-FT	359800		
WTR YR 1978	TOTAL	171322	MEAN	469	MAX	1500	MIN	131	AC-FT	339800		

PLATTE RIVER BASIN

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1974 to current year.

WATER TEMPERATURES: July 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 552 micromhos Mar. 2, 1977; minimum daily, 73 micromhos Nov. 16, 1978.

WATER TEMPERATURES: Maximum, 31.5°C July 16, 17, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 231 micromhos Dec. 10; minimum daily, 128 micromhos Nov. 21.

WATER TEMPERATURES: Maximum, 31.0°C July 1, 5; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT										
18...	1440	486	161	7.3	13.5	9	69	0	23	2.9
NOV										
09...	1500	747	130	7.8	3.0	9	63	0	20	3.1
DEC										
19...	1300	592	147	7.5	.5	12	63	0	20	3.2
JAN										
11...	1150	429	181	7.5	.5	6	72	0	23	3.5
FEB										
22...	1335	470	144	7.4	.5	3	65	0	21	3.1
MAR										
30...	1510	640	182	7.4	18.0	12	75	0	24	3.7
APR										
26...	1420	605	202	7.7	16.0	33	85	0	27	4.2
MAY										
24...	1510	442	167	7.9	23.5	7	69	0	22	3.5
JUN										
27...	1340	433	151	7.7	27.5	10	68	0	22	3.2
JUL										
17...	1400	152	178	7.4	30.0	6	75	0	24	3.6
AUG										
11...	1050	308	155	7.5	21.5	6	62	0	20	3.0
SEP										
18...	1340	408	161	7.2	18.0	4	67	0	22	3.0

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT									
18...	5.9	.3	5.8	91	0	75	5.7	1.1	.4
NOV									
09...	6.3	.3	5.1	87	0	71	4.9	1.0	.3
DEC									
19...	5.9	.3	5.6	81	0	66	7.6	1.2	.4
JAN									
11...	6.4	.3	6.3	89	0	73	5.8	1.1	.3
FEB									
22...	5.7	.3	5.2	86	0	71	5.9	1.0	.4
MAR									
30...	6.7	.3	7.5	100	0	82	4.9	1.5	.4
APR									
26...	9.6	.5	7.0	120	0	98	6.0	1.9	.5
MAY									
24...	6.9	.4	6.2	100	0	82	4.8	1.0	.4
JUN									
27...	7.1	.4	5.9	92	0	75	7.3	1.2	.5
JUL									
17...	6.8	.3	6.0	110	0	90	5.6	1.7	.4
AUG									
11...	6.7	.4	5.7	88	0	72	4.2	1.2	.3
SEP									
18...	6.3	.3	5.0	94	0	77	5.2	1.0	.4

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS- SOLVED (MG/L AS SI02) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 18...	55	148	.20	194	.64	.12	20	20	0
NOV 09...	54	141	.19	284	.69	.12	20	30	0
DEC 19...	51	138	.19	221	.72	.15	30	30	0
JAN 11...	66	161	.22	186	.99	.16	20	50	10
FEB 22...	53	141	.19	179	.79	.15	20	30	0
MAR 30...	50	151	.21	261	.57	.15	30	70	0
APR 26...	49	167	.23	273	.52	.12	40	40	0
MAY 24...	51	145	.20	173	.07	.06	20	0	10
JUN 27...	52	145	.20	170	.03	.05	40	40	5
JUL 17...	59	162	.22	66.5	.03	.05	30	30	0
AUG 11...	55	141	.19	117	.25	.06	30	50	2
SEP 18...	54	146	.20	161	.50	.10	30	60	0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	195	193	198	173	175	180	194	183	179	174	187
2	189	170	168	188	168	162	185	191	183	181	168	163
3	168	168	150	188	171	162	178	193	180	177	163	165
4	172	168	169	186	172	157	180	195	190	174	168	170
5	173	172	172	187	168	160	185	188	178	174	168	167
6	175	166	228	184	167	166	180	186	174	162	170	167
7	175	168	168	178	163	165	180	181	187	172	169	170
8	183	162	202	186	167	169	179	183	185	163	170	171
9	175	162	228	188	169	158	180	182	198	165	157	172
10	178	168	231	190	163	154	178	188	186	177	165	170
11	178	168	210	188	170	152	180	186	190	183	160	164
12	178	172	181	188	160	156	186	187	187	181	160	169
13	175	166	220	178	160	160	208	188	182	183	158	168
14	175	166	180	184	175	156	185	187	189	182	183	165
15	174	170	157	180	163	151	181	182	183	199	168	164
16	176	168	156	180	176	158	185	182	178	186	158	162
17	175	169	150	180	167	157	194	180	181	181	158	156
18	176	178	154	179	167	165	185	180	208	183	167	167
19	176	172	158	186	168	161	185	172	189	182	173	164
20	180	136	195	133	162	168	200	175	184	176	173	162
21	175	128	195	181	164	184	203	178	192	159	168	164
22	176	148	190	172	166	178	200	178	218	145	172	165
23	174	134	188	180	157	179	207	187	180	146	175	165
24	185	148	183	173	161	197	207	175	172	148	175	167
25	170	145	197	183	156	186	212	173	200	158	173	161
26	170	145	197	180	164	197	215	172	186	163	177	159
27	172	145	197	183	157	186	211	167	174	170	167	159
28	175	142	184	183	156	200	208	165	174	168	169	161
29	171	139	186	177	---	186	200	168	173	174	174	162
30	180	147	197	177	---	185	198	165	180	175	168	160
31	167	---	194	177	---	185	---	168	---	177	171	---

PLATTE RIVER BASIN

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	11.0	.0	.0	.0	.0	12.0	15.5	19.0	31.0	20.0	16.5
2	15.5	11.0	1.0	.0	.0	.0	13.0	16.0	22.5	24.0	15.0	25.0
3	15.0	11.5	1.0	.0	.0	.0	15.5	15.5	23.5	27.0	17.0	25.0
4	12.0	11.0	3.0	.5	.0	.0	16.0	15.0	19.5	27.5	18.0	24.0
5	13.0	10.5	.5	.0	.0	.0	14.0	16.0	20.5	31.0	20.0	20.0
6	10.0	10.5	2.0	1.0	.0	.0	16.0	9.0	27.0	25.0	20.5	17.5
7	15.0	12.0	3.0	.0	.0	1.0	18.0	13.0	22.0	26.0	21.5	16.5
8	10.5	7.0	.5	.0	.0	2.0	20.0	13.0	25.0	26.0	20.5	15.5
9	15.0	3.5	1.0	.5	.0	1.0	15.0	17.0	25.0	25.0	15.0	18.0
10	10.0	.0	.0	.0	.0	3.5	10.0	20.0	26.0	24.0	19.0	13.5
11	9.5	2.0	.5	.0	1.0	4.0	15.0	21.0	21.0	26.0	20.0	15.0
12	12.0	1.5	1.0	1.0	.0	3.5	13.0	15.0	27.0	23.0	15.0	14.5
13	15.0	9.5	1.0	1.0	.0	5.0	13.0	19.0	27.0	23.0	23.5	17.5
14	14.0	5.5	1.0	.0	.0	1.5	8.0	19.0	29.0	22.0	15.0	15.0
15	13.5	5.5	5.5	.0	.0	1.5	8.0	22.5	31.0	22.0	13.5	17.5
16	14.5	5.0	4.0	.0	.0	.0	5.5	23.0	29.0	18.0	18.0	14.0
17	9.0	5.0	2.5	.0	.0	.0	6.0	23.0	26.0	22.5	19.5	13.0
18	8.0	2.0	2.5	1.0	.0	3.0	6.5	23.5	19.5	18.0	12.0	7.5
19	8.0	3.5	2.0	.0	.0	.5	7.0	24.0	26.5	22.0	8.0	7.5
20	10.0	.0	1.5	1.0	.5	3.0	10.5	24.0	26.0	18.0	18.0	7.5
21	14.0	.0	.5	1.0	.5	5.0	9.0	22.0	24.5	16.5	21.0	9.0
22	12.5	.0	.5	.0	1.0	6.0	8.0	21.0	26.0	14.5	19.0	10.5
23	10.5	.5	.5	.0	3.0	8.0	7.0	19.5	29.0	19.5	18.0	10.0
24	10.5	4.0	.0	.0	1.0	10.0	10.0	20.0	30.5	20.0	19.0	9.0
25	14.0	3.0	.0	.0	1.5	4.0	14.0	21.5	30.0	21.0	18.5	12.0
26	15.5	1.0	.0	.0	.0	3.5	15.0	22.5	28.0	21.5	19.0	13.0
27	15.5	1.5	.5	.0	1.0	15.0	13.0	21.5	28.0	22.0	20.0	15.0
28	13.0	.5	.5	1.0	.0	13.5	20.0	20.5	30.0	23.5	16.5	12.0
29	14.0	.0	1.0	.0	---	15.0	17.0	19.5	28.5	19.0	17.0	8.0
30	14.0	3.0	.5	.0	---	17.5	13.0	16.5	28.0	19.0	17.0	12.5
31	12.5	---	.5	.0	---	17.0	---	20.0	---	18.0	13.0	---

PLATTE RIVER BASIN

173

06787000 CALANUS RIVER NEAR HARROP, NE

LOCATION.--Lat 41°56'48", long 99°23'10" in NW1/4SE1/4 sec.22, T.23 N., R.18 W., Loup County, Hydrologic Unit 10210008, on right bank 44 ft (13 m) upstream from bridge on U.S. Highway 183, 12.2 mi (19.6 km) north of Taylor.

DRAINAGE AREA.--983 mi² (2,546 km²), most of which does not contribute directly to surface runoff.

PERIOD OF RECORD.--March to July 1932, August 1931 to February 1932, July 1932 to June 1939, 1955-1964 and 1977, gage heights or discharge measurements only. June 5 to September 30, 1978.

GAUGE.--Water-stage recorder. Altitude of gage is 2,260 ft (689 m) from topographic map. Prior to June 5, 1978 staff gage or reference point at same site at datum 1.0 ft (0.30 m) higher.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period June 5 to September 30, 302 ft³/s (8.55 m³/s) July 22, gage height, 1.83 ft (0.558 m); minimum daily discharge, 161 ft³/s (4.56 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	199	198	191
2									---	190	232	190
3									---	188	228	192
4									---	184	220	193
5									247	182	234	192
6									246	189	226	189
7									233	246	209	183
8									223	242	192	180
9									219	217	197	179
10									211	215	251	183
11									207	213	243	189
12									201	208	232	192
13									198	192	223	190
14									195	182	222	191
15									196	175	251	192
16									189	168	261	191
17									194	166	265	198
18									201	166	266	223
19									193	161	228	214
20									186	164	216	209
21									182	266	211	206
22									234	296	206	209
23									264	277	201	207
24									242	263	201	207
25									254	268	203	207
26									264	216	203	207
27									268	196	203	206
28									271	190	206	207
29									257	183	205	209
30									219	184	204	213
31									---	184	198	---
TOTAL									---	6370	6835	5939
MEAN									---	205	220	198
MAX									---	296	266	223
MIN									---	161	192	179
AC-FT									---	12630	13560	11780

PLATTE RIVER BASIN

06787500 CALANUS RIVER NEAR BURWELL. NE

LOCATION.--Lat 41°48'35", long 99°10'56", in NW1/4NW1/4 sec.9, T.21 N., R.16 W., Garfield County, Hydrologic Unit 10210008, on left bank 210 ft (64 m) (Revised) downstream from highway bridge, 1.5 mi (2.4 km) upstream from mouth, and 3 mi (5 km) northwest of Burell.

DRAINAGE AREA.--1,060 mi² (2,750 km²), approximately, of which about 110 mi² (280 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

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

REVISID RECORDS.--WSP 1918: 1958. WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,156.48 ft (657.295 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 20, 1945, nonrecording gage at site 250 ft (.76 m) (Revised) upstream at present datum. Apr. 21, 1945, to Jan. 28, 1964, water-stage recorder at site 170 ft (52 m) downstream at present datum. Jan. 29, 1964 to Oct. 4, 1977, water-stage recorder at site 40 ft (12 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation above station.

AVERAGE DISCHARGE.--38 years, 300 ft³/s (8.496 m³/s), 217,400 acre-ft/yr (0.268 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s (50.7 m³/s) May 4, 1964, gage height, 4.35 ft (1.326 m); maximum gage height, 5.90 ft (1.798 m) Jan. 26, 1967, backwater from ice; minimum daily discharge, 54 ft³/s (1.53 m³/s) Dec. 5, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 620 ft³/s (17.6 m³/s) Mar. 20, gage height, 3.84 ft (1.170 m); maximum gage height, 5.09 ft (1.551 m) Feb. 25, backwater from ice; minimum daily discharge, 140 ft³/s (3.96 m³/s) Dec. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	385	375	300	210	290	290	311	347	442	298	290	271
2	366	355	297	260	280	300	364	344	395	282	303	271
3	347	342	304	300	290	290	364	386	372	275	297	267
4	339	343	311	310	300	260	364	380	348	270	290	275
5	324	345	295	300	300	330	358	346	329	269	290	267
6	311	352	150	310	290	330	352	334	329	270	286	263
7	324	348	170	290	290	360	346	354	311	311	281	259
8	305	395	140	250	290	350	344	346	300	337	283	259
9	308	386	210	270	300	400	393	332	290	314	282	255
10	298	381	240	280	310	500	382	336	280	301	312	263
11	290	374	300	290	310	449	372	330	264	298	361	267
12	296	370	330	290	320	417	360	314	262	297	342	270
13	307	367	350	300	310	423	346	297	271	279	331	280
14	309	356	360	290	310	423	337	286	272	277	331	270
15	314	344	400	300	300	428	329	285	282	266	362	280
16	317	333	460	290	290	427	346	281	262	261	357	290
17	315	314	375	280	220	437	407	276	253	260	354	300
18	313	303	342	290	290	480	445	285	251	252	357	311
19	314	306	336	300	310	527	451	308	249	251	321	299
20	322	298	330	300	320	562	535	290	237	262	303	288
21	310	280	220	310	300	595	520	281	235	317	295	285
22	314	292	180	300	310	565	489	276	335	397	287	284
23	313	302	250	310	310	517	463	276	359	376	281	286
24	322	303	230	310	320	454	417	292	324	361	280	286
25	328	291	240	310	320	405	400	309	311	362	275	283
26	332	321	260	300	320	381	382	302	354	324	280	286
27	328	317	270	290	330	364	360	330	331	293	275	284
28	335	302	300	290	320	353	350	380	349	284	275	284
29	341	302	310	300	---	348	337	371	346	273	271	277
30	358	307	330	300	---	348	344	405	307	278	271	271
31	374	---	300	300	---	336	---	473	---	283	275	---
TOTAL	10059	10004	8890	9030	8450	12649	11568	10152	9250	9178	9398	8331
MEAN	324	333	287	291	302	408	386	327	308	296	303	278
MAX	385	395	460	310	330	595	535	473	442	397	362	311
MIN	290	280	140	210	220	260	311	276	235	251	271	255
AC-PT	19950	19840	17630	17910	16760	25090	22950	20140	18350	18200	18640	16520
CAL YR 1977	TOTAL	115461	MEAN 316	MAX 638	MIN 140	AC-PT	229000					
UTR YR 1978	TOTAL	116959	MEAN 320	MAX 595	MIN 140	AC-PT	232000					

PLATTE RIVER BASIN

175

06787500 CALANUS RIVER NEAR BURWELL, NE--Continued

WATER QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1971 to September 1977.

WATER TEMPERATURES: October 1971 to September 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 221 micromhos May 17, 1972; minimum daily, 105 micromhos Aug. 13, 1976.

WATER TEMPERATURES: Maximum, 32.0°C June 30, 1973; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	HARD- NESS (MG/L AS CACO3) (00900)
OCT 18...	1055	312	139	7.2	10.5	--	8	11.6	--	--
NOV 09...	1140	385	125	7.4	2.5	8	15	13.0	5.7	53
DEC 19...	1040	334	129	7.7	.5	--	10	14.3	--	--
JAN 11...	1020	292	154	7.6	.5	6	7	12.1	--	59
FEB 22...	1050	314	128	7.7	.5	--	8	12.3	--	--
MAR 16...	1000	425	146	6.9	4.0	28	25	12.7	--	61
APR 26...	1045	382	157	7.4	13.5	27	9	10.8	--	64
MAY 24...	1205	305	140	7.6	22.0	7	10	9.6	5.4	61
JUN 27...	1020	338	135	7.4	22.5	12	20	9.1	--	61
JUL 17...	1040	267	138	7.2	24.5	9	15	9.3	--	61
AUG 11...	1320	372	130	7.6	25.5	11	15	8.9	--	50
SEP 18...	1040	312	137	7.2	14.5	4	8	10.1	--	55

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)
OCT 18...	--	--	--	--	--	--	--	--	--
NOV 09...	0	17	2.6	6.1	.4	4.9	75	0	62
DEC 19...	--	--	--	--	--	--	--	--	--
JAN 11...	0	19	2.9	5.5	.3	4.9	73	0	60
FEB 22...	--	--	--	--	--	--	--	--	--
MAR 16...	0	20	2.6	5.8	.3	6.2	78	0	64
APR 26...	0	20	3.3	8.0	.4	5.4	93	0	76
MAY 24...	0	20	2.8	6.1	.3	4.9	85	0	70
JUN 27...	0	20	2.7	5.6	.3	4.5	77	0	63
JUL 17...	0	20	2.7	6.8	.4	4.4	82	0	67
AUG 11...	0	16	2.4	5.6	.3	4.6	72	0	59
SEP 18...	0	18	2.5	6.2	.4	4.5	76	0	62

PLATTE RIVER BASIN

06787500 CALAMUS RIVER NEAR BURWELL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SULFATE DIS- SOLVED (MG/L AS S04) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUD- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 18...	--	--	--	--	--	--	--	--	--
NOV 09...	4.2	1.1	.2	49	122	.17	127	.49	--
DEC 19...	--	--	--	--	--	--	--	--	--
JAN 11...	7.0	.8	.2	55	135	.18	106	--	.89
FEB 22...	--	--	--	--	--	--	--	--	--
MAR 16...	5.1	1.6	.2	41	124	.17	142	--	.66
APR 26...	5.0	1.7	.2	42	134	.18	138	--	.47
MAY 24...	3.4	.9	.2	44	124	.17	102	.43	--
JUN 27...	3.8	.1	.3	45	122	.17	111	--	.37
JUL 17...	2.8	.9	.3	53	133	.18	95.9	--	.36
AUG 11...	5.8	1.3	.2	46	119	.16	120	--	.43
SEP 18...	3.6	1.3	.2	48	124	.17	104	--	.54

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 18...	--	--	--	--	--	--	--	--	--
NOV 09...	.00	.64	.64	1.1	.18	.14	20	40	8
DEC 19...	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	.16	10	--	--
FEB 22...	--	--	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	.20	30	--	--
APR 26...	--	--	--	--	--	.13	30	--	--
MAY 24...	.01	.67	.68	1.1	.16	.11	20	20	10
JUN 27...	--	--	--	--	--	.15	30	--	--
JUL 17...	--	--	--	--	--	.14	20	--	--
AUG 11...	--	--	--	--	--	.10	30	--	--
SEP 18...	--	--	--	--	--	.12	30	--	--

PLATTE RIVER BASIN

177

06788500 NORTH LOUP RIVER AT ORD, NE

LOCATION.--Lat 41°36'27", long 98°55'17", in SW1/4NW1/4 sec.22, T.19 N., R.14 W., Valley County, Hydrologic Unit 10210007, on right bank 150 ft (46 m) downstream from bridge on State Highway 70 at Ord.

DRAINAGE AREA.--3,750 mi² (9,710 km²), approximately, of which about 700 mi² (1,810 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--November 1936 to September 1938 (published as "near Ord"), June 1952 to current year.

REVISED RECORDS.--WSP 1730: 1957(H). WDR NE-74: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,012.14 ft (613.300 m) National Geodetic Vertical Datum of 1929. Nov. 25, 1936, to Sept. 30, 1938, nonrecording gage at site 2 mi (3 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation. Flow includes return water from North Loup irrigation project.

AVERAGE DISCHARGE.--27 years (1937-38, 1952-78), 864 ft³/s (24.47 m³/s), 626,000 acre-ft/yr (0.772 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) June 7, 1962, gage height, 5.52 ft (1.682 m); maximum gage height, 5.56 ft (1.695 m) Feb. 9, 1966, backwater from ice; minimum daily discharge, 100 ft³/s (2.83 m³/s) Jan. 3, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,900 ft³/s (139 m³/s) Mar. 19, ice jam; maximum gage height, 5.95 ft (1.814 m) Mar. 14, backwater from ice; minimum daily discharge, 407 ft³/s (11.5 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	979	805	600	840	900	1120	1130	1130	786	524	625
2	1230	913	760	620	880	800	1230	1110	1020	797	527	635
3	1170	891	780	740	900	700	1230	1120	968	754	585	629
4	1110	902	780	800	880	900	1210	1020	965	730	566	600
5	1090	913	650	800	800	1000	1180	1050	940	688	512	595
6	1050	913	410	860	740	1050	1160	1020	962	676	505	587
7	1110	913	550	800	760	1100	1120	1090	897	690	495	566
8	1060	1070	550	700	780	1150	1080	1080	858	679	484	565
9	1010	987	600	680	780	1200	1290	1100	810	718	482	575
10	986	873	720	700	800	1300	1200	1010	746	694	620	590
11	962	858	800	720	820	1600	1130	972	676	599	873	602
12	946	881	860	760	840	1700	1090	952	688	587	825	625
13	915	886	940	780	840	1900	1050	966	645	522	890	652
14	926	877	900	780	800	2100	1090	913	643	466	854	652
15	944	893	960	780	720	2500	1080	865	655	462	1140	673
16	947	882	1000	760	700	3100	1130	829	646	445	973	696
17	923	903	1100	700	640	3500	1290	820	648	435	996	713
18	918	885	1000	740	700	3700	1440	849	654	414	879	783
19	914	884	1000	760	750	3900	1280	890	670	407	832	854
20	905	855	960	740	810	3200	1340	903	671	535	784	777
21	924	734	700	760	890	2400	1330	852	656	541	745	767
22	968	720	620	800	860	1800	1350	815	1340	1320	722	749
23	957	776	720	820	900	1480	1280	801	1200	1240	668	724
24	946	760	760	820	960	1300	1290	795	925	1010	628	744
25	976	760	700	800	980	1260	1250	838	877	925	613	753
26	946	820	700	760	960	1250	1230	824	867	868	612	770
27	946	800	700	720	960	1220	1200	918	938	762	612	774
28	946	860	740	800	963	1220	1160	1030	1030	605	643	787
29	935	863	800	780	---	1180	1110	1030	945	588	634	785
30	979	806	780	800	---	1170	1220	1070	856	535	635	821
31	1040	---	700	820	---	1150	---	1190	---	538	622	---
TOTAL	30959	26057	24045	23500	23163	52730	36160	29852	25526	21016	21480	20668
MEAN	999	869	776	758	827	1701	1205	963	851	678	693	689
MAX	1280	1070	1100	860	980	3900	1440	1190	1340	1320	1140	854
MIN	905	720	410	600	640	700	1050	795	643	407	482	565
AC-FT	61410	51680	47690	46610	45940	104600	71720	59210	50630	41690	42610	40990
CAL YR 1977 TOTAL	348161			MEAN 954	MAX 2560	MIN 372	AC-FT 690600					
WTR YR 1978 TOTAL	335156			MEAN 918	MAX 3900	MIN 407	AC-FT 664800					

PLATTE RIVER BASIN

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE

LOCATION.—Lat 41°15'35", long 98°26'50", in NW1/4NW1/4NW1/4 sec.22, T.15 N., R.10 W., Howard County, Hydrologic Unit 10210007, on right bank 310 ft (94 m) downstream from bridge on U.S. Highway 281, 3 mi (5 km) north of St. Paul, and 4 mi (6 km) upstream from confluence with Middle Loup River.

DRAINAGE AREA.--4,290 mi² (11,100 km²), approximately, of which about 1,240 mi² (3,210 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to September 1915, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 976: 1942. WSP 1390: 1896. WDR NE-74: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 1,759.29 ft (536.232 m), adjusted, National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Oct. 1, 1954.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by diversions and ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--71 years, 968 ft³/s (27.41 m³/s), 701,300 acre-ft/yr (0.865 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,000 ft³/s (2,550 m³/s), estimated, June 6, 1896, gage height, 14.9 ft (4.54 m), from floodmark, datum then in use; minimum daily since 1931, 85 ft³/s (2.41 m³/s) Aug. 8, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 7,000 ft³/s (198 m³/s) Mar. 20, ice jam; maximum gage height, 7.70 ft (2.347 m) Mar. 18, ice jam; minimum daily discharge, 352 ft³/s (9.97 m³/s) July 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	1070	821	760	860	1200	1170	1170	1430	844	478	641
2	1320	987	792	740	910	900	1260	1040	1230	719	450	646
3	1160	898	748	700	940	860	1290	1050	1090	695	450	623
4	1100	815	762	800	900	1000	1200	1050	1010	600	476	582
5	1050	821	700	900	840	1000	1170	1020	1090	554	509	583
6	1010	844	500	1000	800	980	1370	1060	986	528	447	589
7	1150	877	600	960	780	960	1110	1110	993	538	435	571
8	1130	922	620	800	800	980	1090	1150	934	534	410	551
9	1010	1140	680	760	810	980	1480	1100	900	559	404	546
10	1000	954	800	740	830	1000	1740	1110	814	582	464	546
11	1010	973	900	800	860	1200	1330	1010	781	535	702	600
12	966	974	940	840	870	1300	1160	927	727	469	990	904
13	932	1030	1000	900	880	1500	1070	866	724	435	908	742
14	928	965	1050	860	820	1700	1380	853	687	420	953	722
15	932	1030	1000	880	780	2000	1420	803	704	387	2200	746
16	939	1050	1100	860	760	2500	1860	773	718	366	1700	758
17	949	1020	1200	840	700	3000	1820	749	747	354	1210	734
18	932	1020	1140	820	740	4000	2300	765	740	352	1150	722
19	925	1020	1080	800	780	6400	1990	832	733	352	1040	770
20	940	1070	1000	820	840	6100	1700	854	761	392	999	872
21	927	1060	900	840	860	4000	1620	868	751	496	929	824
22	912	867	800	900	920	2800	1540	828	891	734	869	795
23	874	830	740	880	1000	1630	1480	832	1830	1470	799	739
24	866	968	780	900	1000	1380	1310	808	1180	1180	738	720
25	943	1030	800	920	1060	1280	1210	793	1110	969	768	710
26	1020	839	840	880	1040	1290	1150	812	1000	862	761	714
27	1060	801	820	840	1010	1330	1080	955	970	810	761	733
28	1050	913	860	860	1000	1360	1000	1120	1070	684	741	711
29	1040	1120	900	880	---	1310	1060	1190	1130	520	725	711
30	1020	879	860	840	---	1250	1010	1100	942	497	702	716
31	1030	---	800	860	---	1220	---	1400	---	477	668	---
TOTAL	31205	28787	26533	26180	24390	58410	41370	29998	28673	18914	24836	20821
MEAN	1007	960	856	845	871	1884	1379	968	956	610	801	694
MAX	1320	1140	1200	1000	1060	6400	2300	1400	1830	1470	2200	904
MIN	866	801	500	700	700	860	1000	749	687	352	404	546
AC-FT	61900	57100	52630	51930	48380	115900	82060	59500	56870	37520	49260	4130

PLATTE RIVER BASIN

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-53, 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1974 to current year.

WATER TEMPERATURES: July 1974 to current year.

SUSPENDED SEDIMENT DISCHARGE: April 1946 to June 1953.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 426 micromhos Jan. 18, 1976; minimum daily, 138 micromhos Oct. 21, 1977.

WATER TEMPERATURES: Maximum 34.0°C July 17, 1978; minimum, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 17,400 mg/L April 27, 1951; minimum daily, not determined.

SEDIMENT LOADS: Maximum daily, 463,000 tons (421,000 tonnes) June 22, 1947; minimum daily, 20 tons (18 tonnes) Aug. 3, 1976, Feb. 22, 1953.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 395 micromhos Dec. 10; minimum daily, 138 micromhos Oct. 21.

WATER TEMPERATURES: Maximum, 34.0°C July 17; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)						
OCT													
03...	1420	1110	212	7.4	16.5	--	--						
NOV													
14...	1340	940	223	7.2	7.5	--	--						
DEC													
15...	1100	1000	225	7.0	.5	--	--						
JAN													
05...	1055	900	266	6.9	.0	--	--						
FEB													
09...	1035	805	203	6.5	.0	--	--						
MAR													
20...	1400	6100	235	6.9	2.0	--	--						
APR													
10...	1450	1830	308	7.4	12.0	--	--						
MAY													
01...	1420	1300	234	7.6	14.5	--	--						
JUN													
12...	1445	727	273	8.1	25.5	--	--						
JUL													
03...	1340	694	222	7.9	31.0	--	--						
12...	1250	449	234	7.9	29.0	20	9.0						
20...	1320	371	250	7.9	28.5	30	9.7						
24...	1410	1140	200	8.2	27.5	70	10.1						
AUG													
02...	1115	450	250	8.0	23.5	20	9.1						
10...	1410	479	236	8.3	26.0	20	9.9						
14...	1320	890	204	8.3	29.5	35	9.0						
21...	1400	899	212	7.9	28.0	20	10.7						
31...	1415	676	223	7.9	24.0	15	9.8						
SEP													
05...	1330	582	223	8.3	29.0	20	9.7						
13...	1120	686	232	8.3	19.5	60	9.7						
21...	1445	814	207	7.6	16.5	20	10.7						
25...	1500	711	211	7.8	22.0	20	9.7						

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (MG/L AS CACO3) (00410)
OCT												
03...	1420	24	89	0	28	4.7	7.5	.3	6.5	120	0	98
NOV												
14...	1340	9	97	0	30	5.3	7.8	.3	6.3	130	0	110
DEC												
15...	1100	6	98	0	31	5.1	8.0	.4	6.9	130	0	110
JAN												
05...	1055	6	100	0	33	5.3	8.3	.4	6.7	130	0	110
FEB												
09...	1035	4	94	0	30	4.6	7.2	.3	6.0	120	0	98
MAR												
20...	1400	75	86	0	25	5.6	6.9	.3	11	120	0	98
APR												
10...	1450	28	140	0	40	8.7	12	.4	9.2	170	0	140
MAY												
01...	1420	12	120	0	37	5.8	9.3	.4	7.2	150	0	120
JUN												
12...	1445	--	100	0	32	4.9	8.0	.3	7.1	140	0	110
JUL												
03...	1340	18	97	0	31	4.7	7.9	.4	7.2	134	0	110

PLATTE RIVER BASIN

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 03...	7.7	2.3	.4	49	168	.23	504	.55	.15	30	30	10
NOV 14...	5.5	2.1	.3	51	177	.24	449	1.1	.14	30	60	8
DEC 15...	6.4	1.8	.3	56	184	.25	497	1.0	.18	30	30	20
JAN 05...	8.9	2.0	.2	59	192	.26	467	1.0	.17	30	70	0
FEB 09...	7.4	1.5	.3	55	176	.24	383	1.0	.17	30	20	0
MAR 20...	12	4.1	.2	25	152	.21	2500	.71	.54	60	150	30
APR 10...	15	4.2	.3	43	219	.30	1080	.55	.26	50	70	10
MAY 01...	9.8	2.3	.4	45	193	.26	677	.55	.15	40	40	0
JUN 12...	10	2.0	.4	51	185	.25	363	.01	.01	30	20	0
JUL 03...	4.7	1.8	.4	53	177	.24	332	.00	.06	40	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	237	258	250	223	218	261	245	250	226	267	228
2	238	235	237	278	232	217	254	247	267	226	266	228
3	226	238	228	278	225	218	238	245	247	225	262	228
4	228	240	228	257	225	229	242	236	237	228	273	225
5	228	240	250	257	219	248	248	245	242	232	245	222
6	198	240	288	238	223	226	230	243	238	230	245	220
7	204	241	317	240	218	234	221	250	246	228	250	222
8	212	248	388	242	216	230	213	244	242	227	252	228
9	183	248	386	245	222	212	203	242	238	227	258	226
10	237	248	395	266	220	230	209	228	240	225	304	227
11	235	243	318	265	215	240	212	232	245	225	298	228
12	208	245	344	252	215	257	221	247	250	247	227	228
13	208	242	273	243	233	273	230	238	247	243	225	218
14	164	242	255	241	208	273	198	238	250	247	229	228
15	207	245	238	238	214	265	202	235	248	260	235	220
16	205	238	225	245	212	255	218	247	233	267	245	227
17	205	241	218	240	218	202	227	237	231	266	246	234
18	203	237	212	243	216	198	236	233	245	277	233	220
19	188	239	218	243	210	207	240	238	244	268	218	228
20	187	239	230	243	220	210	258	236	245	253	217	210
21	138	248	232	248	217	195	262	233	239	248	218	212
22	160	267	255	235	220	222	277	226	237	227	218	215
23	168	267	278	246	218	222	268	227	254	229	218	213
24	187	267	267	237	217	230	258	227	259	206	230	210
25	200	260	269	224	220	230	257	227	248	190	235	210
26	197	265	271	238	232	245	257	221	255	200	225	208
27	202	248	250	238	232	255	257	210	239	202	256	209
28	202	245	240	247	218	248	259	211	237	203	235	208
29	203	223	240	243	---	247	257	213	236	223	226	208
30	203	230	237	230	---	248	250	214	227	230	228	207
31	197	---	232	221	---	277	---	228	---	237	228	---

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	10.0	2.0	.0	.0	.0	9.0	15.0	20.5	29.0	31.0	25.0
2	13.0	9.0	1.0	.0	.0	.0	11.0	17.0	22.0	30.5	27.0	25.0
3	16.0	11.0	2.0	.0	.0	.0	12.0	14.0	22.0	32.0	26.0	26.0
4	14.0	10.0	3.0	.0	.0	.0	11.0	11.0	22.0	31.0	27.0	28.5
5	12.0	9.0	.0	.0	.0	.0	11.0	16.0	20.0	32.0	24.0	32.0
6	10.0	10.0	.0	.0	.0	.0	14.5	10.0	24.0	27.0	29.0	31.0
7	14.0	11.0	.0	.0	.0	.0	16.0	11.0	22.0	26.5	31.0	29.0
8	10.0	7.0	.0	.0	.0	.0	18.0	12.0	25.0	27.5	30.0	28.0
9	7.0	5.0	.0	.0	.0	.0	15.5	17.0	27.0	27.0	28.0	25.0
10	10.0	4.0	.0	.0	.0	.0	12.0	21.0	23.0	27.0	30.0	28.0
11	9.0	6.0	.0	.0	.0	1.0	13.0	22.0	25.0	28.0	30.0	27.0
12	12.0	5.0	.0	.0	.0	1.0	10.5	17.0	27.0	33.0	28.0	25.0
13	14.0	6.0	.0	.0	.0	1.0	9.0	17.0	27.0	29.0	28.0	21.0
14	14.0	7.0	.0	.0	.0	3.0	8.0	19.0	30.0	33.0	25.5	25.0
15	10.0	7.0	.0	.0	.0	3.0	7.5	21.0	29.0	30.0	23.0	24.0
16	9.0	7.0	.0	.0	.0	2.0	7.0	21.0	27.0	32.0	25.0	20.0
17	13.0	4.0	.0	.0	.0	2.0	6.5	21.0	26.0	34.0	31.0	17.0
18	13.0	3.0	.0	.0	.0	4.0	5.5	16.0	25.0	29.0	22.0	24.0
19	14.0	5.0	.0	.0	.0	2.0	6.5	24.0	25.0	32.0	21.0	19.0
20	16.0	2.0	.0	.0	.0	3.0	8.0	23.0	25.0	30.0	26.0	15.0
21	14.0	.0	.0	.0	.0	3.0	9.0	18.0	27.0	25.0	30.0	18.0
22	10.0	1.0	.0	.0	.0	2.0	8.0	20.0	23.0	23.0	28.0	18.0
23	9.0	.0	.0	.0	.0	1.0	12.0	26.0	27.0	26.0	31.0	17.0
24	10.0	.0	.0	.0	.0	3.0	11.0	27.0	28.0	29.0	31.0	18.5
25	14.0	.0	.0	.0	.0	4.0	15.0	27.0	28.0	32.0	31.0	20.0
26	15.0	.0	.0	.0	.0	7.0	16.0	25.0	29.0	29.0	25.0	23.0
27	14.0	.0	.0	.0	.0	9.0	13.0	20.0	30.0	31.0	30.0	22.5
28	14.0	.0	.0	.0	.0	7.0	19.0	19.5	31.0	32.0	26.0	22.0
29	13.0	.0	.0	.0	---	10.0	19.0	19.5	.0	25.0	26.0	19.0
30	15.0	2.0	.0	.0	---	13.0	17.0	19.0	30.0	25.0	26.0	17.0
31	12.0	---	.0	.0	---	12.0	---	19.0	---	25.0	25.0	---

PLATTE RIVER BASIN

06791500 CEDAR RIVER NEAR SPALDING, NE

LOCATION.--Lat 41°42'41", long 98°26'48", in NE1/4NE1/4 sec.15, T.20 N., R.10 W., Greeley County, Hydrologic Unit 10210010, on left bank 15 ft (5 m) downstream from bridge on county road, 0.4 mi (0.6 km) upstream from small tributary, and 4.7 mi (7.6 km) northwest of Spalding.

DRAINAGE AREA.--762 sq mi, approximately, of which about 50 mi² (130 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1944 to September 1953, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-73: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,896.24 ft (577.974 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 4, 1961, at two sites 6.5 mi (10.5 km) upstream at different datum.

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

AVERAGE DISCHARGE.--30 years, 154 ft³/s (4.361 m³/s), 111,600 acre-ft/yr (0.138 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s (113 m³/s) June 23, 1947, gage height, 7.50 ft (2.286 m), site and datum then in use, from rating curve extended above 640 ft³/s (18.1 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 30 ft³/s (0.85 m³/s) Jan. 30, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 19	1100	ice jam	*6.12 1.865	May 3	0400	805 22.8	5.00 1.524
Mar. 12	----	860 24.4	ice jam	Aug. 15	0200	*920 26.1	5.16 1.573
Apr. 23	1100	416 11.8	4.35 1.326				

Minimum daily, 80 ft³/s (2.27 m³/s) Nov. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	160	155	110	108	140	179	351	182	196	123	117
2	158	152	150	125	110	145	226	352	185	175	124	117
3	154	152	151	140	120	140	204	656	181	156	118	117
4	146	154	153	130	130	140	190	505	180	144	115	117
5	144	154	130	120	125	160	188	462	177	135	112	117
6	142	156	110	140	120	175	188	371	161	136	108	113
7	156	160	120	135	125	180	183	213	158	137	107	109
8	154	177	100	120	130	185	175	229	147	136	106	105
9	149	194	90	114	140	190	202	216	139	135	112	105
10	146	183	100	110	150	230	190	204	134	133	127	105
11	144	181	120	120	160	400	196	201	127	132	142	107
12	141	179	135	130	150	740	210	193	123	132	136	109
13	139	179	140	125	145	523	220	178	121	124	129	113
14	141	179	170	120	140	380	220	170	119	119	162	114
15	137	175	200	120	135	340	230	163	118	117	558	116
16	136	169	190	116	130	299	240	157	118	119	239	117
17	137	161	182	110	120	284	248	154	119	118	184	113
18	134	149	170	116	125	328	239	152	117	118	163	118
19	136	147	171	120	140	356	242	156	116	115	148	119
20	137	135	160	110	135	384	239	153	116	147	139	118
21	139	130	150	116	130	454	328	150	115	142	137	118
22	141	140	180	125	140	436	360	150	181	162	133	118
23	141	150	170	140	115	456	408	150	199	159	128	117
24	144	145	160	135	160	401	376	152	201	152	126	118
25	145	130	140	125	155	494	304	147	192	148	127	118
26	147	80	130	116	150	366	269	144	202	140	127	119
27	145	92	140	120	155	338	266	157	215	131	126	118
28	145	120	160	120	150	215	251	158	226	123	130	117
29	145	155	170	116	---	230	236	161	217	117	125	115
30	152	159	160	110	---	218	291	157	208	112	123	117
31	161	---	140	108	---	198	---	174	---	117	119	---
TOTAL	4484	4597	4597	3762	3793	9525	7298	6936	4794	4227	4553	3441
MEAN	145	153	148	121	135	307	243	224	160	136	147	115
MAX	161	194	200	140	160	740	408	656	226	196	558	119
MIN	134	80	90	108	108	140	175	144	115	112	106	105
AC-FT	8890	9120	9120	7460	7520	18890	14480	13760	9510	8380	9030	6830

CAL YR 1977 TOTAL 57215 MEAN 157 MAX 588 MIN 80 AC-FT 113500
WTR YR 1978 TOTAL 62007 MEAN 170 MAX 740 MIN 80 AC-FT 123000

06792000 CEDAR RIVER NEAR FULLERTON, NE

LOCATION.--Lat 41°23'45", long 98°00'15", in NE1/4NE1/4 sec.4, T.16 N., R.6 W., Nance County, Hydrologic Unit 10210010, near left bank on downstream side of pier of highway bridge, 3 mi (5 km) northwest of Fullerton and 7.2 mi (11.6 km), revised, upstream from south.

DRAINAGE AREA.--1,220 mi² (3,160 km²), approximately, of which about 480 mi² (1,240 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to June 1932, October 1940 to current year.

REVISED RECORDS.--WSP 1086: Drainage area. WSP 1390: 1932, 1941, 1943. WSP 1710: 1951(P), 1952(M), 1953, 1955(M).

GAGE.--Water-stage recorder. Datum of gage is 1,638.39 ft (499.381 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 5, 1942, nonrecording gage, Nov. 5, 1942, to June 23, 1947, water-stage recorder, June 24, 1947, to Apr. 6, 1948, nonrecording gage, Apr. 7, 1948 to Apr. 15, 1971, water-stage recorder, all at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by power developments, ground-water and surface-water withdrawals for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--38 years (1940-78), 240 ft³/s (6.797 m³/s), 173,900 acre-ft/yr (0.214 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,700 ft³/s (1,830 m³/s) Aug. 13, 1966, gage height, 16.90 ft (5.151 m), present datum, from high point on surge, from rating curve extended above 6,600 ft³/s (187 m³/s) on basis of flow-over-highway-embankment and contracted-opening measurement of peak flow; minimum daily, 30 ft³/s (0.85 m³/s) July 18, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Mar. 14	0300	*9400	266	9.83	2.996
Aug. 15	2100	3370	95.4	6.17	1.881

Minimum daily discharge, 78 ft³/s (2.21 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	217	216	180	160	130	180	325	287	379	251	130	111
2	209	210	170	165	145	180	332	329	284	240	124	114
3	226	205	160	170	155	175	350	858	269	214	121	118
4	233	193	150	175	160	170	313	496	254	174	118	122
5	222	202	145	180	150	185	289	431	255	151	109	121
6	213	210	140	190	160	195	594	368	240	162	112	120
7	242	216	160	175	170	190	305	337	229	157	105	122
8	261	256	145	165	180	190	299	279	195	145	104	94
9	225	310	140	155	200	210	329	312	184	106	106	78
10	223	272	160	150	205	350	361	287	225	138	139	116
11	211	269	175	160	200	900	308	300	207	135	165	82
12	200	251	180	170	195	2000	279	304	204	132	168	194
13	191	248	190	160	190	3800	259	271	185	103	190	147
14	190	244	200	155	185	6660	300	211	181	105	196	148
15	192	239	210	145	175	1840	317	237	180	107	1890	131
16	190	246	205	135	170	1520	469	244	171	105	948	139
17	182	238	200	130	160	1120	373	223	171	97	361	134
18	179	220	200	140	180	644	360	220	171	84	233	133
19	177	211	195	135	190	919	312	217	171	102	189	134
20	180	215	190	130	200	650	294	208	175	141	161	136
21	186	184	180	145	190	530	313	204	548	198	141	139
22	192	165	195	155	210	445	425	204	371	467	131	140
23	199	175	200	160	210	491	395	213	322	308	127	143
24	208	180	195	150	220	377	362	223	298	242	123	150
25	212	90	190	140	200	475	325	210	286	211	149	149
26	217	80	180	130	190	329	310	226	291	186	146	148
27	215	100	170	130	210	390	326	239	291	177	143	140
28	208	130	180	135	190	372	346	242	296	165	136	139
29	208	210	185	130	---	313	368	302	254	144	131	142
30	211	190	185	120	---	361	549	272	251	126	123	140
31	215	---	180	115	---	348	---	456	---	128	115	---
TOTAL	6434	6175	5535	4655	5120	26509	10487	9210	7538	5201	7134	3924
MEAN	208	206	179	150	183	855	350	297	251	168	230	131
MAX	261	310	210	190	220	6660	594	858	548	467	1890	194
MIN	177	80	140	115	130	170	259	204	171	84	104	78
AC-FT	12760	12250	10980	9230	10160	52580	20800	18270	14950	10320	14150	7780

CAL YR 1977 TOTAL 86896 MEAN 238 MAX 969 MIN 80 AC-FT 172400
WTR YR 1978 TOTAL 97922 MEAN 268 MAX 6660 MIN 78 AC-FT 194200

PLATTE RIVER BASIN

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1974 to current year.

WATER TEMPERATURES: July 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 550 micromhos Jan. 1, 1978; minimum daily, 162 micromhos Nov. 9, 1977.

WATER TEMPERATURES: Maximum, 36.0°C July 7, 1975; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 550 micromhos Jan. 1; minimum daily, 162 micromhos Nov. 9.

WATER TEMPERATURES: Maximum, 34.0°C Aug. 13; minimum 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT										
12...	1230	208	275	7.6	6.0	18	120	0	38	6.7
NOV										
02...	1500	210	281	7.7	11.5	10	120	0	39	6.5
DEC										
13...	1315	214	288	8.1	.5	8	140	0	42	7.4
JAN										
25...	1030	139	286	7.4	.5	5	130	0	40	6.5
FEB										
14...	1445	190	256	7.5	.0	4	130	0	41	6.9
MAR										
06...	1410	194	309	7.2	.5	7	140	0	43	7.3
APR										
27...	1445	275	305	8.0	12.5	45	130	0	41	7.5
MAY										
31...	1135	230	297	7.6	10.0	23	140	0	44	7.5
JUN										
28...	1150	205	246	8.2	26.0	15	120	0	37	5.6
AUG										
03...	1145	128	285	8.0	21.0	12	130	0	42	7.0
28...	1420	135	280	8.6	19.0	14	130	0	42	6.3
SEP										
25...	1435	E87	259	7.9	19.5	8	120	0	40	6.0

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT									
12...	8.2	.3	6.7	160	0	130	7.4	2.2	.3
NOV									
02...	8.1	.3	6.7	170	0	140	7.7	2.1	.3
DEC									
13...	8.4	.3	7.2	180	0	150	8.9	2.4	.2
JAN									
25...	8.0	.3	6.4	170	0	140	11	1.9	.3
FEB									
14...	7.6	.3	6.0	170	0	140	15	3.0	.3
MAR									
06...	7.7	.3	9.5	180	0	150	9.3	2.2	.3
APR									
27...	15	.6	8.2	180	0	150	13	4.3	.3
MAY									
31...	9.4	.3	7.7	180	0	150	10	2.6	.3
JUN									
28...	7.8	.3	7.6	150	0	120	5.0	2.5	.3
AUG									
03...	13	.5	11	190	0	156	7.9	2.1	.3
28...	9.6	.4	7.3	170	0	140	9.1	1.6	.3
SEP									
25...	7.2	.3	6.5	160	0	130	8.5	1.7	.2

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS- SOLVED (MG/L AS SI02) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 12...	38	188	.26	106	.41	.20	40	40	10
NOV 02...	41	196	.27	111	.06	.21	50	40	20
DEC 13...	45	213	.29	123	.59	.18	40	30	1
JAN 25...	46	207	.28	77.7	.67	.21	30	20	40
FEB 14...	43	209	.28	107	.62	.22	20	20	20
MAR 06...	43	214	.29	112	.67	.32	30	30	30
APR 27...	32	212	.29	157	.22	.19	70	610	0
MAY 31...	31	202	.27	125	.11	.20	50	60	10
JUN 28...	34	178	.24	98.5	.89	.27	40	40	0
AUG 03...	38	215	.29	74.3	.00	.23	100	30	30
SEP 28...	39	199	.27	72.5	.02	.26	40	20	0
SEP 25...	38	187	.25	43.9	.00	.13	50	20	20

SPECIFIC CONDUCTANCE (MICROMHDS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	286	168	235	550	308	263	300	287	293	229	295	263
2	278	215	264	348	277	247	298	276	288	280	285	270
3	271	170	288	331	278	250	300	268	289	267	274	273
4	275	218	278	329	274	249	305	240	291	263	276	265
5	278	270	297	309	281	253	295	238	292	263	274	268
6	280	222	345	297	277	255	307	256	296	271	276	267
7	275	170	368	303	276	250	308	268	305	274	276	273
8	293	238	358	297	275	250	299	312	315	277	271	265
9	315	162	347	318	276	252	309	302	321	280	260	338
10	296	200	330	355	278	248	328	298	310	276	258	268
11	295	247	295	347	276	258	335	293	315	273	253	264
12	298	170	283	303	348	248	320	303	315	275	253	261
13	298	168	268	303	283	248	312	300	318	275	247	267
14	303	180	262	308	280	254	328	318	312	276	233	260
15	305	267	252	300	280	252	312	310	312	268	258	267
16	296	217	232	305	282	253	348	307	318	278	253	267
17	298	183	232	336	278	248	330	309	222	278	230	266
18	298	269	258	330	279	247	333	292	273	278	268	268
19	298	248	238	310	281	265	325	308	308	252	268	268
20	297	248	267	312	279	248	308	305	268	249	269	267
21	298	284	285	288	282	209	309	307	263	258	265	266
22	288	265	318	286	280	261	297	315	265	254	269	265
23	285	248	327	288	281	245	300	298	275	254	269	268
24	299	250	308	282	282	242	297	298	268	255	268	267
25	297	278	312	287	279	248	300	302	260	255	270	268
26	297	287	312	287	281	248	300	295	252	260	275	268
27	294	275	315	287	281	250	313	294	250	261	278	267
28	292	270	287	287	278	305	312	294	252	265	278	267
29	288	273	287	285	---	298	305	262	253	268	275	268
30	290	270	287	287	---	295	320	289	263	263	270	267
31	288	---	295	287	---	305	---	280	---	268	272	---

PLATTE RIVER BASIN

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	12.0	1.0	.0	.0	.0	14.0	15.0	22.0	30.0	28.0	26.0
2	17.0	12.5	1.0	.0	.0	.0	17.0	17.0	26.0	31.0	25.0	26.0
3	15.0	13.0	4.0	.0	.0	.0	17.0	14.0	24.0	30.5	24.0	26.0
4	14.0	9.0	.0	.0	.0	.0	17.0	12.0	24.0	30.0	25.0	30.0
5	13.0	9.0	.0	.0	.0	.0	12.0	17.0	23.0	29.0	26.0	30.0
6	12.0	9.0	.0	.0	.0	.0	13.0	11.0	25.0	30.0	28.0	26.0
7	15.5	9.0	.0	.0	.0	.0	16.0	13.0	25.0	28.0	29.0	28.0
8	12.0	9.0	.0	.0	.0	.0	20.0	12.0	24.0	27.0	28.0	27.0
9	15.0	9.0	.0	.0	.0	.0	9.0	18.0	27.0	25.0	27.0	29.0
10	12.0	9.0	.0	.0	.0	.0	11.0	22.0	26.0	25.0	29.0	29.0
11	9.0	9.0	1.5	.0	.0	.0	16.0	23.0	26.0	29.5	30.0	28.0
12	14.0	9.0	1.0	.0	.0	.0	15.0	19.0	29.0	31.0	31.0	30.0
13	16.0	9.0	2.0	.0	.0	.0	15.0	19.0	29.0	30.0	34.0	26.0
14	16.0	9.0	3.0	.0	.0	.0	9.0	24.0	29.0	30.5	27.0	25.0
15	17.0	9.0	1.5	.0	.0	.0	10.0	25.0	31.0	32.0	21.0	25.0
16	14.0	9.0	.0	.0	.0	.0	8.0	20.0	31.0	31.0	27.0	26.0
17	14.5	9.0	.0	.0	.0	.5	7.0	19.0	28.0	30.0	27.0	17.0
18	14.0	9.0	.0	.0	.0	4.0	6.0	23.0	27.0	19.0	27.0	27.0
19	11.0	9.0	.0	.0	.0	2.0	8.0	25.0	29.0	30.0	30.0	23.0
20	17.0	11.0	.0	.0	.0	4.0	10.0	23.0	30.0	28.0	30.0	24.0
21	16.0	10.0	.0	.0	.0	5.0	9.0	25.0	29.0	27.0	29.0	19.0
22	10.0	12.0	1.0	.0	.0	10.0	13.0	23.0	28.0	28.5	28.0	20.0
23	10.0	9.0	2.0	.0	.0	8.0	9.0	21.0	30.0	27.0	27.0	17.0
24	11.0	9.0	.0	.0	.0	10.0	16.0	27.0	28.0	29.0	26.0	15.0
25	15.0	6.0	.0	.0	.0	9.0	15.0	25.0	31.0	30.0	29.0	17.0
26	14.0	6.0	.0	.0	.0	13.0	18.0	27.0	28.0	27.0	26.0	14.0
27	16.5	5.0	.0	.0	.0	16.0	15.0	24.0	29.0	30.0	26.5	16.0
28	13.0	2.0	.0	.0	.0	12.0	2.0	19.0	31.0	30.0	24.0	18.0
29	15.0	1.0	.0	.0	---	16.0	16.0	19.0	31.0	26.0	26.0	19.0
30	11.0	2.0	.0	.0	---	18.0	13.0	25.0	30.0	27.0	24.0	20.0
31	13.0	---	.0	.0	---	18.0	---	17.0	---	26.0	26.0	---

PLATTE RIVER BASIN

187

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°23'31", long 97°49'20", in NE1/4NW1/4 sec.6, T.16 N., R.4 W., Nance County, Hydrologic Unit 10210009, at diversion structure, 2 miles upstream from gaging station and 5.5 miles southwest of Genoa.

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1972 to current year.

WATER TEMPERATURES: October 1972 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 479 micromhos June 1, 1977; minimum daily, 195 micromhos Feb. 20, 1977.

WATER TEMPERATURES: Maximum, 35.5°C July 21, 1974; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 458 micromhos Dec. 12; minimum daily, 200 micromhos Mar. 14.

WATER TEMPERATURES: Maximum, 33.5°C July 15; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
12...	1400	2760	266	7.7	9.0	45	--	8.0	--	--
NOV										
02...	1540	2980	293	7.8	11.5	25	--	10.2	540	1180
DEC										
13...	1515	1234	--	8.4	1.0	15	--	11.5	K100	--
JAN										
25...	1130	1830	291	7.3	.5	8	--	8.8	K190	K60
FEB										
14...	1530	1940	241	7.5	.5	9	--	6.8	250	240
MAR										
07...	1400	1900	296	7.3	.5	4	--	7.3	80	300
APR										
26...	1430	2430	315	8.1	17.0	30	--	9.8	K150	1220
MAY										
30...	1420	2790	273	8.4	20.0	80	110	9.3	1270	1420
JUN										
27...	1550	1770	255	8.5	28.0	--	55	8.5	K1330	K133
AUG										
03...	1230	819	300	8.5	23.0	--	26	7.3	K200	236
16...	1530	2930	205	7.8	26.0	540	350	8.9	48000	70000
SEP										
25...	1530	1720	258	8.1	20.5	30	4.1	7.4	K85	460

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CAC03) (00410)
OCT										
12...	--	--	--	--	--	--	--	150	0	120
NOV										
02...	110	0	34	5.7	8.4	.4	6.5	150	0	120
DEC										
13...	190	21	61	10	13	.4	9.7	210	0	170
JAN										
25...	130	0	41	6.5	9.4	.4	7.0	170	0	140
FEB										
14...	120	0	38	5.7	8.1	.3	6.1	150	0	120
MAR										
07...	130	0	39	6.6	8.2	.3	7.4	160	0	131
APR										
26...	130	0	39	7.5	12	.5	9.1	180	0	150
MAY										
30...	120	0	38	6.6	10	.4	8.1	--	--	140
JUN										
27...	110	0	35	5.9	11	.5	9.2	--	--	120
AUG										
03...	130	0	41	7.2	11	.4	8.8	--	--	140
16...	110	22	36	4.6	8.2	.3	11	--	--	87
SEP										
25...	120	0	39	6.0	8.3	.3	7.2	--	--	130

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 12...	9.6	2.7	.3	50	194	--	.26	1450	.57
NOV 02...	9.6	3.5	.3	48	200	190	.27	1610	.41
DEC 13...	17	4.0	.3	69	301	288	.41	1000	1.4
JAN 25...	14	2.4	.3	56	219	220	.30	1080	.79
FEB 14...	9.7	2.1	.3	52	187	196	.25	980	.75
MAR 07...	9.6	2.9	.3	49	196	202	.27	1010	.72
APR 26...	10	4.3	.4	37	230	208	.31	1510	.57
MAY 30...	11	2.7	.3	40	201	201	.27	1510	.02
JUN 27...	14	2.8	.4	44	197	195	.27	941	.02
AUG 03...	12	2.9	.3	45	217	212	.30	480	.01
16...	8.2	42	.3	26	154	189	.21	1220	.82
SEP 25...	10	2.3	.3	46	188	197	.26	873	.09

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN,AM- MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 12...	.02	--	--	--	--	--	.34	.19	5.8
NOV 02...	.03	--	--	--	2.0	--	.25	.18	3.3
DEC 13...	.15	--	--	--	.35	--	.29	.26	3.2
JAN 25...	.03	.47	.50	.03	.47	1.3	.22	.20	1.9
FEB 14...	.02	.15	.17	.12	.05	.92	.19	.19	2.0
MAR 07...	.06	.17	.23	.05	.18	.95	.23	.22	--
APR 26...	.06	.91	.97	.24	.73	1.5	.31	.22	--
MAY 30...	.00	--	--	--	.46	--	.43	.15	12
JUN 27...	.05	1.1	1.1	.67	.43	1.1	.38	.15	--
AUG 03...	.00	1.1	1.1	.68	.42	1.1	.29	.10	7.4
16...	.28	2.8	3.1	2.5	.65	3.9	.73	.23	--
SEP 25...	.01	.91	.92	.67	.25	1.0	.24	.12	8.2

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDED RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
DEC 13...	1515	8	0	8	300	0	300	8	5	3	0
MAR 07...	1400	6	0	6	100	0	100	2	0	2	10
JUN 27...	1550	8	0	8	300	100	200	1	0	1	10
AUG 16...	1530	11	5	6	600	300	300	1	0	1	20

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHROMIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
DEC 13...	0	0	0	0	0	7	3	4	960	980	20
MAR 07...	0	10	1	0	1	4	1	3	460	480	20
JUN 27...	10	0	0	0	0	9	0	9	2200	2200	40
AUG 16...	20	0	8	8	0	31	27	4	19000	19000	70

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGANESE, SUS-PENDED RECOV-ERABLE (UG/L AS MN) (01054)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY, SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)
DEC 13...	98	70	28	20	10	10	.0	.0	.0	--
MAR 07...	13	--	--	10	10	0	.0	.0	.0	1
JUN 27...	8	3	5	170	170	5	.2	.2	.0	1
AUG 16...	20	20	0	580	560	20	.2	.0	.2	1

DATE	SELENIUM, SUS-PENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG) (01076)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN) (01091)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
DEC 13...	--	2	0	0	0	30	20	10	--	--
MAR 07...	0	1	0	0	0	10	0	10	.0	.7
JUN 27...	0	1	0	0	0	20	0	20	7.4	1.3
AUG 16...	0	1	0	0	0	80	70	10	5.6	>5.0

PLATTE RIVER BASIN

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JUNE 1978

DATE TIME	NOV 2,77 1540	MAR 7,78 1400	MAY 30,78 1420	JUN 27,78 1550				
TOTAL CELLS/ML	9800	1300	430000	420000				
DIVERSITY: DIVISION	0.7	1.1	1.4	1.4				
..CLASS	0.7	1.1	1.4	1.4				
...ORDER	1.5	1.4	1.6	2.0				
...FAMILY	2.6	2.3	2.4	3.1				
....GENUS	2.7	2.4	2.9	4.0				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....CHARACIACEAE	--	-	--	-	--	-	*	0
....SCHROEDERIA	--	-	--	-	--	-		
....COELASTRACEAE	--	-	--	-	6300	1	2100	1
....COELASTRUM	--	-	--	-				
....HYDRODICTYACEAE	--	-	--	-	--	-	6100	1
....PEDIASTRUM	--	-	--	-	--	-		
....MICRACTINIACEAE	--	-	--	-	*	0	*	0
....GOLENKINIA	470	5	--	-	25000	6	16000	4
....MICRACTINIUM								
....OOCYSTACEAE								
....ANKISTRODESMUS	160	2	--	-	21000	5	17000	4
....CHODATELLA	--	-	--	-	3600	1	*	0
....DICTYOSPHAERIUM	310	3	--	-	50000	12	46000	11
....KIRCHNERIELLA	--	-	--	-	--	-	3200	1
....NEPHROCITIUM	--	-	--	-	--	-	*	0
....OOCYSTIS	--	-	--	-	7100	2	11000	3
....QUADRIGULA	--	-	--	-	*	0	--	-
....SELENASTRUM	--	-	--	-	15000	4	10000	2
....TETRAEDRON	78	1	--	-	--	-	*	0
....TREUBARIA	--	-	--	-	--	-	*	0
....SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	14000	3	11000	3
....CRUCIGENIA	--	-	--	-	--	-	4300	1
....SCENEDESMUS	630	6	21	2	32000	8	65000#	15
....TETRASTRUM	--	-	--	-	--	-	4300	1
....TETRASPORALES								
....COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	--	-	*	0
....PALMELLACEAE	--	-	--	-				
....SPHAEROCYSTIS	--	-	--	-	6300	1	8900	2
....VOLVOCALES								
....CHLAMYDOMONADACEAE								
....CARTERIA	--	-	--	-	--	-	*	0
....CHLAMYDOMONAS	--	-	14	1	3600	1	3200	1
....ZYGNEMATALES								
....DESMIDIACEAE								
....STAUSTRUM	--	-	--	-	--	-	*	0
....CHLOROCOCCALES								
....OOCYSTACEAE								
....GLOEOACTINIUM	--	-	--	-	--	-	8600	2
CHRYSSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
....COSCINODISCACEAE								
....CYCLOTELLA	3800#	38	7	1	22000	5	2100	1
....MELOSIRA	--	-	100	7	--	-	34000	8
...PENNALES								
....ACHNANTHACEAE								
....ACHNANTHES	--	-	7	1	--	-	--	-
....COCCONEIS	230	2	14	1	--	-	--	-
....CYMBELLACEAE								
....AMPHORA	--	-	*	0	--	-	--	-
....RHOPALODIA	--	-	7	1	--	-	--	-
....DIATOMACEAE								
....OPEPHORA	--	-	57	4	--	-	--	-
....FRAGILARIACEAE								
....FRAGILARIA	1300	14	140	11	*	0	--	-
....SYNEDRA	--	-	7	1	*	0	*	0
....GOMPHONEMACEAE								
....GOMPHONEMA	78	1	--	-	--	-	--	-
....NAVICULACEAE								
....CALONEIS	78	1	--	-	--	-	*	0
....NAVICULA	1300	13	43	3	4500	1	*	0
....STAURONEIS	--	-	--	-	*	0	--	-
....NITZSCHIA								
....HANTZSCHIA	--	-	*	0	--	-	--	-
....NITZSCHIA	1400	14	28	2	16000	4	8600	2

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JUNE 1978

DATE TIME	NOV 2,77 1540	MAR 7,78 1400	MAY 30,78 1420	JUN 27,78 1550
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)				
..CYANOPHYCEAE				
..CHROCCOCCALES				
...CHROCCOCCAEAE				
....AGMENELLUM	--	-	--	-
....ANACYSTIS	--	-	190000#	45
..HORMOGONALES				45000
...NOSTOCACEAE				11
....ANABAENA	--	-	--	-
...OSCILLATORIA				64000#
....LYNGBYA	--	-	--	-
....OSCILLATORIA	--	-	730#	55
...RIVULARIACEAE				24000
....RAPHIDIOPSIS	--	-	140	11
EUGLENOPHYTA (EUGLENIDS)				
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)				
..DINOPHYCEAE				
...GYMNODINIALES				
....GYMNODINIACEAE				
....GYMNODINIUM	--	-	7	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR[†] OCTOBER 1977 TO SEPTEMBER 1978

DATE	LENGTH OF EXPO- SURE (DAYS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
JUN 28...	22	.940	.130	20.6	16.1
SEP 19...	28	1.97	.190	20.5	17.6

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG						AUG					
28...	1000	288	8.6	22.0	7.8	28...	2400	290	8.8	24.5	7.3
28...	1200	290	8.7	22.0	8.8	29...	0200	288	8.7	23.5	7.3
28...	1400	288	8.7	24.0	9.2	29...	0400	295	8.7	22.0	7.3
28...	1600	290	8.8	27.0	9.9	29...	0600	290	8.7	22.0	7.3
28...	1800	290	8.6	27.0	9.0	29...	0800	292	8.7	21.5	7.3
28...	2000	295	8.9	27.0	8.4	29...	1000	295	8.7	21.0	8.3
28...	2200	288	8.8	26.0	7.8	29...	1200	290	8.7	21.5	9.3

PLATTE RIVER BASIN

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	298	280	335	286	290	288	338	322	248	305	320
2	265	270	268	315	290	267	289	328	298	260	310	251
3	268	274	270	320	303	270	285	305	298	288	310	290
4	263	275	270	325	283	270	299	298	295	267	308	298
5	265	278	278	325	281	274	297	285	297	290	320	293
6	265	278	327	318	273	305	287	288	285	284	304	286
7	265	278	347	313	276	283	294	293	300	281	308	288
8	268	265	383	310	292	287	290	294	300	288	308	290
9	285	270	420	310	276	269	287	308	302	290	309	293
10	285	290	440	317	274	280	310	303	295	294	307	286
11	278	278	438	318	268	270	315	306	303	285	288	285
12	278	285	458	322	272	270	303	308	312	273	275	285
13	275	285	428	318	268	206	308	310	312	295	269	274
14	278	285	378	310	266	200	293	320	312	302	268	287
15	278	280	330	308	262	202	305	313	318	315	252	275
16	278	285	304	308	280	218	324	308	323	308	215	280
17	278	280	280	308	268	208	333	320	318	304	273	279
18	278	280	260	308	286	320	330	322	308	318	249	280
19	278	278	255	307	278	234	328	312	308	327	252	283
20	277	281	261	307	272	235	313	308	308	295	257	278
21	277	292	288	307	270	232	322	304	304	280	266	278
22	274	300	288	308	277	240	308	298	305	212	267	270
23	274	300	296	308	282	235	315	292	280	272	271	272
24	278	308	310	300	273	248	315	302	287	267	273	273
25	270	315	331	297	270	258	308	293	280	258	275	275
26	278	315	331	296	290	263	305	297	275	250	273	279
27	272	310	300	297	277	266	308	287	272	246	278	272
28	276	305	330	300	276	274	312	278	276	243	290	272
29	273	278	316	300	---	288	319	292	265	248	294	272
30	273	258	300	295	287	288	285	285	260	277	295	270
31	268	---	298	297	---	287	---	265	---	278	289	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	12.0	2.0	.0	.0	.0	14.0	14.5	19.0	31.5	29.5	25.5
2	16.5	11.5	.5	.0	.0	.0	15.0	16.5	22.0	32.0	29.0	23.5
3	17.0	11.0	.5	.0	.0	.0	17.0	14.5	24.5	27.0	27.0	29.5
4	18.0	11.5	1.5	.0	.0	.0	16.5	12.0	24.0	29.5	27.0	28.0
5	14.5	11.0	.0	.0	.0	.0	13.5	16.5	24.0	30.5	26.5	30.5
6	13.0	11.5	.0	.5	.0	.0	16.5	10.5	23.0	26.0	29.0	30.5
7	13.5	13.0	.0	.0	.0	.0	15.0	10.5	23.5	29.5	29.5	29.0
8	11.0	11.0	.0	.0	.0	.0	19.0	12.0	24.0	26.0	28.0	26.5
9	14.0	4.0	.0	.0	.0	.0	14.5	16.0	25.5	21.0	30.5	28.0
10	11.5	4.0	.0	.0	.0	.0	13.5	20.5	25.5	26.5	29.5	28.0
11	9.5	5.5	.0	.0	.0	.0	14.5	21.0	26.0	27.0	30.0	28.0
12	11.0	5.0	.0	.0	.0	.0	15.0	17.0	25.5	31.0	28.5	26.0
13	13.5	7.0	.0	.0	.0	.0	14.5	19.0	26.0	29.5	31.0	20.5
14	15.5	8.0	.0	.0	.0	.0	10.5	22.0	28.0	29.5	29.5	23.5
15	14.0	8.0	.0	.0	.0	1.5	8.5	22.0	28.5	33.5	23.0	26.0
16	13.5	8.5	.5	.0	.0	1.0	8.0	21.0	29.5	28.5	25.0	25.0
17	14.0	6.0	.5	.0	.0	1.0	7.0	19.0	25.0	25.0	29.0	17.0
18	13.5	4.5	.5	.0	.0	1.0	6.0	18.0	29.0	23.5	22.0	24.0
19	14.0	4.0	.5	.0	.0	2.0	7.0	23.5	25.0	20.5	23.5	20.0
20	15.5	2.0	.5	.0	.0	3.0	10.0	21.0	23.5	21.0	25.5	16.0
21	15.5	.0	.5	.0	.0	3.5	12.0	21.5	20.0	23.5	29.0	17.0
22	11.0	.0	.5	.0	.0	3.5	10.0	21.0	20.5	19.5	28.5	18.0
23	10.0	.0	.5	.0	.0	4.5	13.0	24.5	24.5	28.0	30.0	20.5
24	10.5	.0	.5	.0	.0	6.0	11.5	25.0	25.0	28.0	25.5	19.0
25	13.0	.0	.0	.0	.0	8.0	15.5	26.0	30.5	30.5	28.5	22.0
26	15.5	.0	.0	.0	.0	10.5	16.5	24.0	29.5	30.0	26.0	22.0
27	15.0	.0	.0	.0	.0	12.0	13.0	21.5	30.0	30.5	26.0	21.5
28	13.0	.0	.5	.0	.0	13.5	18.5	22.0	31.0	29.5	26.5	20.5
29	15.0	2.0	.5	.0	---	13.5	14.0	20.0	31.5	26.5	26.0	18.5
30	14.0	1.0	.5	.0	---	17.0	14.0	22.0	27.0	29.0	25.0	15.0
31	13.0	---	.0	.0	---	14.0	---	18.0	---	25.5	20.5	---

PLATTE RIVER BASIN

193

06792500 LOUP RIVER POWER CANAL NEAR GENOA, NE

LOCATION.--Lat 41°25'03", long 97°47'37", in NE1/4NE1/4 sec.32, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, at skimming weir on downstream end of settling basin on left bank, 2 mi (3 km) downstream from point of diversion and 3.5 mi (5.6 km) southwest of Genoa.

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

GAGE.--Water-stage recorder and concrete weir. Datum of gage is 1,566.26 ft (477.396 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1956, at datum 3.0 feet higher.

REMARKS.--Records excellent. Canal diverts from Loup River in sec.6, T.16 N., R.4 W.; water is used in powerplants near Monroe and Columbus and is returned to Platte River 1.5 mi (2.4 km) downstream from Loup River. Diversion began Dec. 2, 1936.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,410 ft³/s (96.6 m³/s) Apr. 27, 1944; no flow Aug. 16, 24-27, 30, 31, 1966, flood damage to canal being repaired.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,110 ft³/s (88.1 m³/s) Apr. 10; minimum daily, 17 ft³/s (0.48 m³/s) Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2390	2720	1470	436	1640	2090	2840	2780	3100	1680	799	937
2	2870	2990	505	1060	1740	2040	2860	2880	3010	1480	826	953
3	3080	2480	651	1430	1800	2000	2980	2400	2780	1290	826	985
4	2580	2400	1880	1400	1800	2000	2710	2840	2680	1100	838	1010
5	2460	2290	447	1450	1850	1990	2580	2760	2350	921	908	948
6	2540	2330	17	1410	1990	1840	2880	2550	2390	911	945	908
7	2840	2240	232	1290	1920	1850	2690	2890	2300	954	857	887
8	2970	2500	405	1560	1940	1820	2410	2790	2260	936	751	855
9	2770	2870	403	1240	1990	1830	2570	2840	2130	856	696	853
10	2420	2730	403	1330	2000	1900	3110	2490	2010	854	736	823
11	2520	2790	550	1400	2080	1960	2990	2220	1840	827	899	834
12	2390	2610	805	1400	1980	1840	2630	2070	1710	861	1110	1010
13	2230	2490	1120	1440	1920	1690	2460	2040	1620	746	1560	1360
14	2070	2490	1390	1430	1910	1720	2610	2050	1580	671	1660	1860
15	2140	2190	1980	1520	1900	1670	2980	2110	1480	626	2730	1350
16	2310	2440	2270	1550	1910	1690	2870	1900	1410	562	2710	1270
17	2200	2600	2370	1590	2050	1240	2880	1840	1380	537	2990	1240
18	2230	2520	2230	1440	2120	625	2880	1780	1370	478	2470	1280
19	2180	2390	1600	1460	2100	1180	2900	1820	1300	445	2030	1280
20	2170	2410	1470	1530	2170	1650	2760	1930	1380	659	1760	1390
21	2120	387	866	1460	2230	1570	2290	2030	1320	876	1590	1550
22	2210	45	1450	1500	2170	1680	2090	2010	1530	1780	1450	1480
23	2410	49	1580	1710	2110	2270	2230	1950	2380	1840	1320	1470
24	2390	33	1710	1840	2130	2660	2140	1900	2680	2570	1190	1400
25	2430	24	1370	1840	2150	2870	2240	1950	2040	2480	1160	1350
26	2450	19	1180	1850	2140	2930	2290	1870	1870	1970	1130	1340
27	2250	22	1480	1640	2060	3060	2550	1990	1810	1640	1120	1370
28	2200	29	1910	1570	1970	3060	2570	2150	1840	1360	1050	1340
29	2350	854	2110	1670	---	3100	2380	2740	1880	1080	993	1330
30	2330	1760	1980	1770	---	3000	2830	2830	1830	838	990	1320
31	2410	---	1390	1660	---	2820	---	3050	---	808	967	---
TOTAL	74910	53702	39224	45876	55770	63645	79200	71450	59260	34636	41061	35983
MEAN	2416	1790	1265	1480	1992	2053	2640	2305	1975	1117	1325	1199
MAX	3080	2990	2370	1850	2230	3100	3110	3050	3100	2570	2990	1860
MIN	2070	19	17	436	1640	625	2090	1780	1300	445	696	823
AC-FT	148600	106500	77800	91000	110600	126200	157100	141700	117500	68700	81440	71370
CAL YR 1977	TOTAL	712827	MEAN	1953	MAX	3190	MIN	17	AC-FT	1414000		
WTR YR 1978	TOTAL	654717	MEAN	1794	MAX	3110	MIN	17	AC-FT	1299000		

PLATTE RIVER BASIN

06793000 LOUP RIVER NEAR GENOA, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°25'05", long 97°43'25", in SW1/4NE1/4 sec.25, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, on right bank 12 ft (4 m) downstream from bridge on State Highway 39, 2 mi (3 km) south of Genoa, 3 mi (5 km) upstream from Beaver Creek, and 6 mi (10 km) downstream from diversion dam of Loup River Public Power District.

DRAINAGE AREA.--14,400 mi² (37,300 km²), approximately, of which about 5,650 mi² (14,600 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--August 1928 to June 1932, October 1943 to current year (October 1953 to April 1955, monthly discharge only).

REVISED RECORDS.--WDR NE-74: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,540.13 ft (469.432 m) National Geodetic Vertical Datum of 1929, Aug. 17, 1928, to June 30, 1932, nonrecording gage at present site at datum 1.49 ft (0.454 m) higher. Oct. 1, 1943 to Sept. 16, 1974 (Apr. 26 to Dec. 22, 1949, wire-weight gage only) at present site and datum. Sept. 17, 1974 to Nov. 21, 1977 at site 300 ft (90 m) upstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Records do not include flow of Loup River power canal (station 06792500) which diverts at point 6 mi (10 km) upstream and returns to Platte River below mouth of Loup River; diversion began Dec. 2, 1936. Periodic temperature, conductance, and sediment measurements are published in tables for water quality at miscellaneous sites.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 129,000 ft³/s (3,650 m³/s) Aug. 13, 1966, gage height, 13.93 ft (4.246 m), from rating curve extended above 42,000 ft³/s (1,190 m³/s) on basis of indirect measurement of peak flow; no flow at times during 1956, 1959, 1961, 1963, 1970, 1973, 1974, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37,500 ft³/s (1,060 m³/s) Mar. 18, gage height, 12.12 ft (3.694 m), backwater from ice; minimum daily discharge, 9.3 ft³/s (0.26 m³/s) July 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	10	1200	2000	45	170	360	233	1460	20	18	46
2	137	26	1700	1200	40	180	523	120	507	19	16	42
3	228	13	1300	200	44	190	903	40	73	16	14	25
4	48	11	651	84	52	200	884	360	35	15	13	23
5	29	25	1700	80	45	180	622	59	30	15	13	30
6	26	15	900	70	40	220	1460	38	28	18	13	51
7	36	30	200	60	50	200	1180	216	25	16	13	54
8	82	50	60	50	60	210	682	63	23	15	13	53
9	52	596	90	58	70	220	1090	83	22	14	16	38
10	26	507	70	50	90	230	3220	32	20	12	17	40
11	22	140	60	54	100	300	1420	22	19	11	21	45
12	22	23	80	60	110	2000	735	21	18	12	15	31
13	21	18	74	58	96	3000	393	19	19	9.3	15	26
14	20	17	72	54	90	10000	803	19	18	9.9	18	25
15	19	97	130	50	82	15000	1670	18	18	11	1080	22
16	19	22	90	49	72	13000	2450	17	18	11	3200	20
17	18	17	450	42	70	20000	2780	16	17	11	152	20
18	20	16	1200	45	68	30000	2430	16	16	11	48	19
19	17	16	1300	50	64	20000	2090	18	16	11	38	17
20	15	14	800	52	68	15000	848	16	16	22	32	18
21	14	1200	600	58	58	12000	828	17	16	18	28	17
22	15	2000	150	62	80	10000	907	17	28	76	25	15
23	14	1300	180	64	90	9300	946	18	267	28	23	15
24	14	1350	90	68	100	4800	922	19	1210	100	25	15
25	13	1450	120	60	120	3180	755	22	59	28	28	14
26	13	1600	800	56	150	2260	297	20	56	22	25	14
27	12	1500	500	54	170	1090	77	26	60	20	25	13
28	12	1400	300	48	200	761	59	23	61	19	35	13
29	11	1200	250	50	---	587	54	40	37	18	52	12
30	11	1300	450	48	---	445	401	21	27	18	51	12
31	12	---	900	50	---	436	---	198	---	18	53	---
TOTAL	1026	15963	16467	4984	2324	175159	31789	1847	4219	644.2	5135	785
MEAN	33.1	532	531	161	83.0	5650	1060	59.6	141	20.8	166	26.2
MAX	228	2000	1700	2000	200	30000	3220	360	1460	100	3200	54
MIN	11	10	60	42	40	170	54	16	16	9.3	13	12
AC-FT	2040	31660	32660	9890	4610	347400	63050	3660	8370	1280	10190	1560

CAL YR 1977 TOTAL 179237.8 MEAN 491 MAX 6590 MIN 1.7 AC-FT 355500
WTR YR 1978 TOTAL 260342.2 MEAN 713 MAX 30000 MIN 9.3 AC-FT 516400

06793000 LOUP RIVER NEAR GENOA, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	HARD- NESS (MG/L) AS (00900)	HARD- NESS, NONCAR- BONATE (MG/L) AS (00902)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)
MAR												
16...	1430	15100	218	7.2	2.0	860	11.4	--	82	4	25	4.7
18...	1530	30000	233	7.6	2.0	200	--	K200	82	0	25	4.7

K Results based on colony count outside the acceptable range (non-ideal colony count).

* Results based on colony count outside the acceptable range (non-ideal colony count).												SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
DATE	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)	SODIUM AD- SORP- TION (MG/L) RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)	BICAR- BONATE (MG/L) AS HCO3 (00440)	CAR- BONATE (MG/L) AS CO3 (00445)	ALKA- LINITY (MG/L) AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F (00950)	SILICA, DIS- SOLVED (MG/L) AS SiO2 (00955)			
MAR													
16...	5.0	.2	14	95	0	78	10	4.5	.2	20	142	131	
18...	5.8	.3	16	110	0	90	10	4.4	.2	18	137	139	

DATE	SOLIDS, DIS- SOLVED (TONS) PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS) PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L) AS N) (00605)	NITRO- GEN,AM- MONIA + ORG. SUSP. TOTAL (MG/L) AS N) (00625)	NITRO- GEN,AM- MONIA + ORG. SUSP. TOTAL (MG/L) AS N) (00624)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED TOTAL (MG/L) AS N) (00623)	NITRO- GEN, TOTAL (MG/L) AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L) AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L) AS P) (00666)

DATE	TIME	ARSENIC TOTAL (UG/L) AS AS (01002)	ARSENIC SUS- PENDE TOTAL (UG/L) AS AS (01001)	ARSENIC DIS- SOLVED (UG/L) AS AS (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L) AS BA (01007)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L) AS BA (01006)	BARIUM, DIS- SOLVED (UG/L) AS BA (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L) AS CD (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L) AS CD (01026)	CADMIUM DIS- SOLVED (UG/L) AS CD (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L) AS CR (01034)
MAR											
16...	1430	5	2	3	200	100	100	3	2	1	10
18...	1530	4	0	4	200	100	100	2	0	2	20

DATE	CHRO-	CHRO-	COBALT,	COBALT,			COPPER,	COPPER,		IRON,	IRON,
	MIUM,	MIUM,	TOTAL	SUS-	COBALT,	TOTAL	PENDED	PENDED	COPPER,	TOTAL	IRON,
	SUS-	DIS-	RECOV-	PENDED	DIS-	RECOV-	RECOV-	RECOV-	DIS-	RECOV-	DIS-
	RECOV.	SOLVED	ERABLE	ERABLE	SOLVED	ERABLE	ERABLE	SOLVED	ERABLE	SOLVED	SOLVED
	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L
	AS CR)	AS CR)	AS CO)	AS CO)	AS CO)	AS CU)	AS CU)	AS CU)	AS CU)	AS FE)	AS FE)
	(01031)	(01030)	(01037)	(01036)	(01035)	(01042)	(01041)	(01040)	(01045)	(01046)	(01046)

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN) (01054)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)
MAR										
16...	3	1	120	100	20	.0	.0	.0	1	
18...	20	8	12	340	290	50	.0	.0	.0	2

DATE	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE) (01146)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG) (01076)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN) (01091)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)

PLATTE RIVER BASIN

06793000 LOUP RIVER NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO MARCH 1978

DATE TIME	MAR 16,78 1430	MAR 18,78 1530
TOTAL CELLS/ML	3800	3600
DIVERSITY: DIVISION	1.2	0.3
..CLASS	1.2	0.3
...ORDER	1.9	0.6
...FAMILY	2.7	2.8
....GENUS	2.8	2.9

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)				
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
....OOCYSTACEAE				
.....ANKISTRODESMUS	29	1	--	-
....OOCYSTIS	57	2	--	-
...SCENEDESMACEAE				
....SCENEDESMUS	--	-	92	3
...VOLVOCALES				
..CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS	72	2	--	-
CHRYSOPHYTA				
..BACILLARIOPHYCEAE				
...CENTRALES				
...COSCINODISCACEAE				
....CYCLOTELLA	100	3	140	4
...MELOSIRA	86	2	--	-
..PENNALES				
...ACHNANTHACEAE				
....ACHNANTHES	*	0	160	5
...COCCONEIS	29	1	140	4
...CYMBELLACEAE				
....RHOPALODIA	--	-	210	6
...DIATOMACEAE				
....DIATOMA	--	-	180	5
...OPEPHORA	110	3	--	-
..EUNOTIACEAE				
...EUNOTIA	*	0	--	-
...FRAGILARIACEAE				
....FRAGILARIA	870#	23	1300#	37
...SYNEDRA	*	0	--	-
...GOMPHONEMACEAE				
....GOMPHONEMA	57	2	180	5
...MERIDIONACEAE				
....MERIDION	*	0	23	1
...NAVICULACEAE				
....CALONEIS	*	0	23	1
...NAVICULA	210	6	690#	19
...STAURONEIS	*	0	--	-
...NITZSCHACEAE				
....HANTZSCHIA	*	0	--	-
....NITZSCHIA	140	4	300	8
CYANOPHYTA (BLUE-GREEN ALGAE)				
..CYANOPHYCEAE				
...CHROCOCCOCCALES				
....CHROCOCCOCCAEAE				
.....ANACYSTIS	570#	15	--	-
...HORMOGONALES				
...OSCILLATORIACEAE				
....OSCILLATORIA	1400#	36	--	-
EUGLENOPHYTA (EUGLENOIDS)				
..EUGLENOPHYCEAE				
...EUGLENALES				
....EUGLENACEAE				
.....TRACHELOMONAS	--	-	92	3

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

PLATTE RIVER BASIN

197

06793000 LOUP RIVER NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
NOV 03...	1550	13	11.5	78	3.0	--	--
DEC 15...	1245	158	1.0	134	57	--	--
JAN 25...	1400	62	.5	44	7.0	--	--
MAR 07...	1400	200	.5	44	24	--	--
16...	1430	15100	2.0	1560	63600	17	19
18...	1530	30000	2.0	1920	156000	--	--
AUG 16...	1715	4340	26.0	942	11000	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
NOV 03...	--	62	--	--	--	--
DEC 15...	--	44	68	99	100	--
JAN 25...	--	30	--	--	--	--
MAR 07...	--	67	--	--	--	--
16...	32	81	88	94	99	100
18...	--	44	55	83	95	97
AUG 16...	--	73	85	96	100	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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. FALL DIAM. % FINER THAN 2.00 MM (80169)
DEC 15...	1245	158	7	0	5	69	96	98	100
MAR 16...	1430	15100	3	0	5	62	95	100	--
AUG 16...	1715	4340	3	0	3	44	95	100	--

PLATTE RIVER BASIN

06793600 BEAVER CREEK NEAR ALBION, NE

LOCATION.--Lat 41°41'00", long 97°58'25", in NW1/4NW1/4NE1/4 sec.26, T.20 N., R.6 W., Boone County, Hydrologic Unit 10210009, at bridge on county road 0.8 miles east and 0.6 miles southeast of junction of Highways 14, 39, and 91 at east edge of Albion.

PERIOD OF RECORD.--Water year 1973 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
31...	1110	57	227	7.4	12.5	35	10.9	3.9	2500	5100
NOV										
21...	1125	25	252	7.3	.0	30	14.7	6.9	1300	5100
DEC										
13...	1130	48	230	6.7	1.0	20	8.2	2.5	1100	2100
JAN										
03...	1140	47	247	6.7	.0	20	10.2	3.8	K15000	1000
FEB										
14...	1150	35	215	6.7	.0	15	10.1	1.2	K180	880
MAR										
06...	1130	61	235	6.7	.0	15	10.6	3.6	K630	1200
APR										
17...	1330	267	242	7.1	6.0	140	11.2	8.2	10000	10000
MAY										
08...	1120	115	262	7.4	9.5	45	11.2	2.8	1600	780
JUN										
19...	1250	39	260	7.4	24.0	30	9.2	3.4	6700	2100
JUL										
10...	1220	30	258	7.6	23.5	40	9.3	2.0	K23000	3600
AUG										
01...	1245	16	304	7.7	27.5	35	8.8	2.8	4800	2800
SEP										
11...	1225	31	246	7.5	26.5	30	8.6	2.0	K6800	1900

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
31...	1.7	167	.23	25.7	.29	.07	.53	.60	.89	.40
NOV										
21...	1.9	189	.26	12.8	.44	.19	.33	.52	.96	.36
DEC										
13...	7.8	--	.24	22.9	.52	.24	.60	.84	1.4	.36
JAN										
03...	2.0	188	.26	23.9	.69	.27	4.8	5.1	5.8	.35
FEB										
14...	1.8	164	.22	15.5	.48	.25	.08	.33	.81	.36
MAR										
06...	1.8	--	.25	30.0	.53	.32	.16	.48	1.0	.42
APR										
17...	3.2	173	.24	125	.34	.40	3.8	4.2	4.5	1.6
MAY										
08...	2.9	186	.25	57.8	.30	.11	.82	.93	1.2	.54
JUN										
19...	2.4	--	.24	19.0	.15	.16	1.3	1.5	1.7	.54
JUL										
10...	2.0	--	.23	13.9	.26	.10	.60	.70	.96	.51
AUG										
01...	3.5	199	.27	8.60	.39	.03	.68	.71	1.1	.65
SEP										
11...	2.6	--	.22	13.8	.41	.21	.60	.81	1.2	.49

06793600 BEAVER CREEK NEAR ALBION, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 13...	1130	8	110	0	34	5.7	7.1	.3	6.3	140	0
MAR 06...	1130	9	120	0	39	5.7	6.7	.3	6.2	150	0
JUN 19...	1250	12	130	0	40	6.2	8.1	.3	6.7	160	0
JUL 10...	1220	30	120	0	37	6.1	7.3	.3	7.0	150	0
SEP 11...	1225	17	110	0	35	5.2	7.8	.3	6.9	140	0

DATE	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUD- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC 13...	110	3.8	.3	43	177	.31	--	20	--	--
MAR 06...	120	7.4	.3	41	182	.32	7	20	21	0
JUN 19...	130	6.9	.8	30	180	.43	--	30	--	--
JUL 10...	120	5.8	.3	31	171	.37	--	60	--	--
SEP 11...	110	8.2	.2	30	165	.45	14	50	3	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 13...	--	40	--	20	--	--	--	--	--	--
MAR 06...	4	40	6	20	.0	.0	.0	0	0	20
JUN 19...	--	20	--	0	--	--	--	--	--	--
JUL 10...	--	50	--	20	--	--	--	--	--	--
SEP 11...	6	170	21	20	.2	.0	.2	0	1	140

PLATTE RIVER BASIN

06794000 BEAVER CREEK AT GENOA, NE

LOCATION.--Lat 41°26'32", long 97°44'11", in NE1/4SE1/4 sec.14, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, on left bank in city park at southwest corner at Genoa, 0.2 mi (0.3 km) downstream from Union Pacific Railroad bridge, 0.2 mi (0.3 km) upstream from bridge on State Highway 39, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--647 mi² (1,676 km²), of which about 410 mi² (1,062 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WSP 1310: 1942(M). WDR NE-73: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,542.13 ft (470.041 m) National Geodetic Vertical Datum of 1929. October 1940 to Nov. 5, 1942, nonrecording gage and Nov. 6, 1942, to Nov. 1, 1955, water-stage recorder, at site 0.4 mi (0.6 km) upstream at datum 4.62 ft (1.408 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected slightly by ground-water and surface-water withdrawals for irrigation. At times diurnal fluctuation at low flow caused by powerplants above station.

AVERAGE DISCHARGE.--38 years, 123 ft³/s (3.483 m³/s), 89,110 acre-ft/yr (0.110 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft³/s (600 m³/s) July 19, 1950, gage height, 18.70 ft (5.700 m), site and datum then in use, from rating curve extended above 8,500 ft³/s (241 m³/s); minimum daily, 0.41 ft³/s (0.012 m³/s) July 25, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 13	0830	ice jam	*11.36 3.463	July 22	1245	1180 33.4	7.44 2.268
Mar. 16	1530	*2620 74.2	10.71 3.264	Aug. 15	2115	1140 32.3	7.35 2.240
June 23	0030	1170 33.1	7.43 2.265				

Minimum daily discharge, 27 ft³/s (0.76 m³/s) July 19, Aug. 5-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	70	80	54	56	68	130	156	234	70	35	56
2	61	74	78	54	50	70	128	185	148	68	33	54
3	63	71	72	58	56	68	126	177	131	66	30	54
4	64	72	66	60	60	66	200	176	110	61	29	54
5	68	70	60	66	62	60	187	163	100	58	27	54
6	72	70	56	70	64	62	159	145	94	62	27	52
7	78	71	58	64	62	70	148	150	89	85	27	51
8	80	87	54	62	60	72	162	160	82	60	27	46
9	72	123	52	56	60	80	196	150	78	59	30	44
10	68	132	56	52	62	88	144	135	76	49	43	43
11	76	124	68	58	62	110	162	120	73	44	49	43
12	66	111	74	64	62	500	167	115	69	45	76	44
13	66	108	76	64	64	2000	148	110	66	35	60	51
14	67	107	74	62	64	1700	141	107	64	30	58	47
15	68	109	70	56	64	1340	133	104	64	30	677	48
16	66	113	68	54	60	2340	231	101	63	28	534	48
17	65	106	68	54	54	1450	238	97	62	30	290	49
18	64	95	70	58	56	905	302	93	57	30	162	49
19	63	89	70	58	60	1240	270	94	56	27	114	47
20	62	85	64	54	64	808	265	94	57	42	97	48
21	63	72	56	56	66	519	233	90	56	61	93	47
22	64	61	62	58	62	401	209	86	288	640	93	46
23	64	62	70	58	68	313	188	86	537	204	84	47
24	65	66	66	54	70	257	177	84	126	97	68	46
25	67	60	62	52	70	206	174	86	97	78	69	46
26	67	56	60	56	68	179	161	80	88	72	68	46
27	68	58	58	58	70	160	155	84	107	63	64	48
28	67	66	64	58	66	151	154	93	90	55	63	47
29	66	74	66	56	---	146	145	243	80	45	63	47
30	67	80	62	60	---	141	216	208	74	41	60	47
31	73	---	58	58	---	135	---	127	---	43	57	---
TOTAL	2077	2542	2018	1802	1742	15701	5449	3896	3316	2378	3207	1449
MEAN	67.0	84.7	65.1	58.1	62.2	506	182	126	111	76.7	103	48.3
MAX	80	132	80	70	70	2340	302	243	537	640	677	56
MIN	57	56	52	52	50	60	126	80	56	27	27	43
AC-FT	4120	5040	4000	3570	3460	31140	10810	7730	6580	4720	6360	2870
CAL YR 1977	TOTAL	33328.3	MEAN	91.3	MAX	803	MIN	3.2	AC-FT	66110		
WTR YR 1978	TOTAL	45577.0	MEAN	125	MAX	2340	MIN	27	AC-FT	90400		

06794500 LOUP RIVER AT COLUMBUS, NE

LOCATION.--Lat 41°24'59", long 97°21'23", in NW1/4SE1/4 sec.30, T.17 N., R.1 E., Platte County, Hydrologic Unit 10210009, on left bank 0.6 mi (1.0 km) downstream from bridge on U.S. Highway 30 at Columbus, 2.3 mi (3.7 km) upstream from mouth, and 14 mi (23 km) downstream from Looking-glass Creek. Prior to Aug. 7, 1976 at site 0.4 miles upstream.

DRAINAGE AREA.--15,200 mi² (39,400 km²), approximately, of which about 6,230 mi² (16,100 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1894 to September 1915 (published as "near Columbus" 1900-1901), March to September 1931, October 1933 to September 1977 (discontinued). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 956: 1937-41. WSP 1086: Drainage area. WSP 1390: 1895, 1897, 1900-1901, 1915, 1941(N).

GAGE.--Water-stage recorder. Datum of gage is 1,428.29 ft (435.343 m) National Geodetic Vertical Datum of 1929. See WSP 2118 for history of changes prior to June 15, 1967. June 15, 1967 to Aug. 6, 1976 at site 0.4 mi (0.6 km) upstream, at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Records do not include flow of Loup River power canal which diverts at point 25 mi (40 km) upstream and returns to Platte River below mouth of Loup River; diversion began Dec. 2, 1936 (station 06792500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 119,000 ft³/s (3,370 m³/s) Aug. 14, 1966, gage height, 14.42 ft (4.395 m), present site and datum, from rating curve extended above 52,100 ft³/s (1,480 m³/s) by logarithmic plotting and volumetric study; minimum daily, 1.8 ft³/s (0.051 m³/s) Aug. 30, 31, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 40,000 ft³/s (1,130 m³/s) Mar. 19, backwater from ice; maximum gage height, 8.87 ft (2.704 m) Mar. 15, ice jam; minimum daily discharge, 76 ft³/s (2.15 m³/s) Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	122	1400	1100	170	220	710	1050	780	121	84	162
2	118	117	1300	2000	160	300	737	587	1520	117	81	158
3	404	138	1800	1200	150	390	990	472	420	113	79	130
4	258	111	700	260	160	490	1320	598	275	108	78	108
5	133	112	1200	210	170	480	1100	501	219	102	79	100
6	101	140	960	230	160	460	1740	314	206	111	78	115
7	170	129	260	250	150	480	1750	338	198	116	79	140
8	171	176	120	200	160	460	1980	543	185	116	78	140
9	181	538	140	170	180	480	1440	305	178	109	81	134
10	162	964	130	150	190	500	3230	321	166	102	121	108
11	141	489	120	160	170	520	3120	263	159	98	105	124
12	132	284	130	170	150	620	1830	248	155	110	106	127
13	126	192	150	180	140	2700	978	232	149	98	113	125
14	120	156	160	190	130	5200	1160	228	147	98	112	109
15	122	235	210	180	130	12000	1900	222	148	97	142	99
16	117	260	160	170	125	17000	2960	220	150	90	3530	92
17	112	170	520	160	110	16000	3520	217	150	88	1140	95
18	107	146	1250	150	120	22000	2970	219	150	86	634	101
19	116	144	1400	160	130	32000	3090	222	148	86	281	88
20	120	134	860	150	140	21000	2250	220	146	101	215	89
21	116	900	660	160	130	16000	2050	214	144	115	188	89
22	122	2000	210	170	150	13000	2190	214	191	286	163	87
23	138	1500	250	180	200	11000	2210	220	791	707	150	84
24	141	1300	160	180	210	10000	2120	221	1050	146	143	83
25	138	1400	180	170	200	5000	1890	229	467	154	140	82
26	125	1500	800	160	210	3500	1390	220	160	105	147	81
27	115	1600	560	150	200	2500	771	231	148	96	168	81
28	110	1500	360	160	210	1300	557	243	153	92	125	76
29	110	1400	300	150	---	1240	473	306	146	88	152	78
30	115	1200	500	160	---	934	722	394	133	85	174	78
31	131	---	960	160	---	986	---	320	---	84	170	---
TOTAL	4395	19057	17910	9240	4505	198760	53148	10132	9032	4025	8936	3163
MEAN	142	635	578	298	161	6412	1772	327	301	130	288	105
MAX	404	2000	1800	2000	210	32000	3520	1050	1520	707	3530	162
MIN	101	111	120	150	110	220	473	214	133	84	78	76
AC-FT	8720	37800	35520	18330	8940	394200	105400	20100	17910	7980	17720	6270
CAL YR 1977	TOTAL	213158	MEAN	584	MAX	4660	MIN	20	AC-FT	422800		
WTR YR 1978	TOTAL	342303	MEAN	938	MAX	32000	MIN	76	AC-FT	679000		

PLATTE RIVER BASIN

06795500 SHELL CREEK NEAR COLUMBUS, NE

LOCATION.--Lat 41°31'33", long 97°16'55", in NE1/4NW1/4 sec.23, T.18 N., R.1 E., Platte County, Hydrologic Unit 10200201, on right bank 80 ft (24 m) upstream from county road bridge, 1 mi (2 km) upstream from Loseke Creek, and 7 mi (11 km) northeast of Columbus.

DRAINAGE AREA.--270 mi² (700 km²), approximately.

PERIOD OF RECORD.--August 1947 to September 1975, October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,435 ft (437.4 m).

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

AVERAGE DISCHARGE.--29 years, 42.1 ft³/s (1.192 m³/s), 30,500 acre-ft/yr (37.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,970 ft³/s (169 m³/s) June 3, 1950, gage height, 21.38 ft (6.517 m); minimum daily, 0.4 ft³/s (0.011 m³/s) July 27, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1947, reached a stage of 21.7 ft (6.61 m), from floodmark, discharge, 4,600 ft³/s (130 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 ft³/s (39.1 m³/s) Mar. 15 at 2200, gage height, 16.38 ft (4.993 m), backwater from ice, no other peak above base of 700 ft³/s (19.8 m³/s); minimum daily, 4.5 ft³/s (0.13 m³/s) Sept. 27-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	8.4	11	7.6	6.2	8.2	17	55	55	11	8.0	5.9
2	8.0	8.6	11	6.8	6.6	8.4	16	32	65	10	8.9	6.2
3	7.9	8.4	11	7.8	6.2	9.0	16	24	29	9.9	8.1	6.4
4	7.3	8.3	10	8.6	7.0	8.4	16	23	18	9.8	9.2	5.9
5	6.6	7.9	8.6	9.4	6.4	8.6	19	20	14	9.8	9.1	5.6
6	6.5	8.0	7.6	10	5.4	9.0	146	19	13	10	9.8	5.6
7	7.8	8.4	8.0	8.8	6.4	9.4	93	22	12	13	9.2	5.3
8	8.8	8.8	6.8	8.2	7.4	8.8	69	30	11	25	8.7	5.2
9	8.8	29	6.4	7.6	7.2	8.0	83	30	11	14	9.1	4.8
10	7.1	30	8.0	6.6	6.6	9.0	79	23	11	11	9.2	4.6
11	5.9	16	10	6.2	7.6	20	53	19	10	10	11	5.0
12	6.0	13	12	7.2	7.8	50	37	18	10	9.1	9.1	4.7
13	5.9	12	12	8.6	8.0	300	27	17	9.9	7.5	6.8	5.4
14	6.2	12	13	8.4	8.6	800	24	16	9.6	7.6	6.5	5.5
15	6.2	11	12	7.4	9.0	1200	30	15	9.3	7.6	8.6	5.2
16	6.2	11	12	5.8	8.8	1100	65	14	9.2	7.7	139	5.7
17	6.2	12	11	6.2	8.6	1000	113	13	9.3	7.2	137	5.7
18	6.2	13	10	6.0	8.4	1120	78	13	9.1	7.0	36	5.5
19	6.4	15	9.8	5.6	8.2	500	63	14	9.0	7.7	17	5.3
20	6.6	16	9.0	6.6	7.8	250	44	14	8.9	8.5	12	5.2
21	7.0	13	9.4	7.2	7.6	150	32	14	9.0	155	9.5	5.3
22	7.4	15	10	7.8	7.0	80	28	13	12	144	7.8	5.0
23	7.8	11	11	7.0	6.4	60	31	13	133	470	6.9	4.8
24	8.2	10	11	6.2	7.6	45	36	13	32	68	6.7	4.8
25	8.4	9.0	11	5.6	8.4	35	27	13	15	28	7.2	4.7
26	8.6	10	10	6.8	8.0	29	23	12	13	18	50	5.0
27	8.6	11	9.6	7.4	8.2	26	21	12	32	14	14	4.5
28	8.4	12	8.0	7.4	8.6	23	21	12	14	12	9.0	4.5
29	8.2	12	9.6	6.6	---	21	21	17	11	11	6.9	4.5
30	7.8	11	9.8	6.2	---	19	31	82	12	9.5	6.3	5.1
31	8.0	---	8.6	6.0	---	18	---	63	---	8.8	6.0	---
TOTAL	226.9	370.8	307.2	223.6	210.0	6932.8	1359	695	616.3	1141.7	602.6	156.9
MEAN	7.32	12.4	9.91	7.21	7.50	224	45.3	22.4	20.5	36.8	19.4	5.23
MAX	8.8	30	13	10	9.0	1200	146	82	133	470	139	6.4
MIN	5.9	7.9	6.4	5.6	5.4	8.0	16	12	8.9	7.0	6.0	4.5
AC-FT	450	735	609	444	417	13750	2700	1380	1220	2260	1200	311

WTR YR 1978 TOTAL 12842.8 MEAN 35.2 MAX 1200 MIN 4.5 AC-FT 25470

06796000 PLATTE RIVER AT NORTH BEND, NE

LOCATION.--Lat 41°27'10", long 96°45'50", in SE1/4 sec.7, T.17 N., R.6 E., Dodge County, Hydrologic Unit 10200201, on left bank 80 ft (24 m) upstream from bridge on State Highway 79, 1 mi (2 km) south of North Bend, and 5 mi (8 km) downstream from Shell Creek.

DRAINAGE AREA.--77,100 mi² (199,700 km²), approximately, of which about 63,300 mi² (163,900 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,262.32 ft (384.755 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 12, 1951, nonrecording gage and Sept. 12, 1951, to Sept. 30, 1970, water-stage recorder, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--29 years, 4,009 ft³/s (113.5 m³/s), 2,905,000 acre-ft/yr (3.58 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 112,000 ft³/s (3,170 m³/s) Mar. 29, 1960, gage height, 10.04 ft (3.060 m), present datum; maximum gage height, 15.55 ft (4.740 m) Mar. 19, 1978, ice jam; minimum daily discharge, 36 ft³/s (1.02 m³/s) July 29, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 80,000 ft³/s (2,270 m³/s) Mar. 19, from addition of main channel discharge and indirect measurement of road overflow (backwater from ice), gage height, 15.55 ft (4.740 m); minimum daily discharge, 334 ft³/s (9.46 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3460	4010	5720	3000	2700	3300	4310	6230	4470	2080	992	1140
2	3810	4270	4700	2800	2630	3500	5740	5200	4890	2050	655	899
3	3720	4100	3860	3300	2700	3800	6720	5050	4370	1610	1390	1050
4	3790	3960	2100	3400	2800	3900	6130	4440	3700	1550	369	490
5	4010	3970	1000	3200	2800	3800	5950	4600	3880	949	762	949
6	3040	3800	900	3100	2800	4000	7850	4490	3560	909	932	969
7	4250	3210	1000	2900	2900	3700	8270	4650	3340	1490	1020	797
8	4910	3860	1200	2800	3000	3700	13900	5500	3240	1430	1520	682
9	3490	4540	1100	2700	3200	3900	13100	5270	2890	1430	739	968
10	3610	4780	1700	2700	3300	4400	12200	4780	3050	565	780	995
11	3410	4540	2600	2800	3500	4800	12300	4450	2500	797	972	971
12	3500	4010	3300	2900	3400	5800	9960	4210	2480	1050	1130	817
13	3680	3830	4000	3000	3400	8800	7810	4290	2320	1330	1350	1520
14	3020	4430	3800	3100	3300	12500	5620	3230	2120	735	2320	1470
15	2970	3660	3800	3200	3300	21000	7230	3770	2320	1000	2170	2050
16	3320	3980	4200	3000	3300	28000	9700	3450	1540	678	4800	1560
17	2990	3790	4300	2800	3200	35000	12900	3480	1930	513	5520	1310
18	3140	4170	4200	2800	3400	42000	12600	2750	1740	411	3440	1270
19	3620	4580	4100	2900	3700	54000	12000	2950	1910	334	2170	1630
20	3360	3900	3900	2900	3900	61000	10200	3380	2900	979	2480	1500
21	3530	3600	3800	3000	3700	33700	8800	2710	2030	1010	1440	1840
22	3960	3500	4200	3000	3500	23400	8270	2760	2580	1990	1500	1200
23	3550	3700	3800	2900	3600	16900	7850	3260	3800	2920	1270	1480
24	3590	3300	3600	2900	3700	12500	6730	2720	4420	3410	1220	1440
25	4020	3000	3400	2800	3600	10300	6590	2550	4200	3190	498	1640
26	3750	2700	3300	2800	3400	8920	5240	2860	3020	2580	806	1370
27	3780	2400	3300	2800	3600	8070	5310	2660	2180	2720	1430	1390
28	3500	2800	3400	2900	3500	6810	4780	2670	2420	1720	1310	1200
29	3860	3300	3500	2900	---	7990	4860	3130	1920	1510	1400	1170
30	4120	3580	3300	2800	---	6650	5080	3920	2190	1040	505	1630
31	4070	---	2900	2800	---	5910	---	3770	---	588	369	---
TOTAL	112830	113270	99980	90900	91830	452050	248000	119180	87910	44568	47259	37397
MEAN	3640	3776	3225	2932	3280	14580	8267	3845	2930	1438	1524	1247
MAX	4910	4780	5720	3400	3900	61000	13900	6230	4890	3410	5520	2050
MIN	2970	2400	900	2700	2630	3300	4310	2550	1540	334	369	490
AC-FT	223800	224700	198300	180300	182100	896600	491900	236400	174400	88400	93740	74180
CAL YR 1977	TOTAL	1511871	MEAN	4142	MAX	14200	MIN	513	AC-FT	2999000		
WTR YR 1978	TOTAL	1545174	MEAN	4233	MAX	61000	MIN	334	AC-FT	3065000		

PLATTE RIVER BASIN

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1972 to September 1977.

WATER TEMPERATURES: October 1972 to September 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 790 micromhos June 25, 1973; minimum daily, 218 micromhos Sept. 19, 1977.

WATER TEMPERATURE: Maximum, 29.5°C several days during summer periods, minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 18...	1155	3980	360	7.4	10.5	25	11.4	3.0	K130	164
NOV 16...	1150	4850	356	7.7	6.0	35	12.6	.9	1030	3700
DEC 08...	1130	1270	450	7.6	.5	12	14.3	1.7	K35	K136
JAN 05...	1420	3170	380	7.6	.5	--	12.5	1.3	83	K60
FEB 02...	1300	2630	455	7.8	.5	5	--	1.6	K228	284
MAR 07...	1230	3710	485	7.6	.0	9	12.5	3.1	133	300
20...	1430	40800	260	7.5	2.0	425	--	15	K308	37000
APR 26...	0950	6540	530	8.2	12.0	35	10.2	3.2	K100	200
MAY 30...	1020	4080	340	8.3	19.0	40	9.8	3.7	K180	280
JUN 27...	1250	800	306	8.1	27.0	260	8.0	4.2	1770	530
AUG 02...	1015	120	424	8.4	23.0	25	8.3	3.8	K200	K120
29...	1200	890	300	8.4	23.0	40	8.4	6.1	K2330	660
SEP 25...	1145	2420	284	7.9	17.5	59	9.9	2.3	K185	680

K Results based on colony count outside the acceptable range (non-ideal colony count):

DATE	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L) AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN, TOTAL (MG/L) AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L) AS P) (00665)
OCT 18...	5.7	222	.30	2390	.74	.05	--	--	--	.32
NOV 16...	7.1	263	.36	3440	.70	.01	.67	.68	1.4	.27
DEC 08...	12	--	.45	1140	2.5	.13	.34	.47	3.0	.26
JAN 05...	14	350	.48	3000	.96	.08	.46	.54	1.5	.21
FEB 02...	13	339	.46	2410	.91	.06	.12	.18	1.1	.24
MAR 07...	12	--	.45	3300	.89	.08	.39	.47	1.4	.22
20...	6.1	--	.23	18600	1.2	.73	6.3	7.0	8.2	1.8
APR 26...	14	372	.51	6570	.97	.04	1.7	1.7	2.7	.31
MAY 30...	5.9	230	.31	2530	.01	.01	.99	1.0	1.0	.29
JUN 27...	10	--	.30	480	1.3	.05	2.4	2.4	3.7	.71
AUG 02...	10	--	.38	90.1	.08	.00	1.0	1.0	1.1	.21
29...	5.5	--	.31	543	.01	.02	1.6	1.6	1.6	.32
SEP 25...	4.8	205	.28	1340	.02	.01	1.2	1.2	1.2	.28

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 08...	1130	12	--	190	11	57	12	30	.9	9.4	220	0
MAR 07...	1230	7	--	180	28	52	13	33	1.1	8.7	190	0
20...	1430	100	140	98	0	29	6.1	9.7	.4	15	120	0
JUN 27...	1250	25	--	130	3	40	8.4	16	.6	11	160	0
AUG 02...	1015	9	--	160	11	46	9.9	26	.9	11	170	3
29...	1200	12	--	140	0	43	6.7	13	.5	8.8	170	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC TOTAL (UG/L AS AS) (01002)
DEC 08...	180	53	.4	49	331	--	--	--	--	--	.24	--
MAR 07...	160	84	.4	32	329	--	--	--	--	--	.22	--
20...	98	19	.2	18	169	1.2	.59	1.1	5.3	1.7	.44	5
JUN 27...	130	21	.4	36	222	--	--	--	--	--	.36	--
AUG 02...	140	54	.4	34	278	--	--	--	--	--	.14	--
29...	140	22	.3	43	226	--	--	--	--	--	.16	--

DATE	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDE RECOV- ERABLE (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
DEC 08...	--	--	60	--	--	--	--	--	--	--	--	--
MAR 07...	--	6	70	--	--	1	--	--	10	--	--	--
20...	1	4	70	3	1	2	30	20	10	14	12	2
JUN 27...	--	--	50	--	--	--	--	--	--	--	--	--
AUG 02...	--	8	80	--	--	1	--	--	0	--	--	--
29...	--	10	50	--	--	<1	--	--	0	--	--	--

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN) (01054)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
DEC 08...	--	--	--	--	30	--	--	--	--	--	40
MAR 07...	--	--	5	--	40	--	--	4	--	--	0
20...	21	17	4	29000	80	38	30	8	920	920	0
JUN 27...	--	--	--	--	590	--	--	--	--	--	60
AUG 02...	--	--	3	--	20	--	--	7	--	--	10
29...	--	--	8	--	20	--	--	0	--	--	2

PLATTE RIVER BASIN

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE- RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, PENDE- TOTAL (UG/L AS SE) (01146)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, SUS- PENDE- RECOV- ERABLE (UG/L AS ZN) (01091)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 07...	.0	.0	.0	--	--	2	0	--	--	20	--
20...	.0	.0	.0	3	2	1	0	170	160	10	41
JUN 27...	--	--	--	--	--	--	--	--	--	--	--
AUG 02...	.0	.0	.0	--	--	1	0	--	--	10	--
29...	.2	.2	.0	--	--	1	0	--	--	<3	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDE- TOTAL (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE- TOTAL (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT 18...	1225	3980	10.5	297	3190	--	--
MAR 20...	1430	40800	2.0	3180	350000	15	16

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT 18...	--	52	72	87	100	--
MAR 20...	24	39	52	82	88	100

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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. FALL DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. FALL DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. FALL DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. FALL DIAM. % FINER THAN 16.0 MM (80172)
OCT 18...	1225	3980	--	--	0	9	44	76	87	96	100	--
MAR 20...	1430	40800	7	0	5	44	66	79	90	96	99	100

PLATTE RIVER BASIN

207

06797500 ELKHORN RIVER AT EHING, NE

LOCATION.--Lat. 42°16'03", long 98°20'11", in NW1/4SW1/4 sec.35, T.27 N., R.9 W., Holt County, Hydrologic Unit 10220001, on right bank 350 ft (107 m) downstream from bridge on State Highway 420, 0.8 mi (1.3 km) north of Ehing, and 1.5 mi (2.4 km) upstream from South Fork Elkhorn River.

DRAINAGE AREA.--1,400 mi² (3,630 km²), approximately, of which about 740 mi² (1,920 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 1,836 ft (559.6 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1952, at site 300 ft (90 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--31 years, 168 ft³/s (4.758 m³/s), 121,700 acre-ft/yr (0.150 km³/yr); median of yearly mean discharges, 114 ft³/s (3.228 m³/s), 82,600 acre-ft/yr (0.102 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft³/s (212 m³/s) June 10, 1962, gage height, 10.60 ft (3.231 m); minimum daily, 5.2 ft³/s (0.15 m³/s) Sept. 6, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 11.32 ft (3.450 m) June 23, 24, 1947, from floodmark at site 300 ft (90 m) upstream, discharge, 6,600 ft³/s (187 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 21	2200	2340 66.3	7.99 2.435	May 3	2130	1230 34.8	6.67 2.033
Apr. 22	2230	1370 38.8	6.80 2.073				

Minimum daily discharge, 22 ft³/s (0.62 m³/s) Sept. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	60	70	35	25	29	346	997	416	61	146	36
2	56	59	70	37	24	28	366	1050	364	60	136	35
3	57	56	64	39	25	28	428	1200	359	58	124	34
4	57	52	56	40	25	28	408	1150	398	55	116	32
5	54	53	48	42	26	40	393	940	389	55	109	31
6	51	53	45	44	27	45	377	689	340	63	103	29
7	56	54	50	38	27	44	345	556	283	79	96	27
8	60	52	42	35	28	43	315	524	236	83	88	25
9	56	50	35	34	28	44	301	489	208	91	84	23
10	56	48	48	32	29	45	351	438	182	94	81	22
11	56	45	60	33	30	46	358	380	159	95	80	22
12	56	62	70	35	29	48	369	333	139	91	74	30
13	56	80	66	33	28	50	371	286	127	84	69	31
14	55	99	64	32	28	60	336	250	116	82	69	31
15	53	99	62	32	29	70	289	225	108	80	79	31
16	52	96	62	31	28	74	311	201	100	96	88	31
17	53	91	62	30	26	72	393	180	98	85	93	29
18	51	89	60	30	24	90	635	167	93	72	80	34
19	51	87	56	31	25	200	780	163	87	67	70	36
20	51	83	52	31	25	740	912	159	81	71	62	38
21	49	76	45	31	27	1320	1130	150	78	72	58	39
22	49	68	50	31	32	1910	1320	137	92	122	54	38
23	49	66	52	30	35	1570	1300	128	106	156	50	35
24	49	62	52	30	35	1350	1250	119	100	170	48	33
25	51	50	43	30	33	1120	1230	114	89	168	46	30
26	51	52	40	31	30	920	1230	108	82	180	45	28
27	49	60	38	32	32	760	1120	118	77	204	44	28
28	49	70	38	29	30	610	913	123	73	212	42	28
29	49	80	37	28	---	510	754	253	70	192	42	28
30	53	74	37	27	---	439	874	360	64	171	42	28
31	63	---	37	27	---	386	---	370	---	157	39	---
TOTAL	1647	2026	1611	1020	790	12719	19505	12357	5114	3326	2357	922
MEAN	53.1	67.5	52.0	32.9	28.2	410	650	399	170	107	76.0	30.7
MAX	63	99	70	44	35	1910	1320	1200	416	212	146	39
MIN	49	45	35	27	24	28	289	108	64	55	39	22
AC-FT	3270	4020	3200	2020	1570	25230	38690	24510	10140	6600	4680	1830
CAL YR 1977	TOTAL	42973	MEAN	118	MAX	1380	MIN	15	AC-FT	85240		
WTR YR 1978	TOTAL	63394	MEAN	174	MAX	1910	MIN	22	AC-FT	125700		

PLATTE RIVER BASIN

06797500 ELKHORN RIVER AT EWING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--water years 1960-1966, 1974-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT , 1977				
14...	1100	54	228	11.0
NOV				
22...	1630	69	227	.5
DEC				
14...	1000	63	237	.5
JAN , 1978				
05...	1100	42	233	.5
FEB				
15...	1000	29	208	.5
MAR				
08...	1005	43	226	.5

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
APR , 1978				
19...	1225	778	307	4.0
MAY				
11...	1100	376	310	17.0
JUN				
19...	1115	94	212	18.0
JUL				
13...	1130	84	242	24.5
AUG				
24...	1025	48	249	25.0
SEP				
14...	1110	31	208	17.0

PLATTE RIVER BASIN

209

06798000 SOUTH FORK ELKHORN RIVER NEAR EWING, NE

LOCATION.--Lat 42°14'29", long 98°23'53", in SE1/4NE1/4 sec. 7, T.26 N., R.9 W., Holt County, Hydrologic Unit 10220001, on right bank 10 ft (3 m) downstream from bridge on county highway, 2.9 mi (4.7 km) southwest of intersection with U.S. Highway 275 in Ewing and 5.5 mi (8.8 km) upstream from mouth.

PERIOD OF RECORD.--July 1947 to Sept. 1953, Aug. 1960 to Sept. 1972, Oct. 1977 to current year. Prior to Oct. 1977 station published as "at Ewing" at sites 4.5 mi (7.2 km) downstream at different datum.

GAGE.--Water-stage recorder. Altitude of gage is 1880 ft (573 m) from topographic map. See WSP 1918 for history of changes prior to June 14, 1963.

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

AVERAGE DISCHARGE.--19 years (1948-53, 1961-72, 1978) 66.3 ft³/s (1.878 m³/s), 48,030 acre-ft/yr (59.2 hm³/yr); median of yearly mean discharges, 52 ft³/s (1.473 m³/s), 37,700 acre-ft/yr (46.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft³/s (49.8 m³/s) Apr. 5, 1949, gage height, 5.02 ft (1.530 m); maximum gage height, 6.12 ft (1.865 m) Mar. 7, 1949, backwater from ice, site then in use; minimum daily discharge, 11 ft³/s (0.31 m³/s) Jan. 15, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 21, 1947, reached a stage of 7.22 ft (2.201 m), from floodmarks at site and datum then in use (discharge, about 3,400 ft³/s (96.3 m³/s)).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum(*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 21	0500	*695 19.7	3.38 1.030	May 2	1230	471 13.3	2.68 0.817
Apr. 20	0600	364 10.3	2.36 0.719	June 1	0630	265 7.5	2.01 0.613

Minimum daily discharge, 21 ft³/s (0.59 m³/s) Sept. 7, 8, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	37	45	40	31	36	88	174	250	30	34	25
2	39	42	46	37	29	37	99	423	245	30	33	29
3	34	43	46	36	31	38	112	345	228	31	31	27
4	34	40	49	40	32	40	125	225	198	31	31	25
5	36	40	46	42	30	41	111	153	163	30	31	23
6	36	41	36	43	31	44	102	122	136	33	31	22
7	47	40	39	40	33	43	99	106	124	33	28	21
8	41	45	44	37	34	44	101	100	107	31	26	21
9	41	56	40	35	33	45	105	95	96	31	26	22
10	41	54	41	32	35	46	103	97	89	29	30	21
11	39	52	43	35	37	49	131	98	78	30	30	25
12	39	51	45	37	39	54	127	91	69	29	28	33
13	38	54	48	35	41	56	112	78	59	27	30	27
14	38	56	52	33	42	62	106	83	52	41	34	28
15	42	56	56	34	39	66	88	82	52	34	47	29
16	39	53	46	32	37	70	107	79	46	33	41	28
17	37	48	46	29	35	77	143	78	40	31	36	28
18	37	46	55	31	34	111	210	77	39	30	34	32
19	42	46	50	32	34	221	299	82	36	27	34	31
20	38	37	48	29	33	463	350	72	33	36	31	30
21	38	33	46	28	32	639	312	74	38	38	28	30
22	38	49	44	30	33	433	246	77	51	60	27	30
23	39	44	42	32	41	340	228	79	45	60	26	30
24	37	47	39	29	40	253	263	77	41	56	27	29
25	38	38	40	25	37	195	253	81	41	47	26	28
26	38	36	41	27	36	142	196	80	37	43	26	29
27	37	40	42	29	35	120	150	88	37	39	29	27
28	38	45	44	32	35	109	136	86	34	38	27	27
29	39	47	45	31	---	107	139	100	30	33	26	29
30	41	46	43	30	---	97	147	144	30	31	27	31
31	41	---	42	29	---	93	---	220	---	33	25	---
TOTAL	1205	1362	1389	1031	979	4171	4788	3766	2524	1105	940	817
MEAN	38.9	45.4	44.8	33.3	35.0	135	160	121	84.1	35.6	30.3	27.2
MAX	47	56	56	43	42	639	350	423	250	60	47	33
MIN	34	33	36	25	29	36	88	72	30	27	25	21
AC-FT	2390	2700	2760	2040	1940	8270	9500	7470	5010	2190	1860	1620
WTR YR 1978	TOTAL	24077	MEAN	66.0	MAX	639	MIN	21	AC-FT	8776		

ELKHORN RIVER BASIN

06798300 CLEARWATER CREEK NR CLEARWATER, NE

LOCATION.--Lat 42°08'20", long 98°12'10", in SW1/4NW1/4 sec.13, T.25 N., R.8 W., Antelope County, Hydrologic Unit 10220001, on left bank at downstream side of county road bridge, 0.5 mi (0.8 km) west and 2 mi (3 km) south of Clearwater, and about 3 mi (5 km) upstream from mouth.

DRAINAGE AREA.--210 mi² (540 km²), approximately, of which about 130 mi² (340 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July 1961 to September 1964, October 1977 to September 1978.

GAGE.--Water-stage recorder. Prior to September 7, 1961, wire-weight gage at same site and datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 710 ft³/s (20.1 m³/s) Mar. 27, 1962, gage height, 8.82 ft (2.688 m); minimum daily discharge, 11 ft³/s (0.31 m³/s) July 13, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum(*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 20	2330	*319 9.0	6.94 2.115	May 2	0900	105 3.0	5.46 1.664
Apr. 19	1400	161 4.6	5.91 1.801				

Minimum daily discharge, 11 ft³/s (0.31 m³/s) July 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	32	31	22	20	35	50	84	50	17	16	15
2	40	31	32	22	19	36	69	103	53	17	18	16
3	30	28	32	24	18	30	79	94	49	16	18	16
4	27	28	31	25	21	25	92	77	40	15	16	15
5	25	27	29	28	22	28	83	66	36	14	15	14
6	23	27	25	27	23	30	73	57	32	15	15	14
7	34	28	26	26	25	32	65	57	28	16	14	14
8	34	41	25	23	25	30	61	56	26	14	13	13
9	30	61	22	21	26	32	65	53	25	15	14	13
10	29	54	27	20	27	36	78	50	23	14	21	13
11	27	53	29	21	24	39	87	47	22	13	21	13
12	25	54	30	21	24	45	86	43	22	12	19	15
13	24	55	32	23	24	47	75	40	23	11	18	15
14	24	56	33	23	23	60	69	37	21	14	20	16
15	24	55	34	24	22	80	65	36	21	16	70	15
16	23	51	33	21	20	110	80	33	21	14	40	15
17	24	41	31	20	19	140	104	32	21	14	26	15
18	24	40	30	23	18	160	132	32	21	14	21	17
19	23	36	28	22	19	250	156	30	20	14	20	16
20	23	33	26	20	20	306	146	30	20	16	18	16
21	24	30	24	20	24	278	127	29	20	24	17	17
22	25	29	26	21	27	245	112	28	25	33	18	16
23	25	29	28	21	31	203	105	28	25	24	17	16
24	25	27	29	22	35	157	102	28	23	21	16	17
25	25	29	26	19	35	129	95	28	24	20	16	16
26	25	33	24	19	33	107	84	27	23	18	16	16
27	25	33	23	18	34	89	74	31	21	16	16	16
28	26	29	25	20	35	74	68	32	20	15	15	16
29	26	33	26	19	---	61	63	33	19	15	15	15
30	30	33	27	20	---	55	66	34	18	16	16	16
31	37	---	24	19	---	52	---	49	---	16	15	---
TOTAL	849	1136	868	674	693	3001	2611	1404	792	509	610	457
MEAN	27.4	37.9	28.0	21.7	24.8	96.8	87.0	45.3	26.4	16.4	19.7	15.2
MAX	43	61	34	28	35	306	156	103	53	33	70	17
MIN	23	27	22	18	18	25	50	27	18	11	13	13
AC-FT	1680	2250	1720	1340	1370	5950	5180	2780	1570	1010	1210	906
WTR YR 1978	TOTAL	13604	MEAN	37.3	MAX	306	MIN	11	AC-FT	26980		

06798500 ELKHORN RIVER AT NELIGH, NE

LOCATION.--Lat 42°07'20", long 98°01'40", in sec.20, T.25 N., R.6 W., Antelope County, Hydrologic Unit 10220001, on right bank 30 ft (9 m) downstream from bridge on old State Highway 14 at Neligh.

DRAINAGE AREA.--2,200 mi² (5,700 km²), approximately, of which about 1,200 mi² (3,110 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to September 1958, August 1960 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1006: 1935, 1942. WSP 1390: 1931-32, 1937(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,713.88 ft (522.391 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1933, nonrecording gage at site 10 ft (3 m) downstream at present datum. Apr. 16, 1933, to Jan. 23, 1939, nonrecording gage at bridge 30 ft (9 m) upstream at present datum. Jan. 24, 1939 to Oct. 9, 1958 and Aug. 8, 1960 to Sept. 8, 1970 water-stage recorder at site 20 ft (6 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Periodic temperature, conductance, and sediment measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--46 years, 280 ft³/s (7.930 m³/s), 202,900 acre-ft/yr (0.250 km³/yr); median of yearly mean discharges, 230 ft³/s (6.514 m³/s), 167,000 acre-ft/yr (0.206 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,000 ft³/s (340 m³/s) June 23, 1947, gage height, 12.53 ft (3.819 m), from main channel rating curve extended above 4,900 ft³/s (139 m³/s) and field estimate of flow through break in highway fill; minimum daily, 12 ft³/s (0.34 m³/s) July 2, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1960, reached a stage of 12.24 ft (3.731 m), from floodmark, discharge, 12,300 ft³/s (348 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 22	1630	*5540 157	7.91 2.411	May 3	1030	2460 69.7	6.03 1.838
Apr. 23	1200	2500 70.8	6.20 1.890				

Minimum daily discharge, 64 ft³/s (1.81 m³/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	185	249	135	98	145	649	1560	761	127	239	91
2	185	173	213	135	96	145	792	2010	672	127	234	90
3	159	171	180	130	100	140	847	2360	612	122	213	87
4	148	164	180	125	104	140	850	2160	639	112	197	88
5	138	158	140	120	102	150	810	1630	640	107	185	81
6	131	159	104	122	100	165	697	1170	565	118	175	77
7	163	163	110	118	100	175	603	1040	482	131	171	76
8	176	198	96	114	102	180	550	991	410	132	164	70
9	160	274	86	108	104	190	589	941	342	132	155	68
10	153	242	120	104	106	200	660	819	287	143	172	68
11	149	239	135	106	108	220	658	760	246	152	174	64
12	152	246	140	112	110	240	669	722	213	150	164	73
13	149	257	145	116	110	250	629	610	194	136	155	82
14	148	274	150	116	112	310	572	562	178	138	165	79
15	144	276	155	112	112	500	497	551	175	164	425	77
16	144	263	150	110	110	800	534	505	169	146	302	78
17	140	249	140	108	108	1000	651	452	170	155	241	77
18	138	229	125	104	106	980	1070	421	170	142	219	85
19	136	221	120	102	104	1300	1450	408	166	134	199	91
20	132	209	110	100	102	1920	1790	371	162	139	183	83
21	130	167	110	102	102	3440	2090	350	158	193	152	88
22	131	140	120	104	104	4730	2420	320	182	310	119	87
23	133	180	130	110	110	4190	2400	300	212	307	106	86
24	140	160	125	118	114	2880	2190	290	207	317	100	84
25	142	140	120	116	118	2200	2130	270	203	297	94	83
26	145	110	115	110	120	1730	1900	260	176	273	98	81
27	137	150	110	108	130	1250	1550	280	155	279	107	80
28	135	243	120	106	140	936	1200	300	145	292	100	78
29	137	247	125	102	---	804	1040	420	144	286	100	78
30	151	252	130	100	---	744	1130	515	132	259	98	79
31	189	---	135	100	---	704	---	641	---	243	94	---
TOTAL	4578	6139	4188	3473	3032	32758	33617	23989	8967	5763	5300	2409
MEAN	148	205	135	112	108	1057	1121	774	299	186	171	80.3
MAX	189	276	249	135	140	4730	2420	2360	761	317	425	91
MIN	130	110	86	100	96	140	497	260	132	107	94	64
AC-FT	9080	12180	8310	6890	6010	64980	66680	47580	17790	11430	10510	4780

CAL YR 1977 TOTAL 87677 MEAN 240 MAX 1510 MIN 64 AC-FT 173900
WTR YR 1978 TOTAL 134213 MEAN 368 MAX 4730 MIN 64 AC-FT 266200

PLATTE RIVER BASIN

06798500 ELKHORN RIVER AT NELIGH, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT , 1977					APR , 1978				
11...	1410	148	268	7.5	17...	1330	654	320	6.5
NOV					MAY				
22...	1310	143	262	.5	08...	1320	1000	318	10.5
DEC					JUN				
12...	1300	140	297	.5	19...	1320	167	284	21.5
JAN , 1978					JUL				
03...	1230	130	287	.5	10...	1400	142	225	25.0
FEB					AUG				
14...	1400	111	269	.5	21...	1350	133	259	28.5
MAR					SEP				
06...	1400	166	268	.5	11...	1320	63	258	28.0

06799000 ELKHORN RIVER AT NORFOLK, NE

LOCATION.--Lat 42°00'14", long 97°25'31", in SW1/4SW1/4 sec.34, T.24 N., R.1 W., Madison County, Hydrologic Unit 10220001, on left bank 200 ft (61 m) downstream from U.S. Highway 81 bridge, 1 mi (2 km) south of intersection of U.S. Highways 81 and 275, and 3.6 mi (5.8 km) upstream from North Fork Elkhorn River.

DRAINAGE AREA.--2,790 mi² (7,230 km²), approximately, of which about 1,790 mi² (4,640 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1896 to November 1903 (no winter records), October 1945 to current year. Gage height records collected at site 200 ft (60 m) upstream from May 10, 1941 to Sept. 26, 1945 are contained in reports of U.S. Weather Bureau. Published as "near Norfolk" from October 1957 to September 1977.

REVISED RECORDS.--WSP 1390: 1898-1900. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,504.95 ft (458.709 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Aug. 30, 1958. Aug. 30, 1958 to July 27, 1978, water-stage recorder at site 3.2 mi (5.1 km) upstream at datum 17.88 ft (5.450 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Periodic temperature, conductance, and sediment measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--33 years, 493 ft³/s (13.96 m³/s), 357,200 acre-ft/yr (0.440 km³/yr); median of yearly mean discharges, 410 ft³/s (11.61 m³/s), 297,000 acre-ft/yr (0.366 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s (479 m³/s) June 14, 1967, gage height, 8.52 ft (2.597 m), at site and datum then in use; Maximum gage height observed, 13.63 ft (4.154 m) Mar. 11, 1949, at site 200 ft (60 m) upstream at present datum, backwater from ice; minimum daily discharge, 37 ft³/s (1.05 m³/s) Aug. 30, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 13, 1944, reached a stage of 11.8 ft (3.60 m), at site 200 ft (60 m) upstream at present datum, discharge, 14,300 ft³/s (405 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,000 ft³/s (198 m³/s) Mar. 20, backwater from ice; no other peak above base of 2,000 ft³/s (56.6 m³/s); maximum gage height, 8.90 ft (2.713 m) Mar. 16, from floodmark in well, backwater from ice; minimum daily, 102 ft³/s (2.89 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	258	300	230	135	185	787	1250	900	192	255	149
2	220	252	280	230	130	190	704	1370	996	186	249	150
3	230	236	290	235	125	185	782	1630	941	180	239	146
4	213	237	290	245	125	180	916	1680	865	177	213	141
5	211	228	200	260	120	200	1000	1610	785	170	192	135
6	208	240	125	270	118	220	849	1420	738	166	189	131
7	236	252	145	240	118	250	962	1220	656	164	184	125
8	258	282	130	225	116	275	1030	1140	551	160	183	121
9	264	420	120	215	113	290	1030	1010	484	160	173	118
10	240	436	140	190	112	325	982	901	418	170	182	114
11	228	420	155	200	113	360	857	824	355	175	182	115
12	228	388	190	205	115	400	808	794	297	180	185	171
13	228	380	210	205	116	460	812	681	254	170	179	137
14	228	380	245	200	116	600	793	632	240	180	181	134
15	224	420	300	190	114	960	687	567	233	180	337	123
16	224	428	300	160	112	1500	676	565	220	180	616	126
17	220	412	290	165	110	2270	789	601	216	180	400	111
18	216	388	275	170	108	3600	1020	570	218	190	250	118
19	220	372	260	170	106	5200	1370	554	214	200	190	113
20	220	340	240	160	114	5800	1480	508	208	220	180	109
21	216	270	230	165	122	5400	1680	469	200	450	170	102
22	216	308	275	170	140	3450	1910	422	200	700	170	105
23	224	294	270	180	160	3670	1940	403	201	520	165	106
24	232	270	240	185	165	3530	1890	395	201	400	165	115
25	236	210	230	190	170	2870	1940	380	213	350	170	114
26	228	240	220	185	160	2300	1870	358	216	320	170	113
27	224	270	220	170	170	1830	1680	359	212	300	165	112
28	216	290	275	160	180	1510	1460	365	206	293	160	114
29	212	310	270	150	---	1300	1310	546	199	279	160	113
30	224	310	265	145	---	1100	1230	627	197	269	153	118
31	236	---	250	140	---	907	---	677	---	259	152	---
TOTAL	6976	9541	7230	6005	3603	51317	35244	24528	11834	7720	6559	3699
MEAN	225	318	233	194	129	1655	1175	791	394	249	212	123
MAX	264	436	300	270	180	5800	1940	1680	996	700	616	171
MIN	196	210	120	140	106	180	676	358	197	160	152	102
AC-FT	13840	18920	14340	11910	7150	101800	69910	48650	23470	15310	13010	7340
CAL YR 1977 TOTAL	140492		MEAN 385	MAX 2300	MIN 120	AC-FT 278700						
WTR YR 1978 TOTAL	174256		MEAN 477	MAX 5800	MIN 102	AC-FT 345600						

PLATTE RIVER BASIN

06799000 ELKHORN RIVER NEAR NORFOLK, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-1969, 1974-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT , 1977					FEB , 1978				
06...	1545	208	344	13.0	09...	1000	113	378	.5
20...	1000	220	357	10.5	MAY				
NOV					11...	1000	818	342	18.0
17...	1135	415	348	4.0	SEP				
JAN , 1978					26...	1445	122	340	23.5
18...	1600	172	325	.0					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
MAR							
17...	1330	2320	2.5	780	4890	--	--
22...	1715	3230	2.0	3530	30800	9	12
23...	1400	3670	1.5	3550	35200	12	12
APR							
11...	1730	788	--	600	1280	--	--
MAY							
11...	1000	818	18.0	820	1810	--	--
JUN							
08...	1140	582	19.0	406	638	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR						
17...	--	47	53	89	100	--
22...	18	49	64	87	99	100
23...	18	42	55	84	99	100
APR						
11...	--	44	60	98	100	--
MAY						
11...	--	24	41	96	100	--
JUN						
08...	--	33	54	91	100	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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. FALL DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. FALL DIAM. % FINER THAN 4.00 MM (80170)
MAR										
17...	1330	2320	4	1	10	39	77	94	97	100
22...	1715	3230	12	0	4	43	93	99	100	--
23...	1400	3670	3	0	4	40	94	99	100	--
MAY										
11...	1000	818	3	0	1	38	91	98	99	100
JUN										
08...	1140	582	5	0	1	33	91	99	100	--

06799080 WILLOW CREEK NEAR POSTER, NE

LOCATION.--Lat 42°10'38", long 97°40'02" in NW1/4NE1/4 sec.4, T.25 N., R.3 W., Pierce County, Hydrologic Unit 10220002, on left downstream bank at county road bridge, 6.8 mi (10.9 km) south of Foster and 7.2 mi (11.6 km) southwest of Pierce.

PERIOD OF RECORD.--October 1975 (monthly discharge only) to September 1978.

GAGE.--Water-stage recorder.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 270 ft³/s (7.65 m³/s) Mar. 19, 1978, gage height, 8.21 ft (2.502 m), from highwater mark, backwater from ice; minimum daily, 2.6 ft³/s (0.074 m³/s) Aug. 28-30, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 270 ft³/s (7.65 m³/s) Mar. 19, gage height, 8.21 ft (2.502 m), from highwater mark, backwater from ice; minimum daily, 2.7 ft³/s (0.076 m³/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	5.9	8.3	5.1	3.4	5.2	13	14	13	5.3	4.0	3.4
2	8.1	5.6	7.6	5.2	3.3	5.8	17	16	14	5.0	3.8	3.5
3	6.4	5.1	6.2	5.2	3.3	5.6	29	13	15	3.6	3.5	3.5
4	5.7	5.3	6.1	5.5	3.5	5.0	31	13	12	3.5	3.3	3.4
5	5.3	5.3	5.6	5.6	3.4	6.4	23	12	10	3.4	3.2	3.4
6	5.3	5.6	5.4	5.5	3.3	6.8	20	11	9.0	3.2	3.1	3.4
7	6.4	5.7	5.2	5.4	3.2	7.4	17	13	8.0	3.6	3.1	3.2
8	6.7	6.5	4.8	4.8	3.4	8.0	16	15	7.1	3.4	2.9	2.8
9	6.0	39	4.5	4.5	4.5	8.8	16	15	6.6	3.7	2.8	2.7
10	5.4	33	6.0	4.3	5.0	9.4	16	14	6.3	3.6	3.1	2.8
11	5.3	12	9.0	4.6	5.4	11	32	12	5.9	3.7	3.0	2.8
12	5.3	25	9.8	4.8	5.8	11	23	11	5.6	3.6	3.0	3.3
13	5.3	25	10	4.9	5.6	12	17	10	5.2	3.6	2.7	3.5
14	5.1	16	10	4.6	5.4	13	15	9.8	5.4	3.6	2.8	3.7
15	5.1	13	11	4.4	5.2	15	14	9.0	5.4	3.5	16	3.3
16	5.3	11	10	4.0	5.2	20	16	8.7	5.0	3.4	9.4	3.3
17	5.0	11	9.0	4.2	4.7	35	17	8.3	4.7	3.2	5.9	3.0
18	5.0	9.2	8.0	4.2	4.0	160	20	8.1	4.7	2.9	5.0	3.8
19	5.0	9.2	7.6	4.1	4.2	190	23	7.6	4.8	3.2	4.7	3.3
20	5.0	8.9	7.0	4.2	4.5	130	23	6.8	4.7	4.1	4.7	2.9
21	5.0	9.8	6.0	4.5	5.0	88	20	7.1	4.6	7.9	5.0	3.0
22	4.8	7.8	5.4	4.8	6.0	47	18	7.2	5.1	8.7	4.4	3.0
23	4.8	7.0	5.4	5.1	5.8	30	19	7.4	5.7	6.8	4.0	3.0
24	5.0	6.3	8.0	5.6	5.4	22	17	7.4	5.6	4.4	4.1	3.2
25	5.1	5.8	6.6	5.8	5.4	18	16	7.5	5.4	2.9	4.4	3.1
26	5.4	6.0	7.0	5.6	5.4	17	15	7.1	6.4	3.0	4.6	3.1
27	5.4	6.4	6.5	5.4	5.2	16	13	7.5	3.0	3.1	4.9	2.7
28	5.3	6.6	6.0	4.9	67	15	13	7.4	6.4	3.4	4.2	3.0
29	5.4	8.5	5.8	4.2	---	14	12	9.3	3.5	3.5	3.9	3.4
30	5.9	8.8	5.3	3.9	---	14	13	9.5	3.2	3.5	3.7	3.1
31	6.5	---	5.2	3.5	---	14	---	11	---	3.6	3.6	---
TOTAL	173.2	330.3	218.3	148.4	191.5	960.4	554	315.7	201.3	123.9	136.8	95.6
MEAN	5.59	11.0	7.04	4.79	6.84	31.0	18.5	10.2	6.71	4.00	4.41	3.19
MAX	8.1	39	11	5.8	67	190	32	16	15	8.7	16	3.8
MIN	4.8	5.1	4.5	3.5	3.2	5.0	12	6.8	3.0	2.9	2.7	2.7
AC-FT	344	655	433	294	380	1900	1100	626	399	246	271	190
CAL YR 1977	TOTAL	2738.6	MEAN 7.50	MAX 39	MIN 3.2	AC-FT 5430						
WTR YR 1978	TOTAL	3449.4	MEAN 9.45	MAX 190	MIN 2.7	AC-FT 6840						

PLATTE RIVER BASIN

06799100 NORTH FORK ELKHORN RIVER NEAR PIERCE, NE

LOCATION.--Lat 42°10'44", long 97°29'04", in SW1/4 sec.31, T.26 N., R.1 W., Pierce County, Hydrologic Unit 10220002, on left downstream wingwall of county road bridge, 2.5 mi (4.0 km) southeast of Pierce.

DRAINAGE AREA.--700 mi² (1,810 km²), approximately, of which about 30 mi² (78 km²) is noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 1,553.07 ft (473.376 m) National Geodetic Vertical Datum of 1929 (U.S. Weather Bureau levels).

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

AVERAGE DISCHARGE.--18 years, 81.3 ft³/s (2.302 m³/s), 58,900 acre-ft/yr (72.6 hm³/yr); median of yearly mean discharges, 66 ft³/s (1.869 m³/s), 47,800 acre-ft/yr (58.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft³/s (430 m³/s) Feb. 19, 1971, gage height, 15.10 ft (4.602 m); minimum daily, 3.8 ft³/s (0.11 m³/s) July 24, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,370 ft³/s (67.1 m³/s) Mar. 19, gage height, 13.95 ft (4.252 m), from highwater mark, backwater from ice, no other peak above base of 870 ft³/s (24.6 m³/s); minimum daily, 10 ft³/s (0.28 m³/s) Aug. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	30	49	28	19	25	92	90	107	27	13	18
2	28	31	45	30	20	25	106	82	105	25	13	16
3	26	30	40	31	21	24	172	81	88	26	13	16
4	25	31	36	32	21	22	168	75	71	23	14	15
5	24	31	33	32	20	25	128	72	60	19	15	15
6	24	32	30	33	21	25	116	68	54	22	14	14
7	27	35	28	32	22	25	104	72	50	27	14	13
8	28	40	30	26	22	26	140	84	47	22	11	13
9	28	60	27	21	23	26	300	87	46	19	11	13
10	26	100	28	22	24	28	243	82	44	20	11	13
11	25	92	30	25	26	30	192	74	43	19	11	13
12	25	80	33	26	27	34	140	67	42	18	10	35
13	25	64	39	25	27	45	110	64	42	17	10	18
14	25	58	37	24	26	80	97	63	39	16	11	17
15	26	52	38	22	25	120	93	61	38	15	88	16
16	25	49	37	20	24	280	93	59	37	13	89	14
17	24	48	34	21	23	250	101	60	36	11	44	14
18	24	46	33	21	22	350	118	62	49	12	36	15
19	23	43	31	20	23	1600	123	65	43	14	31	15
20	23	44	30	20	25	2000	115	54	38	15	23	14
21	23	52	33	21	24	1500	106	50	37	29	20	15
22	23	53	36	24	28	900	99	48	39	87	18	15
23	25	62	35	26	31	747	104	49	43	75	16	15
24	25	68	30	25	31	275	99	47	43	46	15	15
25	26	51	29	23	27	164	92	48	41	37	16	16
26	25	55	30	22	27	132	87	48	39	28	17	16
27	25	54	31	20	25	118	83	52	37	26	19	16
28	26	54	33	21	24	110	80	53	34	22	18	16
29	27	59	31	21	---	104	79	67	32	17	17	17
30	28	61	29	22	---	99	85	70	30	16	18	19
31	29	---	27	20	---	95	---	77	---	15	18	---
TOTAL	790	1565	1032	756	678	9284	3665	2031	1454	778	674	477
MEAN	25.5	52.2	33.3	24.4	24.2	299	122	65.5	48.5	25.1	21.7	15.9
MAX	29	100	49	33	31	2000	300	90	107	87	89	35
MIN	23	30	27	20	19	22	79	47	30	11	10	13
AC-FT	1570	3100	2050	1500	1340	18410	7270	4030	2880	1540	1340	946
CAL YR 1977	TOTAL	14638.9	MEAN 40.1	MAX 474	MIN 7.0	AC-FT 29040						
WTR YR 1978	TOTAL	23184.0	MEAN 63.5	MAX 2000	MIN 10	AC-FT 45990						

LOCATION.--Lat 41°50'22", long 96°43'38", in SW1/4NW1/4 sec.34, T.22 N., R.6 E., Cuming county, Hydrologic Unit 10220003, on right bank near right downstream wingwall of bridge on State Highway 32 and 1 mi (2 km) west of West Point. Prior to May 18 at site on left bank 50 ft (15 m) upstream from bridge.

PERIOD OF RECORD.--October 1972 to current year. March 1960 to September 1972 (no winter records 1960-68) in files of Corps of Engineers. Gage-height records collected since 1940 are in reports of U.S. Weather Bureau.

REMARKS.--Records fair except those for winter period, which are poor. Some small diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, 33,000 ft³/s (935 m³/s) June 25, 1969, gage height, 13.21 ft (4.026 m); maximum gage height, 16.09 ft (4.904 m) Mar. 18, 1978, ice jam; minimum daily, 41 ft³/s (1.16 m³/s) Aug. 31, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,300 ft (8,630 m) Mar. 20, at 2000, gage height, 12.35 ft (3.764 m), no other peak above base of 4,500 ft (1,370 m); maximum gage height, 16.09 ft (4.904 m) Mar. 18, backwater from ice; minimum daily discharge, 175 ft³/s (4.96 m³/s) Sept. 12.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	540	410	230	210	340	1290	1520	1540	373	334	240
2	329	457	460	260	190	330	1340	1610	1240	354	321	232
3	357	424	400	290	200	330	1180	1670	1150	325	301	229
4	373	390	320	260	210	330	1200	1760	1100	310	290	220
5	351	360	250	290	190	350	1340	1500	1050	297	279	219
6	332	370	220	320	200	360	2720	1520	1000	287	255	214
7	443	385	250	280	200	380	1690	1520	963	336	247	216
8	444	404	210	260	200	400	1480	1480	851	337	235	206
9	413	733	190	240	210	410	1800	1390	774	349	230	193
10	395	685	260	210	200	430	1910	1260	700	308	224	178
11	364	622	310	230	210	450	1850	1210	627	297	241	185
12	333	592	340	270	200	480	1570	1200	575	292	230	175
13	325	593	450	250	200	540	1540	1060	536	291	228	200
14	316	616	430	240	200	1000	1650	953	506	287	224	270
15	310	679	450	230	200	2500	1540	927	474	280	384	265
16	320	784	410	220	190	4500	1360	876	450	273	827	248
17	324	843	390	250	185	10000	1540	814	431	269	1110	231
18	315	767	390	260	180	20000	1780	767	406	259	824	228
19	324	697	370	250	200	22700	2040	767	392	260	522	223
20	318	666	340	230	220	21400	2130	722	386	256	400	213
21	313	489	320	260	250	12300	2150	700	381	272	361	213
22	316	423	350	270	290	7410	2560	679	390	585	333	210
23	332	400	340	270	300	6130	2540	668	416	964	302	212
24	359	390	320	270	290	4320	2590	658	416	1080	291	195
25	358	350	300	260	280	3320	2390	668	442	740	306	193
26	356	310	280	250	300	2440	2290	658	492	532	322	193
27	351	310	280	240	320	2020	2060	587	470	457	298	191
28	345	310	320	250	300	1720	1850	733	446	396	279	182
29	343	330	310	240	---	1520	1590	2000	414	363	268	182
30	347	380	290	250	---	1430	1630	895	389	352	257	185
31	560	---	250	230	---	1360	---	1370	---	339	249	---
TOTAL	10942	15299	10210	7860	6325	131200	54600	34142	19407	12120	10972	6341
MEAN	353	510	329	254	226	4232	1820	1101	647	391	354	211
MAX	560	843	460	320	320	22700	2720	2000	1540	1080	1110	270
MIN	276	310	190	210	180	330	1180	587	381	256	224	175
AC-FT	21700	30350	20250	15590	12550	260200	108300	67720	38490	24040	21760	12580
CAL YR 1977	TOTAL	217876	MEAN 597	MAX 4310								

PLATTE RIVER BASIN

06799450 LOGAN CREEK AT PENDER, NE

LOCATION.--Lat 42°06'40", long 96°42'00", in NW1/4 sec.26, T.25 N., R.6 E., Thurston County, Hydrologic Unit 10220004, on right bank 200 ft (61 m) downstream from bridge on Nebraska State Highway 94 at Pender and 0.7 mi (1.1 km) downstream from Rattlesnake Creek.

DRAINAGE AREA.--731 mi² (1,890 km²), approximately.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,300.96 ft (396.533 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 23, 1966, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--13 years, 126 ft³/s (3,568 m³/s), 91,290 acre-ft/yr (0.113 km³/yr); median of yearly mean discharges, 112 ft³/s (3,172 m³/s), 81,100 acre-ft/yr (100.0 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,900 ft³/s (1,050 m³/s) Feb. 19, 1971, gage height, 23.11 ft (7.044 m); minimum daily, 12 ft³/s (0.34 m³/s) Aug. 11, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,220 ft³/s (261 m³/s) Mar. 18 at 2400, gage height, 17.55 ft (5.349 m), backwater from ice, no other peak above base of 1,500 ft³/s (42.5 m³/s); minimum daily, 24 ft³/s (0.68 m³/s) Dec. 6, Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	67	45	40	37	40	114	106	76	54	32	34
2	44	45	40	41	35	42	114	98	74	53	36	35
3	41	43	35	41	36	41	114	88	72	52	36	34
4	40	41	30	41	36	42	108	83	71	52	35	33
5	38	41	27	40	37	41	107	80	69	50	33	32
6	37	41	24	38	35	42	183	80	67	49	32	31
7	45	41	26	37	31	43	150	86	66	55	32	32
8	52	42	30	36	33	45	158	102	66	58	30	30
9	44	41	31	35	32	44	163	95	66	47	27	29
10	40	51	29	34	31	44	152	86	65	45	25	30
11	40	79	30	33	32	46	133	77	62	43	25	32
12	39	73	31	34	33	50	110	75	58	43	25	37
13	38	62	32	34	34	56	103	75	57	38	24	64
14	36	60	37	33	35	60	102	78	54	37	26	52
15	35	64	40	33	34	80	101	72	64	34	53	40
16	35	62	41	34	35	200	101	68	60	30	139	38
17	35	64	42	32	35	1000	112	69	68	30	73	36
18	34	71	41	34	35	3390	129	69	153	29	48	38
19	34	65	38	36	36	6970	129	67	101	28	41	34
20	34	63	33	35	36	4250	118	67	76	27	39	33
21	32	59	25	37	35	3230	109	66	72	35	38	32
22	32	52	35	38	34	1400	106	65	68	93	37	31
23	32	46	38	37	36	541	113	65	67	115	37	31
24	39	43	40	36	37	237	107	66	66	84	35	31
25	38	45	38	38	38	171	102	65	63	55	36	31
26	36	47	36	34	40	152	94	69	61	46	37	31
27	35	50	37	32	39	141	93	70	61	41	36	30
28	35	52	39	32	40	134	89	80	59	39	35	32
29	36	50	40	33	---	129	88	160	59	36	33	33
30	39	48	41	36	---	120	103	110	57	33	33	34
31	87	---	41	36	---	114	---	78	---	31	34	---
TOTAL	1224	1608	1092	1110	987	22895	3505	2515	2078	1462	1202	1040
MEAN	39.5	53.6	35.2	35.8	35.3	739	117	81.1	69.3	47.2	38.8	34.7
MAX	87	79	45	41	40	6970	183	160	153	115	139	64
MIN	32	41	24	32	31	40	88	65	54	27	24	29
AC-FT	2430	3190	2170	2200	1960	45410	6950	4990	4120	2900	2380	2060
CAL YR 1977	TOTAL	20306	MEAN	55.6	MAX	1130	MIN	20	AC-FT	40280		
WTR YR 1978	TOTAL	40718	MEAN	112	MAX	6970	MIN	24	AC-FT	80760		

PLATTE RIVER BASIN

219

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)		
OCT												
05...	1515	37	1100	7.6	15.5	--	10.4	3.4	1000	860		
21...	1000	32	785	8.0	9.5	20	10.7	7.6	410	920		
NOV												
15...	1445	67	740	7.6	4.0	80	12.1	7.3	43000	K69000		
DEC												
28...	1540	39	855	7.8	.0	8	--	--	--	--		
JAN												
17...	1500	32	900	7.3	.0	--	9.3	3.2	490	1160		
FEB												
07...	1530	31	865	7.9	.5	5	7.7	1.8	620	1440		
MAR												
18...	1430	1900	290	7.1	2.5	560	8.9	10	5300	--		
APR												
13...	1640	103	878	7.7	13.5	40	9.0	1.6	600	1400		
MAY												
09...	1610	94	790	7.1	13.0	30	8.9	3.0	7100	--		
JUN												
09...	1430	70	795	8.2	23.0	35	8.6	3.3	1100	720		
JUL												
05...	1315	50	705	8.2	30.0	35	6.0	2.8	K300	K120		
AUG												
31...	0930	33	760	8.3	19.0	30	9.2	2.6	733	820		
SEP												
28...	1030	30	750	8.1	14.5	20	10.2	3.2	1270	1860		
DATE	TIME	CHLD- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	
OCT												
05...	11	494	.67	49.4	1.1	.08	.59	.67	1.8	.24		
21...	9.2	479	.65	41.4	.54	.01	.34	.35	.89	.25		
NOV												
15...	12	465	.63	84.1	1.4	.34	.96	1.3	2.7	.56		
DEC												
28...	14	--	.76	59.2	2.0	.40	.16	.56	2.6	.38		
JAN												
17...	10	581	.79	50.2	1.9	.53	.17	.70	2.6	.42		
FEB												
07...	17	547	.74	45.8	1.8	.86	.24	1.1	2.9	.52		
MAR												
18...	7.8	--	.22	846	2.4	3.3	11	14	16	2.2		
APR												
13...	9.5	561	.76	156	1.7	.19	.78	.97	2.7	.40		
MAY												
09...	11	544	.74	139	1.4	.14	.46	.60	2.0	.45		
JUN												
09...	9.4	--	.70	97.5	1.5	.22	.88	1.1	2.6	.90		
JUL												
05...	6.5	457	.62	61.7	.58	.00	.80	.80	1.4	.23		
AUG												
31...	10	--	.67	43.8	.77	.04	.81	.85	1.6	.26		
SEP												
28...	9.9	465	.63	37.7	.73	.03	.36	.39	1.1	.22		
DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC												
28...	1540	4	--	420	110	120	30	28	.6	6.2	380	0
MAR												
18...	1430	110	180	92	1	26	6.5	3.8	.2	25	110	0
JUN												
09...	1430	5	--	390	99	110	29	31	.7	8.6	360	0
AUG												
31...	0930	5	--	360	66	100	27	30	.7	7.1	360	0

K Results based on colony count outside the acceptable range (non-ideal colony count).

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKA- LITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS S04) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS S102) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC TOTAL (UG/L AS AS) (01002)
DEC 28...	310	150	.3	26	562	--	--	--	--	--	.35	--
MAR 18...	90	16	.2	8.3	165	2.9	3.1	6.1	4.8	9.2	.64	10
JUN 09...	300	130	.3	20	516	--	--	--	--	--	.89	--
AUG 31...	300	120	.3	20	492	--	--	--	--	--	.16	--
DATE	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDE RECOV- ERABLE (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
DEC 28...	--	--	80	--	--	--	--	--	--	--	--	--
MAR 18...	6	4	100	2	0	2	20	20	0	11	9	2
JUN 09...	--	--	80	--	--	--	--	--	--	--	--	--
AUG 31...	--	5	80	--	--	0	--	--	10	--	--	--
DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN) (01054)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	
DEC 28...	--	--	--	--	20	--	--	--	--	--	240	
MAR 18...	47	45	2	23000	210	24	0	24	1700	1300	370	
JUN 09...	--	--	--	--	0	--	--	--	--	--	5	
AUG 31...	--	--	9	--	20	--	--	0	--	--	70	
DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE) (01146)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN) (01091)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	
DEC 28...	--	--	--	--	--	--	--	--	--	--	--	
MAR 18...	.1	.0	.1	7	4	3	1	150	100	50	50	
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	
AUG 31...	.0	.0	.0	--	--	7	1	--	--	20	--	
DATE	TIME	PCB, DIS- SOLVED (UG/L) (39517)	PCB, SUS- PENDE TOTAL (UG/L) (39518)	ALDRIN, DIS- SOLVED (UG/L) (39531)	ALDRIN, SUS- PENDE TOTAL (UG/L) (39532)	CHLOR- DANE, DIS- SOLVED (UG/L) (39535)	CHLOR- DANE, SUS- PENDE TOTAL (UG/L) (39533)	DDD, DIS- SOLVED (UG/L) (39361)	DDD, SUS- PENDE TOTAL (UG/L) (39362)	DDE, DIS- SOLVED (UG/L) (39366)		
MAR 18...	1430	.0	.0	.00	.01	.0	.0	.00	.00	.00		
DATE	DDE, SUS- PENDE TOTAL (UG/L) (39367)	DDT, DIS- SOLVED (UG/L) (39371)	DDT, SUS- PENDE TOTAL (UG/L) (39372)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- AZINON, SUS- PENDE TOTAL (UG/L) (39573)	DI- ELDRIN, DIS- SOLVED (UG/L) (39381)	DI- ELDRIN, SUS- PENDE TOTAL (UG/L) (39382)	ENDRIN, DIS- SOLVED (UG/L) (39391)	ENDRIN, SUS- PENDE TOTAL (UG/L) (39392)	HEPTA- CHLOR, DIS- SOLVED (UG/L) (39411)		
MAR 18...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

	HEPTA- CHLOR, SUS- PENDE TOTAL (UG/L) (39412)	HEPTA- CHLOR EPOXIDE DIS- SOLVED (UG/L) (39421)	HEPTA- CHLOR EPOXIDE SUS- PENDE TOTAL (UG/L) (39422)	LINDANE DIS- SOLVED (UG/L) (39341)	LINDANE SUS- PENDE TOTAL (UG/L) (39342)	MALA- THION, DIS- SOLVED (UG/L) (39532)	MALA- THION, SUS- PENDE TOTAL (UG/L) (39533)	METHYL PARA- THION, DIS- SOLVED (UG/L) (39602)	METHYL PARA- THION, SUS- PENDE TOTAL (UG/L) (39603)	PARA- THION, DIS- SOLVED (UG/L) (39542)		
MAR 18...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
	PARA- THION, SUS- PENDE TOTAL (UG/L) (39543)	TOX- APHENE, DIS- SOLVED (UG/L) (39401)	TOX- APHENE, SUS- PENDE TOTAL (UG/L) (39402)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-D, SUS- PENDE TOTAL (UG/L) (39733)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4,5-T SUS- PENDE TOTAL (UG/L) (39743)	SILVEX, DIS- SOLVED (UG/L) (39762)	SILVEX, SUS- PENDE TOTAL (UG/L) (39763)			
MAR 18...	.00	0	0	.29	.00	.00	.00	.00	.00			
	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)				
OCT 21...		0915	32	9.5	176	15	--	--				
NOV 15...		1430	67	4.0	285	52	--	--				
MAR 18...		1400	1900	2.5	1180	6050	37	43				
MAR 21...		1500	1910	5.0	7140	36800	31	36				
APR 13...		1630	103	13.5	157	44	--	--				
JUN 09...		1400	70	23.0	165	31	--	--				
	DATE		SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)				
OCT 21...			--	58	62	92	100	--				
NOV 15...			--	88	--	--	--	--				
MAR 18...			70	99	99	99	100	--				
MAR 21...			56	91	92	93	95	99				
APR 13...			--	86	--	--	--	--				
JUN 09...			--	76	--	--	--	--				
	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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)
NOV 15...		1430	67	3	2	5	13	73	99	100	--	--
MAR 18...		1400	1900	3	0	5	18	63	90	96	98	100
MAR 21...		1500	1910	3	--	0	3	47	91	98	99	100
JUN 09...		1400	70	4	--	0	5	55	96	99	100	--

PLATTE RIVER BASIN

06799500 LOGAN CREEK NEAR UEHLING, NE

LOCATION.--Lat 41°42'50"N, long 96°31'15"W, on south line of SE1/4SE1/4 sec.9, T.20 N., R.8 E., Dodge County, Hydrologic Unit 10220004, near right bank on downstream side of bridge on county road, 2 mi (3 km) southwest of Uehling and 8 mi (13 km) upstream from mouth.

DRAINAGE AREA.--1,030 mi² (2,670 km²), approximately.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,208.73 ft (368.421 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to July 15, 1963.

REMARKS.--Records good except those for winter period, which are poor. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--37 years, 177 ft³/s (5.013 m³/s), 128,200 acre-ft/yr (0.158 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,200 ft³/s (714 m³/s) Feb. 20, 1971, gage height, 20.15 ft (6.142 m), from floodmark; maximum gage height, 20.15 ft (6.142 m), Mar. 27, 1962, present datum, Feb. 20, 1971; minimum daily discharge, 6.1 ft³/s (0.17 m³/s) July 26, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 5, 1940, reached a stage of 20.6 ft (6.28 m), present datum, from floodmarks, discharge, 22,200 ft³/s (629 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges, above base of 1500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 19	1315	*4300 122	a17.62
June 19	2345	1690 47.9	6.51 1.984

a Backwater from ice

Minimum daily discharge, 21 ft³/s (0.59 m³/s) Aug. 12-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	107	78	43	39	54	139	146	285	82	27	46
2	53	85	74	44	38	56	132	155	255	81	31	58
3	53	61	70	45	40	58	133	134	160	75	36	49
4	49	56	50	48	37	60	131	129	127	71	34	46
5	44	52	36	50	36	60	128	125	115	69	35	44
6	43	53	29	48	36	58	360	123	109	69	32	42
7	53	52	32	46	35	60	311	138	106	74	30	41
8	66	56	34	44	36	58	214	162	103	75	31	40
9	60	48	36	41	36	60	214	165	99	82	29	38
10	53	60	40	38	35	60	250	150	98	64	30	36
11	50	66	45	39	36	62	218	133	94	57	25	36
12	48	72	50	40	38	64	174	127	88	57	21	39
13	46	80	60	40	40	70	144	119	86	56	21	62
14	46	87	70	42	41	80	135	112	83	49	21	116
15	46	96	66	45	40	100	133	110	84	41	68	74
16	44	87	70	45	41	900	130	106	83	40	69	59
17	45	87	72	45	43	3000	172	104	80	36	127	51
18	45	82	74	46	43	5000	208	103	328	35	83	53
19	44	94	76	50	45	9600	217	103	365	38	60	51
20	44	98	70	54	44	8500	194	101	340	42	52	50
21	46	90	62	54	43	6000	171	99	119	41	48	50
22	47	80	54	56	45	2170	157	97	109	53	45	49
23	52	76	50	56	47	901	169	96	109	101	44	48
24	51	70	47	58	48	613	162	96	104	126	43	48
25	56	66	54	60	50	306	149	96	110	93	44	47
26	56	70	45	60	52	239	139	99	117	63	43	47
27	52	78	40	58	50	212	130	98	95	49	50	46
28	50	80	28	54	52	191	126	96	89	40	50	46
29	49	80	40	50	---	176	124	135	117	37	49	46
30	52	82	45	45	---	164	136	510	87	31	48	48
31	58	---	44	42	---	153	---	309	---	30	47	---
TOTAL	1550	2251	1641	1486	1166	39085	5200	4276	4144	1857	1373	1506
MEAN	50.0	75.0	52.9	47.9	41.6	1261	173	138	138	59.9	44.3	50.2
MAX	66	107	78	60	52	9600	360	510	365	126	127	116
MIN	43	48	28	38	35	54	124	96	80	30	21	36
AC-FT	3070	4460	3250	2950	2310	77530	10310	8480	8220	3680	2720	2990
CAL YR 1977	TOTAL	27959	MEAN	76.6	MAX	1520	MIN	15	AC-FT	55460		
WTR YR 1978	TOTAL	65535	MEAN	180	MAX	9600	MIN	21	AC-FT	130000		

PLATTE RIVER BASIN

223

06799500 LOGAN CREEK NEAR UEHLING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-1971, 1974-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT , 1977				
05...	1130	46	751	13.0
18...	1600	45	765	--
NOV				
15...	1015	90	708	3.0
DEC				
28...	1025	28	895	.0
JAN , 1978				
17...	1130	45	785	.0
FEB				
07...	1045	35	830	.5

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
APR , 1978				
11...	1210	222	750	11.5
MAY				
09...	1215	170	737	1.3
JUN				
07...	1250	106	725	19.0
JUL				
05...	1045	72	685	28.0
AUG				
31...	1515	47	630	26.0

PLATTE RIVER BASIN

06800000 MAPLE CREEK NEAR NICKERSON, NE

LOCATION.--Lat 41°32'44", long 96°30'09", in NE1/4SW1/4 sec.10, T.18 N., R.8 E., Dodge County, Hydrologic Unit 10220003, on right bank 120 ft (37 m) upstream from bridge on U.S. Highways 77 and 275, 1.5 mi (2.4 km) northwest of Nickerson, and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--450 mi² (1,170 km²), approximately.

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

REVISED RECORDS.--WSP 1630: 1957-58.

GAGE.--Water-stage recorder. Datum of gage is 1,194.56 ft (364.102 m) National Geodetic Vertical Datum of 1929. Prior to July 28, 1960, nonrecording gage at site 120 ft (37 m) downstream at present datum.

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

AVERAGE DISCHARGE.--27 years, 57.2 ft³/s (1.620 m³/s), 41,440 acre-ft/yr (51.1 hm³/yr); median of yearly mean discharges, 52 ft³/s (1.473 m³/s), 37,700 acre-ft/yr (46.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s (306 m³/s) June 21, 1960, gage height, 14.67 ft (4.471 m); maximum gage height, 16.10 ft (4.907 m) Feb. 19, 1971, from floodmark, backwater from ice; minimum daily discharge, 0.1 ft³/s (0.003 m³/s) Jan. 15, 16, 1956, Aug. 1, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1944, 16.28 ft (4.962 m) June 11, 1944, from floodmarks, discharge, 35,000 ft³/s (991 m³/s), from indirect measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 19	1000	*4430 125	15.89 4.843
Apr. 6	1200	2740 77.6	12.80 3.901

Minimum daily discharge, 0.16 ft³/s (0.005 m³/s), Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	1.2	2.2	.60	.90	.50	78	64	267	4.5	.58	.90
2	.60	1.2	2.2	.70	.90	.60	77	46	70	4.2	.58	.38
3	.50	1.2	2.1	.80	1.0	.60	74	36	40	3.2	.29	.38
4	.50	1.2	2.1	.80	1.1	.50	71	32	29	2.1	.58	.38
5	.48	1.3	2.1	.70	1.0	.60	69	29	22	1.6	.48	.29
6	1.2	1.3	2.0	.70	1.0	.60	1240	28	19	1.9	.38	.38
7	4.9	1.4	2.1	.70	1.1	.70	214	35	18	2.4	.38	.38
8	10	1.5	2.1	.50	1.1	.80	130	69	16	4.2	.29	.38
9	5.4	1.5	2.0	.60	1.1	1.1	86	61	15	5.6	.16	.29
10	2.5	1.4	2.0	.60	1.1	1.5	76	39	14	2.6	.38	.29
11	1.6	1.5	2.1	.60	1.1	3.2	68	30	12	2.1	.22	.38
12	1.0	1.7	2.1	.70	1.1	25	55	26	10	2.4	.29	.48
13	.90	2.0	2.1	.70	1.0	150	46	25	9.6	1.4	.22	1.4
14	.90	3.4	2.1	.60	.90	820	40	23	8.2	1.4	.48	.90
15	1.0	6.0	1.9	.60	.80	1000	48	21	7.7	1.2	2.1	.79
16	.90	9.2	1.8	.60	.80	1190	65	21	73	1.2	6.0	.90
17	.80	16	4.0	.60	.70	800	150	20	6.9	1.2	9.6	1.2
18	.68	26	3.0	.60	.70	1200	203	19	6.0	1.2	6.4	1.4
19	1.2	16	2.0	.60	.70	3800	81	19	6.4	.90	1.2	.90
20	1.2	10	1.4	.60	.80	1780	66	18	9.6	1.2	.68	1.2
21	1.4	6.4	1.1	.60	.90	1130	50	18	8.6	1.2	.68	.90
22	1.9	3.7	1.2	.70	1.0	401	48	18	7.7	1.2	.68	.79
23	1.9	2.5	1.2	.70	1.0	271	59	17	8.6	1.4	.58	.68
24	2.1	1.8	1.1	.80	1.1	182	66	18	9.6	2.9	.90	.68
25	2.3	1.4	.90	.80	.90	128	46	20	9.1	3.2	2.4	.79
26	2.0	1.7	.80	.80	.80	119	39	37	9.1	1.0	1.2	.80
27	1.8	2.1	.80	.70	.70	105	38	24	6.9	.90	3.2	.70
28	1.5	2.2	.80	.80	.70	99	36	14	6.9	.79	1.9	.70
29	1.4	2.2	.70	.80	---	92	36	56	6.9	.68	6.9	.70
30	1.3	2.3	.70	.90	---	90	40	183	5.3	.68	1.9	.70
31	1.2	---	.70	.80	---	84	---	83	---	.58	.48	---
TOTAL	55.56	131.3	53.40	21.30	26.00	13476.70	3395	1149	738.1	61.03	52.11	21.04
MEAN	1.79	4.38	1.72	.69	.93	435	113	37.1	24.6	1.97	1.68	.70
MAX	10	26	4.0	.90	1.1	3800	1240	183	267	5.6	9.6	1.4
MIN	.48	1.2	.70	.50	.70	.50	36	14	5.3	.58	.16	.29
AC-FT	110	260	106	42	52	26730	6730	2280	1460	121	103	42
CAL YR 1977 TOTAL	10319.25			MEAN 28.3	MAX 1790	MIN .10	AC-FT 20470					
WTR YR 1978 TOTAL	19180.54			MEAN 52.5	MAX 3800	MIN .16	AC-FT 38040					

06800500 ELKHORN RIVER AT WATERLOO, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°17'25", long 96°17'05", in SW1/4 sec.3, T.15 N., R.10 E., Douglas County, Hydrologic Unit 10220003, on right bank 100 ft (30 m) upstream from bridge at north edge of Waterloo and 3.5 mi (5.6 km) downstream from Rawhide Creek.

DRAINAGE AREA.--6,900 mi² (17,900 km²), approximately, of which about 5,870 mi² (15,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1899 to November 1903, May 1911 to September 1915, August 1928 to current year. Published as "at Arlington" 1899-1903, July 1913 to September 1915. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1914 (M), 1915, 1936, 1943 (M). WDR NE-74: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,104.73 ft (336.722 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1960 to June 28, 1978 at datum 2.00 ft (0.610 m) higher. See WSP 1918 for history of changes prior to Oct. 1, 1960.

REMARKS.--Records good except those for winter period, which are poor. Some small diversions above station for irrigation.

AVERAGE DISCHARGE.--58 years, 1,124 ft³/s (31.83 m³/s), 814,300 acre-ft/yr (1.00 km³/yr); median of yearly mean discharges, 1,000 ft³/s (28.32 m³/s), 724,500 acre-ft/yr (0.893 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft³/s (2,830 m³/s) June 12, 1944, gage height, 16.6 ft (5.06 m) from floodmark in gage well, site and datum then in use, from rating curve extended above 22,000 ft³/s (623 m³/s) on basis of current-meter measurement of peak flow in main channel and velocity-area studies of overflow section; minimum observed, 50 ft³/s (1.42 m³/s) Nov. 12, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stage and discharge of the flood of June 12, 1944, are the greatest known since at least 1880.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 21	1530	*38900 1100	15.44 4.706
Apr. 6	2000	7180 203	6.29 1.917

Minimum daily discharge, 210 ft³/s (5.95 m³/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	390	525	520	340	310	420	2180	2180	2500	605	348	300
2	410	748	580	370	320	450	2040	2090	2870	568	338	288
3	426	694	620	390	340	460	2060	2270	2210	533	329	319
4	445	580	640	360	350	460	2060	2540	1780	492	329	292
5	470	545	550	380	340	480	2100	2780	1510	431	314	271
6	470	530	500	390	340	500	3880	2560	1370	410	305	253
7	525	515	550	390	340	520	4030	2510	1320	442	296	248
8	640	520	500	400	350	520	3430	2550	1280	426	280	248
9	628	1040	450	430	340	520	3410	2440	1190	464	276	240
10	598	1120	450	440	350	540	3540	2010	1070	481	292	223
11	515	1050	450	410	360	560	3300	1670	972	442	284	210
12	505	1040	500	390	360	560	2600	1490	908	399	271	218
13	495	998	540	370	390	580	2120	1430	851	384	266	288
14	490	980	540	370	410	700	1880	1390	795	368	248	405
15	470	1010	540	350	400	1000	1820	1240	774	363	358	475
16	475	1060	530	350	400	3000	1780	1130	730	353	617	515
17	465	1130	520	350	380	7000	2240	1100	712	329	787	389
18	505	1160	500	350	370	11500	3660	1040	676	329	1180	410
19	470	1110	470	350	350	20500	3230	1040	820	324	1280	384
20	435	1010	450	350	340	28000	2930	1010	2100	324	906	375
21	435	900	550	350	340	36900	2700	998	1480	363	636	368
22	450	788	600	350	340	27100	2690	956	816	475	510	353
23	485	767	600	340	360	12600	3100	940	774	475	442	305
24	495	688	550	350	370	8340	3120	932	774	871	389	296
25	505	586	500	350	390	5490	2910	924	767	1180	359	296
26	510	366	500	350	380	3980	2680	916	760	1020	343	276
27	510	303	560	330	390	3220	2610	998	795	668	358	271
28	505	358	490	310	410	3000	2420	980	740	510	410	271
29	500	422	460	290	---	2770	2180	980	668	431	415	271
30	510	525	460	290	---	2550	1920	1840	655	384	338	266
31	520	---	390	300	---	2360	---	2310	---	363	319	---
TOTAL	15252	23068	16060	11140	10120	186580	80620	49244	34667	15207	13822	9324
MEAN	492	769	518	359	361	6019	2687	1589	1156	491	446	311
MAX	640	1160	640	440	410	36900	4030	2780	2870	1180	1280	515
MIN	390	303	390	290	310	420	1780	916	655	324	248	210
AC-FT	30250	45760	31860	22100	20070	370100	159900	97680	68760	30160	27420	18490
CAL YR 1977	TOTAL	290350	MEAN	795	MAX	7990	MIN	145	AC-FT	575900		
WTR YR 1978	TOTAL	465104	MEAN	1274	MAX	36900	MIN	210	AC-FT	922500		

PLATTE RIVER BASIN

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY RECORDS

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

PERIOD OF DAILY RECORD:

SPECIFIC CONDUCTANCE: November 1977 to current year.

WATER TEMPERATURES: November 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 738 micromhos Dec. 12, 1977; minimum daily 255 micromhos Mar. 20, 1978.

WATER TEMPERATURES: Maximum, 33.0°C July 18, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 738 micromhos Dec. 12; minimum daily, 255 micromhos Mar. 20, 1978.

WATER TEMPERATURES: Maximum, 33.0°C July 18; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML) (31625)
OCT											
12...	1115	505	528	8.2	9.0	35	--	--	12.0	6.0	K3430
NOV											
10...	1210	1090	424	8.4	3.0	--	95	--	12.2	--	K167000
DEC											
15...	1130	685	617	7.8	1.5	12	25	--	11.6	1.5	4800
JAN											
10...	1200	439	705	7.4	.0	--	8	--	11.4	3.4	8130
FEB											
07...	1200	344	600	7.6	.0	--	3	--	4.7	6.6	6200
MAR											
08...	1230	506	600	7.5	.0	5	6	--	8.1	4.8	K3930
20...	1400	27400	220	7.5	2.5	160	700	--	7.8	16	2200
21...	1415	38500	240	7.4	2.5	160	1800	--	9.4	8.4	1400
APR											
12...	1200	2570	540	7.8	13.5	--	460	--	8.3	7.8	15000
MAY											
11...	1200	1650	520	8.1	19.5	--	90	--	8.0	1.6	1430
JUN											
28...	1230	759	520	7.2	29.0	60	--	75	8.6	7.4	K20000
AUG											
23...	1020	368	422	8.3	25.0	15	80	95	7.8	11	2400
SEP											
14...	1545	432	525	8.5	23.5	--	70	60	10.4	9.6	K20800

DATE	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (MG/L AS CACO3) (00410)
OCT											
12...	6400	220	12	64	14	20	.6	9.5	250	0	210
NOV											
10...	K208000	180	12	53	11	19	.6	9.8	200	1	170
DEC											
15...	--	290	27	86	18	29	.7	8.7	320	0	260
JAN											
10...	--	270	29	82	17	28	.7	8.4	300	0	250
FEB											
07...	K3900	260	22	76	17	--	1.2	8.3	290	0	240
MAR											
08...	1620	250	25	74	15	25	.7	7.8	270	0	220
20...	K170000	84	0	23	6.4	6.8	.3	14	110	0	90
21...	78000	89	0	26	5.8	6.6	.3	16	120	0	98
APR											
12...	K280000	240	22	68	16	21	.6	14	260	0	210
MAY											
11...	14000	230	0	67	15	23	.7	10	280	0	230
JUN											
28...	K2800	200	0	63	9.3	21	.7	8.7	--	--	200
AUG											
23...	4900	180	23	55	11	21	.7	11	--	--	160
SEP											
14...	K48000	220	15	63	14	28	.8	11	--	--	200

K Results based on colony count outside the acceptable range (non-ideal colony count).

PLATTE RIVER BASIN

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

227

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SULFATE DIS- SOLVED (MG/L AS S04) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 12...	42	16	.4	28	--	317	.43	432	2.2	--
NOV 10...	39	15	.3	22	270	269	.37	795	1.3	--
DEC 15...	50	21	.4	40	414	411	.56	766	2.0	--
JAN 10...	59	19	.4	40	413	402	.56	490	1.7	--
FEB 07...	4.9	24	.4	--	370	398	.50	344	1.4	--
MAR 08...	52	20	.4	33	358	361	.49	489	1.3	--
20...	8.3	6.6	.2	7.9	131	138	.18	9690	1.8	1.8
21...	11	6.5	.2	12	150	153	.20	15600	1.6	1.6
APR 12...	50	14	.4	22	338	334	.46	2350	1.9	--
MAY 11...	41	11	.4	24	339	329	.46	1510	1.2	--
JUN 28...	42	10	.5	21	311	296	.42	637	.28	--
AUG 23...	37	22	.5	21	263	275	.36	261	.05	--
SEP 14...	46	22	1.6	24	335	330	.46	391	.47	--

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 12...	.14	.96	1.1	--	--	3.3	1.2	.45	60	--
NOV 10...	.29	--	--	--	.97	--	.79	.43	--	13
DEC 15...	.55	--	--	--	.89	--	.45	.37	80	6.2
JAN 10...	.98	--	--	--	1.3	--	.53	.48	--	2.5
FEB 07...	1.4	.50	1.9	.50	1.4	3.3	.63	.60	--	3.3
MAR 08...	1.2	.60	1.8	.20	1.6	3.1	.53	.47	60	--
20...	1.6	8.4	10	6.5	3.5	12	2.1	.25	80	--
21...	1.3	8.6	9.9	7.1	2.8	12	1.8	.34	70	--
APR 12...	.98	5.0	6.0	3.9	2.1	7.9	1.1	.41	--	28
MAY 11...	.11	1.4	1.5	.77	.73	2.7	.59	.31	--	13
JUN 28...	.03	2.6	2.6	2.1	.46	2.9	.73	.42	70	--
AUG 23...	.03	2.2	2.2	1.0	1.2	2.3	.86	.54	80	--
SEP 14...	.05	3.1	3.1	2.2	.86	3.6	.92	.47	--	19

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDED RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD) (01026)
DEC 15...	1130	--	--	--	5	0	5	200	0	200	1	0
MAR 08...	1230	--	--	--	4	1	3	200	0	200	2	0
20...	1400	190	1.4	2.1	22	21	1	800	500	300	1	0
21...	1415	150	.97	1.8	22	20	2	400	0	400	1	0
JUN 28...	1230	--	--	--	11	1	10	500	200	300	2	1
AUG 23...	1020	--	--	--	12	--	10	400	0	400	2	2

PLATTE RIVER BASIN

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDE D RECOV. (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE D RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE D RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)
DEC 15...	1	0	0	0	0	0	0	11	5	6	1500
MAR 08...	2	10	0	10	2	0	2	6	1	5	800
20...	1	50	50	0	22	22	0	75	66	9	59000
21...	1	30	30	0	15	15	0	50	42	8	44000
JUN 28...	1	10	10	0	6	4	2	16	11	5	1600
AUG 23...	0	10	10	0	3	3	0	16	13	3	4100

DATE	IRON, SUS- PENDE D RECOV- ERABLE (UG/L AS FE) (01044)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDE D RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, SUS- PENDE D RECOV- ERABLE (UG/L AS MN) (01054)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE D RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)
DEC 15...	1500	20	40	25	15	120	40	80	.1	.1	.0
MAR 08...	750	50	7	0	7	130	20	110	.0	.0	.0
20...	59000	140	50	40	10	2400	2200	200	.0	.0	.0
21...	44000	120	36	33	3	1500	1400	90	.0	.0	.0
JUN 28...	1600	50	18	15	3	720	700	20	.1	.1	.0
AUG 23...	4100	20	16	16	0	660	650	10	.2	.1	.1

DATE	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, SUS- PENDE D RECOV- ERABLE (UG/L AS SE) (01146)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, SUS- PENDE D RECOV- ERABLE (UG/L AS AG) (01076)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, SUS- PENDE D RECOV- ERABLE (UG/L AS ZN) (01091)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE D TOTAL (MG/L AS C) (00689)
DEC 15...	6	0	6	0	0	0	60	50	10	--	--
MAR 08...	5	0	5	0	0	0	20	0	20	2.9	.9
20...	5	5	0	0	0	0	250	240	10	19	>5.0
21...	5	5	0	0	0	0	180	160	20	16	>5.0
JUN 28...	4	0	4	0	0	0	40	30	10	5.9	>5.0
AUG 23...	3	1	2	0	0	0	30	30	0	6.2	>5.0

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	PCB, DIS- SOLVED (UG/L) (39517)	PCB, SUS- PENDE TOTAL (UG/L) (39518)	ALDRIN, DIS- SOLVED (UG/L) (39331)	ALDRIN, SUS- PENDE TOTAL (UG/L) (39332)	CHLOR- DANE, DIS- SOLVED (UG/L) (39352)	CHLOR- DANE, SUS- PENDE TOTAL (UG/L) (39353)	DDD, DIS- SOLVED (UG/L) (39361)	DDD, SUS- PENDE TOTAL (UG/L) (39362)	DDE, DIS- SOLVED (UG/L) (39366)
MAR 20...	1400	.0	.0	.00	.00	.0	.0	.00	.00	.00

DATE	DDE, SUS- PENDE TOTAL (UG/L) (39367)	DDT, DIS- SOLVED (UG/L) (39371)	DDT, SUS- PENDE TOTAL (UG/L) (39372)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- AZINON, SUS- PENDE TOTAL (UG/L) (39573)	DI- ELDRIN, DIS- SOLVED (UG/L) (39381)	DI- ELDRIN, SUS- PENDE TOTAL (UG/L) (39382)	ENDRIN, DIS- SOLVED (UG/L) (39391)	ENDRIN, SUS- PENDE TOTAL (UG/L) (39392)	HEPTA- CHLOR, DIS- SOLVED (UG/L) (39411)
MAR 20...	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00

DATE	HEPTA- CHLOR, SUS- PENDE TOTAL (UG/L) (39412)	HEPTA- CHLOR EPOXIDE DIS- SOLVED (UG/L) (39421)	HEPTA- CHLOR EPOXIDE SUS- PENDE TOTAL (UG/L) (39422)	LINDANE DIS- SOLVED (UG/L) (39341)	LINDANE SUS- PENDE TOTAL (UG/L) (39342)	MALA- THION, DIS- SOLVED (UG/L) (39532)	MALA- THION, SUS- PENDE TOTAL (UG/L) (39533)	METHYL PARA- THION, DIS- SOLVED (UG/L) (39602)	METHYL PARA- THION, SUS- PENDE TOTAL (UG/L) (39603)	PARA- THION, DIS- SOLVED (UG/L) (39542)
MAR 20...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	PARA- THION, SUS- PENDE TOTAL (UG/L) (39543)	TOX- APHENE, DIS- SOLVED (UG/L) (39401)	TOX- APHENE, SUS- PENDE TOTAL (UG/L) (39402)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-D, SUS- PENDE TOTAL (UG/L) (39733)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4,5-T SUS- PENDE TOTAL (UG/L) (39743)	SILVEX, DIS- SOLVED (UG/L) (39762)	SILVEX, SUS- PENDE TOTAL (UG/L) (39763)
MAR 20...	.00	0	0	.22	.00	.03	.00	.00	.00

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1971 TO JUNE 1978

DATE TIME	NOV 10,77 1210	MAR 8,78 1230	MAR 20,78 1400	MAY 11,78 1200	JUN 28,78 1230
TOTAL CELLS/ML	12000	4700	9500	9100	190000
DIVERSITY: DIVISION	1.0	0.6	0.7	1.4	1.4
..CLASS	1.0	0.6	0.9	1.4	1.4
..ORDER	1.5	0.6	0.9	1.8	1.7
...FAMILY	2.2	1.1	0.9	2.9	2.7
....GENUS	2.2	1.5	0.9	3.1	3.4

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	8600	5
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	2900	2
...MICRACTINIUM	--	-	--	-	--	-	3100#	34	7500	4
...ODCYSTACEAE										
....ANKISTRODESMUS	--	-	* 0		--	-	570	6	6400	3
....CHLORELLA	--	-	* 0		--	-	--	-	--	-
...DICTYOSPHAERIUM	--	-	--	-	--	-	290	3	25000	13
...KIRCHNERIELLA	--	-	--	-	--	-	--	-	*	0
...ODCYSTIS	--	-	--	-	--	-	--	-	1400	1
...QUADRIGULA	--	-	--	-	--	-	--	-	2100	1
...SELENASTRUM	--	-	--	-	--	-	--	-	4600	2
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	28	1	--	-	570	6	2900	2
....CRUCIGENIA	--	-	--	-	--	-	--	-	1400	1
...SCENEDESMUS	4900#	40	--	-	--	-	1000	11	41000#	22
...TETRASTRUM	--	-	--	-	--	-	--	-	2100	1
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	--	-	--	-	--	-	--	-	*	0
...CHLAMYDOMONAS	--	-	36	1	--	-	72	1	1100	1
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	2800#	23	28	1	--	-	500	6	22000	12
..PENNALES										
...ACHNANTHACEAE										
...COCCONEIS	--	-	* 0		--	-	--	-	--	-
...DIATOMACEAE										
...OPEPHORA	--	-	* 0		--	-	--	-	--	-
...FRAGILARIACEAE										
....SYNEDRA	700	6	* 0		--	-	--	-	*	0
...NAVICULACEAE										
....CALONEIS	--	-	* 0		--	-	--	-	--	-
...NAVICULA	1100	9	140	3	--	-	290	3	--	-
...PINNULARIA	--	-	--	-	--	-	140	2	--	-
...NITZSCHACEAE										
....NITZSCHIA	2500#	20	190	4	--	-	1200	13	12000	7
...SURIPELLACEAE										
...CYMATOPELURA	350	3	* 0		680	7	--	-	--	-
...SURIPELLA	--	-	50	1	--	-	140	2	--	-
..CHRYSOPHYCEAE										
...CHRYSOMONADALES										
...OCHROMONADACEAE										
....DINOBRYON	--	-	--	-	1400	14	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROCOCCOCCALES										
...CHROCOCCOCCAEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	37000#	20
...ANACYSTIS	--	-	--	-	--	-	430	5	2100	1
...HORMOGONALES										
...NOSTOCACEAE										
....APHANIZOMENON	--	-	--	-	--	-	570	6	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	380	8	7500#	79	--	-	--	-
...OSCILLATORIA	--	-	3600#	75	--	-	--	-	4600	2
...SCYTONEMATACEAE										
....PLECTONEMA	--	-	280	6	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	* 0		--	-	220	2	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	LENGTH OF EXPD- SURE (DAYS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00572)
SEP 19...	28	7.08	.000	163	140

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG					
22...	1000	398	8.2	25.0	7.5
22...	1200	388	8.2	27.0	9.0
22...	1400	392	8.3	28.0	9.4
22...	1600	389	8.5	29.5	10.0
22...	1800	382	8.7	29.5	9.9
22...	2000	389	8.5	29.0	8.9
22...	2200	394	8.5	28.0	7.5
22...	2400	401	8.3	27.0	6.9

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG					
23...	0200	411	8.5	26.5	6.9
23...	0400	418	8.3	25.0	6.7
23...	0600	414	8.5	25.0	6.7
23...	0800	419	8.5	24.5	6.6
23...	1000	420	8.3	25.0	7.8
23...	1020	422	8.3	25.0	7.8

PLATTE RIVER BASIN

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	413	407	---	---	455	435	550	---	480	662
2	---	---	403	317	---	---	455	---	436	---	630	597
3	---	---	415	464	---	---	468	470	460	---	448	585
4	---	---	365	402	---	---	468	442	457	---	462	565
5	---	---	378	---	---	---	467	438	457	---	480	578
6	---	---	430	565	---	---	468	432	---	---	478	589
7	---	---	516	---	---	---	445	432	---	---	494	580
8	---	---	---	450	---	600	445	445	---	---	490	551
9	---	---	---	418	---	---	470	445	---	---	507	534
10	---	424	667	650	---	---	490	---	---	---	490	535
11	---	295	712	482	---	---	545	511	---	---	491	547
12	503	260	738	498	---	---	540	---	---	---	505	508
13	---	275	645	479	---	---	547	---	---	---	500	527
14	---	365	597	---	---	---	545	---	---	---	501	548
15	---	267	617	---	---	505	470	---	531	---	488	540
16	---	---	462	---	---	342	538	---	535	---	496	510
17	---	---	---	461	---	340	507	---	547	518	478	485
18	---	---	518	---	---	305	473	---	---	525	430	490
19	---	---	478	488	---	276	478	---	---	475	439	500
20	---	---	---	---	---	255	471	---	---	425	454	508
21	---	---	---	---	---	258	470	---	---	425	432	520
22	---	---	515	---	---	350	485	---	---	400	419	538
23	---	---	547	---	---	---	488	---	---	450	449	547
24	---	---	---	427	---	---	483	418	---	450	470	562
25	---	---	---	---	---	---	475	417	---	423	488	555
26	---	---	---	---	---	377	475	415	---	385	508	580
27	---	---	580	---	---	359	495	417	---	370	478	578
28	---	415	---	---	---	380	496	418	491	475	463	550
29	---	545	587	---	---	418	488	417	---	580	486	562
30	---	541	508	---	---	425	490	418	---	447	533	565
31	---	---	621	---	---	458	---	416	---	445	517	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	2.0	.5	---	---	6.0	10.0	19.0	---	26.0	27.0
2	---	---	1.5	.5	---	---	5.0	10.5	20.0	---	27.0	26.0
3	---	---	2.0	.5	---	---	5.0	11.0	22.0	---	26.0	25.0
4	---	---	1.5	.5	---	---	6.0	13.0	23.0	---	27.0	26.0
5	---	---	.5	.5	---	---	5.0	15.0	25.0	---	27.0	26.5
6	---	---	.5	.5	---	---	5.5	14.0	25.0	---	27.0	27.5
7	---	---	.5	.5	---	---	6.0	12.0	24.0	---	30.0	28.0
8	---	---	.5	.0	---	---	6.0	13.0	24.0	---	29.0	28.5
9	---	---	.0	.0	---	---	9.0	15.0	25.5	---	30.0	29.0
10	---	3.0	.0	.5	---	---	5.0	15.5	26.0	---	27.0	30.0
11	---	5.0	.0	.0	---	---	5.0	17.0	26.0	---	28.0	30.0
12	---	2.0	1.0	.5	---	---	5.5	17.0	24.5	---	30.0	27.0
13	---	5.0	1.0	.5	---	---	6.0	16.5	26.0	---	32.0	25.0
14	---	4.0	1.0	.0	---	---	7.0	17.0	26.5	---	32.0	24.0
15	---	5.0	2.5	.0	---	---	8.0	17.0	26.0	---	24.0	25.0
16	---	6.0	3.0	.0	---	---	8.0	17.5	27.0	---	29.0	24.0
17	---	5.0	2.5	.0	---	---	7.5	17.0	26.0	32.0	29.0	23.0
18	---	6.0	2.5	.0	---	3.0	7.0	18.0	---	33.0	25.0	25.0
19	---	4.5	.0	.0	---	1.5	7.5	20.0	---	30.0	25.5	26.0
20	---	3.5	.5	.0	---	4.0	8.0	19.5	---	28.0	26.5	19.0
21	---	1.0	.5	.0	---	4.5	8.0	18.5	---	30.0	28.0	20.0
22	---	1.5	1.5	.0	---	5.0	9.0	18.0	---	29.0	30.0	21.0
23	---	1.5	1.0	.0	---	6.5	9.0	17.0	---	27.0	30.0	20.0
24	---	1.0	1.0	.5	---	7.5	10.0	17.0	---	28.0	30.0	22.0
25	---	1.0	.5	.0	---	8.5	10.0	18.0	---	29.0	30.0	21.0
26	---	.5	.5	.0	---	10.0	10.0	18.0	---	30.0	28.0	23.0
27	---	1.0	.5	.0	---	11.0	9.0	19.0	---	30.0	28.0	22.0
28	---	2.0	.5	.0	---	11.0	10.0	19.0	---	29.0	27.0	17.0
29	---	2.5	.5	.0	---	10.0	9.0	18.0	---	28.0	27.0	16.0
30	---	3.0	.5	.0	---	8.0	9.0	19.0	---	30.0	27.0	17.0
31	---	---	.5	.0	---	9.0	---	20.0	---	29.0	26.0	---

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
NOV							
10...	1230	1090	3.0	430	1270	--	--
DEC							
15...	1130	685	1.5	82	152	--	--
JAN							
10...	1200	439	.0	48	57	--	--
MAR							
20...	1400	27400	2.5	5260	389000	23	30
21...	1415	38500	2.5	4140	430000	31	39
24...	1645	7730	12.0	3640	76000	24	32
APR							
12...	1145	2570	13.5	1410	9780	28	34
MAY							
11...	1330	1650	19.5	436	1940	--	--
AUG							
28...	1055	427	22.5	140	161	--	--
SEP							
14...	1400	432	23.5	237	276	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
NOV						
10...	--	87	92	98	99	100
DEC						
15...	--	84	--	--	--	--
JAN						
10...	--	67	85	99	100	--
MAR						
20...	42	62	72	93	99	100
21...	50	63	69	88	98	100
24...	46	84	92	97	99	100
APR						
12...	48	84	93	98	100	--
MAY						
11...	--	68	76	87	99	100
AUG						
28...	--	69	75	95	100	--
SEP						
14...	--	83	98	99	99	100

PLATTE RIVER BASIN

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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)
NOV 10...	1230	1090	2	0	5	46	93
DEC 15...	1130	685	24	0	3	42	78
MAR 21...	1415	38500	3	0	1	57	91
24...	1645	7730	3	0	6	40	73
APR 12...	1145	2570	1	0	2	74	98
AUG 28...	1055	427	6	0	5	34	69
SEP 14...	1400	432	12	0	1	14	57

DATE	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)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
NOV 10...	96	98	100	--	--	--
DEC 15...	89	93	97	100	--	--
MAR 21...	96	97	99	100	--	--
24...	93	96	98	99	99	100
APR 12...	99	100	--	--	--	--
AUG 28...	83	90	96	99	100	--
SEP 14...	77	84	90	95	100	--

06803000 SALT CREEK AT ROCA, NE

LOCATION.--Lat 40°39'29", long 96°39'55", in NW1/4SW1/4 sec.17, T.8 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 15 ft (5 m) downstream from highway bridge at west edge of Roca.

DRAINAGE AREA.--167 mi² (433 km²).

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

REVISED RECORDS.-- WDR NE-71: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,192.50 ft (363.474 m) National Geodetic Vertical Datum of 1929, Kansas City supplementary adjustment of 1943. Prior to May 16, 1956, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period and periods of backwater from beaver dams, which are poor. Flood flow affected by several detention dams.

AVERAGE DISCHARGE.--27 years, 41.2 ft³/s (1.167 m³/s), 29,850 acre-ft/yr (36.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,700 ft³/s (473 m³/s) July 10, 1958, gage height, 22.70 ft (6.919 m); minimum daily, 0.2 ft³/s (0.006 m³/s) July 23, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 8, 1950, reached a stage of 26.0 ft (7.92 m), from floodmark established by Corps of Engineers, discharge, 67,000 ft³/s (1,900 m³/s), but may have been exceeded by flood of July 5, 1908.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft³/s (24.1 m³/s) and maximum(*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 14	----	1960 55.5	ice jam	Apr. 17	1945	1250 35.4	12.03 3.667
Mar. 16	0215	1610 45.6	13.42 4.090	May 7	0815	1650 46.7	13.56 4.133
Mar. 19	0100	1940 54.9	14.49 4.417	July 22	1100	*2780 78.7	16.68 5.084

Minimum daily discharge, 5.5 ft³/s (0.16 m³/s) Oct. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	11	9.0	9.0	6.8	50	64	145	10	24	7.8
2	9.1	12	12	8.0	8.8	6.8	50	50	89	10	23	8.9
3	7.8	11	13	9.0	8.6	6.6	50	45	70	10	20	12
4	7.9	11	13	8.0	8.2	6.6	53	43	55	10	18	9.4
5	9.0	11	8.0	9.0	8.0	6.4	52	41	46	10	16	8.3
6	11	12	7.0	10	8.2	6.4	55	135	39	12	15	8.2
7	134	12	7.6	9.0	8.4	6.0	45	1440	34	30	13	7.9
8	148	26	7.0	8.0	8.8	6.8	37	617	30	29	12	8.4
9	24	482	6.0	7.0	9.0	7.6	69	272	25	15	11	9.5
10	10	140	7.4	6.4	9.2	8.0	82	182	21	12	10	8.2
11	8.8	84	10	6.2	9.4	9.0	63	136	18	11	12	7.0
12	9.0	59	11	6.2	9.2	25	52	111	16	48	12	6.7
13	10	42	12	6.0	8.6	600	47	99	14	61	11	7.5
14	13	35	14	6.2	8.0	1650	48	81	12	21	10	8.2
15	12	30	13	6.4	7.8	1000	49	69	12	19	12	79
16	11	52	12	6.8	7.4	1300	87	59	11	16	18	17
17	11	110	13	7.0	7.0	750	566	51	10	13	12	28
18	9.4	20	11	7.2	6.6	819	608	45	9.6	12	11	117
19	9.6	15	10	7.4	6.8	1230	265	41	9.4	11	10	33
20	9.1	24	10	7.6	7.2	523	164	45	9.4	12	10	330
21	12	24	11	7.8	7.2	371	124	38	9.9	25	10	131
22	14	23	11	8.0	7.2	261	107	36	11	2170	9.5	52
23	11	18	12	8.0	7.0	185	99	36	12	589	9.0	34
24	7.9	14	13	8.2	6.8	135	81	33	12	238	8.7	25
25	6.4	12	12	8.2	7.0	107	71	29	12	164	8.1	20
26	5.5	11	11	8.2	7.2	93	62	26	12	124	8.2	17
27	6.3	10	10	8.4	6.8	80	56	27	12	96	8.8	14
28	6.1	10	11	8.6	7.0	69	53	30	13	71	8.3	13
29	8.1	11	12	8.6	---	60	50	28	12	53	8.1	12
30	9.6	12	11	8.8	---	55	69	26	11	39	8.2	11
31	16	---	9.6	8.8	---	49	---	400	---	29	8.4	---
TOTAL	577.6	1346	331.6	242.0	220.4	9439.0	3264	4335	792.3	3970	375.3	1051.0
MEAN	18.6	44.9	10.7	7.81	7.87	304	109	140	26.4	128	12.1	35.0
MAX	148	482	14	10	9.4	1650	608	1440	145	2170	24	330
MIN	5.5	10	6.0	6.0	6.6	6.0	37	26	9.4	10	8.1	6.7
AC-FT	1150	2670	658	480	437	18720	6470	8600	1570	7870	744	2080

CAL YR 1977 TOTAL 6478.91 MEAN 17.8 MAX 482 MIN .58 AC-FT 12850
WTR YR 1978 TOTAL 25944.20 MEAN 71.1 MAX 2170 MIN 5.5 AC-FT 51460

NOTE.--Stage-discharge relation affected by backwater from ice or beaver dams and ice Oct. 1 to Nov. 8, and Nov. 21 to Mar. 17.

PLATTE RIVER BASIN

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE

LOCATION.--Lat 40°46'13", long 96°43'05", in SW1/4SW1/4 sec.2, T.9 N., R.6 E., Lancaster County, Hydrologic Unit 10200203, at county road bridge 0.9 miles west of U.S. Highway 77 and of northeast corner of State Penitentiary at Lincoln.

DRAINAGE AREA.--221 sq mi.

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 19...	1500	14	1440	7.7	12.5	20	10.6	21	3.4	K600
NOV 18...	1100	41	565	7.2	6.0	50	11.2	49	4.1	K1900
DEC 05...	1130	13	1130	7.3	.0	10	14.1	41	2.0	143
JAN 16...	1040	12	1900	7.2	.5	2.0	13.1	53	2.2	--
FEB 08...	1300	15	1900	7.6	6.0	4.0	11.6	19	3.2	500
MAR 28...	1415	66	462	7.9	11.0	45	11.0	40	6.3	147
APR 18...	1530	640	320	7.5	8.0	680	8.9	520	7.6	28000
MAY 24...	1040	25	740	7.5	20.0	600	7.6	62	3.8	K400
JUN 20...	1230	10	980	8.2	24.0	30	10.7	36	5.9	250
JUL 27...	1215	138	455	7.7	24.5	150	6.6	53	3.8	K1923
AUG 09...	0925	6.0	885	8.0	24.0	3.0	7.4	32	3.8	700
SEP 28...	0945	180	610	7.5	15.0	50	8.1	31	2.0	K600

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 19...	K250	81	23	--	9.1	268	0	220	150	250
NOV 18...	3800	45	15	48	9.7	--	--	--	56	30
DEC 05...	1280	83	22	99	7.6	328	0	269	120	120
JAN 16...	K127	130	30	250	8.4	334	0	274	200	330
FEB 08...	128	110	24	120	7.7	272	0	223	200	340
MAR 28...	1420	47	120	32	12	156	0	128	45	30
APR 18...	100000	47	20	25	19	--	--	--	36	27
MAY 24...	7200	76	190	56	9.1	232	0	190	81	54
JUN 20...	680	80	19	54	8.2	308	0	253	73	41
JUL 27...	11200	41	13	32	11	160	0	131	44	31
AUG 09...	1560	70	19	70	8.0	--	--	--	81	75
SEP 28...	--	54	13	42	8.7	206	0	169	59	44

K Results based on colony count outside the acceptable range (non-ideal colony count).

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 19...	863	1.17	32.6	917	.74	.10	1.8	1.9	2.6	.37
NOV 18...	325	.44	36.0	427	.67	.12	1.2	1.3	2.0	.30
DEC 05...	672	.91	23.6	688	.95	.26	.57	.83	1.8	.31
JAN 16...	1150	1.56	37.9	1180	.71	.25	.37	.62	1.3	.26
FEB 08...	1060	1.44	42.9	1060	.91	.46	.38	.84	1.8	.40
MAR 28...	265	.36	47.2	282	1.4	.64	1.3	1.9	3.3	.53
APR 18...	211	.29	365	336	2.2	.69	4.8	5.5	7.7	1.6
MAY 24...	448	.61	30.2	473	1.4	.09	1.2	1.3	2.7	.29
JUN 20...	447	.61	12.1	562	.01	.00	1.5	1.5	1.5	.35
JUL 27...	273	.37	102	704	1.3	.06	1.7	1.8	3.1	.50
AUG 09...	502	.68	8.13	513	.91	.06	1.0	1.1	2.0	.29
SEP 28...	354	.48	172	463	.93	.09	1.6	1.7	2.6	.32

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, SUS- PENDE TOTAL (MG/L AS MG) (00926)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV 18...	1100	45	170	--	44	--	14	49	1.6	9.4
FEB 08...	1300	8	410	190	120	--	27	220	4.7	8.2
MAY 24...	1040	8	270	80	76	170	19	59	1.6	8.4
AUG 09...	0925	7	260	--	74	1.0	18	70	1.9	8.2

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)
NOV 18...	.4	6.9	--	.20	100	70	30	1	0
FEB 08...	.7	26	1080	.38	560	50	380	--	--
MAY 24...	.4	16	428	.21	110	30	40	1	0
AUG 09...	.4	17	--	.28	190	20	70	--	--

PLATTE RIVER BASIN

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- AZINON, TOTAL (UG/L) (39570)
NOV 18...	1100	.00	.00	.0	.00	.00	.00	.00
FEB 08...	1300	.00	.00	.0	.00	.00	.00	.00
MAY 24...	1040	.00	.00	.0	.00	.00	.00	.01
AUG 09...	0925	.00	.00	.0	.00	.00	.00	.00

DATE	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA- THION, TOTAL (UG/L) (39530)	METHYL PARA- THION, TOTAL (UG/L) (39600)
NOV 18...	.00	.00	.00	.00	.00	.00	.00	.00	.00
FEB 08...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY 24...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG 09...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI- THION, TOTAL (UG/L) (39790)	PARA- THION, TOTAL (UG/L) (39540)	TOX- APHENE, TOTAL (UG/L) (39400)	TOTAL TRI- THION TOTAL (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV 18...	.00	.00	0	.00	.50	.01	--	.00
FEB 08...	.00	.00	0	.00	.00	.00	--	.00
MAY 24...	.00	.00	0	.00	.21	.01	--	.00
AUG 09...	.00	.00	0	.00	.06	.00	.00	.00

LOCATION.--Lat 40°50'49", long 96°40'54", in NW1/4SW1/4 sec.7, T.10 N., R.7 E., Lancaster County, Hydrologic Unit 102002023, near center of channel on downstream side of pier of bridge on North 27th Street at north edge of Lincoln, 1 mi (2 km) downstream from Oak Creek.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder for stages above 6.2 ft (1.89 m); nonrecording gage read twice daily. Datum of gage is 1,113.9 ft (339.52 m) National Geodetic Vertical Datum of 1929.

AVERAGE DISCHARGE.--29 years, 201 ft³/s (5.692 m³/s), 145,600 acre-ft/yr (0.180 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,200 ft³/s (799 m³/s) June 2, 1951, gage height, 26.15 ft (7.971 m); minimum daily, 21 ft³/s (0.59 m³/s) July 10, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1951, may have been equaled or exceeded in discharge by flood of July 6, 1908, which reached a stage of 33.6 ft (10.24 m). Channel changes since 1908 have materially altered the stage-discharge relation.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum(*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Mar. 13	2100	*6110	173	13.61	4.148	Apr. 17	2230	4150	118	11.40	3.475
Mar. 15	2300	3660	104	10.75	3.277	May 7	1800	3500	99.1	10.52	3.206
Mar. 19	1100	3340	94.6	10.30	3.139	July 22	1800	3100	87.8	9.95	3.033
Apr. 9	2230	3310	93.7	10.25	3.124						

Minimum daily discharge, 59 ft³/s (1.67 m³/s) Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	88	84	71	76	114	203	474	491	133	137	135
2	65	84	86	69	76	92	193	320	290	128	128	395
3	76	77	79	76	77	94	198	269	233	124	118	104
4	82	77	76	79	76	96	183	249	206	96	108	104
5	79	74	81	79	69	86	219	185	190	102	96	110
6	74	69	59	82	72	110	302	641	183	124	88	110
7	268	77	79	74	76	102	246	2850	170	178	88	104
8	374	359	76	72	74	94	198	1940	168	147	88	105
9	151	898	67	76	76	122	1820	829	156	137	84	98
10	116	558	69	72	77	147	1500	612	156	118	84	90
11	98	255	65	71	76	269	547	491	151	110	94	100
12	90	180	74	69	76	1080	394	435	126	608	84	92
13	86	140	82	74	82	3790	317	371	114	368	82	124
14	84	131	90	67	88	4010	690	317	94	180	84	126
15	84	135	92	69	84	2480	566	284	86	190	244	214
16	72	140	92	77	86	2780	605	255	110	156	126	224
17	79	161	94	77	86	1870	2370	230	114	118	110	375
18	77	158	81	76	81	1790	2380	208	102	100	94	460
19	77	108	98	74	72	2790	1020	364	108	224	82	200
20	77	90	79	76	81	1330	734	400	230	554	74	892
21	76	108	92	74	81	974	547	214	244	469	79	570
22	98	105	86	67	84	636	481	214	452	2520	79	230
23	96	92	126	77	105	547	554	414	906	1900	77	165
24	126	84	92	77	154	424	431	258	244	616	82	124
25	94	86	77	77	131	348	361	233	193	401	79	124
26	81	81	82	76	94	293	320	244	401	326	76	122
27	77	76	86	76	108	272	290	772	203	272	76	114
28	76	90	79	74	116	252	275	241	156	216	86	102
29	74	88	71	65	---	241	364	249	147	185	82	96
30	65	86	79	74	---	222	701	208	137	163	77	94
31	81	---	76	72	---	211	---	505	---	151	76	---
TOTAL	3132	4755	2549	2289	2434	27666	19009	15276	6561	11114	2962	5903
MEAN	101	159	82.2	73.8	86.9	892	634	493	219	359	95.5	197
MAX	374	898	126	82	154	4010	2380	2850	906	2520	244	892
MIN	65	69	59	65	69	86	183	185	86	96	74	90
AC-FT	6210	9430	5060	4540	4830	54880	37700	30300	13010	22040	5880	11710
CAL YR 1977	TOTAL	46995	MEAN 129	MAX	3640	MIN 21	AC-FT	93210				
CAL YR 1978	TOTAL	103650	MEAN 284	MAX	4010	MIN 59	AC-FT	205600				

PLATTE RIVER BASIN

06803500 SALT CREEK AT LINCOLN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1952-54, 1968 to current year.

PERIOD OF DAILY RECORD:

SPECIFIC CONDUCTANCE: October 1968 to current year.

WATER TEMPERATURES: May to September 1951, October 1968 to current year.

SUSPENDED SEDIMENT DISCHARGE: March to September 1951, March 1952 to September 1954.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 37,500 micromhos Oct. 3, 1973; minimum daily, 170 micromhos Oct. 11, 1973.

WATER TEMPERATURES: Maximum, 36.5°C June 20, 1974; minimum, 0.0°C on several days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 41,100 mg/L Mar. 31, 1952; minimum daily not determined.

SEDIMENT LOADS: Maximum daily, 857,000 tons (780,000 tonnes) June 2, 1951; minimum daily not determined.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 7,100 micromhos Jan. 1, 10; minimum daily, 369 micromhos Mar. 15.

WATER TEMPERATURES: Maximum, 29.0°C June 25, 29, July 1, 4, 19; minimum, 1.0°C Jan. 1, 25, Mar. 13, 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 19...	0930	72	6600	7.3	11.0	10	9.0	27	K57	104
NOV 18...	1245	163	3080	7.7	8.0	40	10.0	37	600	2000
DEC 06...	1415	96	6500	8.0	8.0	10	11.7	12	K10	120
JAN 16...	1230	80	5800	7.4	2.5	15	11.4	11	K10	K56
FEB 07...	0945	71	6500	7.4	1.5	9	--	11	K-2	580
MAR 28...	0730	226	2330	7.8	18.0	50	11.6	5.8	K20	960
APR 17...	1115	1880	6590	7.8	8.0	500	10.1	14	27000	K350000
MAY 23...	1515	445	1530	7.6	20.0	825	5.4	11	70000	91000
JUN 21...	0815	230	1200	7.5	19.5	3500	8.1	15	6100	96000
JUL 27...	1040	313	2050	8.1	24.0	105	7.1	10	K10	K275
AUG 09...	1320	104	3880	7.8	28.0	10	9.7	6.5	K15	K30
SEP 19...	1330	265	2050	7.6	21.0	220	7.4	.8	K5130	980

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS) PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS) PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L) AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN, TOTAL (MG/L) AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L) AS P) (00665)
OCT 19...	2100	4270	5.81	830	1.3	4.8	4.2	9.0	10	6.0
NOV 18...	700	1670	2.27	735	.89	3.5	1.4	4.9	5.8	3.3
DEC 06...	1600	3480	4.73	902	1.4	7.9	1.0	8.9	10	5.1
JAN 16...	1500	3250	4.42	702	1.3	6.0	7.0	13	14	4.5
FEB 07...	1700	3480	4.73	667	1.1	6.1	2.8	8.9	10	2.7
MAR 28...	560	--	1.73	775	2.9	1.6	1.6	3.2	6.1	.91
APR 17...	140	397	.54	2020	1.2	1.0	5.5	6.5	7.7	1.8
MAY 23...	380	938	1.28	1130	1.9	2.1	9.9	12	14	2.0
JUN 21...	260	675	.92	419	.00	.00	16	16	16	.69
JUL 27...	500	1160	1.58	980	1.3	1.2	3.8	5.0	6.3	1.4
AUG 09...	970	--	2.94	607	1.2	7.1	1.6	8.7	9.9	5.0
SEP 19...	460	1150	1.56	823	1.9	2.8	3.0	5.8	7.7	5.2

06803500 SALT CREEK AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 06...	1415	13	410	54	110	32	1200	26	16	430	0
MAR 28...	0730	35	240	42	64	19	380	11	13	240	0
JUN 21...	0815	200	130	0	48	2.2	190	7.3	10	180	0
AUG 09...	1320	10	290	26	77	23	690	18	18	320	0

DATE	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (MG/L AS AL) (01106)	ARSENIC DIS- SOLVED (MG/L AS AS) (01000)
DEC 06...	350	310	.9	29	3510	--	--	--	4.5	--	--
MAR 28...	200	100	.4	11	1270	1.0	.10	1.1	.64	0	4
JUN 21...	150	53	.6	9.4	662	--	--	--	.25	--	--
AUG 09...	260	190	.9	27	2160	.95	.25	1.2	5.0	20	3

DATE	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
DEC 06...	--	--	530	--	--	--	--	--	--	--	--
MAR 28...	400	0	220	0	0	0	1	30	4	60	210
JUN 21...	--	--	130	--	--	--	--	--	--	--	--
AUG 09...	300	0	450	1	0	3	6	40	0	80	220

DATE	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)
DEC 06...	--	--	--	--	--	--	--	--	--	--
MAR 28...	.3	4	0	3	0	580	5.0	10	.01	.10
JUN 21...	--	--	--	--	--	--	--	--	--	--
AUG 09...	.0	5	0	1	0	850	4.4	20	.01	.60

PLATTE RIVER BASIN

06803500 SALT CREEK AT LINCOLN, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5330	4160	5500	7100	6030	4160	2720	1320	1390	3900	2960	4420
2	5390	4790	5800	6600	5800	4400	3020	1970	2190	4320	3050	2080
3	5000	5200	5100	6900	5830	4150	2950	2300	2610	3780	3350	3480
4	4930	4990	5500	6600	5360	3950	3020	3320	2890	4540	3550	2680
5	5720	5500	6000	6290	5250	3990	2840	3500	3100	4150	3430	2330
6	5700	5680	6100	6500	6090	4140	2570	2580	3100	3170	4070	2350
7	1780	4930	5800	6470	6060	4360	2690	2420	3550	3070	3440	2480
8	1380	1470	5710	6510	6020	4600	2920	1850	3550	3050	3570	2630
9	2550	1120	6400	6550	5540	3140	835	1020	3560	3710	3780	4420
10	3440	1290	5380	7100	5600	2400	1080	1140	4100	3510	3950	2750
11	4330	2170	4620	6570	5270	2350	1500	1250	4580	3700	3820	2280
12	4700	2830	6300	6900	5230	1160	1930	1550	4100	2500	4090	2330
13	4900	3380	5620	6900	5340	495	2290	2200	3750	1720	4200	4000
14	5000	3780	5300	6260	5460	369	1340	2370	3600	5520	4050	3820
15	5120	3800	5100	6260	5520	404	1680	2720	3900	3440	2800	3170
16	5600	3770	5210	6600	5470	387	1340	2820	3950	3360	3550	3100
17	5740	2680	4700	6510	5280	435	541	3050	4580	1470	3150	1030
18	5500	3250	5400	6490	5260	536	589	3200	5200	1400	4300	1010
19	5890	4560	4820	6250	5380	370	887	1240	4190	3360	4000	2370
20	5790	4880	6600	6250	4940	447	1240	1500	5000	1590	4200	2240
21	5800	4600	5300	5920	5370	658	1550	1650	4000	625	3420	1260
22	3750	4760	5140	6250	5260	858	1720	1890	3750	408	2870	2090
23	4600	5090	3500	5910	4370	1010	1540	1840	2140	850	3580	2400
24	3540	5440	4750	6300	3240	1350	2040	1890	5400	1360	2840	2900
25	4300	6500	5420	6230	3750	1710	2250	2080	4200	1390	2960	3010
26	4900	5670	5600	6870	3910	1750	2450	2080	3550	1960	3930	3150
27	4780	5380	5300	6300	3980	2150	2550	1320	3350	1980	3160	3990
28	5180	4900	6500	6000	4040	2300	2730	2040	3270	2600	3700	3400
29	5110	5000	6500	6250	---	2570	2300	2130	3580	2640	3990	4100
30	5600	5100	6100	6300	---	2860	1540	2260	3400	2990	4130	3770
31	4690	---	5900	6410	---	3000	---	2100	---	2870	4590	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	14.5	8.0	1.0	2.0	4.5	14.5	15.5	19.0	29.0	26.5	26.5
2	20.0	15.5	6.5	4.5	3.5	4.5	16.5	18.0	22.0	26.5	24.5	24.5
3	19.0	15.5	8.0	4.5	4.5	3.5	18.0	13.5	24.5	28.0	24.5	24.5
4	19.0	15.5	8.0	4.5	5.0	4.5	18.0	13.5	23.5	29.0	25.5	25.5
5	16.5	16.5	3.5	4.5	4.5	6.5	15.5	16.5	22.0	28.0	24.5	26.5
6	16.5	16.5	4.5	5.5	3.5	6.5	19.0	11.0	22.0	23.5	24.5	26.5
7	15.5	16.5	4.5	4.5	3.5	8.0	18.0	10.0	21.0	26.5	26.5	26.5
8	12.0	13.5	3.5	2.0	4.5	9.0	19.0	12.0	23.5	25.5	26.5	26.5
9	16.5	4.5	3.5	2.0	4.5	8.0	15.5	15.5	24.5	22.0	26.5	24.5
10	13.5	8.0	4.5	4.5	4.5	8.0	13.5	19.0	22.0	24.5	25.5	25.5
11	14.5	9.0	6.5	4.5	5.5	5.5	15.5	19.0	23.5	23.5	26.5	25.5
12	15.5	10.0	6.5	4.5	5.5	2.0	15.5	15.5	23.5	26.5	28.0	25.5
13	19.0	11.0	6.5	4.5	5.0	1.0	15.5	19.0	22.0	26.5	29.0	21.0
14	19.0	12.0	6.5	4.5	4.5	1.0	10.0	20.0	24.5	25.5	26.5	24.5
15	15.5	12.0	9.0	4.5	4.5	3.5	10.0	21.0	24.5	26.5	24.5	23.5
16	15.5	11.0	10.0	2.0	4.5	2.0	10.0	21.0	24.5	26.5	26.5	25.5
17	15.5	10.0	6.5	2.0	4.5	3.5	8.0	21.0	24.5	28.0	26.5	19.0
18	16.5	10.0	6.5	3.5	4.5	4.5	6.5	21.0	26.5	25.5	21.0	23.5
19	18.0	11.0	4.5	2.0	5.5	4.5	8.0	23.5	24.5	29.0	24.5	21.0
20	19.0	10.0	4.5	3.5	4.5	6.5	9.0	20.0	23.5	26.5	25.5	15.5
21	19.0	8.0	3.5	4.5	4.5	9.0	12.0	22.0	24.5	25.5	26.5	19.0
22	15.5	9.0	5.5	4.5	6.5	10.0	10.0	19.0	18.5	22.0	26.5	20.0
23	14.5	9.0	4.5	4.5	5.5	6.5	13.5	21.0	23.5	24.5	26.5	21.0
24	15.0	8.0	4.5	4.5	4.5	8.0	10.0	26.5	26.5	26.5	26.5	23.5
25	18.0	6.5	2.0	1.0	6.5	9.0	15.5	25.5	29.0	28.0	26.5	22.0
26	20.0	4.5	2.0	2.0	5.5	11.0	15.5	24.5	25.5	28.5	26.5	23.5
27	18.0	4.5	4.5	3.5	6.5	14.5	13.5	21.0	26.5	28.0	26.5	21.0
28	19.0	8.0	5.5	4.5	4.5	13.5	18.0	24.5	28.0	25.5	25.5	22.0
29	20.0	9.0	6.5	4.5	---	14.5	15.5	21.0	29.0	28.0	26.5	20.0
30	18.0	10.0	6.5	4.0	---	16.5	13.5	22.0	28.0	25.5	24.5	21.0
31	18.0	---	3.5	4.5	---	19.0	---	18.0	---	24.5	25.5	---

06803510 LITTLE SALT CREEK NEAR LINCOLN, NE

LOCATION.--Lat 40°53'36", long 96°40'52", in NW1/4SW1/4 sec.30, T.11 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 10 ft (3 m) downstream from county road bridge and 0.4 mi (0.6 km) north of intersection of Interstate Highway 80 and North 27th Street north of Lincoln.

DRAINAGE AREA.--43.6 mi² (112.9 km²).

PERIOD OF RECORD.--January 1969 to current year.

REVISED RECORDS.--WDR NE-77-1: 1969-1973(M).

GAGE.--Water-stage recorder. Datum of gage is 1,117.73 ft (340.684 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period, which are poor. Periodic water quality measurements are published in tables for water quality at partial-record sites.

AVERAGE DISCHARGE.--9 years, 10.5 ft³/s (0.297 m³/s), 7,610 acre-ft/yr (9.38 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,350 ft³/s (66.6 m³/s) Sept. 3, 1977, gage height, 11.90 ft (3.627 m); maximum gage height, 13.38 ft (4.078 m) Oct. 11, 1973, backwater from Salt Creek; minimum daily discharge, 0.20 ft³/s (0.006 m³/s) Sept. 29, 30, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum(*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 13	1800	*1130 32.0	7.76 2.365	May 6	2400	516 14.6	5.62 1.713
Apr. 9	1100	741 21.0	6.50 1.981	June 22	1800	712 20.2	6.40 1.951
Apr. 17	1000	845 23.9	6.85 2.088	July 20	1000	772 21.9	6.61 2.015

Minimum daily discharge, 2.2 ft³/s (0.062 m³/s) Feb. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	3.3	10	3.5	2.7	6.2	7.1	19	7.1	4.1	5.2	3.4
2	3.3	3.6	9.0	3.3	2.3	5.6	6.9	15	6.6	5.2	4.6	9.1
3	2.7	3.3	8.0	3.1	2.6	5.4	6.6	14	6.2	3.9	4.1	2.9
4	2.5	3.1	7.0	3.5	3.5	5.3	6.6	14	5.9	3.5	3.9	2.3
5	2.7	3.1	6.0	3.8	3.1	5.5	8.8	13	5.5	3.4	3.8	2.8
6	2.5	4.6	4.3	4.0	2.7	5.7	19	61	5.7	4.3	3.8	3.4
7	83	4.6	4.4	3.8	2.5	6.1	6.9	202	5.2	13	3.6	3.8
8	15	33	4.0	3.4	2.4	7.2	6.4	32	5.0	4.3	3.6	4.1
9	5.0	154	3.7	3.0	2.6	8.3	366	18	5.0	4.6	3.5	4.1
10	4.3	26	3.9	2.8	2.9	10	77	14	4.6	3.9	3.9	4.1
11	3.9	20	4.1	3.0	3.2	50	22	12	4.3	3.8	4.3	4.1
12	3.6	17	4.3	3.5	3.7	280	17	12	4.1	50	5.2	4.1
13	3.3	16	4.5	3.3	3.8	528	14	12	3.8	6.6	3.5	6.4
14	3.3	16	4.6	3.6	3.4	198	91	10	3.6	33	3.8	5.9
15	2.9	16	4.7	3.3	2.6	210	24	10	3.6	20	16	5.5
16	2.7	14	4.8	2.8	2.3	166	57	10	3.4	3.9	4.8	4.6
17	2.7	13	4.8	2.5	2.2	88	424	9.4	3.4	3.2	3.5	11
18	2.5	12	4.7	2.9	2.4	159	92	9.0	3.4	3.5	3.5	33
19	2.5	12	4.5	3.3	2.8	78	30	31	3.4	3.8	2.9	5.7
20	2.9	12	3.9	3.0	3.1	31	20	35	4.1	276	2.9	56
21	2.9	11	3.7	3.3	2.8	23	18	10	3.8	40	3.4	10
22	6.0	10	3.8	3.7	3.4	16	34	8.8	138	135	3.8	5.0
23	16	9.0	4.0	4.0	4.5	12	28	102	43	13	3.4	3.6
24	6.4	9.0	4.0	3.7	6.0	8.5	17	12	6.9	9.0	3.2	3.5
25	3.6	9.0	3.8	3.2	5.8	7.7	16	9.6	5.2	7.9	3.2	3.0
26	3.1	8.5	3.6	3.3	7.0	7.1	14	7.9	5.0	6.9	2.9	3.0
27	3.6	8.0	3.5	3.0	8.0	7.1	10	32	5.0	5.9	3.2	3.0
28	3.6	8.5	3.3	2.8	6.8	7.1	14	11	4.6	5.7	2.6	2.9
29	4.3	9.0	3.6	2.8	---	7.4	16	8.5	4.3	6.6	2.5	3.5
30	4.3	9.5	3.7	3.0	---	7.4	88	7.1	3.9	6.6	2.9	3.5
31	4.3	---	3.6	2.5	---	7.1	---	7.4	---	6.2	3.2	---
TOTAL	214.4	478.1	145.8	100.7	101.1	1963.7	1557.3	768.7	313.6	696.8	124.7	217.3
MEAN	6.92	15.9	4.70	3.25	3.61	63.3	51.9	24.8	10.5	22.5	4.02	7.24
MAX	83	154	10	4.0	8.0	528	424	202	138	276	16	56
MIN	2.5	3.1	3.3	2.5	2.2	5.3	6.4	7.1	3.4	3.2	2.5	2.3
AC-FT	425	948	289	200	201	3890	3090	1520	622	1380	247	431
CAL YR 1977 TOTAL	3897.32			MEAN 10.7	MAX 709	MIN .66	AC-FT 7730					
WTR YR 1978 TOTAL	6682.20			MEAN 18.3	MAX 528	MIN 2.2	AC-FT 13250					

PLATTE RIVER BASIN

06803520 STEVENS CREEK NEAR LINCOLN, NE

LOCATION.--Lat 40°51'25", long 96°35'42", in NW1/4NE1/4 sec.11, T.10 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 20 ft (6 m) upstream from county road bridge on Havelock Avenue and 1.6 mi (2.6 km) east of 70th Street at east edge of Lincoln.

DRAINAGE AREA.--47.8 mi² (123.8 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,125.57 ft (343.074 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--10 years, 12.8 ft³/s (0.362 m³/s), 9,270 acre-ft/yr (11.4 hm³/yr); median of yearly mean discharges, 8.2 ft³/s (0.232 m³/s), 5,940 acre-ft/yr (7.32 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,120 ft³/s (88.4 m³/s) July 22, 1978, gage height, 17.01 ft (5.185 m) on basis of indirect measurement of peak flow; no flow July 31, Aug. 2-4, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 13	2230	880 24.9	11.36 3.463	May 7	0230	723 20.5	9.88 3.011
Mar. 18	2200	762 21.6	10.41 3.173	June 26	1030	579 16.4	9.27 2.825
Apr. 9	1400	506 14.3	8.22 2.505	July 22	0900	b*3120 88.4	17.01 5.185

a Backwater from ice.

b From indirect measurement.

Minimum discharge, 0.6 ft³/s (0.017 m³/s) Feb. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.3	4.0	1.3	1.1	2.0	4.1	19	13	3.7	5.8	1.3
2	1.5	2.2	3.9	1.2	.90	2.1	3.7	13	11	3.5	5.6	24
3	1.4	2.3	3.7	1.3	.90	1.6	3.7	11	8.9	3.0	4.9	7.5
4	1.4	1.9	3.7	1.4	1.0	1.1	3.7	11	8.1	2.6	4.1	2.9
5	1.0	2.6	3.0	1.4	1.0	.80	5.3	10	7.3	2.4	4.0	1.8
6	.99	2.3	2.5	1.4	1.0	.90	16	67	6.9	2.9	3.8	1.6
7	7.1	2.0	1.9	1.4	1.1	1.1	10	483	7.1	10	3.7	1.5
8	13	4.5	1.7	1.4	1.1	1.3	6.7	117	6.1	4.3	3.5	1.3
9	3.6	110	1.5	1.3	1.1	1.4	182	68	5.4	3.2	3.4	1.1
10	1.7	24	1.6	1.3	1.1	1.8	83	36	4.9	2.7	3.2	1.2
11	1.4	13	1.6	1.3	1.2	6.0	47	29	4.4	2.3	3.2	1.0
12	1.2	9.3	1.8	1.3	1.2	60	37	26	4.0	57	3.2	1.0
13	1.0	7.5	1.9	1.3	1.2	400	34	23	3.7	13	3.3	1.1
14	1.0	7.3	1.8	1.3	1.1	421	70	20	3.6	12	3.0	1.4
15	1.0	8.9	1.9	1.3	1.0	256	51	19	3.6	11	3.7	1.5
16	.99	7.2	2.2	1.2	.80	221	86	17	3.4	5.5	4.1	2.4
17	.90	5.9	2.6	1.1	.70	126	188	15	3.1	3.5	3.0	2.2
18	.89	4.6	2.9	1.3	.60	266	119	15	2.9	3.2	2.7	7.7
19	.88	3.9	2.3	1.5	.80	191	66	14	3.0	3.1	2.4	3.6
20	.91	3.9	1.8	1.4	.90	80	43	14	3.0	5.4	2.4	18
21	.97	3.7	1.6	1.5	.70	60	36	13	3.1	9.6	2.2	13
22	3.2	3.4	1.5	1.6	.90	35	50	12	25	1360	2.1	3.4
23	3.9	3.4	1.5	1.6	1.3	19	49	14	22	53	2.0	2.0
24	1.5	3.5	1.5	1.5	1.5	11	31	13	6.5	22	1.8	1.3
25	1.3	3.5	1.6	1.4	1.3	5.6	25	11	4.6	16	1.7	1.3
26	1.6	3.1	1.6	1.3	1.6	4.5	22	9.2	169	12	1.6	1.3
27	1.5	3.2	1.7	1.3	2.4	4.2	19	17	18	9.4	1.9	1.2
28	1.5	3.2	1.7	1.2	2.2	3.7	21	44	9.2	7.9	1.6	1.0
29	2.0	3.2	1.7	1.2	---	4.0	16	67	5.9	7.0	1.5	.98
30	2.2	3.7	1.6	1.3	---	4.6	28	19	4.3	6.6	1.4	1.1
31	2.5	---	1.4	1.1	---	4.6	---	14	---	6.1	1.3	---
TOTAL	65.53	259.5	65.7	41.4	31.70	2197.30	1356.2	1260.2	381.0	1663.9	92.1	110.68
MEAN	2.11	8.65	2.12	1.34	1.13	70.9	45.2	40.7	12.7	53.7	2.97	3.69
MAX	13	110	4.0	1.6	2.4	421	188	483	169	1360	5.8	24
MIN	.88	1.9	1.4	1.1	.60	.80	3.7	9.2	2.9	2.3	1.3	.98
AC-FT	130	515	130	82	63	4360	2690	2500	756	3300	183	220

CAL YR 1977 TOTAL 3126.79 MEAN 8.57 MAX 1390 MIN .00 AC-FT 6200
WTR YR 1978 TOTAL 7525.21 MEAN 20.6 MAX 1360 MIN .60 AC-FT 14930

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE

LOCATION.--Lat 40°54'18", long 96°35'09", in NW1/4SW1/4 sec.24, T.11 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, at bridge 0.5 miles north of Interstate Highway 80 and 3 miles southwest of Waverly.

DRAINAGE AREA.--815 sq mi.

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 19...	1010	87	6000	7.4	10.5	10	9.2	73	36	K47
NOV 18...	1400	196	3780	7.6	7.0	55	10.0	150	17	3100
DEC 06...	1245	48	7200	8.1	.0	7.0	12.0	310	9.0	K30
JAN 17...	1300	64	7100	7.5	.5	8.0	10.9	190	12	K20
FEB 08...	1200	120	7500	7.6	.0	15	8.8	130	15	580
MAR 30...	1030	214	3110	7.9	14.5	35	8.9	63	7.5	K33
APR 18...	1400	2000	520	7.4	7.0	1100	8.9	270	12	49000
MAY 24...	1245	300	2750	7.4	22.0	50	6.2	110	20	59000
JUN 19...	1100	135	7000	7.9	20.5	25	6.3	68	11	K860
JUL 27...	0930	296	2450	7.9	22.5	110	5.8	51	6.6	2000
AUG 08...	1240	85	6750	8.3	28.0	5.0	9.2	73	8.5	K267
SEP 28...	1300	106	6700	7.8	18.0	20	6.4	74	20	K700

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 19...	K83	75	31	1400	21	364	0	299	330	2000
NOV 18...	8800	75	22	620	14	--	--	--	180	900
DEC 06...	220	93	34	1500	18	404	--	331	350	2000
JAN 17...	K127	110	33	1500	18	444	0	364	360	2100
FEB 08...	240	100	31	1200	18	380	--	312	350	2000
MAR 30...	480	47	250	620	15	264	--	217	170	790
APR 18...	K100000	70	30	64	24	128	--	105	39	77
MAY 24...	79000	71	26	450	19	264	--	217	110	600
JUN 19...	K360	94	32	1400	17	364	--	299	350	1800
JUL 27...	2160	60	19	400	17	236	--	194	100	610
AUG 08...	K400	97	31	1300	24	--	--	--	300	1800
SEP 28...	164	87	27	240	17	336	0	276	330	1800

K Results Based on colony count outside the acceptable range (non-ideal colony count).

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 19...	4090	5.56	961	4120	4.7	3.0	1.3	4.3	9.0	9.0
NOV 18...	2070	2.82	1100	2180	1.0	1.9	2.0	3.9	4.9	1.5
DEC 06...	3990	5.43	517	4070	1.3	8.5	.00	8.5	9.8	4.3
JAN 17...	4270	5.81	745	4360	1.1	8.9	1.1	10	11	4.0
FEB 08...	3940	5.36	1280	4140	.98	7.9	4.1	12	13	4.8
MAR 30...	1800	2.45	1040	1890	1.1	1.9	1.8	3.7	4.8	.99
APR 18...	306	.42	1650	605	2.1	.44	8.5	8.9	11	2.3
MAY 24...	1450	1.97	1170	2590	2.6	.01	4.2	4.2	6.8	1.0
JUN 19...	3900	5.30	42.1	4010	1.6	.16	13	13	15	2.5
JUL 27...	1360	1.85	1090	1730	.36	.07	2.8	2.9	3.3	1.1
AUG 08...	3750	5.10	861	3800	1.4	2.7	1.7	4.4	5.8	3.0
SEP 28...	3770	5.13	1080	3770	1.9	2.3	1.2	3.5	5.4	2.7

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CaCO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, SUS- PENDE TOTAL (MG/L AS Mg) (00926)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV 18...	1400	30	280	--	75	--	22	550	14	13
FEB 08...	1200	9	390	78	100	--	35	1200	26	18
MAY 24...	1245	110	240	23	64	7.0	19	500	14	12
AUG 08...	1240	8	350	--	92	1.0	30	1300	30	17

PLATTE RIVER BASIN

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)
NOV 18...	.5	16	--	1.5	340	70	100	1	0
FEB 08...	.9	29	3920	4.2	680	120	530	--	--
MAY 24...	.4	11	1450	.52	240	50	10	1	0
AUG 08...	.7	18	--	3.0	640	30	270	--	--

DATE	TIME	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- AZINON, TOTAL (UG/L) (39570)
NOV 18...	1400	.00	.00	.0	.00	.00	.00	.02
FEB 08...	1200	.00	.00	.0	.00	.00	.00	.16
MAY 24...	1245	.00	.00	.0	.00	.00	.00	.05
AUG 08...	1240	.00	.00	.0	.00	.00	.00	.51

DATE	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA- THION, TOTAL (UG/L) (39530)	METHYL PARA- THION, TOTAL (UG/L) (39600)
NOV 18...	.00	.00	.00	.00	.00	.00	.06	.03	.00
FEB 08...	.00	.00	.00	.00	.00	.00	.02	.00	.00
MAY 24...	.00	.00	.00	.00	.00	.00	.00	.02	.00
AUG 08...	.00	.00	.00	.00	.00	.00	.04	.02	.00

DATE	METHYL TRI- THION, TOTAL (UG/L) (39790)	PARA- THION, TOTAL (UG/L) (39540)	TOX- APHENE, TOTAL (UG/L) (39400)	TOTAL TRI- THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV 18...	.00	.01	0	.00	.25	.01	--	.00
FEB 08...	.00	.00	0	.00	.03	.00	--	.00
MAY 24...	.00	.00	0	.00	.76	.02	--	.02
AUG 08...	.00	.00	0	.00	.23	.01	.00	.01

PLATTE RIVER BASIN

06803530 ROCK CREEK NEAR CERESCO, NE

LOCATION.--Lat 41°00'56", long 96°32'39", in NE1/4NE1/4 sec.17, T.12 N., R.8 E., Lancaster County, Hydrologic Unit 10200203, on right bank 10 ft (3 m) downstream from bridge on east-west county road and 5.7 mi (9.2 km) southeast of Ceresco.

DRAINAGE AREA.--119 mi² (308 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1970 to current year.

REVISÉD RECORDS.--WDR NE-76-1: 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 1115.18 ft (339.907 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--8 years, 26.1 ft³/s (0.739 m³/s), 18,910 acre-ft/yr (23.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,120 ft³/s (117 m³/s) May 1, 1972, gage height, 14.2 ft (4.33 m), from floodmark; minimum daily, 0.25 ft³/s (0.007 m³/s) July 13, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Oct. 7	1530	754	21.4	5.76	1.756	Mar. 18	2200	1240	35.1	7.54	2.298
Oct. 23	0330	849	24.0	6.17	1.881	Apr. 9	1330	*1960	55.5	10.01	3.051
Nov. 9	0700	1310	37.1	7.92	2.414	Apr. 17	2200	1510	42.8	8.61	2.624
Mar. 13	2230	a1820	51.5	*10.64	3.243	June 22	2300	1550	43.9	8.75	2.667
Mar. 15	2230	1240	35.1	7.89	2.405	July 20	1430	1390	39.4	8.16	2.487

a Backwater from ice

Minimum discharge, 6.3 ft³/s (0.18 m³/s) Aug. 22, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	11	12	8.0	9.2	12	14	98	17	12	8.2	7.8
2	8.9	10	11	8.0	9.0	11	14	38	15	13	8.1	10
3	7.6	9.7	11	8.8	9.0	10	16	26	14	10	8.0	8.6
4	7.2	9.2	9.8	8.8	9.0	9.0	14	26	13	9.9	8.0	8.6
5	7.3	9.1	9.2	9.0	8.8	9.0	29	25	13	9.9	7.8	8.3
6	6.7	9.1	9.0	8.4	8.6	8.8	88	61	12	23	8.0	8.3
7	297	9.1	9.4	7.8	8.6	8.6	27	359	11	77	8.0	8.3
8	71	20	9.0	7.4	8.4	8.2	25	133	11	16	8.2	7.9
9	13	601	8.8	8.0	8.4	8.2	711	44	12	13	8.7	7.9
10	9.8	107	10	9.2	8.0	8.0	216	31	12	10	8.7	7.5
11	8.4	71	11	9.4	7.8	66	38	26	11	11	8.7	7.5
12	8.0	60	12	9.8	8.0	300	24	25	11	109	8.3	7.9
13	8.6	43	12	10	8.6	940	21	22	10	30	7.9	8.6
14	9.0	41	12	11	8.4	760	187	19	11	72	7.5	8.2
15	8.1	52	13	11	8.4	525	65	19	11	106	20	8.2
16	7.6	38	13	10	8.8	458	105	17	11	18	15	8.2
17	7.3	31	11	10	9.0	257	711	16	11	14	8.3	110
18	7.7	26	10	9.2	9.2	432	292	16	10	22	7.5	32
19	7.8	22	9.0	8.8	9.6	298	87	77	11	21	7.5	13
20	8.0	21	9.4	8.0	11	104	46	111	118	444	6.7	122
21	7.6	20	9.0	7.8	12	79	37	22	17	61	6.5	40
22	10	19	8.0	9.0	13	44	87	17	309	289	6.3	15
23	415	18	7.6	10	12	27	105	98	316	41	6.7	12
24	36	17	7.0	10	13	17	39	28	23	17	6.4	11
25	13	16	6.6	11	12	16	32	19	15	14	6.3	11
26	11	17	6.8	11	11	15	28	16	13	12	6.8	11
27	11	16	7.0	10	17	15	26	158	12	11	8.6	11
28	10	15	7.4	9.2	13	16	27	48	11	9.8	8.9	11
29	10	14	7.6	9.0	---	16	30	21	11	9.6	8.1	9.9
30	11	13	7.6	9.2	---	16	196	17	9.9	9.0	7.8	9.9
31	15	---	7.8	9.4	---	15	---	16	---	8.6	7.9	---
TOTAL	1074.6	1365.2	294.0	286.2	278.8	4508.8	3337	1649	1081.9	1522.8	259.4	550.6
MEAN	34.7	45.5	9.48	9.23	9.96	145	111	53.2	36.1	49.1	8.37	18.4
MAX	415	601	13	11	17	940	711	359	316	444	20	122
MIN	6.7	9.1	6.6	7.4	7.8	8.0	14	16	9.9	8.6	6.3	7.5
AC-FT	2130	2710	583	568	553	8940	6620	3270	2150	3020	515	1090
CAL YR 1977	TOTAL	10705.3	MEAN	29.3	MAX	1490	MIN	1.2	AC-FT	21230		
WTR YR 1978	TOTAL	16208.3	MEAN	44.4	MAX	940	MIN	6.3	AC-FT	32150		

06803530 ROCK CREEK NEAR CERESCO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
DEC 07...	1115	9.5	1390	7.9	.0	8	20	--	1.6	330
MAR 31...	1230	15	1720	8.3	17.0	10	15	12.7	2.2	200
JUN 22...	1100	16	1000	7.9	20.5	150	300	7.3	6.4	5300
AUG 08...	0900	10	1250	8.3	22.0	8	25	6.7	3.7	800

DATE	STREP- TOCOCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L HCO3) (00440)
DEC 07...	1800	350	2	99	26	160	3.7	8.1	430
MAR 31...	520	360	37	95	29	270	6.2	10	390
JUN 22...	15000	180	0	60	7.2	140	4.5	11	240
AUG 08...	4500	230	0	60	19	170	4.9	8.7	300

DATE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS AC-FT) (70303)
DEC 07...	0	350	150	170	.3	36	842	862	1.15
MAR 31...	0	320	170	300	.4	20	1020	1090	1.39
JUN 22...	0	200	100	150	.5	20	637	607	.87
AUG 08...	0	250	100	170	.5	15	710	691	.97

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)
DEC 07...	21.6	2.3	.25	.41	.66	3.0	.30	.28	210
MAR 31...	41.3	1.2	.10	.82	.92	2.1	.21	.21	280
JUN 22...	27.5	.03	.00	4.2	4.2	4.2	.67	.14	240
AUG 08...	20.3	.25	.00	.89	.89	1.1	.18	.14	280

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. FALL DIAM. % FINER THAN .002 MM (70337)	SED. FALL DIAM. % FINER THAN .004 MM (70338)	SED. FALL DIAM. % FINER THAN .016 MM (70340)	SED. FALL DIAM. % FINER THAN .062 MM (70342)	SED. FALL DIAM. % FINER THAN .125 MM (70343)	SED. FALL DIAM. % FINER THAN .250 MM (70344)	SED. FALL DIAM. % FINER THAN .500 MM (70345)	SED. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR 14...	1200	533	998	1440	40	43	51	86	90	95	95	100

PLATTE RIVER BASIN

06803555 SALT CREEK AT GREENWOOD, NE

LOCATION.--Lat 40°57'56", long 96°27'01", at center of sec.31, T.12 N., R.9 E., Cass County, Hydrologic Unit 10200203, on right bank just downstream from county road bridge, 0.5 mi (0.8 km) west of Greenwood.

DRAINAGE AREA.--1,051 mi² (2,722 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1951 to current year. Records furnished by Corps of Engineers prior to Oct. 1, 1972.

REVISED RECORDS.--WDR NE-71: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,068.14 ft (325.569 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 5, 1964, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--26 years (water years 1953-78), 268 ft³/s (7.590 m³/s), 194,200 acre-ft/yr (0.239 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,000 ft³/s (1,160 m³/s) June 24, 1963, gage height, 23.46 ft (7.151 m); maximum gage height, 23.50 ft (7.163 m) Oct. 11, 1973, from floodmark; minimum daily discharge, 14 ft³/s (0.40 m³/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,200 ft³/s (62.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 9	0900	3410 96.6	8.27 2.521	Apr. 18	0045	7700 218	11.86 3.615
Mar. 13	2300	10000 283	a*15.06 4.590	May 7	1615	6390 181	10.93 3.331
Mar. 16	0030	6500 184	10.97 3.344	May 27	1745	3190 90.3	8.11 2.472
Mar. 19	0200	5370 152	10.06 3.066	June 23	0115	3250 92.0	8.14 2.481
Apr. 9	1830	6570 186	11.03 3.362	July 22	0745	*12200 346	14.62 4.456

a Backwater from ice.

Minimum daily discharge, 50 ft³/s (1.42 m³/s) Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	122	108	94	94	100	225	649	652	158	226	94
2	119	127	104	100	76	86	219	433	395	160	187	377
3	101	114	102	94	90	80	217	362	305	136	178	233
4	103	114	80	104	106	96	205	337	266	129	165	144
5	107	109	70	112	108	115	227	318	238	118	156	138
6	96	109	50	118	106	140	503	447	223	157	146	134
7	711	107	70	116	114	170	324	5090	212	426	137	125
8	604	144	90	108	120	190	247	2940	196	231	142	117
9	350	2060	88	98	124	210	3470	1140	185	185	139	115
10	183	1070	96	86	116	240	2960	730	172	150	138	114
11	147	457	102	96	114	200	846	582	163	132	133	113
12	127	313	108	102	106	1000	578	503	152	1080	143	114
13	118	239	114	106	98	5800	488	453	147	525	132	156
14	113	194	116	96	96	6600	1190	383	140	568	124	191
15	112	207	120	100	94	3920	969	342	135	501	365	165
16	102	210	120	94	98	4280	1160	313	131	255	231	349
17	95	199	110	82	100	2620	3620	287	128	183	177	196
18	98	202	94	84	104	2610	4590	264	122	165	159	855
19	100	156	82	90	106	3890	1450	318	114	188	137	418
20	98	132	100	92	110	1970	874	650	249	1000	124	893
21	101	122	114	90	120	1420	625	309	405	921	117	958
22	159	114	130	76	140	1010	717	254	657	8090	123	344
23	506	116	180	90	160	737	816	720	1780	2800	115	228
24	274	100	140	108	175	536	548	429	485	868	111	188
25	182	90	110	104	190	438	435	310	268	550	112	167
26	135	92	100	94	160	373	394	283	704	443	108	155
27	122	100	96	90	130	332	362	1160	357	372	110	143
28	116	108	118	92	140	305	355	612	235	320	109	135
29	110	112	125	92	---	273	374	579	186	276	109	129
30	107	110	121	90	---	254	1200	316	165	236	104	129
31	129	---	110	92	---	242	---	391	---	210	98	---
TOTAL	5596	7449	3268	2990	3295	40237	30188	21904	9567	21533	4555	7617
MEAN	181	248	105	96.5	118	1298	1006	707	319	695	147	254
MAX	711	2060	180	118	190	6600	4590	5090	1780	8090	365	958
MIN	95	90	50	76	76	80	205	254	114	118	98	94
AC-FT	11100	14780	6480	5930	6540	79810	59880	43450	18980	42710	9030	15110
CAL YR 1977	TOTAL	82598	MEAN 226	MAX 9610	MIN 50	AC-FT 163800						
WTR YR 1978	TOTAL	158199	MEAN 433	MAX 8090	MIN 50	AC-FT 313800						

06803555 SALT CREEK AT GREENWOOD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT DISCHARGE: October 1971 to September 1976 (discontinued).

REMARKS.--Prior to July 1, 1971, sediment records were obtained by the U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 15,900 mg/L May 18, 1974; minimum daily, 5 mg/L Oct. 9, 1971.

SEDIMENT LOADS: Maximum daily, 492,000 tons (447,000 tonnes) Oct. 11, 1973; minimum daily, 1.0 ton (0.9 tonne) Oct. 9, 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT 19...	1100	103	11.0	281	78	--	--
NOV 21...	1400	121	2.0	161	53	--	--
MAR 30...	0810	259	11.0	188	131	--	--
APR 18...	1555	3840	6.0	5140	53300	29	40
MAY 25...	1140	310	20.0	563	471	54	64
JUL 11...	0915	138	20.0	216	80	--	--
AUG 25...	0945	117	24.0	290	92	--	--
SEP 06...	1400	138	30.0	314	117	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT 19...	--	32	54	70	86	97
NOV 21...	--	84	--	--	--	--
MAR 30...	--	89	--	--	--	--
APR 18...	58	98	99	99	100	--
MAY 25...	81	95	96	98	100	--
JUL 11...	--	92	--	--	--	--
AUG 25...	--	--	--	--	--	--
SEP 06...	--	--	--	--	--	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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)
OCT 19...	1100	103	3	0	5	60	92	97	99	100	--
NOV 21...	1400	121	11	0	5	63	91	98	100	--	--
APR 18...	1555	3840	4	0	10	35	59	85	95	99	100
MAY 25...	1140	310	4	0	12	74	93	96	98	99	100
AUG 25...	0945	117	8	0	10	61	84	90	94	98	100
SEP 06...	1400	138	5	0	8	63	95	100	--	--	--

PLATTE RIVER BASIN

06803565 SALT CREEK ABOVE ASHLAND, NE

LOCATION.--Lat 41°01'34", long 96°24'22", in NW1/4NW1/4 sec.10, T.12 N., R.9 E., Saunders County, Hydrologic Unit 10200203, at county road bridge 2 miles southwest of Ashland.

DRAINAGE AREA.--1,118 sq mi.

PERIOD OF RECORD.--Water year 1971 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 19...	1200	120	5920	7.6	12.0	15	9.9	36	K100	K220
NOV 17...	1215	175	3120	7.7	6.0	40	--	15	3100	8500
DEC 06...	1005	54	6100	7.9	.0	9	12.7	5.1	K54	500
JAN 17...	1100	100	6200	7.3	.5	5	7.6	11	K180	400
FEB 07...	1115	80	6000	7.6	.0	8	6.7	8.5	1070	860
MAR 30...	0915	259	2550	7.9	11.0	40	8.3	10	70	1200
APR 18...	1330	3830	430	7.1	7.0	1300	8.3	13	36000	K100000
MAY 23...	1245	1000	1190	7.3	18.0	1350	6.4	9.8	K104000	K231000
JUN 19...	0930	140	6000	8.0	27.5	30	7.5	9.2	250	168
JUL 18...	1230	172	4600	7.8	29.0	130	5.6	14	K2700	3500
AUG 08...	1145	115	5820	8.5	26.0	15	12.6	8.2	K267	900
SEP 28...	1215	120	5900	7.9	17.5	36	7.8	19	966	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 19...	1600	3450	4.69	1120	5.8	.35	2.8	3.1	8.9	9.0
NOV 17...	820	2000	2.72	945	1.8	1.7	1.5	3.2	5.0	1.8
DEC 06...	1500	3420	4.65	499	2.1	4.2	.00	3.9	6.0	3.1
JAN 17...	1500	3470	4.72	937	1.3	5.8	2.3	8.1	9.4	3.5
FEB 07...	1700	3390	4.61	732	1.5	4.8	1.5	6.3	7.8	2.7
MAR 30...	620	1440	1.96	1010	1.6	1.5	1.7	3.2	4.8	--
APR 18...	59	254	.35	2630	2.0	.40	13	13	15	3.4
MAY 23...	270	667	.91	1800	2.7	.38	8.6	9.0	12	1.9
JUN 19...	1600	3290	4.47	1240	.00	.00	2.2	2.2	2.2	1.4
JUL 18...	1200	2550	3.47	1180	3.6	.29	2.0	2.3	5.9	1.7
AUG 08...	1600	3310	4.50	1030	1.5	.00	1.9	1.9	3.4	1.6
SEP 28...	1500	3100	4.22	1000	2.7	.35	1.1	1.4	4.1	1.9

06803565 SALT CREEK ABOVE ASHLAND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
DEC 06...	1005	8	410	58	110	33	1100	24	15
MAR 30...	0915	11	260	41	69	22	440	12	12
JUN 19...	0930	8	380	78	100	32	1100	25	16
AUG 08...	1145	12	350	66	91	29	1100	26	15

DATE	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)
DEC 06...	430	0	350	340	.8	29	3340	2.5	560
MAR 30...	270	0	220	150	.5	16	1460	1.1	300
JUN 19...	370	0	300	310	.7	15	3360	1.1	550
AUG 08...	320	11	280	270	.6	10	3280	1.4	540

PLATTE RIVER BASIN

06804000 WAHOO CREEK AT ITHACA, NE

LOCATION.--Lat 41°08'40", long 96°32'10", in NW1/4NW1/4 sec.33, T.14 N., R.8 E., Saunders County, Hydrologic Unit 10200203, on right bank 16 ft (5 m) downstream from bridge on State Highway 63 and 0.5 mi (0.8 km) south of Ithaca.

DRAINAGE AREA.--271 mi² (702 km²), of which 268 mi² (694 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WDR NE-71-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,110.48 ft (338.474 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1959, nonrecording gages at same site and datum. Oct. 28, 1959, to Feb. 22, 1961, nonrecording gage at site 1.5 mi (2.4 km) upstream at datum 8.21 ft (2.502 m) higher.

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

AVERAGE DISCHARGE.--29 years, 76.5 ft³/s (2.166 m³/s), 55,420 acre-ft/yr (68.3 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,400 ft³/s (2,190 m³/s) June 24, 1963, gage height, 22.93 ft (6.989 m), from rating curve extended above 13,000 ft³/s (368 m³/s) on basis of indirect measurement of peak flow; minimum daily, 3.3 ft³/s (0.093 m³/s) June 11, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since about 1910, 23.22 ft (7.077 m), from floodmark, Aug. 2, 1959, discharge, 45,300 ft³/s (1,280 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 19	1000	3070 86.9	18.49 5.636	a	----	unknown	unknown
Apr. 8	2330	4060 115	19.93 6.075	June 20	1315	2760 78.2	17.79 5.422
Apr. 9	2245	4120 117	19.99 6.093	June 23	0845	*4880 138	20.59 6.276

a Sometime between period Apr. 15-18.

Minimum daily discharge, 19 ft³/s (0.54 m³/s) Sept. 9, 10.

REVISIONS.--The maximum discharge for the water year 1977 has been revised to 9,860 ft³/s (279 m³/s) Sept. 4, 1977, gage height, 22.00 ft (6.706 m), superseding figures published in the report for 1977. Peak discharge of Aug. 31, 1977 (2400 hours) has been revised to 8,900 ft³/s (252 m³/s), gage height, 21.84 ft (6.657 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	214	56	43	25	23	31	44	100	61	49	31	21
2	48	54	42	29	20	33	43	80	56	48	32	21
3	36	52	39	31	23	31	42	73	53	39	31	22
4	30	50	38	28	28	24	41	73	51	41	29	22
5	29	50	36	29	22	25	42	72	49	50	27	22
6	27	50	30	30	23	26	207	73	47	54	27	22
7	258	60	32	26	25	26	77	204	46	69	26	21
8	468	150	28	24	24	25	1750	260	44	63	25	21
9	53	600	26	23	24	25	2840	97	43	45	25	19
10	39	234	29	22	28	29	1030	78	43	48	25	19
11	36	121	33	25	32	36	198	70	41	44	28	20
12	34	102	36	27	31	274	146	68	40	49	26	20
13	33	87	36	26	28	1570	134	64	39	102	24	29
14	32	80	36	26	26	2090	209	57	39	40	24	34
15	31	95	37	29	25	1060	900	55	38	60	34	33
16	31	90	39	22	20	1670	400	55	38	41	97	22
17	32	70	45	21	20	714	500	53	38	22	32	22
18	32	57	47	26	21	728	2000	53	36	33	26	48
19	32	51	40	24	25	1900	341	59	100	32	25	38
20	33	49	31	22	30	584	250	66	1630	63	24	53
21	33	46	32	23	28	427	180	55	163	127	24	47
22	35	44	35	25	40	192	250	53	787	429	24	30
23	400	42	35	27	39	117	350	56	2480	153	23	25
24	100	42	33	30	37	70	140	56	205	50	24	23
25	60	38	32	25	36	58	110	83	126	40	24	22
26	56	38	31	26	35	53	98	135	94	36	24	22
27	56	38	29	27	40	51	92	181	76	32	25	22
28	54	37	30	26	38	50	88	95	62	31	26	22
29	54	38	29	25	---	49	150	70	55	30	24	22
30	56	40	29	26	---	46	250	60	50	30	22	22
31	66	---	28	22	---	46	---	58	---	30	21	---
TOTAL	2498	2561	1066	797	791	12060	12902	2612	6630	1980	879	786
MEAN	80.6	85.4	34.4	25.7	28.3	389	430	84.3	221	63.9	28.4	26.2
MAX	468	600	47	31	40	2090	2840	260	2480	429	97	53
MIN	27	37	26	21	20	24	41	53	36	22	21	19
AC-FT	4950	5080	2110	1580	1570	23920	25590	5180	13150	3930	1740	1560

CAL YR 1977	TOTAL	31945.8	MEAN	87.5	MAX	3920	MIN	8.2	AC-FT	63360
WTR YR 1978	TOTAL	45562.0	MEAN	125	MAX	2840	MIN	19	AC-FT	90370

PLATTE RIVER BASIN

255

06804495 SILVER CREEK NEAR WAHOO, NE

LOCATION.--Lat 41°12'22", long 96°32'37", in NE1/4NE1/4NE1/4 sec.8, T.14 N., R.8 E., Saunders County, Hydrologic Unit 10200203, at bridge on county road 3.9 miles east of intersection of First Street and U.S. Highway 77 in Wahoo.

PERIOD OF RECORD.--Water year 1974 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
19...	1350	5.4	508	7.7	14.5	7	11.2	2.5	K80	140
NOV										
17...	1100	7.8	404	7.3	5.5	30	--	2.9	K500	4100
DEC										
07...	1015	4.0	573	7.6	.0	5	--	.2	K28	460
JAN										
18...	1120	3.3	560	7.4	.5	5	--	4.2	1600	1600
FEB										
07...	1400	4.5	566	7.9	.5	4	7.6	8.0	108	1100
MAR										
31...	1000	5.3	467	7.9	15.0	10	9.2	2.7	83	1180
APR										
19...	1000	38	325	7.5	5.0	260	9.6	2.4	8000	84000
MAY										
23...	1420	10	544	7.9	20.0	8	9.6	7.8	900	720
JUN										
22...	0930	4.4	445	7.8	18.0	40	8.3	2.6	1400	7700
JUL										
18...	0850	5.0	490	7.8	23.0	40	7.1	4.0	K9500	35000
AUG										
08...	1050	4.5	506	8.2	24.0	5	6.8	2.2	800	740
SEP										
20...	1500	5.6	455	7.6	16.0	35	8.4	4.3	K8700	K27000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
19...	26	360	.49	5.25	1.7	.08	.07	.15	1.9	.31
NOV										
17...	4.7	267	.36	5.62	1.9	.06	.68	.74	2.6	.36
DEC										
07...	4.4	--	.48	3.80	2.5	.06	.16	.22	2.7	.25
JAN										
18...	15	345	.47	3.07	2.0	2.8	.90	3.7	5.7	.42
FEB										
07...	23	336	.46	4.08	1.9	4.1	.70	4.8	6.7	.51
MAR										
31...	9.8	--	.41	4.34	1.9	1.5	.40	1.9	3.8	.28
APR										
19...	6.1	178	.24	18.3	2.5	.78	1.7	2.5	5.0	.57
MAY										
23...	10	328	.45	8.86	1.8	1.6	.60	2.2	4.0	.31
JUN										
22...	4.0	--	.39	3.41	.11	.06	.62	.68	.79	.50
JUL										
18...	7.0	320	.44	4.32	1.7	.03	.72	.75	2.5	.45
AUG										
08...	4.7	--	.42	3.74	1.3	.03	.64	.67	2.0	.25
SEP										
20...	4.2	294	.40	4.45	1.4	.30	1.3	1.6	3.0	.41

06804495 SILVER CREEK NEAR WAHOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 07...	1015	3	240	0	70	17	23	.6	9.7	300	0
MAR 31...	1000	7	210	2	58	15	22	.7	11	250	0
JUN 22...	0930	9	200	7	57	15	17	.5	9.1	240	0
AUG 08...	1050	3	220	0	61	16	20	.6	9.7	270	0

DATE	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC 07...	250	45	.3	34	352	.25	--	60	--	--
MAR 31...	210	34	.3	29	303	.20	4	80	1	0
JUN 22...	200	35	.4	31	287	.28	--	70	--	--
AUG 08...	220	34	.5	29	308	.24	5	70	1	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 07...	--	0	--	380	--	--	--	--	--	--
MAR 31...	3	20	1	110	.0	.0	.0	3	0	0
JUN 22...	--	50	--	130	--	--	--	--	--	--
AUG 08...	6	20	0	160	.0	.0	.0	3	0	10

PLATTE RIVER BASIN

257

06805500 PLATTE RIVER AT LOUISVILLE, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°00'55", long 96°09'28", in NW1/4NW1/4 sec. 14, T. 12 N., R. 11 E., Sarpy County, Hydrologic Unit 10200202, on the left bank at the upstream side of bridge on Nebraska Highway 50, 1 mi (2 km) north of Louisville.

DRAINAGE AREA.--85,800 mi² (222,200 km²), approximately, of which about 71,000 mi² (183,900 km²) contributes directly to surface runoff.

Water-Discharge Records

PERIOD OF RECORD.--May 1953 to current year. October 1961 to September 1973 published as Platte River at South Bend.

REVISED RECORDS.--WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,007.10 ft (306.964 m) National Geodetic Vertical Datum of 1929. Dec. 5, 1961 to Sept. 30, 1973, at site 7 mi (11 km) upstream at datum 31.43 feet higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--25 years, 5,657 ft³/s (160.2 m³/s), 4,098,000 acre-ft/yr (5.05 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 124,000 ft³/s (3,510 m³/s) Mar. 30, 1960, gage height, 12.45 ft (3.795 m); minimum daily, 131 ft³/s (3.71 m³/s) Sept. 3, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known since at least 1881, 124,000 ft³/s (3,510 m³/s) Mar. 30, 1960, gage height, 12.45 ft (3.795 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 112,000 ft³/s (3,170 m³/s) Mar. 20, gage height, 10.83 feet; minimum daily, 700 ft³/s (19.8 m³/s) Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4050	4800	5000	3400	3690	4770	6690	9490	6970	3240	1790	1210
2	4830	4440	5800	3500	3500	4500	5630	10300	8310	3580	1480	1360
3	4720	5000	5400	3600	3900	5000	6510	9320	8320	3020	1600	1890
4	4800	4510	5200	2350	3800	5000	7290	9090	7750	3060	1430	1600
5	4770	4410	5000	3000	3700	5000	7190	8440	6780	2460	1760	1590
6	5220	4410	2600	3500	3600	5200	11900	8700	6590	2620	1160	1150
7	4910	4480	1500	3300	3600	5200	12200	15100	5790	2490	1410	1360
8	7000	4010	1000	3100	4100	5200	25400	15100	6150	2580	1480	1330
9	6610	7960	700	3000	4400	5400	25900	12400	5330	2350	1910	1190
10	5420	7910	1000	3000	4000	5400	26700	10500	5020	2270	1610	1110
11	5210	7170	1700	3000	4000	5800	19700	9060	4810	2120	1420	1250
12	4830	6770	1900	3100	4100	8000	16300	8580	4320	2160	1290	1170
13	4260	6350	1950	3200	4200	14000	13300	7680	4000	2630	1300	1380
14	4700	5940	2500	3400	4300	22000	11900	7110	3640	2130	1290	1740
15	4370	6350	3000	3500	3900	32000	10500	6260	3400	2600	2000	2150
16	3830	5910	3500	3400	3890	42000	11400	5990	3420	1610	3200	2440
17	4280	6130	4200	3000	3400	50000	17200	5520	2790	1480	3670	3150
18	3790	5940	4500	3000	3000	51500	27200	5220	2980	1320	8000	3570
19	4050	6090	4300	3100	3600	59000	22500	4930	2600	1300	6110	3230
20	4160	6060	3900	3200	4100	75700	19200	5590	4970	1420	5090	3840
21	4080	6020	3700	3300	3800	86100	16400	5360	7090	2810	4030	4530
22	4610	5510	3400	3400	3600	62600	14900	4580	4620	14400	3130	3160
23	5280	4500	3900	3500	4300	45800	15000	5490	9600	8450	2500	2670
24	5240	4300	4000	3500	4600	23900	13900	5900	8470	4740	2070	2290
25	4540	4000	3900	3400	4900	17200	12200	4750	6360	5080	2020	2210
26	4760	3500	3700	3300	4300	13700	11300	5010	6710	4410	1570	2230
27	4740	2500	3600	3100	5000	11900	9860	5940	5620	3780	1380	2080
28	4560	2100	3700	3600	5200	10600	9400	6810	3810	3820	1510	2060
29	4300	2500	3900	3400	---	9440	8750	5320	3730	2650	2010	1920
30	4230	3500	3700	3800	---	8910	10000	4970	3500	2520	2180	1730
31	4390	---	3600	3700	---	7610	---	6960	---	1980	1710	---
TOTAL	146540	153070	105750	101650	112480	708430	426320	235470	163450	101080	73110	62590
MEAN	4727	5102	3411	3279	4017	22850	14210	7596	5448	3261	2358	2086
MAX	7000	7960	5800	3800	5200	86100	27200	15100	9600	14400	8000	4530
MIN	3790	2100	700	2350	3000	4500	5630	4580	2600	1300	1160	1110
AC-FT	290700	303600	209800	201600	223100	1405000	845600	467100	324200	200500	145000	124100
CAL YR 1977 TOTAL	1891914			5183		22300		700		3753000		
WTR YR 1978 TOTAL	2389940			6548		86100		700		4740000		

PLATTE RIVER BASIN

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1974 to current year.

WATER TEMPERATURES: November 1974 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1971 to current year.

REMARKS.--Prior to July 1, 1971, sediment records were obtained by the U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,450 micromhos Sept. 1, 1976; minimum daily, 272 micromhos Aug. 17, 1977.

WATER TEMPERATURES: Maximum, 36°C July 24, 1977; minimum, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 11,600 mg/L May 19, 1974; minimum daily, 60 mg/L July 19, 1976.

SEDIMENT LOADS: Maximum daily, 1,180,000 tons (1,070,000 tonnes) Mar. 21, 1978; minimum daily, 64 tons (58 tonnes) July 19, 1976.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,580 micromhos Dec. 9; minimum daily, 277 micromhos Mar. 18.

WATER TEMPERATURES: Maximum, 34.0°C Aug. 13, 14; minimum, 0.0°C on many days during winter period.

SEDIMENT CONCENTRATIONS: Maximum daily, 5,170 mg/L Mar. 20; minimum daily, 90 mg/L Sept. 10, 11.

SEDIMENT LOADS: Maximum daily, 1,180,000 tons (1,070,000 tonnes) Mar. 21; minimum daily, 270 tons (245 tonnes) Sept. 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
11...	1100	5630	441	8.2	14.0	95	--	12.2	3230	4300
NOV										
08...	1200	3410	530	8.6	13.0	35	--	10.0	K167	680
DEC										
13...	1130	1950	910	7.6	1.5	7	--	12.2	250	--
JAN										
04...	1030	2130	975	7.7	.0	6	--	11.6	187	120
FEB										
01...	1300	3630	622	7.7	.5	9	--	--	520	200
MAR										
20...	1100	59800	290	7.5	2.5	575	--	8.2	K1200	94000
APR										
11...	1130	19000	495	7.9	13.0	700	--	8.7	54000	K350000
MAY										
03...	1100	9320	620	8.0	13.5	100	--	9.4	2500	21000
JUN										
13...	1210	3530	690	8.8	18.5	50	40	7.9	K467	256
JUL										
26...	1245	3580	513	7.7	27.0	420	670	7.1	22000	15500
AUG										
08...	1400	1610	1060	8.9	28.0	40	29	8.0	107	480
SEP										
12...	1400	1270	1000	8.5	24.0	40	33	8.9	K131	1500

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HC03) (00440)	CAR- BONATE (MG/L AS C03) (00445)	ALKA- LINITY (MG/L AS CAC03) (00410)
OCT										
11...	--	--	--	--	--	--	--	180	0	150
NOV										
08...	180	15	52	12	94	3.1	9.0	200	0	160
DEC										
13...	260	24	77	17	86	2.3	10	290	0	240
JAN										
04...	250	42	71	17	98	2.7	9.9	250	0	210
FEB										
01...	210	17	61	13	45	1.4	8.6	230	0	190
MAR										
20...	100	1	29	6.6	15	.7	14	120	0	98
APR										
11...	160	18	45	11	36	1.2	11	170	0	140
MAY										
03...	150	0	37	15	53	1.9	11	220	0	180
JUN										
13...	200	11	59	13	74	2.3	9.9	--	--	190
JUL										
26...	150	15	47	9.1	47	1.6	10	--	--	140
AUG										
08...	200	9	58	13	130	4.0	11	--	--	190
SEP										
12...	180	0	51	12	130	4.3	10	--	--	180

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SULFATE DIS- SOLVED (MG/L AS S04) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+N03 TOTAL (MG/L AS N) (00630)
OCT 11...	63	12	.4	35	295	--	.40	4480	.77
NOV 08...	76	94	.4	37	463	473	.63	4260	.48
DEC 13...	83	93	.4	40	540	550	.73	2840	1.5
JAN 04...	99	110	.4	43	571	572	.78	3280	1.2
FEB 01...	74	30	.4	45	393	390	.53	3850	.95
MAR 20...	29	9.4	.2	13	168	176	.23	27100	1.5
APR 11...	65	29	.4	18	296	299	.40	15200	1.3
MAY 03...	70	42	.4	26	383	363	.52	9640	.85
JUN 13...	60	77	.5	31	428	439	.58	4080	.00
JUL 26...	42	53	.4	24	299	317	.41	2890	1.5
AUG 08...	64	160	.5	29	584	580	.79	2540	.02
SEP 12...	61	170	.4	40	584	583	.79	2000	.01

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN,AM- MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 11...	.03	--	--	--	--	--	.43	.24	8.6
NOV 08...	.00	--	--	--	.05	--	.37	.31	4.7
DEC 13...	.38	--	--	--	.78	--	.42	.41	3.3
JAN 04...	.35	--	--	--	1.1	--	.37	.35	3.2
FEB 01...	.21	.35	.56	.17	.39	1.5	.27	.25	3.1
MAR 20...	1.1	6.1	7.2	4.8	2.4	8.7	3.6	.34	--
APR 11...	.26	3.4	3.7	2.9	.84	5.0	1.5	.25	--
MAY 03...	.08	1.7	1.8	1.2	.64	2.7	.55	.25	17
JUN 13...	.00	2.0	2.0	1.3	.75	2.0	.38	.18	--
JUL 26...	.01	5.9	5.9	5.0	.90	7.4	1.6	.33	43
AUG 08...	.00	1.6	1.6	1.1	.47	1.6	.41	.22	--
SEP 12...	.01	1.5	1.5	1.1	.42	1.5	.57	.35	9.9

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
NOV 08...	1200	7	0	7	200	0	300	10	0	10	20
DEC 13...	1130	5	0	5	300	200	100	2	1	1	20
MAR 20...	1100	18	16	2	400	0	400	1	1	0	20
JUN 13...	1210	10	0	10	200	0	200	1	0	1	10
AUG 08...	1400	10	2	8	200	0	200	3	2	1	10

PLATTE RIVER BASIN

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHROMIUM, SUS- PENDE RECOV. (UG/L AS CR) (01031)	CHROMIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE) (01044)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 08...	15	5	<50	<50	0	<10	<5	5	2300	2300	30
DEC 13...	20	0	0	0	0	8	3	5	510	530	20
MAR 20...	20	0	17	17	0	50	44	6	35000	35000	180
JUN 13...	0	10	4	4	0	15	9	6	2400	2400	30
AUG 08...	10	0	0	0	0	9	4	5	1200	1200	20

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGANESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN) (01054)	MANGANESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)
NOV 08...	<100	<20	80	140	120	20	.1	.1	.0	1
DEC 13...	40	40	0	60	20	40	.0	.0	.0	4
MAR 20...	36	29	7	1400	1300	130	.0	.0	.0	16
JUN 13...	9	7	2	300	300	0	.8	.7	.1	2
AUG 08...	7	7	0	220	210	10	.0	.0	.0	1

DATE	SELENIUM, SUS- PENDE TOTAL (UG/L AS SE) (01146)	SELENIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG) (01076)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN) (01091)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
NOV 08...	0	1	<10	<10	0	40	30	10	--	--
DEC 13...	0	4	0	0	0	40	30	10	--	--
MAR 20...	16	0	1	1	0	150	140	10	15	>5.0
JUN 13...	0	2	0	0	0	30	20	10	6.8	>5.0
AUG 08...	0	1	0	0	0	20	10	10	5.1	>5.0

DATE	TIME	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL (UG/L) (39350)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)
NOV 08...	1200	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 01...	1300	--	ND	--	ND	--	ND	--	ND	--
MAY 03...	1100	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	1400	--	ND	--	ND	--	ND	--	ND	--

ND Not detected.

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- AZINON, TOTAL (UG/L) (39570)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39571)	DI- ELDRIN TOTAL (UG/L) (39380)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39399)
NOV 08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 01...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	MALA- THION, TOTAL (UG/L) (39530)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39531)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)
NOV 08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 01...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METHYL PARA- THION, TOTAL (UG/L) (39600)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRI- THION, TOTAL (UG/L) (39790)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA- THION, TOTAL (UG/L) (39540)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39541)	TOX- APHENE, TOTAL (UG/L) (39400)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	TOTAL TRI- THION (UG/L) (39786)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39787)
NOV 08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 01...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	2,4-D, TOTAL (UG/L) (39730)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39731)	2,4,5-T TOTAL (UG/L) (39740)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39741)	SILVEX, TOTAL (UG/L) (39760)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39761)	ATRA- ZINE, TOTAL (UG/L) (39630)	ATRA- ZINE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39631)	SIMA- ZINE TOTAL COUL- SON COND. (UG/L) (39025)	SIMA- ZINE IN BOTTOM MATERI- AL (UG/ KG DRY SOLIDS) (39046)
NOV 08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 01...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 03...	--	--	--	--	--	--	.49	--	ND	--
AUG 08...	--	--	--	--	--	--	.55	--	ND	--

ND Not detected.

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JUNE 1978

DATE TIME	NOV 8,77 1200	MAR 20,78 1100	MAY 3,78 1100	JUN 13,78 1210
TOTAL CELLS/ML	18000	1900	27000	90000
DIVERSITY: DIVISION	1.4	0.6	1.5	1.4
..CLASS	1.4	0.6	1.5	1.4
..ORDER	1.9	0.9	2.0	1.7
...FAMILY	2.5	2.9	3.0	2.6
....GENUS	2.8	2.9	3.4	2.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....COELASTRACEAE								
.....COELASTRUM	--	-	--	-	--	-	18000#	20
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	4400	5
...MICRACITINACEAE								
....GOLENKINIA	170	1	--	-	760	3	--	-
...MICRACITINUM	--	-	--	-	1500	6	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	170	1	--	-	300	1	1600	2
....FRANCEIA	170	1	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	910	3	--	-
....OOCYSTIS	--	-	--	-	460	2	1100	1
....SELENASTRUM	--	-	140	7	--	-	--	-
....TETRAEDRON	170	1	--	-	--	-	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	--	-	730	1
...SCENEDESMUS	6000#	34	--	-	3000	11	28000#	31
....TETRASTRUM	690	4	--	-	1200	5	--	-
...VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	170	1	--	-	460	2	--	-
...ZYGEMATALES								
....DESMIDIACEAE								
....COSMARIMUM	--	-	--	-	--	-	*	0
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
....COSCINODISCAEAE								
.....CYCLOTELLA	5300#	30	140	7	3300	13	2000	2
....STEPHANODISCUS	--	-	--	-	760	3	--	-
...PENNALES								
....ACHNANTHACEAE								
....COCCONEIS	--	-	270	14	--	-	--	-
....CYMBELLACEAE								
....EPITHEMIA	170	1	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	150	1	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	760	3	15000#	17
....FRAGILARIA	--	-	--	-	--	-	2200	2
....SYNEDRA	--	-	--	-	--	-	550	1
...GOMPHONEMACEAE								
....GOMPHONEMA	--	-	140	7	5000#	19	--	-
...MERIDIONACEAE								
....MERIDION	--	-	140	7	--	-	--	-
...NAVICULACEAE								
....GYROSIGMA	520	3	--	-	--	-	--	-
....NAVICULA	340	2	270	14	610	2	--	-
....NEIDIUM	520	3	--	-	--	-	--	-
...PINNULARIA	--	-	--	-	--	-	*	0
...NITZSCHIAEAE								
....NITZSCHIA	1700	10	610#	32	760	3	*	0
...SURIPELLACEAE								
....SURIPELLA	--	-	140	7	460	2	--	-
...TABELLARIACEAE								
....TABELLARIA	340	2	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROCOCCOCCALES								
....CHROCOCCOCCAEAE								
.....ANACYSTIS	1000	6	--	-	6100#	23	8800	10
...HORMOGONALES								
....NOSTOCACEAE	--	-	--	-	--	-	6600	7
....ANABAENA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
....EUGLENACEAE								
.....TRACHELOMONAS	340	2	68	4	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
SEP	27...	31	.490	.000	12.4	11.6

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG						AUG					
08...	1010	937	8.9	24.0	7.6	09...	0200	1120	9.0	27.0	7.4
08...	1200	995	8.8	26.0	7.4	09...	0400	1090	8.8	26.0	7.2
08...	1400	1060	8.9	28.0	8.0	09...	0600	1060	8.8	25.0	7.1
08...	1600	1100	8.9	30.0	8.0	09...	0800	971	8.8	25.0	7.2
08...	1800	1160	9.0	30.5	8.3	09...	1000	923	8.7	25.0	7.0
08...	2000	1150	9.0	30.0	8.1	09...	1200	884	8.8	26.0	8.0
08...	2200	1160	10.0	30.0	7.7						
08...	2400	1140	9.2	28.0	7.5						

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	477	457	549	708	691	698	497	525	497	618	805	1110
2	440	473	498	778	633	595	506	500	465	508	687	820
3	460	473	486	899	613	538	525	507	472	660	800	878
4	413	468	498	918	585	537	510	508	445	658	823	588
5	420	448	518	828	676	563	472	500	462	752	668	628
6	415	458	588	778	635	528	470	480	487	752	1080	1140
7	393	458	815	780	626	550	472	462	526	1270	893	850
8	423	480	1150	768	687	547	465	458	509	1080	878	898
9	407	428	1580	835	648	535	418	467	567	638	587	816
10	409	418	1030	918	633	558	445	495	590	705	847	887
11	460	410	1180	898	625	545	476	510	579	758	895	857
12	478	420	1200	888	660	550	482	508	615	868	897	838
13	485	430	958	865	627	477	515	529	635	578	815	919
14	500	458	798	815	592	380	520	542	678	598	834	752
15	467	448	697	845	641	395	560	537	725	567	578	524
16	515	493	640	887	688	340	553	569	717	727	408	628
17	490	510	507	797	707	287	484	565	825	696	410	430
18	508	512	500	795	676	277	456	575	724	950	350	486
19	498	528	485	845	665	297	468	565	847	940	347	467
20	480	483	526	827	731	292	512	505	578	878	335	435
21	495	490	510	817	690	278	520	552	518	692	348	420
22	467	510	605	802	775	278	532	545	412	545	407	435
23	508	540	578	795	520	300	530	575	415	405	445	488
24	444	515	567	768	502	308	523	542	406	395	503	487
25	458	622	645	821	506	327	518	547	422	382	480	512
26	478	730	580	778	548	347	511	556	435	386	704	558
27	470	815	618	745	584	394	525	500	435	375	675	685
28	458	915	705	797	585	387	528	478	578	398	610	665
29	455	751	738	795	---	416	530	505	585	528	488	668
30	488	588	660	746	---	418	535	498	585	558	438	627
31	469	---	687	755	---	435	---	490	---	685	815	---

PLATTE RIVER BASIN

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	12.0	1.0	.0	.5	.0	15.0	15.0	20.5	26.5	28.5	26.5
2	15.5	13.0	1.0	.0	.0	.0	11.5	16.5	21.5	28.0	28.0	28.0
3	16.0	14.5	1.0	1.0	.5	.0	16.5	14.5	21.0	32.5	25.5	29.5
4	15.5	13.5	1.0	.5	.5	.0	16.0	13.5	25.0	33.0	28.0	29.5
5	15.5	12.5	.0	.0	.0	.0	12.5	16.5	25.0	33.0	23.0	27.5
6	15.0	13.0	.0	1.0	.5	1.0	14.0	12.0	24.5	26.0	28.5	25.0
7	14.5	14.5	.0	1.0	.5	1.0	16.0	12.0	23.0	28.0	30.0	28.0
8	10.5	13.5	.0	.0	.5	.5	18.0	12.5	24.0	25.0	30.0	29.5
9	9.5	4.5	.0	.0	.5	.5	15.5	15.0	26.0	26.0	29.5	25.5
10	10.5	4.0	.0	.0	.5	1.0	15.0	19.0	25.5	25.0	29.0	29.0
11	10.0	4.5	2.0	.0	.0	1.0	14.0	20.5	27.5	25.0	29.0	28.0
12	11.5	5.5	2.0	.0	.0	.5	15.5	17.5	26.0	29.0	29.0	24.5
13	14.5	4.5	2.5	.0	.0	.5	15.0	18.0	27.0	27.5	34.0	25.0
14	15.5	7.5	1.5	.5	.5	.5	14.0	16.0	27.5	25.5	34.0	19.5
15	13.5	7.5	2.0	.0	.5	1.0	11.0	24.0	28.5	29.5	26.5	22.0
16	9.0	8.0	.5	.0	.0	1.0	10.0	20.5	30.0	31.5	27.5	26.5
17	14.5	6.5	.0	.0	.5	.5	8.5	20.0	29.0	31.5	29.5	20.0
18	14.0	5.0	1.0	.0	.5	2.5	7.5	20.0	29.0	31.5	25.0	25.5
19	15.0	6.0	.0	.0	.5	1.0	6.5	24.5	26.0	32.0	21.0	21.5
20	16.5	7.0	.0	.0	.5	5.0	6.0	20.5	26.5	29.5	26.0	17.0
21	18.5	.5	.0	.5	.5	5.5	10.5	20.0	24.5	25.5	28.0	20.0
22	14.0	1.0	1.0	.5	1.0	8.5	8.0	19.0	20.5	22.5	30.0	19.0
23	11.0	2.5	1.0	.5	1.0	6.5	10.5	22.5	22.0	26.0	30.0	21.0
24	11.5	.5	.5	1.0	1.5	7.0	10.0	25.5	25.0	28.0	31.0	22.5
25	14.5	.5	.0	.0	1.0	5.5	14.0	27.5	27.0	29.0	30.0	23.5
26	16.0	.0	1.0	.0	.0	6.5	15.0	25.0	27.5	30.0	28.0	23.5
27	16.5	.0	.5	.0	.5	11.0	14.0	23.0	28.0	29.5	30.5	22.5
28	16.0	1.0	1.0	.0	.0	12.0	16.0	25.0	28.0	29.5	28.5	21.0
29	17.0	1.0	1.0	.0	---	13.5	16.5	23.0	29.0	26.0	27.5	17.5
30	15.0	1.0	.5	.0	---	16.0	13.0	24.5	27.5	28.0	27.5	15.0
31	16.5	---	1.0	.0	---	17.5	---	22.5	---	29.0	27.5	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
11...	1100	5630	14.0	596	9060	--	--
25...	1250	4590	9.0	376	4660	--	--
NOV							
08...	1200	3410	13.0	202	1860	--	--
23...	1010	4240	3.0	256	2930	--	--
DEC							
13...	1130	1950	1.5	298	1570	--	--
23...	1015	3900	1.0	424	4460	--	--
JAN							
04...	1100	2130	1.5	562	3230	--	--
FEB							
01...	1300	3630	.5	92	902	--	--
MAR							
20...	1100	59800	2.5	4620	746000	--	--
21...	1115	82000	2.5	5060	1120000	--	--
24...	1200	25900	12.0	2290	160000	25	30
APR							
11...	1100	19100	13.5	2630	136000	24	41
20...	1030	18700	5.0	1820	91900	--	--
MAY							
03...	1045	9320	13.5	612	15400	49	49
16...	1005	5600	18.5	256	3870	--	--
31...	1155	7580	17.0	882	18100	--	--
JUN							
13...	1150	3570	18.5	192	1850	--	--
29...	1230	3090	30.0	674	5620	63	69
JUL							
14...	1145	2200	23.0	733	4350	--	--
26...	1215	3720	27.0	1140	11400	65	72
AUG							
08...	1400	1610	28.0	117	509	--	--
24...	1005	1970	24.5	197	1050	--	--
SEP							
12...	1210	1270	24.0	104	357	--	--
27...	1200	1900	21.5	156	800	--	--

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
11...	--	76	83	93	98	100
25...	--	34	--	--	--	--
NOV						
08...	--	15	19	26	44	65
23...	--	66	78	92	100	--
DEC						
13...	--	33	33	73	100	--
23...	--	19	28	56	88	100
JAN						
04...	--	8	8	16	60	82
FEB						
01...	--	38	47	59	82	94
MAR						
20...	--	43	49	85	96	96
21...	--	34	44	79	93	100
24...	43	63	--	--	--	--
APR						
11...	56	84	87	92	95	96
20...	--	62	65	75	88	95
MAY						
03...	53	76	78	88	98	99
16...	--	52	58	88	100	--
31...	--	76	78	84	93	98
JUN						
13...	--	69	75	92	100	--
29...	79	92	96	98	99	99
JUL						
14...	--	97	98	99	100	--
26...	84	98	99	100	--	--
AUG						
08...	--	87	--	--	--	--
24...	--	91	--	--	--	--
SEP						
12...	--	72	--	--	--	--
27...	--	65	--	--	--	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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. FALL DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. FALL DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. FALL DIAM. % FINER THAN 8.00 MM (80171)
OCT											
11...	1100	5630	3	4	10	26	74	93	98	100	--
25...	1250	4590	4	--	0	11	50	91	98	100	--
NOV											
08...	1200	3410	3	--	0	12	50	85	92	98	100
23...	1010	4240	5	--	0	19	67	88	94	98	99
DEC											
13...	1130	1950	3	--	0	9	42	85	96	99	100
23...	1015	3900	4	0	2	21	46	72	86	96	100
MAR											
20...	1100	59800	5	--	0	21	61	86	93	96	99
21...	1115	82000	3	--	0	4	15	59	76	91	97
24...	1200	25900	3	--	0	30	86	99	99	100	--
APR											
11...	1100	19100	5	--	0	8	34	79	95	98	99
20...	1030	18700	4	--	0	6	27	77	92	98	100
MAY											
03...	1045	9320	6	--	0	13	63	91	97	99	100
16...	1005	5600	5	--	0	8	31	84	96	99	100
31...	1155	7580	4	19	22	34	58	90	96	99	100
JUN											
13...	1150	3570	4	--	0	17	50	84	94	98	100
29...	1230	3090	3	0	1	24	45	80	93	98	100
JUL											
14...	1145	2200	4	--	0	12	37	74	86	95	99
26...	1215	3720	3	4	6	22	65	89	95	98	100
AUG											
08...	1400	1610	6	--	0	13	34	66	80	93	99
24...	1005	1970	5	0	2	16	41	73	86	96	100
SEP											
12...	1210	1270	9	--	0	11	33	67	86	94	99
27...	1200	1900	4	--	0	14	60	89	97	99	100

PLATTE RIVER BASIN

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	4050	313	3420	4800	380	4920	5000	430	5800
2	4830	400	5220	4440	391	4690	5800	660	10300
3	4720	570	7260	5000	400	5400	5400	660	9620
4	4800	700	9070	4510	416	5070	5200	520	7300
5	4770	800	10300	4410	380	4520	5000	430	5800
6	5220	720	10100	4410	286	3410	2600	280	7970
7	4910	540	7160	4480	230	2780	1500	275	1110
8	7000	720	13600	4010	264	2860	1000	275	742
9	6610	758	13500	7960	970	20800	700	260	491
10	5420	570	8340	7910	1000	21400	1000	275	742
11	5210	510	7170	7170	830	16100	1700	275	1260
12	4830	596	7770	6770	720	13200	1900	275	1410
13	4260	450	5180	6350	605	10400	1950	270	1420
14	4700	350	4440	5940	520	8340	2500	160	1080
15	4370	350	4130	6350	477	8180	3000	170	1380
16	3830	400	4140	5910	480	7660	3500	230	2170
17	4280	450	5200	6130	485	8030	4200	370	4200
18	3790	390	3990	5940	490	7860	4500	390	4740
19	4050	330	3610	6090	504	8290	4300	410	4760
20	4160	300	3370	6060	400	6540	3900	380	4000
21	4080	282	3110	6020	380	6180	3700	350	3500
22	4610	280	3490	5510	300	4460	3400	320	2940
23	5280	302	4310	4500	320	3890	3900	424	4460
24	5240	300	4240	4300	560	6500	4000	369	3990
25	4540	400	4900	4000	500	5400	3900	330	3470
26	4760	540	6940	3500	290	2740	3700	285	2850
27	4740	572	7320	2500	280	1890	3600	290	2820
28	4560	480	5910	2100	380	2150	3700	300	3000
29	4300	310	3600	2500	420	2840	3900	290	3050
30	4230	300	3430	3500	330	3120	3700	285	2850
31	4390	320	3790	---	---	---	3600	280	2720
TOTAL	146540	---	188010	153070	---	209620	105750	---	111945
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	3400	275	2520	3690	92	917	4770	170	2190
2	3500	270	2550	3500	110	1040	4500	170	2070
3	3600	264	2570	3900	130	1370	5000	170	2300
4	2350	490	3110	3800	152	1560	5000	170	2300
5	3000	330	2670	3700	154	1540	5000	170	2300
6	3500	320	3020	3600	156	1520	5200	175	2460
7	3300	433	3860	3600	156	1520	5200	175	2460
8	3100	410	3430	4100	158	1750	5200	183	2570
9	3000	390	3160	4400	160	1900	5400	150	2190
10	3000	390	3160	4000	162	1750	5400	120	1750
11	3000	390	3160	4000	160	1730	5800	120	1880
12	3100	360	3010	4100	160	1770	8000	120	2590
13	3200	330	2850	4200	160	1810	14000	200	7560
14	3400	290	2660	4300	160	1860	22000	250	14800
15	3500	253	2390	3900	160	1680	32000	326	28200
16	3400	250	2300	3890	160	1680	42000	500	56700
17	3000	240	1940	3400	162	1490	50000	696	94000
18	3000	240	1940	3000	164	1330	51500	1900	264000
19	3100	230	1930	3600	166	1610	59000	3240	516000
20	3200	220	1900	4100	168	1860	75700	5170	1110000
21	3300	210	1870	3800	168	1720	86100	5060	1180000
22	3400	203	1860	3600	168	1630	62600	3750	634000
23	3500	195	1840	4300	168	1950	45800	2740	339000
24	3500	188	1780	4600	150	1860	23900	2290	148000
25	3400	180	1650	4900	139	1840	17200	1920	89200
26	3300	170	1510	4300	150	1740	13700	1440	53300
27	3100	150	1260	5000	164	2210	11900	1000	32100
28	3600	130	1260	5200	165	2320	10600	900	25800
29	3400	120	1100	---	---	---	9440	860	21900
30	3800	110	1130	---	---	---	8910	820	19700
31	3700	100	999	---	---	---	7610	793	16300
TOTAL	101650	---	70389	112480	---	46957	708430	---	4677620

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	6690	760	13700	9490	630	16100	6970	880	16600
2	5630	748	11400	10300	610	17000	8310	880	19700
3	6510	800	14100	9320	612	15400	8320	880	19800
4	7290	816	16100	9090	600	14700	7750	870	18200
5	7190	850	16500	8440	800	18200	6780	845	15500
6	11900	1000	32100	8700	1000	23500	6590	690	12300
7	12200	1730	57000	15100	1500	61200	5790	500	7820
8	25400	1940	133000	15100	1500	61200	6150	450	7470
9	25900	3600	252000	12400	1350	45200	5330	357	5140
10	26700	3550	256000	10500	1100	31200	5020	330	4470
11	19700	2630	140000	9060	1000	24500	4810	295	3830
12	16300	1870	82300	8580	800	18500	4320	230	2680
13	13300	1200	43100	7680	600	12400	4000	220	2380
14	11900	950	30500	7110	500	9600	3640	230	2260
15	10500	900	25500	6260	300	5070	3400	199	1830
16	11400	1210	37200	5990	256	4140	3420	180	1660
17	17200	2260	105000	5520	300	4470	2790	160	1200
18	27200	2300	169000	5220	350	4930	2980	150	1210
19	22500	1930	117000	4930	400	5320	2600	172	1210
20	19200	1750	90700	5590	450	6790	4970	940	12600
21	16400	1170	51800	5360	500	7240	7090	1400	26800
22	14900	1000	40200	4580	550	6800	4620	900	11200
23	15000	980	39700	5490	600	8890	9600	2000	51800
24	13900	950	35700	5900	650	10400	8470	1700	38900
25	12200	940	31000	4750	700	8980	6360	1240	21300
26	11300	930	28400	5010	750	10100	6710	1170	21200
27	9860	920	24500	5940	800	12800	5620	1070	16200
28	9400	960	24400	6810	850	15600	3810	880	9050
29	8750	770	18200	5320	750	10800	3730	674	6790
30	10000	650	17600	4970	700	9390	3500	580	5480
31	---	---	---	6960	882	16600	---	---	---
TOTAL	426320	---	1953700	235470	---	517020	163450	---	366580

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	3240	482	4220	1790	220	1060	1210	120	392
2	3580	370	3580	1480	178	711	1360	150	551
3	3020	280	2280	1600	170	734	1890	228	1160
4	3060	230	1900	1430	150	579	1600	170	734
5	2460	209	1390	1760	150	712	1590	168	721
6	2620	230	1630	1160	150	469	1150	140	435
7	2490	260	1750	1410	130	494	1360	109	400
8	2580	290	2020	1480	117	467	1330	100	359
9	2350	328	2080	1910	160	825	1190	97	312
10	2270	270	1650	1610	143	621	1110	90	270
11	2120	210	1200	1420	160	613	1250	90	304
12	2160	370	2160	1290	170	592	1170	104	320
13	2630	737	5230	1300	180	631	1380	93	347
14	2130	733	4220	1290	191	665	1740	120	564
15	2600	730	5120	2000	350	1890	2150	177	1030
16	1610	470	2040	3200	630	5440	2440	180	1190
17	1480	250	999	3670	770	7630	3150	160	1360
18	1320	210	748	8000	1180	25500	3570	290	2800
19	1300	182	639	6110	1020	16800	3230	300	2620
20	1420	250	958	5090	720	9890	3840	280	2900
21	2810	500	3790	4030	480	5220	4530	338	4130
22	14400	3500	136000	3130	330	2790	3160	250	2130
23	8450	2360	53800	2500	250	1690	2670	180	1300
24	4740	1230	15700	2070	197	1100	2290	150	927
25	5080	1220	16700	2020	220	1200	2210	126	752
26	4410	1140	13600	1570	257	1090	2230	140	843
27	3780	1010	10300	1380	240	894	2080	156	876
28	3820	750	7740	1510	224	913	2060	150	834
29	2650	410	2930	2010	250	1360	1920	160	829
30	2520	320	2180	2180	360	2120	1730	157	733
31	1980	230	1230	1710	280	1290	---	---	---
TOTAL	101080	---	309784	73110	---	95990	62590	---	32123

WEEPING WATER CREEK BASIN

06806500 WEEPING WATER CREEK AT UNION, NE

LOCATION.--Lat 40°47'35", long 95°54'40", in NW1/4 sec.36, T.10 N., R.13 E., Cass County, Hydrologic Unit 10240001, near left bank on downstream side of pier of bridge on U.S. Highways 73 and 75, 1.5 mi (2.4 km) southeast of Union and 2.8 mi (4.5 km) downstream from South Branch Weeping Water Creek.

DRAINAGE AREA.--241 mi² (624 km²).

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

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 929.72 ft (283.379 m) National Geodetic Vertical Datum of 1929. Prior to May 14, 1951, nonrecording gage at site 2 mi (3 km) upstream at different datum. May 15, 1951, to Aug. 22, 1968, water-stage recorder for stages above 7.9 ft (2.41 m) and nonrecording gage at present site and datum.

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

AVERAGE DISCHARGE.--28 years, 82.7 ft³/s (2.342 m³/s), 59,920 acre-ft/yr (73.9 hm³/yr); median of yearly mean discharges, 69 ft³/s (1.954 m³/s), 50,000 acre-ft/yr (61.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,300 ft³/s (1,710 m³/s) May 9, 1950, gage height, 26.80 ft (8.169 m), from floodmark, present site and datum, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of measurement of peak flow through bridges and over highway embankment; minimum daily, 0.1 ft³/s (0.003 m³/s) Sept. 10-12, 14, 15, 17, 18, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Mar. 19	----	3200	90.6	a		July 20	1500	3770	107	16.12	4.913
Apr. 9	1715	4280	121	16.97	5.172	July 22	1015	*19100	541	24.82	7.565
Apr. 18	0045	3180	90.1	14.99	4.569	Sept. 20	0045	3330	94.3	15.28	4.657
July 14	2145	3060	86.7	14.73	4.490						

a Backwater from ice.

Minimum daily discharge, 13 ft³/s (0.37 m³/s) Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	68	48	30	21	21	71	192	198	58	121	38
2	32	59	47	31	17	22	69	162	108	57	117	42
3	28	61	47	28	13	23	69	150	95	54	107	42
4	28	58	46	33	16	16	64	150	86	52	100	41
5	27	55	39	35	15	24	74	143	82	50	96	40
6	24	58	40	36	16	25	121	194	79	63	90	38
7	158	59	47	36	18	27	117	1740	80	385	84	38
8	163	78	42	30	20	28	86	661	75	73	80	37
9	76	1000	44	32	18	27	1360	296	71	63	73	37
10	50	214	45	32	21	30	761	242	66	57	77	37
11	37	109	41	32	24	37	210	221	62	54	76	36
12	31	86	42	32	27	78	157	201	58	518	68	36
13	32	80	48	35	31	198	135	216	55	249	66	73
14	33	77	50	34	36	996	243	180	55	796	62	68
15	31	75	51	33	29	836	255	169	54	1120	72	47
16	31	70	54	31	24	833	390	160	54	118	68	44
17	32	62	60	31	20	427	1020	153	52	74	62	55
18	31	55	53	30	21	842	1150	148	50	62	57	320
19	25	51	48	30	22	1860	400	144	50	62	55	436
20	27	57	38	29	20	1500	271	161	54	1800	51	1850
21	36	47	50	28	18	1200	241	141	53	1060	49	275
22	209	46	37	29	19	600	305	132	222	13000	48	133
23	98	52	36	30	32	280	360	139	758	1960	46	120
24	76	47	36	33	31	115	236	135	115	361	45	108
25	60	39	28	29	47	94	205	126	75	275	53	98
26	56	45	25	28	41	85	190	113	736	223	47	90
27	54	46	23	28	43	84	186	138	310	186	62	82
28	52	40	21	27	33	83	185	173	101	162	48	76
29	55	41	29	26	---	80	193	134	72	144	43	70
30	59	46	24	25	---	79	188	155	61	137	41	133
31	104	---	31	25	---	77	---	116	---	129	40	---
TOTAL	1787	2881	1270	948	693	10627	9312	7185	3987	23402	2104	4540
MEAN	57.6	96.0	41.0	30.6	24.8	343	310	232	133	755	67.9	151
MAX	209	1000	60	36	47	1860	1360	1740	758	13000	121	1850
MIN	24	39	21	25	13	16	64	113	50	50	40	36
AC-FT	3540	5710	2520	1880	1370	21080	18470	14250	7910	46420	4170	9010

CAL YR 1977 TOTAL 25386.67 MEAN 69.6 MAX 3320 MIN .87 AC-FT 50350
WTR YR 1978 TOTAL 68736.00 MEAN 188 MAX 13000 MIN 13 AC-FT 136300

MISSOURI RIVER MAIN STEM

269

06807000 MISSOURI RIVER AT NEBRASKA CITY, NE
(National stream-quality accounting network station)

LOCATION.--Lat 40°40'55", long 95°50'48", in NW1/4NE1/4 sec.9, T.8 N., R.14 E., Otoe County, Hydrologic Unit 10240001, on right bank 0.7 mi (1.1 km) upstream from Waubonsie Highway Bridge at Nebraska City, and at mi 562.6 (905.2 km).

DRAINAGE AREA.--410,000 mi² (1,062,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin are not included.

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.

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 905.36 ft (275.954 m) National Geodetic Vertical Datum of 1929, supplementary adjustment of 1954. See WSP 1918 or 1919 for history of changes prior to Apr. 1, 1963.

REMARKS.--Records good. Flow regulated by upstream main-stem reservoirs. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--49 years, 35,330 ft³/s (1,001 m³/s), 25,600,000 acre-ft/yr (31.6 km³/yr).

EXTREMES FOR 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 156,000 ft³/s (4,420 m³/s) Mar. 22, gage height, 22.43 ft (6.837 m); minimum daily, 12,900 ft³/s (365 m³/s) Jan. 29; minimum gage height, 2.06 ft (0.058 m/s) Jan. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38100	41600	26200	22300	16600	21700	48900	46300	52100	50900	62100	57200
2	37700	40700	25600	21500	17600	22400	47100	46200	52600	51700	60900	57200
3	37200	39000	25200	20500	17500	22100	45700	45000	52400	51500	61000	57600
4	36400	38900	24500	19200	17400	22200	46200	43500	50800	50600	61000	57100
5	36500	37900	23600	19200	16800	22000	46900	42800	49000	49800	59300	56800
6	36500	37200	22800	20900	16900	21600	47700	42500	48200	50600	57600	56900
7	38100	37000	21500	21300	17800	22200	51200	48700	48100	53500	56300	56800
8	39500	36900	19000	20600	18000	23400	55900	51500	47500	56800	55800	56800
9	41200	45000	16100	19600	18100	24100	63400	48400	47200	56200	56500	56800
10	40600	51900	14800	18600	18800	24100	67400	46000	48300	53200	59000	56800
11	39200	49000	16600	18100	19800	24400	59700	44600	49200	53700	58500	56800
12	38600	45000	16900	18000	21100	25000	56800	43100	49300	55400	58600	57000
13	38500	42000	18700	18400	22100	26600	51600	42300	49300	55600	58000	64500
14	38300	41500	21400	19300	21800	37100	48500	41500	48400	55700	57500	80500
15	38100	41400	22500	19800	21000	45800	50000	41400	47300	56800	58900	71900
16	37800	41400	22800	19600	20500	50200	50200	40600	46900	55700	60100	64800
17	37400	41800	23200	19000	20500	56400	53700	40100	47500	54200	61500	61500
18	37300	42800	24600	18800	20000	58000	65100	39300	49700	53300	61800	62700
19	36900	42600	26500	18600	20000	84800	60900	39600	52700	54200	61400	61400
20	37100	42400	25400	18500	20500	118000	58400	41900	53000	55800	60600	67500
21	37600	42800	24100	18700	20500	143000	56500	40000	52600	57200	59800	64200
22	38300	42600	22600	18800	20500	154000	55500	39500	52000	78800	59300	63000
23	39500	42000	21300	18600	20800	130000	55100	39200	52300	72800	58100	61100
24	39700	41300	21100	18600	21000	89000	53000	40000	53300	68500	58100	59700
25	39000	40200	22000	18500	21500	79500	51000	40200	52300	69200	57900	59000
26	38600	36900	21900	18000	22000	75800	49100	40400	53000	68100	58400	57800
27	37800	33200	21100	17000	22200	70000	47700	42700	54000	66800	59400	57600
28	37900	30000	20000	13400	21600	60600	46100	45400	52900	66400	59500	57800
29	38100	27700	20200	12900	---	55300	45800	45800	51500	65100	59500	57300
30	38500	26400	21000	14800	---	53000	45600	47600	51200	63300	58800	57100
31	39600	---	22000	15900	---	51000	---	50000	---	63000	58200	---
TOTAL	1185600	1199100	675200	577000	552900	1713300	1580700	1346100	1514600	1814400	1833400	1813200
MEAN	38250	39970	21780	18610	19750	55270	52690	43420	50490	58530	59140	60440
MAX	41200	51900	26500	22300	22200	154000	67400	51500	54000	78800	62100	80500
MIN	36400	26400	14800	12900	16600	21600	45600	39200	46900	49800	55800	56800
AC-FT	2352000	2378000	1339000	1144000	1097000	3398000	3135000	2670000	3004000	3599000	3637000	3596000
CAL YR 1977 TOTAL	12520000			MEAN 34300		MAX 58600	MIN 13000	AC-FT 24830000				
WTR YR 1978 TOTAL	15805500			MEAN 43300		MAX 154000	MIN 12900	AC-FT 31350000				

LITTLE NEMAH RIVER BASIN

06811500 LITTLE NEMAH RIVER AT AUBURN, NE

LOCATION.--Lat 40°23'33", long 95°48'46", in NE1/4NW1/4 sec.23, T.5 N., R.14 E., Nemaha County, Hydrologic Unit 10240006, on left bank at downstream side of bridge on U.S. Highway 136, 1 mi (2 km) downstream from Longs Creek and Willow Creek and 1 mi (2 km) east of Auburn.

DRAINAGE AREA.--793 mi² (2,054 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 889.87 ft (271.232 m) National Geodetic Vertical Datum of 1929. See WSP 2119 for history of changes prior to July 24, 1967.

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

AVERAGE DISCHARGE.--29 years, 279 ft³/s (7.901 m³/s), 202,100 acre-ft/yr (0.249 km³/yr); median of yearly mean discharges, 200 ft³/s (5.664 m³/s), 145,000 acre-ft/yr (0.179 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 164,000 ft³/s (4,640 m³/s) May 9, 1950, gage height, 27.65 ft (8.428 m), from floodmark, from rating curve extended above 49,000 ft³/s (1,390 m³/s) on basis of computations of peak flow through bridge and culvert openings and over highway and railway embankments at gage heights 24.96 ft (7.608 m) and 27.65 ft (8.428 m); minimum daily, 0.87 ft³/s (0.025 m³/s) July 6-8, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 9	1300	8690 246	16.13 4.916	July 22	1830	27800 787	24.35 7.422
Mar. 19	unknown	a41000 1160	unknown	Sept. 18	0700	9980 283	16.99 5.179
Apr. 17	1700	*54900 1550	24.79 7.556	Sept. 20	1800	7900 224	15.55 4.740
May 7	0600	36500 1030	23.08 7.035				

a About.

Minimum daily discharge, 48 ft³/s (1.36 m³/s) Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	157	126	68	56	82	179	280	1390	161	208	75
2	101	127	124	70	54	80	162	280	492	144	202	82
3	93	104	120	68	56	80	151	280	288	133	189	104
4	90	92	116	70	58	78	139	296	244	121	174	105
5	93	85	109	64	58	84	159	296	219	112	161	84
6	84	85	102	60	60	90	287	2580	210	145	152	78
7	495	85	78	58	60	94	249	17900	204	831	143	73
8	1020	122	86	54	62	96	192	4230	193	398	133	73
9	309	5850	76	50	62	110	840	1170	174	247	149	66
10	179	1670	90	50	64	180	2290	668	161	183	136	60
11	136	571	110	52	62	350	637	520	146	160	160	58
12	116	366	130	54	60	800	381	487	135	1510	133	55
13	105	297	155	54	60	1600	307	446	135	740	121	76
14	97	252	161	52	58	10000	314	378	132	295	116	232
15	91	229	159	52	58	8000	456	332	128	595	114	484
16	90	212	157	52	58	4300	1140	315	120	295	116	480
17	85	189	172	50	58	2890	21500	297	108	188	110	198
18	82	171	134	50	60	8300	6640	284	101	145	106	174
19	79	161	119	48	64	17100	1580	263	103	992	96	156
20	78	156	95	50	66	4260	986	350	129	500	94	4280
21	75	145	96	52	70	3650	640	340	118	956	93	1750
22	562	138	120	54	74	1980	470	274	112	21500	90	474
23	470	136	130	56	76	897	410	270	211	5280	86	309
24	213	134	120	58	80	462	380	263	217	782	86	234
25	160	125	110	58	82	333	360	246	149	415	86	198
26	127	90	96	58	82	280	340	221	256	348	84	174
27	110	144	98	56	82	261	330	217	747	296	133	156
28	101	143	98	56	84	252	310	240	400	251	97	142
29	96	149	98	54	---	242	300	243	243	251	81	137
30	95	125	88	54	---	212	300	240	184	232	79	139
31	173	---	68	56	---	194	---	878	---	217	76	---
TOTAL	5709	12310	3541	1738	1824	67337	42429	35084	7449	38423	3804	10706
MEAN	184	410	114	56.1	65.1	2172	1414	1132	248	1239	123	357
MAX	1020	5850	172	70	84	17100	21500	17900	1390	21500	208	4280
MIN	75	85	68	48	54	78	139	217	101	112	76	55
AC-FT	11320	24420	7020	3450	3620	133600	84160	69590	14780	76210	7550	21240

CAL YR 1977 TOTAL 89980.51 MEAN 247 MAX 17000 MIN .87 AC-FT 178500
WTR YR 1978 TOTAL 230354.00 MEAN 631 MAX 21500 MIN 48 AC-FT 456900

06811500 LITTLE NEMAH RIVER AT AUBURN, NE--Continued

WATER QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 20...	1330	78	668	8.2	13.0	20	9.4	5.7	8000	1560
NOV 10...	1230	1320	268	7.2	6.0	650	8.7	13	K113000	K120000
DEC 22...	1200	119	715	7.5	.0	20	--	2.8	2800	6100
JAN 12...	1035	55	495	7.5	.0	15	15.2	6.6	3400	600
31...	1330	56	710	7.4	.0	5	10.3	5.0	11670	4600
APR 18...	1450	4250	210	7.2	7.0	1700	9.4	5.2	51000	100000
MAY 26...	1400	180	685	8.2	25.0	45	8.5	6.7	1400	960
JUN 28...	1200	360	330	7.8	27.0	1100	6.6	4.7	61000	144000
JUL 26...	1430	850	375	7.9	26.5	270	7.1	1.9	9000	14000
AUG 22...	1140	79	549	8.3	27.0	25	10.2	6.3	K13700	1160
SEP 20...	1030	4000	196	--	15.0	1200	6.9	5.2	183000	810000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 20...	20	404	.55	85.7	1.8	.24	.86	1.1	2.9	.46
NOV 10...	5.9	159	.22	567	1.7	.38	3.9	4.3	6.0	5.5
DEC 22...	19	--	.53	126	2.9	.21	.67	.88	3.8	.34
JAN 12...	25	521	.71	77.4	3.0	.33	.77	1.1	4.1	.36
31...	18	437	.59	66.1	2.8	.21	.18	.39	3.2	.32
APR 18...	4.2	141	.19	1620	2.5	.29	7.4	7.7	10	2.2
MAY 26...	13	378	.51	184	2.8	.04	.96	1.0	3.8	.34
JUN 28...	6.8	--	.25	178	4.2	.01	6.5	6.5	11	1.3
JUL 26...	7.0	241	.33	553	2.8	.44	1.2	1.6	4.4	.67
AUG 22...	18	--	.49	77.4	.85	.10	1.0	1.1	2.0	.32
SEP 20...	5.4	137	.19	1480	1.8	.07	19	19	21	2.6

LITTLE NEMAHIA RIVER BASIN

06811500 LITTLE NEMAHIA RIVER AT AUBURN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 22...	1200	5	320	100	90	22	37	.9	4.8	260	0
JUN 28...	1200	45	130	22	37	8.8	17	.7	7.5	130	0
AUG 22...	1140	7	240	1	66	18	34	1.0	5.3	290	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUD- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC 22...	210	67	.3	22	391	.25	--	60	--	--
JUN 28...	110	28	.4	13	183	.21	--	60	--	--
AUG 22...	240	64	.4	14	363	.15	6	80	2	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE- RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 22...	--	20	--	310	--	--	--	--	--	--
JUN 28...	--	0	--	0	--	--	--	--	--	--
AUG 22...	9	30	5	100	.1	.1	.0	3	0	20

MISSOURI RIVER MAIN STEM

273

06813500 MISSOURI RIVER AT RULO, NE

LOCATION.--Lat 40°03'14", long 95°25'12", in NW1/4NW1/4 sec.17, T.1 N., R.18 E., Richardson County, Hydrologic Unit 10240005, 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 mi 498.0 (801.3 km).

DRAINAGE AREA (REVISED).--414,900 mi² (1,075,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin are not included.

PERIOD OF RECORD.--October 1949 to current year in reports of Geological Survey. Gage-height record collected at site 80 ft 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 (255.188 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 13, 1950, nonrecording gage at site 80 ft (24 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by upstream main-stem reservoirs. Several observations of water temperature were made during the year. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--29 years, 39,270 ft³/s (1,112 m³/s), 28,450,000 acre-ft/yr (35.1 km³/yr).

EXTREMES FOR 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1881 reached a stage of 22.9 ft (6.98 m), from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 161,100 ft³/s (4,560 m³/s) Mar. 23, gage height, 22.01 ft (6.709 m); minimum daily, 14,000 ft³/s (0.40 m³/s) Jan. 30; minimum gage height, 3.76 ft (1.146 m) Jan. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39400	42500	28100	23200	17000	22600	52000	49000	59400	51600	62400	57900
2	40000	43500	27000	22200	17000	23200	49800	47800	57100	51800	61900	57500
3	39800	40300	27100	21400	18000	22900	47600	47100	55000	52700	61100	57900
4	38900	39200	24700	20400	18000	22400	46700	46000	54000	51300	62100	57700
5	38700	38400	24200	19500	17500	22300	47400	45300	52400	50300	60800	56800
6	38300	37700	22900	20500	17500	21500	49200	44900	50900	50500	59700	57400
7	40000	37500	21200	22300	18000	21800	50400	90000	50200	56800	57700	57400
8	48300	38200	19500	21900	18500	22600	55100	80700	49800	61600	57100	57200
9	45700	74800	18700	20500	18500	24000	63500	62000	49800	61500	57400	57000
10	43200	72800	17200	19400	19300	24300	88700	53700	49000	55900	57900	57000
11	40300	56800	17700	18800	20100	24200	74000	50700	50200	54300	61100	56800
12	39000	49600	19900	18900	21300	25000	62000	49400	49800	57500	58200	57000
13	38500	46100	20900	19100	22400	27900	56700	50100	49200	60200	58600	58800
14	38800	44100	21700	19800	21800	45200	51000	46600	48700	56500	58300	58600
15	39400	43900	23300	20600	21000	55500	50900	44900	48200	60600	58200	89100
16	39300	44600	24300	20600	20600	60800	53200	44000	47800	56400	60700	73800
17	39000	44700	24800	20000	20600	64000	70500	42300	48000	54500	62600	66800
18	39300	45000	25100	19700	20500	67700	106000	41800	48800	53300	62100	83900
19	38900	45100	26300	19600	20300	110000	85600	41300	53600	58600	62700	72700
20	38600	45000	25400	19600	20300	122000	68800	45900	54400	61600	61500	74000
21	38600	44400	23200	19800	20600	134000	62900	45000	53500	65100	61300	79000
22	45000	44700	22100	20300	20700	148000	60400	41900	52700	80000	60000	73300
23	45100	43600	21600	20400	21000	160000	61000	41600	52700	100000	59100	66600
24	44800	41200	21600	20800	20800	149000	58600	41900	52900	90000	58500	63200
25	41900	40400	22400	19000	21800	111000	55300	41900	52700	78600	58900	61500
26	40600	37700	23300	19800	22900	86200	53000	41400	53100	74900	58900	60100
27	39200	34200	22000	18500	23200	77700	51700	42900	61700	71600	58700	58600
28	38900	31400	21000	17000	23100	69000	49700	47000	56100	69600	60000	58400
29	38800	29100	20700	15000	---	60500	49100	49400	51800	67100	60000	58200
30	38900	28300	20800	14000	---	56300	48000	49700	50900	64800	59000	58200
31	43500	---	22300	15000	---	54600	---	53200	---	63800	57900	---
TOTAL	1258700	1304800	701000	607600	562300	1936200	1778800	1519400	1564400	1943000	1854400	1929400
MEAN	40600	43490	22610	19600	20080	62460	59290	49010	52150	62680	59820	64310
MAX	48300	74800	28100	23200	23200	160000	106000	90000	61700	100000	62700	89100
MIN	38300	28300	17200	14000	17000	21500	46700	41300	47800	50300	57100	56800
AC-FT	2497000	2588000	1390000	1205000	1115000	3840000	3528000	3014000	3103000	3854000	3678000	3827000
CAL YR 1977	TOTAL	13105400	MEAN	35910	MAX	77700	MIN	14000	AC-FT	25990000		
WTR YR 1978	TOTAL	16960000	MEAN	46470	MAX	160000	MIN	14000	AC-FT	33640000		

BIG NEMAH RIVER BASIN

06814000 TURKEY CREEK NEAR SENECA, KS

LOCATION.--Lat 39°56'52", long 96°06'30", in SW1/4NW1/4SW1/4 sec.20, T.1 S., R.12 E., Nemaha County, Hydrologic Unit 10240007, at downstream side of highway bridge, 2.0 mi (3.2 km) downstream from Clear Creek, 5.0 mi (8.0 km) upstream from Big Nemaha River, and 8.0 mi (12.9 km) northwest of Seneca.

DRAINAGE AREA.--276 mi² (715 km²).

PERIOD OF RECORD.--October 1948 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Altitude of gage is 1,160 ft (354 m), from topographic map. Prior to Oct. 19, 1956, water-stage recorder (occasional operation only) and nonrecording gage on former channel 400 ft (120 m) south of present site at present datum. Oct. 19, 1956, to June 15, 1957, nonrecording gage at highway bridge 1.2 mi (1.9 km) upstream at different datum. June 16, 1957, to Mar. 27, 1958, nonrecording gage at present site and datum.

REMARKS.--Records good except those for January, February, and period of no gage-height record Aug. 15 to Sept. 13, which are poor.

AVERAGE DISCHARGE.--30 years, 123 ft³/s (3.483 m³/s), 89,110 acre-ft/yr (0.110 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft³/s (606 m³/s) Oct. 11, 1973, gage height, 24.77 ft (7.550 m); no flow at times in 1956-57, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,100 ft³/s (87.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 14	1500	3800 108	19.57 5.965	May 7	1600	*14000 396	24.01 7.318
Mar. 19	0800	4400 125	20.30 6.187	June 28	0200	3610 102	19.30 5.883
Apr. 18	0300	6340 180	21.62 6.590	July 23	0700	7990 226	22.33 6.806

Minimum daily discharge, 7.0 ft³/s (0.20 m³/s) Aug. 27 to Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	101	53	16	10	56	75	230	901	76	93	7.0
2	34	108	50	17	10	58	65	134	223	63	104	7.0
3	31	58	47	15	12	56	59	111	120	48	136	7.0
4	28	52	44	16	16	49	53	106	87	41	65	7.0
5	27	50	41	17	14	45	51	101	73	35	52	7.0
6	25	56	26	19	12	44	243	678	63	458	45	7.0
7	465	61	38	21	12	44	106	10800	57	710	40	7.0
8	288	219	34	17	12	42	64	3400	49	199	37	7.0
9	78	2490	27	15	14	40	57	586	43	208	34	7.0
10	50	528	24	13	14	43	390	384	39	101	34	7.0
11	39	234	25	13	14	96	164	294	34	124	34	7.0
12	36	178	31	14	14	423	80	487	30	108	40	7.0
13	33	155	43	14	12	1510	58	459	26	90	33	20
14	31	140	44	13	12	3360	54	236	25	60	27	108
15	29	126	47	13	10	2010	62	191	25	50	24	57
16	27	111	56	12	10	2330	687	163	23	43	20	19
17	27	95	55	10	9.0	1490	3120	142	22	38	20	17
18	26	86	40	10	9.0	1900	4470	126	18	37	15	621
19	25	82	36	12	9.0	3330	695	119	22	278	10	211
20	25	83	24	12	12	954	438	160	274	452	10	1340
21	25	72	27	14	12	730	322	96	42	76	10	577
22	321	66	28	14	16	477	288	108	56	2530	10	135
23	107	66	25	14	20	330	339	114	60	5750	10	73
24	66	60	26	15	30	203	248	94	36	482	10	53
25	50	55	19	14	40	150	193	75	30	293	9.0	43
26	43	42	21	12	50	127	173	65	71	200	8.0	36
27	43	60	17	12	58	118	155	59	1350	149	7.0	31
28	43	51	17	12	62	114	154	56	1410	120	7.0	26
29	45	50	18	12	---	107	153	52	185	96	7.0	23
30	50	51	19	12	---	95	272	50	101	80	7.0	23
31	293	---	21	12	---	85	---	360	---	74	7.0	---
TOTAL	2444	5586	1023	432	525.0	20416	13288	20036	5495	13069	965.0	3497.0
MEAN	78.8	186	33.0	13.9	18.8	659	443	646	183	422	31.1	117
MAX	465	2490	56	21	62	3360	4470	10800	1410	5750	136	1340
MIN	25	42	17	10	9.0	40	51	50	18	35	7.0	7.0
AC-FT	4850	11080	2030	857	1040	40500	26360	39740	10900	25920	1910	6940
CAL YR 1977 TOTAL	31627.25			MEAN 86.7	MAX 5610	MIN .00	AC-FT 62730					
WTR YR 1978 TOTAL	86776.00			MEAN 238	MAX 10800	MIN 7.0	AC-FT 172100					

06814500 NORTH FORK BIG NEMAHA RIVER AT HUMBOLDT, NE

LOCATION.--Lat 40°09'25", long 95°56'40", in NW1/4NE1/4 sec.10, T.2 N., R.13 E., Richardson County, Hydrologic Unit 10240008, on right pile bent of bridge on State Highway 105 at south edge of Humboldt, 800 ft (244 m) downstream from Long Branch Creek.

DRAINAGE AREA.--548 mi² (1,419 km²).

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1965 published as North Fork Nemaha River at Humboldt.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 944.44 ft (287.865 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 5, 1968, nonrecording gage at present site and datum.

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

AVERAGE DISCHARGE.--26 years, 194 ft³/s (5.494 m³/s), 140,600 acre-ft/yr (0.173 km³/yr); median of yearly mean discharges, 110 ft³/s (3.115 m³/s), 79,700 acre-ft/yr (98.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,000 ft³/s (1,440 m³/s) July 10, 1958, gage height, 31.70 ft (9.662 m); minimum daily, 0.07 ft³/s (0.002 m³/s) July 22, 23, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Nov. 9	0200	10500	297	13.25	4.039	June 27	0900	16100	456	16.55	5.044
Mar. 14	----	7940	225	ice jam		July 19	1030	14000	396	15.32	4.670
Mar. 18	2400	11900	337	14.48	4.414	July 22	0700	*47200	1340	a28.30	8.626
Apr. 17	1600	20600	583	19.00	5.791	Sept. 18	0600	7530	213	11.45	3.490
May 7	0200	41300	1170	a26.86	8.187	Sept. 20	1300	5240	148	9.91	3.021

a From floodmark.

Minimum daily discharge, 19 ft³/s (0.54 m³/s) Jan. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	215	65	32	30	100	75	359	2780	164	123	39
2	44	225	69	33	26	150	67	186	896	110	139	41
3	50	229	65	35	29	135	63	150	372	90	120	44
4	41	229	65	33	32	110	59	139	195	85	90	41
5	37	232	57	34	32	200	61	133	144	71	87	36
6	33	232	40	32	30	195	277	4500	115	246	83	34
7	300	236	42	33	30	190	118	19100	105	368	81	31
8	689	729	43	35	31	185	87	2410	94	167	75	31
9	178	5480	35	33	33	180	73	1090	87	115	71	30
10	90	311	40	34	34	400	625	609	81	85	83	30
11	59	286	50	20	35	600	258	427	77	69	79	32
12	50	187	54	23	34	900	136	529	77	758	92	30
13	45	137	58	22	32	1800	90	368	69	755	63	57
14	44	114	54	22	31	5650	101	254	61	164	59	164
15	43	104	60	22	29	3930	92	228	63	87	65	83
16	39	94	68	22	28	2500	737	198	55	57	52	98
17	41	87	62	19	27	2410	9060	179	55	42	52	103
18	41	80	56	24	25	4710	4410	159	52	29	52	3380
19	42	79	50	23	29	5880	1320	139	54	6430	45	680
20	42	78	43	22	33	2470	697	147	92	1050	44	3480
21	220	70	39	21	40	1630	394	147	92	1760	41	1350
22	758	67	45	30	35	982	347	156	73	24300	42	347
23	159	67	50	30	50	555	571	150	92	3030	35	189
24	131	67	48	30	70	265	273	133	83	846	35	125
25	104	63	44	28	66	182	202	115	75	489	35	103
26	94	56	40	25	60	147	179	103	147	351	38	90
27	92	58	38	26	90	136	173	101	4710	218	73	85
28	88	62	41	25	110	125	186	101	680	159	50	69
29	90	68	48	26	---	115	179	90	246	128	44	67
30	112	63	44	27	---	96	802	79	150	120	41	77
31	440	---	37	24	---	81	---	995	---	118	41	---
TOTAL	4232	10005	1550	845	1131	37009	21712	33474	11872	42461	2030	10966
MEAN	137	334	50.0	27.3	40.4	1194	724	1080	396	1370	65.5	366
MAX	758	5480	69	35	110	5880	9060	19100	4710	24300	139	3480
MIN	33	56	35	19	25	81	59	79	52	29	35	30
AC-FT	8390	19840	3070	1680	2240	73410	43070	66400	23550	84220	4030	21750

CAL YR 1977 TOTAL 51005.11 MEAN 140 MAX 6450 MIN .07 AC-FT 101200
WTR YR 1978 TOTAL 177287.00 MEAN 486 MAX 24300 MIN 19 AC-FT 351600

BIG NEMAH RIVER BASIN

06815000 BIG NEMAH RIVER AT FALLS CITY, NE

LOCATION.--Lat 40°02'00", long 95°35'30", on line between secs.22 and 23, T.1 N., R.16 E., Richardson County, Hydrologic Unit 10240008, near right bank on downstream side of pier of bridge on U.S. Highway 73, 1 mi (2 km) south of Falls City and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--1,340 mi² (3,471 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1944 to current year. Prior to October 1965, published as Nemaha River at Falls City.

REVISED RECORDS.--WSP 1086: Drainage area.

GAGE.--Water-stage recorder for stages above 6.1 ft (1.86 m); nonrecording gage read twice daily. Datum of gage is 861.24 ft (262.506 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 16, 1952, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--34 years, 582 ft³/s (16.48 m³/s), 421,700 acre-ft/yr (0.520 km³/yr); median of yearly mean discharges, 400 ft³/s (11.33 m³/s), 290,000 acre-ft/yr (0.358 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,600 ft³/s (2,030 m³/s) Oct. 11, 1973, gage height, 31.40 ft (9.571 m); minimum daily discharge, 3.0 ft³/s (0.085 m³/s) July 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft³/s (425 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 9	0730	19000 538	18.74 5.712	May 7	1030	*44000 1250	25.85 7.879
Mar. 19	0030	20900 592	18.14 5.529	June 27	1230	15200 430	15.57 4.746
Apr. 17	2200	29200 827	21.28 6.486	July 22	1800	38100 1080	24.10 7.346

Minimum daily discharge, 64 ft³/s (1.81 m³/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255	467	296	120	117	210	353	1210	4590	478	326	104
2	247	488	270	130	105	210	326	745	1980	425	323	109
3	247	393	278	140	120	185	302	598	813	381	434	106
4	238	257	271	149	130	150	284	556	546	326	329	104
5	214	180	235	143	132	159	282	536	471	305	546	95
6	208	195	199	134	136	149	370	1380	431	580	257	96
7	566	195	202	129	140	160	510	35400	407	1800	233	77
8	2310	448	219	126	140	150	373	14000	367	1010	213	81
9	885	13700	175	121	144	132	331	7120	345	519	195	75
10	441	5040	186	119	150	165	384	1480	334	523	227	80
11	312	1300	196	132	149	185	916	1010	315	422	205	64
12	255	819	205	138	140	300	497	1520	300	529	222	84
13	226	661	218	140	133	1100	367	2330	284	1200	218	98
14	190	595	230	139	128	12400	348	949	272	573	183	323
15	205	555	240	138	121	10800	339	691	264	370	171	163
16	184	505	250	130	117	10700	944	590	257	361	152	175
17	166	461	241	110	120	7360	12100	523	241	279	148	173
18	156	431	230	120	112	8880	15900	468	222	252	148	5170
19	158	412	200	129	130	15200	5240	431	211	5180	134	2610
20	154	418	170	119	150	7320	1990	866	224	2340	122	6260
21	162	372	150	110	143	4210	1320	594	396	1780	125	6120
22	2640	340	168	121	180	2580	1150	609	289	25000	114	1170
23	999	334	177	129	175	1650	1230	576	277	10200	110	536
24	701	323	185	129	181	1030	958	465	277	5240	101	359
25	431	315	171	118	170	716	817	390	282	1330	109	274
26	293	296	154	107	153	536	716	345	262	898	106	250
27	250	296	138	104	200	484	667	318	5300	636	120	218
28	226	263	148	105	230	468	644	315	3130	487	139	191
29	205	298	151	107	---	450	651	287	1360	413	112	193
30	240	290	140	110	---	431	494	267	624	367	109	191
31	603	---	150	108	---	399	---	473	---	342	102	---
TOTAL	14367	30647	6243	3854	4046	88869	50803	77042	25071	64546	6033	25549
MEAN	463	1022	201	124	145	2867	1693	2485	836	2082	195	852
MAX	2640	13700	296	149	230	15200	15900	35400	5300	25000	546	6260
MIN	154	180	138	104	105	132	282	267	211	252	101	64
AC-FT	28500	60790	12380	7640	8030	176300	100800	152800	49730	128000	11970	50680
CAL YR 1977 TOTAL	192189.1	MEAN	527	MAX	33300	MIN	3.0	AC-FT	381200			
WTR YR 1978 TOTAL	397070.0	MEAN	1088	MAX	35400	MIN	64	AC-FT	787600			

06815000 BIG NEMAH RIVER AT FALLS CITY, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
20...	1000	155	765	8.1	11.0	15	9.4	5.2	5000	1200
NOV										
10...	1515	3500	300	7.3	6.5	1000	9.8	10	K148000	K1000000
DEC										
22...	1000	168	850	7.8	.0	10	--	2.4	15000	6500
JAN										
12...	0845	132	670	7.6	.5	4	12.5	1.5	K10300	560
31...	1620	117	900	7.4	.0	4	12.7	4.0	12330	2300
MAR										
17...	1040	8340	222	7.4	20.0	800	10.5	9.2	--	--
APR										
18...	1250	9300	245	7.4	7.0	2200	9.4	6.4	78000	100000
MAY										
26...	1145	500	700	8.3	24.0	45	8.1	6.9	2100	3000
JUN										
28...	1030	3490	340	7.7	29.5	3500	6.0	5.6	136000	630000
JUL										
26...	1215	1130	450	8.1	26.5	350	7.0	2.3	11300	11400
AUG										
22...	1500	121	545	8.5	29.0	35	13.4	7.6	1330	K72
SEP										
20...	1200	6800	215	7.6	16.0	1900	5.4	5.0	260000	920000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
20...	22	460	.63	193	2.1	.27	.50	.77	2.9	.27
NOV										
10...	6.6	179	.24	1690	1.5	.28	4.0	4.3	5.8	4.0
DEC										
22...	31	--	.69	230	4.1	.25	.85	1.1	5.2	.57
JAN										
12...	28	593	.81	211	4.1	.27	.55	.82	4.9	.23
31...	25	562	.76	178	4.0	.19	.15	.34	4.3	.24
MAR										
17...	4.9	--	.15	2550	1.9	1.2	2.2	3.4	5.3	.52
APR										
18...	4.4	151	.21	3790	2.3	.18	12	12	14	3.4
MAY										
26...	16	420	.57	567	2.6	.01	1.6	1.6	4.2	.31
JUN										
28...	5.4	--	.26	1800	3.7	.01	18	18	22	2.8
JUL										
26...	8.2	271	.37	827	2.6	.54	1.6	2.1	4.7	.82
AUG										
22...	23	--	.49	117	.01	.02	1.1	1.1	1.1	.23
SEP										
20...	6.2	135	.18	2480	2.9	.12	23	23	26	1.8

BIG NEMAHA RIVER BASIN

06815000 BIG NEMAHA RIVER AT FALLS CITY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 22...	1000	5	390	86	110	28	34	.8	3.9	370	0
MAR 17...	1040	180	74	0	22	4.6	4.9	.2	8.5	100	0
JUN 28...	1030	30	150	39	45	10	11	.4	4.8	140	0
AUG 22...	1500	5	240	62	61	22	32	.9	5.0	220	0

DATE	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC 22...	300	100	.3	16	506	.21	--	80	--	--
MAR 17...	82	12	.2	6.7	113	.33	2	60	1	0
JUN 28...	110	35	.4	10	191	.12	--	60	--	--
AUG 22...	180	95	.3	9.7	357	.06	4	90	1	10

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 22...	--	20	--	190	--	--	--	--	--	--
MAR 17...	4	110	9	140	1.4	1.4	.0	1	0	10
JUN 28...	--	20	--	0	--	--	--	--	--	--
AUG 22...	8	<10	2	10	.1	.1	.0	3	0	4

06821500 ARIKAREE RIVER AT HAIGLER. NE

LOCATION.--Lat 40°01'45", long 101°58'10", in NE1/4NE1/4 sec.29, T.1 N., R.41 W., Dundy County, Hydrologic Unit 10250001, on left bank 57 ft (17 m) downstream from bridge on U.S. Highway 34, 1.3 mi (2.1 km) upstream from Burlington Northern Inc. bridge, 1.8 mi (2.9 km) upstream from confluence with North Fork Republican River, 2 mi (3 km) northwest of Hagler, and 3.2 mi (5.1 km) downstream from Kansas-Nebraska State line.

DRAINAGE AREA.--1,640 mi² (4,250 km²), approximately, of which about 980 mi² (2,540 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1919: 1951, 1954, 1956, 1960. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,250.98 ft (990.899 m) National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Sept. 29, 1964.

REMARKS.--Records fair. Natural flow affected by ground-water withdrawals and diversions for irrigation of about 1,500 acres (6.07 km²) in Colorado and by return flow from Pioneer Canal.

AVERAGE DISCHARGE.--47 years, 23.9 ft³/s (0.677 m³/s), 17,320 acre-ft/yr (21.4 hm³/yr); median of yearly mean discharges, 21 ft³/s (0.595 m³/s), 15,200 acre-ft/yr (18.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft³/s (1,420 m³/s) May 31, 1935, gage height, 11.2 ft (3.41 m), site and datum then in use, from floodmarks, from rating curve extended above 3,800 ft³/s (108 m³/s) on basis of slope-area measurement of peak flow; no flow for some periods in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 100 ft³/s (2.83 m³/s) June 8, gage height, 4.70 ft (1.433 m) from graph based on partially recorded gage-height trace, no peak above base of 800 ft³/s (22.7 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	1.3	1.1	1.2	.92	1.0	1.7	6.3	8.6	.56	.00	.00
2	20	1.3	1.2	1.0	.92	.60	4.5	20	11	.28	.00	.00
3	15	1.3	1.1	.80	.92	.64	3.7	13	14	.76	.00	.00
4	12	1.5	.60	.98	.92	.78	1.7	11	36	.19	.00	.00
5	13	1.5	.92	1.0	.92	.91	1.8	31	26	.15	.00	.00
6	14	1.5	.64	1.1	.92	.96	1.3	58	41	.16	.00	.00
7	5.8	1.5	.65	1.0	.92	.96	.79	50	31	.00	.00	.00
8	1.2	1.5	.71	1.1	1.1	.89	2.1	26	60	.00	.00	.00
9	1.1	1.8	.64	1.1	1.1	5.2	3.8	19	23	.00	.00	.00
10	.96	1.8	.70	1.1	1.1	14	2.7	14	9.2	.00	.00	.00
11	.96	1.8	.77	.96	1.1	11	2.5	14	9.4	.00	.00	.00
12	1.2	1.8	.88	1.0	1.1	9.5	2.9	19	17	.00	.00	.00
13	1.1	1.8	1.2	.96	.92	8.1	1.2	9.1	10	.00	.00	.00
14	.92	2.0	1.2	.96	.92	5.2	5.0	5.2	7.9	.00	.00	.00
15	.92	2.0	1.5	.60	.92	4.3	5.4	3.6	8.5	.00	.00	.00
16	.92	2.0	1.5	.76	.92	3.2	5.0	6.5	4.7	.00	.00	.00
17	.76	2.0	1.4	.70	1.7	3.9	5.7	6.2	2.8	.00	.00	.00
18	.92	2.0	1.1	1.2	1.4	4.1	5.2	15	2.1	.00	.00	.00
19	.76	1.9	1.2	1.1	1.4	3.1	3.3	6.2	1.9	.00	.00	.00
20	.60	1.4	.96	.90	1.6	3.0	3.7	2.9	1.9	.00	.00	1.1
21	.60	1.1	.96	.85	1.6	2.7	4.2	2.5	2.0	.00	.00	12
22	.56	.91	1.1	.85	1.6	2.8	3.5	15	3.8	.00	.00	18
23	.56	.96	1.3	.92	2.2	2.1	2.5	25	1.2	.00	.00	9.8
24	.52	.92	1.3	.92	2.4	2.2	1.4	9.0	.60	.00	.04	.55
25	.76	.96	.84	1.1	2.0	2.8	.81	10	.60	.00	.06	4.0
26	.93	.89	.96	1.1	1.6	3.0	.60	5.9	.56	.00	.00	12
27	1.1	.96	1.1	.92	1.3	3.0	.46	10	.60	.00	.00	12
28	1.1	.96	1.2	1.1	1.2	2.7	.46	14	.52	.00	.00	18
29	1.1	.97	1.3	1.1	---	2.3	.44	12	.56	.00	.00	12
30	1.1	1.2	1.4	1.1	---	2.4	3.2	6.4	.40	.00	.00	8.5
31	1.1	---	1.2	.92	---	2.1	---	8.0	---	.00	.05	---
TOTAL	115.55	43.53	32.63	30.40	35.62	109.44	81.56	452.8	336.84	2.10	.15	107.95
MEAN	3.73	1.45	1.05	.98	1.27	3.53	2.72	14.6	11.2	.068	.005	3.60
MAX	20	2.0	1.5	1.2	2.4	14	5.7	58	60	.76	.06	18
MIN	.52	.89	.60	.60	.92	.60	.44	2.5	.40	.00	.00	.00
AC-FT	229	86	65	60	71	217	162	898	668	4.2	.3	214
CAL YR 1977	TOTAL	4215.39		MEAN 11.5	MAX 818	MIN .06	AC-FT 8360					
WTR YR 1978	TOTAL	1348.57		MEAN 3.69	MAX 60	MIN .00	AC-FT 2670					

06823000 NORTH FORK REPUBLICAN RIVER AT COLORADO-NEBRASKA STATE LINE

LOCATION.--Lat 40°04'10", long 102°03'05", in sec.10, T.1 N., R.42 W., Dundy County, Ne., Hydrologic Unit 10250002, on right bank 100 ft (30 m) east of Colorado-Nebraska State line and 9.5 mi (15.3 km) upstream from confluence with Arikaree River.

DRAINAGE AREA.--1,360 mi² (3,520 km²), approximately, of which about 100 mi² (260 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1932, published as North Fork of Arikaree River at Colorado-Nebraska State line. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1240: 1947(M). WSP 1390: 1934. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Steel piling control since January 1965. Datum of gage is 3,336.09 ft (1,016.840 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1934, nonrecording gage at present site and datum.

REMARKS.--Records good. Natural flow affected by diversion in Pioneer Canal for irrigation of about 2,700 acres (10.9 km²) in Colorado and Nebraska.

AVERAGE DISCHARGE.--48 years, 48.1 ft³/s (1.362 m³/s), 34,850 acre-ft/yr (43.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s (59.8 m³/s) Apr. 28, 1947, gage height, 5.92 ft (1.804 m), from rating curve extended above 800 ft³/s (22.7 m³/s) on basis of slope-area measurement of peak flow; no flow Aug. 25, 26, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 75 ft³/s (2.12 m³/s) June 6, gage height, 1.32 ft (0.402 m), no peak above base of 130 ft³/s (3.68 m³/s), maximum gage height, 2.08 ft (0.634 m) Jan. 14, backwater from ice; minimum daily discharge, 3.0 ft³/s (0.085 m³/s) July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	62	58	48	57	63	53	48	23	4.5	9.8	4.9
2	13	60	58	51	52	62	54	52	24	4.5	5.4	4.5
3	14	60	58	55	53	58	53	50	24	5.4	4.5	4.0
4	12	60	60	58	53	59	52	33	47	7.2	6.1	3.5
5	12	61	59	57	53	60	52	28	68	4.5	4.5	4.5
6	33	61	56	55	56	60	50	40	67	5.4	4.0	5.4
7	56	61	56	55	52	59	50	49	57	4.5	7.2	5.5
8	57	60	52	55	44	60	50	45	61	4.0	6.1	7.3
9	58	57	52	46	44	60	52	40	66	5.7	5.4	7.2
10	59	57	54	48	46	60	51	31	49	4.5	4.8	7.5
11	61	59	58	48	46	60	52	26	39	5.4	5.1	7.4
12	61	58	60	56	46	58	51	22	40	3.5	6.4	9.3
13	63	59	55	58	48	59	51	26	40	3.5	5.4	4.5
14	61	59	58	56	52	57	55	25	14	3.5	6.3	5.4
15	61	59	58	50	58	56	54	21	10	6.6	7.5	4.5
16	62	59	57	42	60	56	53	16	7.8	5.4	6.8	5.4
17	61	58	55	44	62	56	53	16	7.7	4.5	5.4	4.5
18	61	58	54	46	64	56	52	27	7.9	4.5	4.5	8.2
19	61	60	55	46	61	56	48	26	7.4	6.3	4.5	5.2
20	61	60	52	48	59	56	47	17	7.6	6.3	4.0	9.4
21	59	59	53	52	58	56	44	9.0	7.4	8.0	4.5	9.3
22	58	58	55	56	59	56	44	9.1	4.5	13	6.1	4.5
23	59	58	55	60	63	56	43	7.2	4.5	5.2	4.5	7.3
24	58	59	54	61	65	56	44	21	4.0	4.5	4.5	5.4
25	59	60	53	60	66	56	41	19	4.0	3.5	8.4	6.0
26	58	60	55	56	66	56	39	19	4.5	5.4	11	4.5
27	58	60	55	58	65	55	36	18	7.0	4.5	9.9	4.0
28	57	58	54	61	64	55	35	23	7.1	3.0	9.6	4.5
29	57	59	54	61	---	55	30	23	4.5	3.5	8.2	4.5
30	58	59	54	61	---	54	40	23	4.5	8.3	5.8	5.4
31	57	---	52	58	---	54	---	23	---	7.6	6.0	---
TOTAL	1578	1778	1719	1666	1572	1780	1429	832.3	719.4	166.2	192.2	173.5
MEAN	50.9	59.3	55.5	53.7	56.1	57.4	47.6	26.8	24.0	5.36	6.20	5.78
MAX	63	62	60	61	66	63	55	52	68	13	11	9.4
MIN	12	57	52	42	44	54	30	7.2	4.0	3.0	4.0	3.5
AC-FT	3130	3530	3410	3300	3120	3530	2830	1650	1430	330	381	344

CAL YR 1977 TOTAL 15494.9 MEAN 42.5 MAX 214 MIN 5.6 AC-FT 30730
WTR YR 1978 TOTAL 13605.6 MEAN 37.3 MAX 68 MIN 3.0 AC-FT 26990

LOCATION.--Lat 40°02'45", long 101°52'15", in NW1/4NW1/4 sec.20, T.1 N., R.40 W., Dundy County, Hydrologic Unit 10250002, on right bank 90 ft (27 m) downstream from county highway bridge, 0.8 mi (1.3 km) upstream from mouth, and 4 mi (6 km) northeast of Haigler.

DRAINAGE AREA.--260 mi² (670 km²), approximately, of which about 13 mi² (34 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WSP 2119: 1948-50(M), 1957(M), drainage area.

GAGE.--Water-stage recorder. Concrete control since June 1954. Datum of gage is 3,204.57 ft (976.753 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by diversion about 0.5 mi (0.8 km) upstream for irrigation of 880 acres (3.56 km²).

AVERAGE DISCHARGE.--38 years, 7.70 ft³/s (0.218 m³/s), 5,580 acre-ft/yr (6.88 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 140 ft³/s (3.96 m³/s) June 27, 1948, gage height, 4.37 ft (1.332 m); maximum gage height, 5.93 ft (1.807 m) Jan. 3, 1976, backwater from ice; no flow at times in 1955, 1968, 1973-77.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft³/s (0.45 m³/s) June 5, gage height, 4.84 ft (1.475 m); no peak above base of 20 ft³/s (0.57 m³/s); maximum gage height, 5.45 ft (1.661 m), Feb. 1, backwater from ice; no flow for many days.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	7.7	8.2	6.0	7.2	8.0	7.8	11	.70	.00	.00	.00
2	4.7	8.0	7.8	7.4	7.2	7.0	8.2	11	2.2	.00	.00	.00
3	7.5	7.9	8.1	8.6	8.5	6.2	7.7	9.4	1.9	.00	.00	.00
4	7.2	7.7	8.5	8.8	10	7.5	7.3	8.6	3.3	.00	.00	.00
5	7.0	7.6	8.4	9.0	9.5	10	7.3	8.5	6.1	.00	.00	.00
6	7.2	7.5	7.5	9.0	7.0	12	7.4	12	14	.00	.00	.00
7	7.6	7.6	7.5	9.0	5.5	12	7.7	13	10	.00	.00	.00
8	7.1	8.1	7.5	8.2	5.5	12	8.4	10	7.7	.00	.00	.00
9	7.0	6.8	7.0	6.6	6.0	11	8.4	8.9	6.6	.00	.00	.00
10	7.0	8.6	7.0	6.8	6.0	10	9.1	8.6	6.1	.00	.00	.00
11	6.8	8.8	8.0	7.0	6.5	9.7	8.5	6.8	5.7	.00	.00	.00
12	6.8	8.9	8.8	8.0	7.0	9.3	7.8	8.3	5.6	.00	.00	.87
13	7.2	8.9	9.5	8.4	8.0	9.2	7.9	8.2	2.3	.00	.00	3.3
14	7.4	8.9	9.0	8.4	8.5	8.7	9.6	7.1	.04	.00	.00	3.4
15	7.2	8.8	8.5	7.6	9.0	8.5	9.0	5.9	.01	.00	.00	3.5
16	7.1	8.9	8.0	6.5	7.8	8.4	8.8	6.1	.00	.00	.00	3.3
17	7.3	8.8	7.0	6.5	7.0	9.4	8.9	7.0	.00	.00	.00	3.3
18	7.5	8.9	7.2	6.6	7.2	8.6	8.2	5.9	.00	.00	.00	3.4
19	9.4	9.0	7.5	6.8	7.4	8.6	7.2	5.5	.00	.01	.00	3.3
20	10	7.6	7.0	7.0	7.6	7.9	8.5	5.3	.00	.00	.00	3.3
21	7.9	6.0	7.2	7.4	7.6	7.7	6.5	5.3	.00	.00	.00	3.4
22	7.4	6.2	7.4	8.2	8.5	7.4	7.0	5.7	.00	.00	.00	3.2
23	7.5	7.0	7.6	8.8	9.0	7.5	8.7	5.5	.00	.00	.00	3.1
24	7.7	7.8	7.6	8.4	10	7.6	7.0	5.0	.00	.00	.00	3.1
25	7.8	8.2	7.2	7.6	10	7.8	6.8	5.0	.00	.00	.01	3.1
26	7.6	8.1	7.0	6.8	10	7.8	6.3	4.7	.00	.00	.00	3.0
27	7.7	8.3	7.0	7.0	9.4	7.7	6.8	4.8	.00	.00	.01	3.5
28	7.8	8.5	7.5	6.6	9.0	7.7	7.1	10	.00	.00	.01	4.6
29	7.9	8.7	8.0	6.8	---	7.6	7.2	12	.00	.00	.00	6.4
30	8.1	8.6	7.4	7.0	---	7.3	7.5	8.4	.00	.00	.00	6.3
31	7.7	---	6.5	7.2	---	7.2	---	3.1	---	.00	.00	---
TOTAL	228.6	242.4	238.4	234.0	221.9	267.3	234.6	236.6	72.25	.01	.03	67.37
MEAN	7.37	8.08	7.69	7.55	7.93	8.62	7.82	7.63	2.41	.000	.001	2.25
MAX	10	9.0	9.5	9.0	10	12	9.6	13	14	.01	.01	6.4
MIN	4.5	6.0	6.5	6.0	5.5	6.2	6.3	3.1	.00	.00	.00	.00
AC-FT	453	481	473	464	440	530	465	469	143	.02	.06	134
CAL YR 1977	TOTAL	2183.66		MEAN 5.98	MAX 20	MIN	.00	AC-FT 4330				
WTR YR 1978	TOTAL	2043.46		MEAN 5.60	MAX 14	MIN	.00	AC-FT 4050				

KANSAS RIVER BASIN

06824000 ROCK CREEK AT PARKS, NE

LOCATION.--Lat 40°02'30", long 101°43'40", in SW1/4NE1/4 sec.21, T.1 N., R.39 W., Dundys County, Hydrologic Unit 10250002, on right bank at west edge of Parks, 100 ft (30 m) downstream from county road bridge and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--20 mi² (52 km²), approximately, of which about 17 mi² (44 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WSP 1630: 1951(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,093.35 ft (942.853 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. One diversion about 2 mi (3 km) above station for irrigation of 215 acres (870,000 m²); flow regulated at times by reservoir at State fish hatchery 7 mi (11 km) upstream.

AVERAGE DISCHARGE.--38 years, 14.1 ft³/s (0.399 m³/s), 10,220 acre-ft/yr (12.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 493 ft³/s (14.0 m³/s) July 5, 1965, gage height, 6.00 ft (1.829 m), from rating curve extended above 40 ft³/s (1.13 m³/s) on basis of slope-conveyance study; minimum daily, 2.6 ft³/s (0.074 m³/s) Nov. 19, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 69 ft³/s (1.95 m³/s) June 5 at 1530, gage height, 3.89 ft (1.186 m); no other peak above base of 25 ft³/s (0.71 m³/s); minimum daily, 7.7 ft³/s (0.22 m³/s), Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	12	11	13	15	11	12	12	11	15	9.8
2	12	13	12	12	14	14	12	14	12	10	17	9.4
3	12	13	12	13	16	12	11	13	12	10	17	9.5
4	12	13	13	17	16	13	11	13	12	9.6	17	9.3
5	12	13	13	19	16	14	11	12	41	9.7	18	9.5
6	12	13	11	18	14	13	11	13	32	9.7	15	9.5
7	12	13	11	19	12	14	12	15	25	9.8	15	9.4
8	12	13	10	17	10	14	12	15	21	9.5	16	9.2
9	12	12	10	10	10	14	14	13	19	9.8	16	9.6
10	12	12	10	10	11	14	14	13	18	9.8	15	9.5
11	12	12	11	11	12	15	14	12	16	9.8	15	9.1
12	12	12	11	12	13	14	14	12	15	9.6	13	8.9
13	13	12	11	13	14	15	13	12	15	10	11	9.6
14	13	12	11	15	15	15	14	11	14	10	9.8	9.7
15	12	12	11	14	16	14	14	11	14	10	8.1	9.7
16	13	17	13	10	15	13	14	11	13	9.6	8.6	9.6
17	12	19	14	10	14	12	14	11	13	9.6	9.0	10
18	12	18	14	10	14	12	14	12	12	9.8	9.3	10
19	13	16	15	10	14	12	15	12	11	12	9.7	9.7
20	13	14	11	10	15	12	15	11	11	11	9.1	10
21	13	13	12	13	14	12	15	11	11	11	7.8	10
22	13	14	14	16	14	12	15	12	11	11	7.9	10
23	13	13	15	15	15	12	14	13	10	11	7.7	10
24	13	14	17	15	16	12	12	13	10	11	8.5	10
25	13	13	16	12	16	12	12	12	10	10	9.8	9.8
26	13	14	15	13	16	13	11	12	11	11	9.9	9.7
27	13	13	15	15	15	12	11	12	13	14	10	10
28	13	13	16	17	15	12	10	11	12	14	10	10
29	13	13	16	17	---	13	10	12	12	16	10	10
30	13	13	18	17	---	12	10	12	11	15	10	10
31	13	---	15	14	---	11	---	12	---	15	10	---
TOTAL	389	405	405	425	395	404	380	380	449	339.3	365.2	290.5
MEAN	12.5	13.5	13.1	13.7	14.1	13.0	12.7	12.3	15.0	10.9	11.8	9.68
MAX	13	19	18	19	16	15	15	15	41	16	18	10
MIN	12	12	10	10	10	11	10	11	10	9.5	7.7	8.9
AC-FT	772	803	803	843	783	801	754	754	891	673	724	576

CAL YR 1977 TOTAL 4840.7 MEAN 13.3 MAX 31 MIN 9.0 AC-FT 9600
WTR YR 1978 TOTAL 4627.0 MEAN 12.7 MAX 41 MIN 7.7 AC-FT 9180

06824500 REPUBLICAN RIVER AT BENKELMAN, NE

LOCATION (REVISED).--Lat 40°01'55", long 101°32'30", in SE1/4SW1/4 sec.19, T.1 N., R.37 W., Dundy County, Hydrologic Unit 10250002, on left bank at downstream side of bridge on U.S. Highway 34, 0.6 mi (1.0 km) south of Burlington Northern Inc. track, 1 mi (2 km) southwest of Benkelman, 2 mi (3 km) upstream from South Fork Republican River, and 11 mi (16 km) downstream from Rock Creek.

DRAINAGE AREA.--4,830 mi² (12,500 km²), approximately, of which about 1,230 mi² (3,190 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1894 to September 1895 (published as North Fork Republican River at Benkelman), October 1902 to November 1906, October 1946 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1895. WSP 1919: 1952, 1956. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,975.34 ft (906.884 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 17, 1946, nonrecording gages at several sites within 1.5 mi (2.4 km) of present site at various datums; Dec. 17, 1946, to May 26, 1972, water-stage recorder at present site and datum and May 27, 1972 to Aug. 11, 1978 at site 150 ft (46 m) downstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation developments above station.

AVERAGE DISCHARGE.--37 years, 88.8 ft³/s (2.515 m³/s), 64,340 acre-ft/yr (79.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,040 ft³/s (171 m³/s) Sept. 7, 1951, gage height, 7.58 ft (2.310 m); maximum gage height, 7.80 ft (2.377 m) Aug. 9, 1950; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1826, 13.1 ft (3.99 m) May 31, 1935, from elevations furnished by State Highway Department.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 590 ft³/s (16.7 m³/s), June 5 at 2200, gage height, 3.76 ft (1.146 m), no other peak above base of 550 ft³/s (15.6 m³/s); maximum gage height, 3.98 ft (1.213 m), Mar. 9, backwater from ice; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	70	69	45	64	82	85	80	55	5.8	5.7	.24
2	14	74	76	52	70	76	109	95	60	4.7	9.2	.04
3	16	74	71	57	80	70	98	102	66	3.9	12	.01
4	18	71	79	60	95	65	88	92	136	.52	17	.05
5	18	73	80	65	88	70	74	63	272	.27	14	.00
6	19	81	70	65	85	70	66	98	222	.46	13	.00
7	23	81	70	70	70	75	63	141	163	.46	11	.00
8	29	85	62	65	60	90	66	128	136	.09	12	.00
9	35	75	60	50	60	120	73	100	142	.28	13	.00
10	36	68	64	50	60	110	78	85	101	1.1	13	.00
11	43	68	80	55	60	100	58	65	87	1.2	13	.00
12	44	68	85	65	58	101	57	69	66	.09	8.6	.00
13	48	73	90	68	58	108	57	62	62	.00	4.3	.06
14	51	73	100	70	55	100	93	64	53	.00	.77	.30
15	51	71	120	66	52	101	89	57	41	.00	.08	.48
16	50	71	120	62	52	94	93	45	32	.00	.00	.54
17	50	68	100	60	50	95	89	47	24	.00	.00	.56
18	51	68	95	60	54	97	88	80	21	.01	.00	1.2
19	53	64	90	58	56	99	81	69	19	26	.00	.73
20	62	64	85	55	56	95	69	72	17	18	.00	1.1
21	62	50	85	60	58	89	71	55	16	4.6	.00	1.5
22	64	68	90	70	70	93	71	57	16	3.5	.00	1.6
23	64	85	90	68	90	91	71	57	15	3.1	.00	1.9
24	69	90	86	68	90	85	66	57	14	2.7	.00	2.3
25	71	67	82	64	90	86	59	57	15	1.2	.15	2.6
26	67	72	78	60	95	82	55	55	10	.50	.79	3.1
27	69	74	75	68	95	83	51	60	9.9	.40	.21	2.6
28	73	74	80	64	90	92	48	68	7.7	1.0	.36	2.9
29	75	69	78	60	---	92	48	66	4.8	2.0	.42	2.7
30	78	66	75	62	---	87	44	62	5.1	4.3	.71	2.7
31	74	---	60	64	---	88	---	62	---	4.3	.49	---
TOTAL	1487	2155	2545	1906	1961	2786	2158	2270	1888.5	90.48	149.78	29.21
MEAN	48.0	71.8	82.1	61.5	70.0	89.9	71.9	73.2	63.0	2.92	4.83	.97
MAX	78	90	120	70	95	120	109	141	272	26	17	3.1
MIN	10	50	60	45	50	65	44	45	4.8	.00	.00	.00
AC-PT	2950	4270	5050	3780	3890	5530	4280	4500	3750	179	297	58
CAL YR 1977	TOTAL	24934.07	MEAN 68.3	MAX 1230	MIN .00	AC-PT	49460					
WTR YR 1978	TOTAL	19425.97	MEAN 53.2	MAX 272	MIN .00	AC-PT	38530					

KANSAS RIVER BASIN

06827500 SOUTH FORK REPUBLICAN RIVER NEAR BENKELMAN, NE

LOCATION.--Lat 40°00'34", long 101°32'32", in NE1/4SW1/4 sec.31, T.1 N., R.37 W., Dundys County, Hydrologic Unit 10250003, on right bank 100 ft (30 m) upstream from bridge on State Highway 61, 1 mi (2 km) downstream from Kansas-Nebraska State line, 2.5 mi (4.0 km) southwest of Benkelman, and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--2,740 mi² (7,100 km²), approximately, of which about 2,190 mi² (5,670 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1894 to September 1895, October 1902 to November 1906, October 1930 to September 1932, August 1937 to current year. Published as South Fork of Republican River at Benkelman prior to 1906 and as Republican River at Benkelman 1931-32. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1904-6, 1931. WSP 1390: 1940, 1945, 1947. WSP 1919: 1951-52, 1954-56. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,990.91 ft (911.629 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 10, 1947, nonrecording gages at several sites within 3.5 mi (5.6 km) of present site at various datums. Dec. 10, 1947, to Sept. 28, 1966, water-stage recorder 130 ft (40 m) downstream at datum 2.00 ft (0.610 m) higher, and Sept. 29, 1966, to Mar. 7, 1968, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station, and since July 6, 1950, by storage in Bonny Reservoir.

AVERAGE DISCHARGE.--48 years, 52.9 ft³/s (1.498 m³/s), 38,330 acre-ft/yr (47.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 19,600 ft³/s (555 m³/s) Aug. 16, 1958, gage height, 8.70 ft (2.652 m), site and datum then in use, but may have been higher during flood of June 24, 1945; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1923, 10.1 ft (3.08 m) May 31, 1935, from floodmarks at site 0.2 mile downstream, at datum 2.00 ft (0.610 m) higher, discharge, 150,000 ft³/s (4,250 m³/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,320 ft³/s (37.4 m³/s) June 5, gage height, 5.93 ft (1.807 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.30	.00	15	32	26	21	.00	.00	.00
2	.00	.00	.00	.10	.00	14	38	37	20	.00	.00	.00
3	.00	.00	.00	.00	.00	12	34	34	20	.00	.00	.00
4	.00	.00	.04	.00	15	10	34	29	36	.00	.00	.00
5	.00	.00	.17	.00	12	12	33	27	337	.00	.00	.00
6	.00	.00	.00	.00	7.5	14	34	35	184	.00	.00	.00
7	.00	.00	.00	.00	5.0	14	36	57	118	.00	.00	.00
8	.00	.00	.00	.00	3.5	18	33	50	70	.00	.00	.00
9	.00	.00	.00	.00	3.0	25	36	42	54	.00	.00	.00
10	.00	.00	.00	.00	3.0	30	32	39	33	.00	.00	.00
11	.00	.00	.00	.00	3.5	40	35	35	24	.00	.00	.00
12	.00	.00	.00	.15	3.5	45	33	32	18	.00	.00	.00
13	.00	.00	.00	.00	4.0	51	31	28	16	.00	.00	.00
14	.00	.00	.00	.00	4.0	54	38	24	14	.00	.00	.00
15	.00	.00	2.3	.00	4.0	54	38	23	11	.00	.00	.00
16	.00	.00	22	.00	3.0	52	37	22	10	.00	.00	.00
17	.00	.00	4.0	.00	2.5	50	35	21	7.5	.00	.00	.00
18	.00	.00	.20	.00	3.0	44	36	32	5.5	.00	.00	.00
19	.00	.00	6.0	.00	3.5	38	32	32	4.5	.00	.00	.00
20	.00	.00	4.5	.00	3.5	37	26	26	3.5	.00	.00	.00
21	.00	.00	.01	.00	4.0	36	24	25	2.5	.00	.00	.00
22	.00	.00	.00	.00	6.0	38	19	25	2.1	.00	.00	.00
23	.00	.00	.00	.00	10	33	16	31	.60	.00	.00	.00
24	.00	.00	1.7	.00	12	36	14	30	.10	.00	.00	.00
25	.00	.00	.90	.00	15	34	14	27	.00	.00	.00	.00
26	.00	.00	.50	.00	18	33	14	25	.00	.00	.00	.00
27	.00	.00	.75	.00	20	33	13	21	.00	.00	.00	.00
28	.00	.00	.90	.00	17	32	11	23	.00	.00	.00	.00
29	.00	.00	.90	.00	---	31	10	26	.00	.00	.00	.00
30	.00	.00	.75	.00	---	32	13	25	.00	.00	.00	.00
31	.00	---	.60	.00	---	32	---	23	---	.00	.00	---
TOTAL	.00	.00	46.22	.55	185.50	999	831	932	1012.30	.00	.00	.00
MEAN	.000	.000	1.49	.018	6.63	32.2	27.7	30.1	33.7	.000	.000	.000
MAX	.00	.00	22	.30	20	54	38	57	337	.00	.00	.00
MIN	.00	.00	.00	.00	.00	10	10	21	.00	.00	.00	.00
AC-FT	.00	.00	92	1.1	368	1980	1650	1850	2010	.00	.00	.00
CAL YR 1977	TOTAL	8463.43	MEAN	23.2	MAX	246	MIN	.00	AC-FT	16790		
WTR YR 1978	TOTAL	4006.57	MEAN	11.0	MAX	337	MIN	.00	AC-FT	7950		

06828490 MUDDY CREEK AT STRATTON, NE

LOCATION.--Lat 40°08'45", Long 101°14'19", in NW1/4NE1/4 sec.14, T.2 N., R.35 W., Hitchcock County, Hydrologic Unit 10250004, on left bank 10 ft (3 m) downstream from bridge on U.S. Highway 34 at west edge of Stratton and 1,000 ft (305 m) upstream from mouth.

DRAINAGE AREA.--157 mi² (407 km²), of which about 86 mi² (223 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1977 to September 1978.

GAGE.--Water-stage recorder.

REMARKS.--Records poor. Natural flow affected by pump irrigation development above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10 ft³/s (0.28 m³/s) July 19, gage height, 4.32 ft (1.317 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.30	.90	.70	.60	1.4	.90	1.4	1.0	.00	.00	.00
2	.00	.35	.95	.75	.60	1.4	1.0	1.6	1.0	.01	.00	.00
3	.00	.35	.95	.80	.75	1.4	1.0	1.8	1.0	.00	.00	.00
4	.00	.40	.95	.80	1.0	1.4	1.1	2.0	1.1	.00	.00	.00
5	.00	.40	.87	.85	.95	1.5	1.2	1.9	1.1	.00	.00	.00
6	.00	.50	.80	.85	.90	1.5	1.3	2.5	1.4	.00	.00	.00
7	.00	.50	.85	.90	.90	1.5	1.4	2.7	1.4	.00	.00	.00
8	.02	.60	.75	.80	.90	1.7	1.4	2.6	1.3	.00	.00	.00
9	.02	.55	.70	.70	.90	2.0	1.5	2.4	1.2	.00	.00	.00
10	.02	.65	.72	.65	.90	2.4	1.6	2.1	.90	.00	.00	.00
11	.04	.70	.80	.70	1.0	2.4	1.6	2.1	.71	.00	.00	.00
12	.04	.70	.80	.90	1.0	2.3	1.5	2.0	.55	.00	.00	.00
13	.04	.75	.85	.85	1.0	2.2	1.4	1.9	.66	.00	.00	.00
14	.04	.75	.90	.85	1.0	2.1	1.4	1.8	.68	.00	.00	.00
15	.04	.80	.95	.80	1.0	2.0	1.3	1.7	.51	.00	.00	.00
16	.05	.75	1.0	.75	1.0	1.9	1.2	1.6	.26	.00	.00	.00
17	.05	.75	1.1	.80	1.0	1.8	1.0	1.5	.26	.00	.00	.00
18	.05	.75	1.1	.85	1.0	1.7	1.0	1.4	.12	.00	.00	.00
19	.05	.70	1.2	.90	1.1	1.6	.90	1.2	.04	.73	.00	.00
20	.05	.70	1.1	.90	1.1	1.6	.80	1.2	.01	1.0	.00	.00
21	.06	.65	1.1	.95	1.2	1.5	.70	1.2	.03	.00	.00	.00
22	.08	.76	1.1	1.0	1.4	1.4	.60	1.1	.15	.00	.00	.00
23	.08	.76	1.2	1.0	1.6	1.3	.50	1.3	.07	.00	.00	.00
24	.10	.80	1.2	.90	1.5	1.2	.39	1.1	.00	.00	.00	.00
25	.10	.80	1.1	.75	1.5	1.1	.40	1.0	.00	.00	.00	.00
26	.15	.85	1.0	.50	1.6	1.0	.60	1.1	.00	.00	.00	.00
27	.20	.90	1.0	.50	1.5	.90	.80	1.1	.00	.00	.00	.00
28	.20	.90	1.0	.50	1.4	.87	1.0	1.2	.00	.00	.00	.00
29	.20	.90	1.0	.55	---	.88	1.2	1.8	.00	.00	.00	.00
30	.25	.90	.95	.55	---	.88	1.4	1.4	.00	.00	.00	.00
31	.25	---	.90	.56	---	.90	---	1.2	---	.00	.00	---
TOTAL	2.18	20.17	29.79	23.86	30.30	47.73	32.09	50.9	15.45	1.74	.00	.00
MEAN	.070	.67	.96	.77	1.08	1.54	1.07	1.64	.52	.056	.000	.000
MAX	.25	.90	1.2	1.0	1.6	2.4	1.6	2.7	1.4	1.0	.00	.00
MIN	.00	.30	.70	.50	.60	.87	.39	1.0	.00	.00	.00	.00
AC-FT	4.3	40	59	47	60	95	64	101	31	3.5	.00	.00
WTR YR 1978	TOTAL	254.21	MEAN	.70	MAX	2.7	MIN	.00	AC-FT	504		

KANSAS RIVER BASIN

06828500 REPUBLICAN RIVER AT STRATTON, NE

LOCATION.--Lat 40°08'28", long 101°13'42", in SW1/4NW1/4 sec.13, T.2 N., R.35 W., Hitchcock County, Hydrologic Unit 10250004, on right bank at downstream side of county bridge, 0.5 mi (0.8 km) south of Stratton, 0.2 mi (0.3 km) downstream from Muddy Creek, 10 mi (16 km) upstream from Trenton Dam, and 19 mi (31 km) downstream from South Fork Republican River.

DRAINAGE AREA.--8,450 mi² (21,900 km²), approximately, of which about 3,800 mi² (9,840 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WSP 2119: Drainage area. WDR NE-73: 1968-71 (H), 1972.

GAGE.--Water-stage recorder. Datum of gage is 2,775.49 ft (845.969 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1967, at site 0.3 mi (0.5 km) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and by storage in Bonny Reservoir (station 06826000).

AVERAGE DISCHARGE.--28 years, 134 ft³/s (3.795 m³/s), 97,080 acre-ft/yr (0.120 km³/yr); median of yearly mean discharges, 118 ft³/s (3.342 m³/s), 85,500 acre-ft/yr (0.105 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,800 ft³/s (759 m³/s) July 31, 1962, gage height, 9.34 ft (2.847 m), site then in use; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred May 31, 1935, discharge, about 200,000 ft³/s (5,660 m³/s), based on slope-area measurement at Max.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,010 ft³/s (56.9 m³/s) June 6, gage height, 8.12 ft (2.475 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	50	70	75	64	100	124	80	95	.16	.00	.00
2	.00	52	68	75	66	90	131	104	98	.08	.00	.00
3	.00	58	68	90	75	90	138	124	98	.08	.00	.00
4	.00	63	68	95	90	85	138	131	101	.08	.00	.00
5	.00	61	66	105	85	95	138	134	126	.00	.00	.00
6	.00	61	30	115	75	100	131	134	883	.00	.00	.00
7	.00	61	20	140	70	100	124	168	340	.00	.00	.00
8	.00	61	20	130	70	120	120	200	270	.00	.00	.00
9	.00	58	25	100	72	150	120	205	240	.00	.00	.00
10	.00	58	30	65	74	170	120	205	190	.00	.00	.00
11	.00	61	35	65	74	180	120	179	145	.00	.00	.00
12	1.4	61	40	75	78	190	120	164	114	.00	.00	.00
13	16	63	70	75	80	200	120	145	95	.00	.00	.00
14	24	63	80	80	82	210	117	132	80	.00	.00	.00
15	27	66	95	75	82	210	120	116	73	.00	.00	.00
16	31	66	100	60	82	220	131	105	58	.00	.00	.00
17	34	66	90	45	85	220	138	102	50	.00	.00	.00
18	35	66	80	50	85	195	138	99	39	.00	.00	.00
19	37	61	74	52	85	186	138	102	32	.32	.00	.00
20	39	68	70	55	88	181	128	104	23	11	.00	.00
21	43	40	75	60	100	172	124	106	15	.08	.00	.00
22	45	55	80	70	115	150	114	103	13	114	.00	.00
23	45	60	80	70	140	134	107	95	7.7	34	.00	.00
24	46	65	76	68	135	124	92	98	3.2	4.4	.00	.00
25	48	65	72	65	130	114	89	98	1.9	1.0	.00	.00
26	50	70	70	58	135	114	83	97	1.9	.00	.00	.00
27	50	70	70	64	135	114	83	91	1.4	.00	.00	.00
28	50	72	75	60	120	117	80	92	.61	.00	.00	.00
29	50	75	90	60	---	117	80	94	.32	.00	.00	.00
30	50	70	90	62	---	124	80	95	.20	.00	.00	.00
31	50	---	84	64	---	131	---	98	---	.00	.00	---
TOTAL	771.40	1866	2061	2323	2572	4503	3486	3800	3195.23	165.20	.00	.00
MEAN	24.9	62.2	66.5	74.9	91.9	145	116	123	107	5.33	.000	.000
MAX	50	75	100	140	140	220	138	205	883	114	.00	.00
MIN	.00	40	20	45	64	85	80	80	.20	.00	.00	.00
AC-FT	1530	3700	4090	4610	5100	8930	6910	7540	6340	328	.00	.00
CAL YR 1977	TOTAL	30399.66	MEAN	83.3	MAX	945	MIN	.00	AC-FT	60300		
WTR YR 1978	TOTAL	24742.83	MEAN	67.8	MAX	883	MIN	.00	AC-FT	49080		

06829000 SWANSON LAKE NEAR TRENTON, NE

LOCATION.--Lat 40°10'10", long 101°03'35", in SE1/4NE1/4 sec.5, T.2 N., R.33 W., Hitchcock County, Hydrologic Unit 10250004, in gate-control house at right end of spillway on downstream side of Trenton Dam on Republican River, 2.5 mi (4.0 km) west of Trenton.

DRAINAGE AREA.--8,620 mi² (22,300 km²), approximately, of which about 3,940 mi² (10,200 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Nov. 13, 1953, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began May 4, 1953. Capacity, 116,100 acre-ft (0.143 km³) between elevations 2,710.0 ft (826 m), sill of outlet gates, and 2,752.0 ft (839 m), top of storage pool. Top of flood-control pool is at elevation 2,773.0 ft (845 m), capacity, 254,000 acre-ft (0.313 km³). Top of superstorage flood-control pool at elevation 2,785.0 ft (849 m), capacity, 361,600 acre-ft (0.446 km³). Dead storage, 4,100 acre-ft (5.06 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 148,900 acre-ft (0.184 km³) Aug. 2, 3, 1962, elevation, 2,757.42 ft (840.462 m); minimum since operation of reservoir began, 19,950 acre-ft (24.6 hm³) Oct. 24, 1954, elevation, 2,722.61 ft (829.852 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 75,920 acre-ft (93.6 hm³) June 13-15, elevation, 2,742.10 ft (835.792 m); minimum contents, 28,240 acre-ft (34.8 hm³) Sept. 30, elevation, 2,726.70 ft (831.098 m).

Capacity table (elevation, in feet, and contents, in acre-feet)			
2,725	24,600	2,740	67,730
2,730	36,050	2,745	87,930
2,735	50,280		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39490	39460	41900	44980	47760	51960	61240	66530	71700	65810	42470	30180
2	39430	39510	42020	45010	47880	52250	61490	66710	71850	64850	41730	29970
3	39410	39540	42130	45070	47940	52410	61740	67130	71890	63990	41150	29750
4	39350	39590	42240	45160	48060	52570	61920	67280	72050	62830	40680	29590
5	39330	39700	42360	45220	48120	52770	62350	67470	72440	61670	40240	29410
6	39300	39760	42380	45280	48280	53000	62420	68110	74020	60520	39840	29250
7	39250	39890	42440	45400	48400	53230	62640	68490	74650	59610	39430	29110
8	39190	39970	42440	45510	48560	53450	62830	68950	75040	58620	39110	29000
9	39170	40020	42440	45660	48680	53850	63010	69070	75400	57580	38550	28960
10	39090	40000	42470	45780	48740	54320	63190	69370	75600	56620	38130	28930
11	39060	40050	42470	45840	48840	54860	63300	69600	75720	55730	37740	28870
12	39030	40130	42550	45930	49120	55430	63370	69910	75840	54860	37240	28820
13	38980	40190	42610	45960	49280	56010	63520	69910	75920	54090	36810	28780
14	38900	40330	42750	46020	49400	56450	63740	70030	75920	53260	36380	28710
15	38900	40350	42890	46170	49460	56920	63990	70030	75880	52540	35900	28690
16	38900	40460	43270	46320	49620	57310	64250	70070	75760	51890	35480	28640
17	38900	40520	43380	46420	49750	57650	64660	70110	75600	51210	35050	28620
18	38840	40570	43500	46480	49840	57930	64880	70340	75440	50410	34630	28600
19	38840	40740	43610	46570	49970	58240	64920	70420	75160	49870	34290	28490
20	38840	40790	43700	46630	50060	58520	65070	70450	75010	49500	33990	28470
21	38870	40790	43790	46750	50190	58760	65110	70570	74650	48900	33630	28470
22	38900	40790	43900	46810	50280	58970	65480	70770	74290	48400	33270	28440
23	38900	40850	43990	46870	50410	59220	65480	70800	73660	47880	32860	28420
24	39010	40960	44100	46990	50630	59460	65550	71000	73150	47350	32520	28400
25	39110	41070	44220	47080	50890	59680	65660	71110	72480	46750	32290	28400
26	39140	41340	44280	47170	51180	59920	65700	71150	71190	46200	31980	28380
27	39170	41420	44480	47260	51470	60200	65850	71350	70180	45600	31720	28360
28	39250	41570	44660	47350	51730	60340	65960	71580	69110	44980	31390	28330
29	39270	41680	44780	47480	---	60630	66110	71580	67650	44370	31060	28270
30	39350	41850	44840	47540	---	60880	66230	71580	66900	43790	30740	28240
31	39460	---	44900	47660	---	61060	---	71660	---	43120	30410	---
MAX	39490	41850	44900	47660	51730	61060	66230	71660	75920	65810	42470	30180
MIN	38840	39460	41900	44980	47760	51960	61240	66530	66900	43120	30410	28240
Δ	2731.31	2732.18	2733.24	2734.16	2735.45	2738.19	2739.60	2741.02	2739.78	2732.63	2727.66	2726.70
Δ	-50	+2390	+3050	+2760	+4070	+9330	+5170	+5430	-4760	-23780	-12710	-2170
CAL YR 1977	MAX 78060	MIN 30090	Δ +14,860									
WTR YR 1978	MAX 75920	MIN 28240	Δ -11,270									

Δ Elevation, in feet, at end of month.

Δ Change in contents, in acre-feet.

KANSAS RIVER BASIN

06829500 REPUBLICAN RIVER AT TRENTON, NE

LOCATION.--Lat 40°10'00", long 101°02'40", in SE1/4 sec.4, T.2 N., R.33 W., Hitchcock County, Hydrologic Unit 10250004, on left bank 300 ft (91 m) upstream from Elm Creek, 0.9 mi (1.4 km) downstream from centerline of spillway of Trenton Dam, and 1.5 mi (2.4 km) southwest of Trenton.

DRAINAGE AREA.--8,620 mi² (22,300 km²), approximately, of which about 3,940 mi² (10,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,671.06 ft (814.139 m) National Geodetic Vertical Datum of 1929. See WSP 2119 for history of changes prior to Oct. 1, 1959.

REMARKS.--Natural flow affected by irrigation development above station, since July 6, 1950, by storage in Bonny Reservoir (station 06826000), since 1953 by storage in Swanson Lake (station 06829000), and since June 1957 by Meeker-Driftwood Canal which diverts directly from Swanson Lake for irrigation of about 16,400 acres (66.4 km²). Periodic water quality measurements are published in tables for water quality at partial-record sites.

AVERAGE DISCHARGE.--32 years, 91.4 ft³/s (2.588 m³/s), 66,220 acre-ft/yr (81.6 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft³/s (476 m³/s) June 16, 1948, gage height, 5.64 ft (1.719 m), former site and datum; no flow at times in 1947-50, 1952-54.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood known since about 1826 occurred May 31, 1935, discharge, about 200,000 ft³/s (5,660 m³/s). Discharge of 21,100 ft³/s (598 m³/s) was measured July 3, 1946, gage height, 6.0 ft (1.83 m), former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 196 ft³/s (5.55 m³/s) June 26, gage height, 4.71 ft (1.436 m); minimum daily, 0.22 ft³/s (0.006 m³/s) Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	.60	.94	.94	1.5	.75	.22	.88	.48	185	45	.40
2	.56	.60	1.0	.92	1.5	.75	.34	.73	.55	186	43	.40
3	.64	.63	1.1	.97	1.5	.98	.28	.59	.59	183	42	.41
4	.66	.67	1.1	.97	1.8	1.7	.25	.55	.59	161	18	.42
5	.60	.67	1.1	.90	1.6	2.0	.27	.57	.97	159	1.0	.42
6	.63	.67	1.1	.90	1.6	.82	.27	1.1	.90	157	.81	2.1
7	.64	.60	1.1	.96	1.7	.66	.35	1.0	.66	149	.68	1.7
8	.52	.57	1.1	.94	1.8	.95	.41	.68	.58	146	.62	.63
9	.56	.51	1.0	.62	2.2	3.0	.60	.47	.64	147	.67	.55
10	.60	.49	1.1	.50	2.0	1.9	.43	.49	.74	111	.61	.51
11	.56	.49	1.2	.56	1.9	.54	.40	.55	.71	94	.56	.48
12	.55	.56	1.2	.80	1.9	.47	.41	.63	.75	93	.53	.50
13	.60	.60	1.1	.60	2.3	.55	.41	.43	.95	92	.51	.50
14	.63	.59	1.1	.85	2.4	.49	.69	.46	1.0	92	.51	.50
15	.61	.53	1.2	.75	2.0	.44	.62	.42	.99	93	.54	.53
16	.64	.45	1.3	.50	1.9	.43	.60	.43	1.0	82	.42	.56
17	.67	.45	.90	.54	1.8	.55	.65	.49	.96	46	.42	.45
18	.68	.63	.84	.56	1.8	.49	.75	.62	.63	44	.39	.50
19	.68	.75	.97	.58	1.8	.45	.60	.56	.59	46	.38	.47
20	.68	.80	.93	.60	1.5	.56	.64	.64	.57	47	.42	.49
21	.68	.65	.85	.80	.97	.51	.66	.64	.68	45	.58	.52
22	.70	.63	.97	.95	1.3	.42	.72	.72	.76	46	.45	.53
23	.67	.62	.97	1.0	4.1	.45	.70	.73	.68	46	.38	.56
24	.67	.63	.97	1.3	5.9	.53	.66	.70	16	46	.37	.56
25	.67	.67	1.1	1.2	2.0	.50	.64	.95	117	47	.62	.57
26	.67	.77	.82	1.8	.90	.50	.68	.75	147	47	.56	.57
27	.67	.70	.86	1.4	1.0	.47	.70	.69	186	47	.49	.43
28	.67	.71	.90	1.3	.82	.43	.75	.85	183	45	.48	.43
29	.71	.67	.93	1.2	---	.40	.70	.57	183	47	.45	.42
30	.66	.67	.91	1.4	---	.43	.64	.52	183	46	.40	.44
31	.60	---	.91	1.4	---	.27	---	.50	---	46	.41	---
TOTAL	19.69	18.58	31.57	28.91	53.49	23.39	16.04	19.91	1031.97	2821	162.26	17.55
MEAN	.64	.62	1.02	.93	1.91	.75	.53	.64	34.4	91.0	5.23	.59
MAX	.71	.80	1.3	1.8	5.9	3.0	.75	1.1	186	186	45	2.1
MIN	.52	.45	.82	.50	.82	.27	.22	.42	.48	44	.37	.40
AC-FT	39	37	63	57	106	46	32	39	2050	5600	322	35
CAL YR 1977	TOTAL	4317.27	MEAN	11.8	MAX	257	MIN	.38	AC-FT	8560		
WTR YR 1978	TOTAL	4244.36	MEAN	11.6	MAX	186	MIN	.22	AC-FT	8420		

06829500 REPUBLICAN RIVER AT TRENTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)
OCT 21...	1000	1.0	650	7.6	12.0	3	10.4
NOV 16...	1000	1.0	660	7.9	8.0	5	15.3
DEC 27...	0915	1.0	670	7.7	.0	3	11.7
JAN 23...	0945	1.0	755	7.7	.0	3	11.7
JUL 10...	1100	120	572	8.1	24.0	20	9.3
AUG 23...	1115	1.0	480	7.7	26.0	10	8.7
SEP 28...	1115	1.0	540	7.9	20.0	10	10.2

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
JAN 23...	0945	4	250	0	65	22	62	1.7	14	310	0
JUL 10...	1100	7	200	18	43	22	46	1.4	18	220	0

DATE	ALKA- LINITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)
JAN 23...	250	110	18	1.2	38	489	.67	1.32	1.4	.01	170
JUL 10...	180	99	18	1.2	9.1	365	.50	118	.05	.00	140

06831500 FRENCHMAN CREEK NEAR IMPERIAL, NE

LOCATION.--Lat 40°25'45", long 101°37'25", in SW1/4NW1/4 sec.3, T.5 N., R.38 W., Chase County, Hydrologic Unit 10250005, on right bank 0.2 mi (0.3 km) downstream from bridge on county highway, 5.8 mi (9.3 km) upstream from Enders Dam, and 6.1 mi (9.8 km) south of Imperial.

DRAINAGE AREA.--880 mi² (2,280 km²), approximately, of which about 720 mi² (1,860 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year. Published as Frenchman River near Imperial October 1965 to September 1972.

REVISED RECORDS.--WSP 976: 1942(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Prior to Mar. 7, 1941, nonrecording gage at bridge 0.2 mi (0.3 km) upstream at different datum. Mar. 7, 1941, to Sept. 30, 1958, water-stage recorder at site 0.2 mi (0.3 km) downstream at datum 4.35 ft (1.326 m) lower.

REMARKS.--Records good except those for winter period, which are fair. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--38 years, 66.7 ft³/s (1.889 m³/s), 48,320 acre-ft/yr (59.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,340 ft³/s (66.3 m³/s) Mar. 22, 1960, gage height, 8.43 ft (2.569 m); minimum daily, 4.8 ft³/s (0.14 m³/s) Mar. 12, 1977, backwater from ice.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 7, 1940, reached a stage of 12.4 ft (3.78 m), from floodmarks, site and datum in use Mar. 7, 1941, to Sept. 30, 1958 (discharge not determined but believed greater than that of Mar. 22, 1960).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 109 ft³/s (3.09 m³/s) July 21, gage height, 1.70 ft (0.518 m); no peak above base of 150 ft³/s (4.25 m³/s); minimum daily, 19 ft³/s (0.54 m³/s) Sept. 7-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	35	42	42	48	50	35	39	35	26	30	21
2	31	35	42	42	46	45	38	39	35	26	29	20
3	30	35	42	44	47	40	36	37	35	26	30	20
4	31	33	43	46	48	45	36	37	36	25	30	21
5	31	29	40	46	48	49	36	37	38	25	29	21
6	31	27	38	46	45	50	42	41	39	25	28	20
7	33	31	38	47	43	45	44	44	37	24	27	19
8	34	34	38	42	42	44	44	41	35	25	27	19
9	33	34	38	40	42	44	39	38	34	25	26	19
10	33	33	40	39	43	43	36	38	33	25	26	19
11	33	36	43	41	43	41	37	38	33	25	25	19
12	33	35	42	45	43	40	34	38	31	26	25	20
13	33	34	42	46	44	40	34	36	32	39	24	20
14	34	34	43	47	44	39	36	35	32	35	24	20
15	34	32	43	47	45	38	36	35	31	29	24	21
16	34	33	44	43	45	38	36	34	31	28	23	21
17	34	33	44	40	44	37	37	35	30	27	23	22
18	34	33	42	41	45	38	38	41	30	30	23	23
19	34	33	42	39	45	37	33	37	30	30	23	24
20	34	33	40	39	45	37	34	35	29	32	23	24
21	34	24	38	43	46	37	35	36	30	81	23	24
22	34	34	44	46	49	36	36	37	30	54	22	24
23	34	40	48	45	51	36	35	37	31	37	21	24
24	35	44	47	43	51	36	34	36	29	33	20	24
25	35	42	47	43	51	37	35	35	29	33	21	24
26	35	42	47	40	52	37	35	36	28	31	21	25
27	35	43	46	42	54	37	35	41	28	30	21	25
28	35	42	46	44	54	36	36	42	27	29	22	25
29	35	42	46	46	---	35	37	39	26	29	22	25
30	35	42	46	46	---	35	37	39	26	30	22	25
31	35	---	47	47	---	35	---	35	---	29	22	---
TOTAL	1037	1057	1328	1347	1303	1237	1096	1168	950	969	756	658
MEAN	33.5	35.2	42.8	43.5	46.5	39.9	36.5	37.7	31.7	31.3	24.4	21.9
MAX	35	44	48	47	54	50	44	44	39	81	30	25
MIN	30	24	38	39	42	35	33	34	26	24	20	19
AC-FT	2060	2100	2630	2670	2580	2450	2170	2320	1880	1920	1500	1310

CAL YR 1977 TOTAL 14427.4 MEAN 39.5 MAX 98 MIN 4.8 AC-FT 28620
WTR YR 1978 TOTAL 12906.0 MEAN 35.4 MAX 81 MIN 19 AC-FT 25600

06832000 ENDERS RESERVOIR NEAR ENDERS, NE

LOCATION.--Lat 40°25'05", long 101°30'55", in NE1/4 sec.9, T.5 N., R.37 W., Chase County, Hydrologic Unit 10250005, near right bank in control house at outlet tube of Enders Dam on Frenchman Creek, 2.2 mi (3.5 km) southeast of Enders.

DRAINAGE AREA.--950 mi² (2,460 km²), approximately, of which about 790 mi² (2,050 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 3, 1960, mercury-column pressure gage at same datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Oct. 23, 1950. Capacity, 36,010 acre-ft (44.4 hm³) between elevations 3,080.0 ft (939 m), sill of outlet gates, and 3,112.3 ft (949 m), top of storage pool. Top of flood-control pool at elevation 3,127.0 ft (953 m), capacity, 74,520 acre-ft (91.9 hm³). Top of superstorage flood-control pool at elevation 3,129.5 ft (954 m), capacity, 80,730 acre-ft (99.5 hm³). Dead storage, 8,470 acre-ft (10.4 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,330 acre-ft (68.2 hm³) Mar. 25, 1960, elevation, 3,118.20 ft (950.427 m); minimum since operation of reservoir began, 8,870 acre-ft (10.9 hm³) Aug. 28, 1978, elevation, 3,080.67 ft (938.988 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 32,300 acre-ft (39.8 hm³) June 15, 16, elevation, 3,104.40 ft (946.221 m); minimum 8,870 acre-ft (10.9 hm³) Aug. 28, elevation, 3,080.67 ft (938.988 m).

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

3,080	8,470	3,100	26,540
3,085	11,770	3,110	40,660
3,090	15,830		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13240	15670	18120	20890	23680	26230	28360	29900	31680	27620	12640	9220
2	13310	15770	18220	21000	23750	26280	28410	29960	31720	26990	12120	9300
3	13410	15820	18330	21110	23850	26350	28480	30000	31790	26430	11630	9380
4	13470	15910	18420	21200	23960	26440	28520	30060	31830	25900	11160	9460
5	13550	15990	18460	21310	24000	26550	28570	30100	31960	25330	10740	9530
6	13610	16080	18560	21420	24090	26650	28580	30240	32040	24730	10370	9590
7	13700	16160	18640	21490	24170	26730	28700	30350	32070	23920	10250	9640
8	13770	16220	18710	21570	24260	26830	28770	30400	32110	23340	10200	9670
9	13870	16260	18800	21660	24380	26890	28770	30410	32140	22750	10120	9750
10	13910	16330	18890	21710	24470	26940	28800	30480	32160	22180	10070	9820
11	13990	16430	19010	21800	24560	27030	28890	30530	32160	21660	10020	9880
12	14070	16510	19120	21900	24700	27110	28890	30530	32180	21190	9960	9940
13	14180	16600	19220	21960	24780	27200	28950	30570	32210	20940	9880	10000
14	14240	16670	19330	22060	24860	27270	29020	30630	32250	20530	9800	10050
15	14320	16750	19430	22180	24970	27310	29080	30670	32300	20060	9720	10120
16	14400	16820	19540	22240	25030	27360	29130	30690	32190	19610	9660	10180
17	14480	16870	19580	22340	25100	27450	29230	30820	32070	19190	9530	10250
18	14570	16960	19690	22410	25220	27510	29240	30900	31960	18740	9230	10330
19	14660	17060	19780	22490	25310	27560	29260	30940	31790	18340	9090	10360
20	14750	17080	19860	22570	25370	27610	29330	30980	31640	17910	9010	10420
21	14790	17130	19930	22680	25480	27670	29370	31020	31440	17590	8980	10490
22	14850	17240	20040	22770	25570	27740	29440	31110	31260	17280	8940	10560
23	14950	17340	20150	22850	25660	27750	29490	31190	31070	16930	8920	10650
24	15050	17410	20220	22960	25760	27830	29520	31220	30870	16610	8890	10720
25	15140	17530	20300	23050	25860	27890	29540	31250	30560	16230	8890	10790
26	15220	17670	20400	23150	25960	27940	29570	31360	30360	15830	8890	10880
27	15300	17730	20470	23230	26070	28040	29670	31530	29900	15390	8880	10920
28	15390	17830	20600	23320	26140	28080	29750	31550	29400	14950	8890	11010
29	15490	17930	20680	23410	---	28150	29790	31600	28810	14420	8960	11050
30	15570	18030	20770	23490	---	28220	29820	31650	28210	13800	9030	11110
31	15650	---	20830	23610	---	28260	---	31670	---	13220	9110	---
MAX	15650	18030	20830	23610	26140	28260	29820	31670	32300	27620	12640	11110
MIN	13240	15670	18120	20890	23680	26230	28360	29900	31680	27620	12640	9220
Δ	3089.80	3092.34	3095.07	3097.56	3099.68	3101.36	3102.56	3103.94	3101.32	3086.90	3081.07	3084.08
Δ	+2450	+2380	+2800	+2780	+2530	+2120	+1560	+1850	-3460	-14990	-4110	+2000
CALL YR 1977	MAX	34860	MIN	9780	Δ	-650						
WTR YR 1978	MAX	32300	MIN	8880	Δ	-2090						

Δ Elevation, in feet, at end of month.

Δ Change in contents, in acre-feet.

KANSAS RIVER BASIN

06832500 FRENCHMAN CREEK NEAR ENDERS, NE

LOCATION.--Lat 40°25'05", long 101°30'35", in NW1/4NW1/4 sec.10, T.5 N., R.37 W., Chase County, Hydrologic Unit 10250005, on left bank 0.2 mi (0.3 km) downstream from Enders Dam and 2.5 mi (4.0 km) southeast of Enders.

DRAINAGE AREA.--950 mi² (2,460 km²), approximately, of which about 790 mi² (2,050 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1946 to current year. Published as Frenchman River near Enders October 1965 to September 1972.

REVISED RECORDS.--WSP 2119: 1956, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,026.22 ft (922.392 m) National Geodetic Vertical Datum of 1929. Prior to June 14, 1948, at site 800 ft (240 m) upstream at datum 6.03 ft (1.838 m) higher. June 14, 1948, to Sept. 14, 1972, at present site at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records good except those below 5.0 ft³/s (0.14 m³/s), which are poor. Flow regulated by Enders Reservoir (station 06832000).

AVERAGE DISCHARGE.--32 years, 65.6 ft³/s (1.858 m³/s), 47,530 acre-ft/yr (58.6 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 763 ft³/s (21.6 m³/s) Aug. 20, 1953, gage height, 11.31 ft (3.447 m), present datum; maximum gage height, 11.65 ft (3.551 m), present datum, July 18, 1958, backwater from downstream tributary; no flow for many days in 1972-78.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 303 ft³/s (8.58 m³/s) Aug. 1, gage height, 8.48 ft (2.585 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.58	1.6	1.9	1.8	328	294	.00
2	.00	.00	.00	.00	.00	.60	2.0	1.9	1.8	326	264	.00
3	.00	.00	.00	.00	.00	1.4	1.9	1.9	1.8	313	254	.00
4	.00	.00	.00	.00	.00	2.1	9.0	1.9	1.8	288	240	.00
5	.00	.00	.00	.00	.00	1.4	1.6	1.9	2.1	297	220	.00
6	.00	.00	.00	.00	.00	1.4	1.5	1.9	2.2	307	193	.00
7	.00	.00	.00	.00	.00	1.5	1.5	1.9	2.2	314	105	.00
8	.00	.00	.00	.00	.00	1.5	1.5	1.7	2.2	308	80	.00
9	.00	.00	.00	.00	.00	2.0	1.5	1.7	2.2	298	78	.00
10	.00	.00	.00	.00	.00	1.8	1.4	1.9	2.1	305	79	.00
11	.00	.00	.00	.00	.00	1.7	1.5	1.9	1.9	280	78	.00
12	.00	.00	.00	.00	.00	1.7	1.5	1.7	1.9	244	78	.00
13	.00	.00	.00	.00	.00	1.9	1.6	1.7	1.9	263	75	.00
14	.00	.00	.00	.00	.00	2.0	2.1	1.9	2.0	256	73	.00
15	.00	.00	.00	.00	.00	1.6	2.0	1.9	2.0	253	74	.00
16	.00	.00	.00	.00	.00	1.4	2.0	2.0	35	253	73	.00
17	.00	.00	.00	.00	.00	1.3	2.0	2.2	62	254	105	.00
18	.00	.00	.00	.00	.00	1.3	1.8	2.0	60	245	177	.00
19	.00	.00	.00	.00	.00	1.5	1.8	2.0	78	244	107	.00
20	.00	.00	.00	.00	.00	1.5	1.8	1.8	96	240	81	.00
21	.00	.00	.00	.00	.00	1.5	2.0	1.7	115	227	65	.00
22	.00	.00	.00	.00	.00	1.5	1.9	1.4	105	224	55	.00
23	.00	.00	.00	.00	.00	1.5	1.9	1.5	125	214	47	.00
24	.00	.00	.00	.00	.00	1.8	1.9	1.7	142	214	44	.00
25	.00	.00	.00	.00	.00	1.8	1.9	1.5	180	217	42	.00
26	.00	.00	.00	.00	.00	1.8	1.9	1.8	215	222	40	.00
27	.00	.00	.00	.00	.04	1.7	1.7	2.1	251	228	38	.00
28	.00	.00	.00	.00	.26	1.7	1.9	1.9	268	240	30	.00
29	.00	.00	.00	.00	---	1.5	1.9	1.8	291	251	2.2	.00
30	.00	.00	.00	.00	---	1.5	1.9	1.8	325	282	1.8	.00
31	.00	---	.00	.00	---	1.3	---	1.8	---	290	.87	---
TOTAL	.00	.00	.00	.00	.30	47.78	60.5	56.7	2377.9	8225	3093.87	.00
MEAN	.0000	.0000	.0000	.0000	.011	1.54	2.02	1.83	79.3	265	99.8	.0000
MAX	.00	.00	.00	.00	.26	2.1	9.0	2.2	325	328	294	.00
MIN	.00	.00	.00	.00	.00	.58	1.4	1.4	1.8	214	.87	.00
AC-FT	.00	.00	.00	.00	.6	95	120	112	4720	16310	6140	.00

CAL YR 1977 TOTAL 15888.58 MEAN 43.5 MAX 386 MIN .00 AC-FT 31510
WTR YR 1978 TOTAL 13862.05 MEAN 38.0 MAX 328 MIN .00 AC-FT 27500

06834000 FRENCHMAN CREEK AT PALISADE, NE

LOCATION.--Lat 40°21'12", long 101°07'35", in SW1/4SE1/4 sec.36, T.5 N., R.34 W., Hayes County, Hydrologic Unit 10250005, on right bank at upstream side of bridge on U.S. Highway 6, 0.7 mi (1.1 km) west of Palisade, and 1.5 mi (2.4 km) upstream from Stinking Water Creek.

DRAINAGE AREA.--1,110 mi² (2,870 km²), approximately, of which about 950 mi² (2,460 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to October 1896, June 1950 to current year. Published as Frenchman River at Palisade, October 1965 to September 1972.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,743.49 ft (836.216 m) National Geodetic Vertical Datum of 1929. October 1894 to October 1896, nonrecording gage at railroad bridge 0.4 mi downstream at different datum; June 1950 to Feb. 7, 1977, nonrecording gage at site 2000 ft (600 m) upstream at datum 4.0 ft (1.22 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and, since Oct. 23, 1950, by storage in Enders Reservoir (station 06832000). Periodic temperature, conductance, and sediment measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--30 years, 88.2 ft³/s (2.498 m³/s), 63,900 acre-ft/yr (78.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft³/s (157 m³/s) June 17, 1956, gage height, 8.79 ft (2.679 m), site and datum then in use; minimum daily, 11 ft³/s (0.31 m³/s) Sept. 11, 12, 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 395 ft³/s (11.2 m³/s) July 13, gage height, 6.07 ft (1.850 m); minimum daily, 11 ft³/s (0.31 m³/s) Sept. 11, 12, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	25	30	20	22	30	32	32	39	268	298	26
2	21	25	30	20	21	28	32	33	36	276	303	23
3	22	26	30	22	23	28	33	30	38	297	301	21
4	22	25	29	26	25	28	32	28	38	273	294	20
5	22	25	30	30	24	30	30	27	39	255	282	18
6	22	26	26	35	23	32	33	32	41	259	266	15
7	23	25	23	38	21	35	29	36	39	273	247	13
8	23	25	25	32	20	41	29	34	37	285	174	12
9	23	24	24	24	20	61	30	31	36	281	128	12
10	23	28	25	22	20	71	29	30	36	276	115	12
11	22	26	26	23	20	46	27	30	34	282	107	11
12	23	25	27	23	19	40	27	30	27	268	102	11
13	24	25	29	23	18	40	27	29	25	320	97	12
14	23	25	34	24	19	40	33	28	25	285	94	11
15	22	25	39	24	20	38	30	28	25	257	90	12
16	23	25	42	20	21	37	28	28	24	258	87	12
17	24	26	39	20	21	38	28	27	21	254	83	12
18	23	25	42	19	22	38	29	28	46	253	82	15
19	23	26	41	19	23	38	28	29	50	247	150	15
20	23	27	40	20	24	38	28	29	61	247	114	15
21	24	24	40	25	24	37	27	27	71	244	92	15
22	23	20	41	27	26	37	28	28	90	227	79	15
23	23	28	42	26	30	37	27	29	99	225	70	15
24	24	40	36	26	35	36	27	30	109	211	65	15
25	25	35	30	24	40	36	27	30	131	216	61	15
26	25	30	27	22	43	36	26	39	148	218	59	15
27	25	31	27	22	35	35	26	143	172	221	56	15
28	25	30	28	21	32	35	26	184	202	228	54	15
29	25	30	27	21	---	34	27	69	219	240	52	15
30	25	30	25	22	---	34	28	48	238	253	40	14
31	24	---	22	22	---	33	---	43	---	287	29	---
TOTAL	720	807	976	742	691	1167	863	1269	2196	7984	4071	447
MEAN	23.2	26.9	31.5	23.9	24.7	37.6	28.8	40.9	73.2	258	131	14.9
MAX	25	40	42	38	43	71	33	184	238	320	303	26
MIN	21	20	22	19	18	28	26	27	21	211	29	11
AC-FT	1430	1600	1940	1470	1370	2310	1710	2520	4360	15840	8070	887
CAL YR 1977	TOTAL	24462	MEAN	67.0	MAX	418	MIN	19	AC-FT	48520		
WTR YR 1978	TOTAL	21933	MEAN	60.1	MAX	320	MIN	11	AC-FT	43500		

KANSAS RIVER BASIN

06834000 FRENCHMAN CREEK AT PALISADE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT , 1977					MAY , 1978				
17...	1600	24	475	15.5	03...	1245	29	412	--
DEC					30...	1050	48	403	--
27...	1400	27	447	--	JUN				
JAN , 1978					27...	1100	168	381	24.0
12...	1415	23	508	.0	AUG				
23...	1355	26	466	.0	07...	1200	251	379	25.0
FEB					SEP				
21...	1510	24	450	.0	05...	1300	18	448	27.0
APR									
04...	1400	31	408	19.0					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
APR							
04...	1400	31	19.0	124	10	--	--
JUN							
27...	1040	168	24.0	1050	476	14	23
JUL							
10...	1310	275	22.0	1130	839	--	--
24...	1610	218	26.0	752	443	--	--
AUG							
07...	1300	251	25.0	787	533	--	--
21...	1300	92	25.0	341	85	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
APR						
04...	--	--	--	--	--	--
JUN						
27...	40	80	95	98	100	--
JUL						
10...	--	82	82	92	99	100
24...	--	63	92	96	98	100
AUG						
07...	--	50	87	94	99	100
21...	--	--	--	--	--	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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. FALL DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. FALL DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. FALL DIAM. % FINER THAN 8.00 MM (80171)
APR											
04...	1400	31	9	0	4	10	55	91	98	100	--
JUN											
27...	1040	168	10	0	3	23	63	91	95	98	100

06835000 STINKING WATER CREEK NEAR PALISADE, NE

LOCATION.--Lat 40°22'10", long 101°06'50", at southwest corner of NW1/4 sec.30, T.5 N., R.33 W., Hayes County, Hydrologic Unit 10250006, on right bank 25 ft (8 m) downstream from county bridge, 1.2 mi (1.9 km) upstream from mouth, and 1.8 mi (2.9 km) northwest of Palisade.

DRAINAGE AREA.--1,500 mi² (3,890 km²), approximately, of which about 380 mi² (980 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WSP 1730: 1952(M). WSP 1919: 1951(P), 1955. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,740.99 ft (835.454 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--29 years, 42.0 ft³/s (1.189 m³/s), 30,430 acre-ft/yr (37.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,030 ft³/s (85.8 m³/s) June 17, 1956, gage height, 11.30 ft (3.444 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 6.0 ft³/s (0.17 m³/s) Aug. 4, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 237 ft³/s (6.71 m³/s) May 27 at 0230, gage height, 5.54 ft (1.689 m); no other peak above base of 150 ft³/s (4.25 m³/s); minimum daily, 9.4 ft³/s (0.27 m³/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	27	33	26	27	42	41	37	37	19	15	11
2	22	27	33	27	28	40	41	39	37	19	14	11
3	21	27	33	30	25	37	45	40	35	21	16	13
4	21	27	33	35	27	35	44	39	34	19	17	13
5	21	27	33	36	29	35	41	37	35	17	18	12
6	20	27	30	32	30	44	39	39	40	16	18	12
7	20	28	25	36	28	41	38	44	44	16	16	11
8	21	28	26	34	26	42	37	48	41	16	16	10
9	21	29	26	31	25	54	39	45	36	15	15	10
10	21	29	27	30	25	111	39	41	32	15	13	10
11	22	29	28	30	24	114	39	37	30	14	15	10
12	22	30	30	30	24	138	38	36	28	14	13	10
13	23	30	31	29	25	86	37	35	27	17	13	10
14	23	31	31	27	25	72	39	34	27	20	12	11
15	23	31	34	26	26	60	38	33	26	21	11	11
16	24	30	37	26	27	54	37	32	25	18	12	11
17	24	30	38	25	28	52	37	32	25	16	12	11
18	24	30	41	25	28	51	38	32	24	15	11	12
19	24	30	34	24	29	51	39	33	23	15	11	13
20	25	30	34	25	32	51	38	35	23	15	11	14
21	25	26	33	27	38	50	37	35	23	22	11	13
22	25	26	32	30	30	50	37	34	23	23	11	14
23	26	30	33	29	37	48	36	34	23	21	10	14
24	26	33	35	28	42	46	35	35	24	20	9.4	14
25	26	37	36	27	59	44	34	34	24	17	10	13
26	27	35	30	26	56	44	33	51	23	16	10	14
27	27	35	30	24	48	44	32	107	22	15	10	14
28	27	34	32	25	43	44	33	58	21	14	10	13
29	27	34	33	24	---	43	35	49	20	13	11	13
30	27	33	32	24	---	42	35	45	20	13	11	13
31	27	---	29	25	---	42	---	40	---	16	11	---
TOTAL	735	900	992	873	891	1707	1131	1270	852	528	393.4	361
MEAN	23.7	30.0	32.0	28.2	31.8	55.1	37.7	41.0	28.4	17.0	12.7	12.0
MAX	27	37	41	36	59	138	45	107	44	23	18	14
MIN	20	26	25	24	24	35	32	32	20	13	9.4	10
AC-FT	1460	1790	1970	1730	1770	3390	2240	2520	1690	1050	780	716
CAL YR 1977	TOTAL	12500.0	MEAN	34.2	MAX	196	MIN	17	AC-FT	24790		
WTR YR 1978	TOTAL	10633.4	MEAN	29.1	MAX	138	MIN	9.4	AC-FT	21090		

KANSAS RIVER BASIN

06835500 FRENCHMAN CREEK AT CULBERTSON, NE

LOCATION.--Lat 40°14'05", long 100°52'40", in SW1/4SE1/4 sec.12, T.3 N., R.32 W., Hitchcock County, Hydrologic Unit 10250005, on right bank 19 ft (6 m) upstream from bridge on U.S. Highways 6 and 34, 2 mi (3 km) west of Culbertson, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--2,770 mi² (7,170 km²), approximately, of which about 1,470 mi² (3,810 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1913 to September 1915 (gage heights and discharge measurements only), October 1930 to current year. Published as Frenchman River at Culbertson October 1965 to September 1972. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1931, 1933, 1934 (M), 1938 (M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,583.44 ft (787.433 m) National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Nov. 2, 1950.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and, since Oct. 23, 1950, by storage in Enders Reservoir (station 06832000). Principal diversion is by Culbertson Canal, 20,800 acres (84.2 km²).

AVERAGE DISCHARGE.--48 years, 108 ft³/s (3.059 m³/s), 78,250 acre-ft/yr (96.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (425 m³/s), estimated, May 31, 1935, gage height, 14.8 ft (4.51 m), from floodmarks, present site and datum; minimum daily, 0.60 ft³/s (0.017 m³/s) Aug. 30, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft³/s (32.3 m³/s) May 27, gage height, 6.96 ft (2.121 m); minimum daily, 0.60 ft³/s (0.017 m³/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	67	76	57	55	90	98	35	51	5.4	3.4	21
2	54	66	75	49	60	75	98	35	45	9.8	2.9	17
3	53	66	77	52	70	64	97	36	42	11	4.5	7.1
4	49	66	76	54	80	64	100	34	40	13	4.2	6.0
5	52	67	77	62	65	82	98	31	38	8.2	2.9	4.5
6	51	69	60	75	52	96	97	36	37	5.7	2.1	3.4
7	52	72	45	88	48	99	95	39	42	6.0	1.3	4.2
8	54	73	40	65	45	105	94	42	41	4.7	1.0	4.1
9	55	74	43	56	45	142	96	35	38	3.7	1.0	3.1
10	55	73	46	51	45	269	90	32	33	2.7	.90	3.1
11	56	69	52	48	45	228	74	29	30	3.4	.90	3.2
12	55	71	60	52	44	201	64	27	27	3.4	.80	2.8
13	57	71	75	50	43	181	50	26	23	3.2	.70	4.5
14	61	74	85	47	44	150	52	26	21	36	.70	13
15	62	75	92	45	45	138	60	25	19	17	.70	14
16	63	71	101	45	47	125	59	25	17	7.1	.70	14
17	62	68	103	45	50	119	55	25	16	4.7	.80	20
18	62	68	97	44	55	116	55	26	14	4.5	.80	15
19	62	70	94	44	60	114	58	25	16	4.6	5.0	12
20	64	70	87	46	65	113	50	23	15	8.1	13	13
21	63	61	67	55	69	112	43	23	12	4.2	8.8	15
22	62	48	67	60	80	110	41	23	13	4.0	1.8	16
23	65	60	89	57	92	110	39	23	13	3.7	.92	19
24	65	74	98	55	100	106	38	25	13	3.2	.80	15
25	64	76	88	52	110	105	35	25	14	2.4	1.0	11
26	64	77	76	50	128	103	33	22	17	2.2	.93	15
27	65	78	70	48	116	103	33	493	13	2.0	.80	21
28	64	77	73	48	105	101	32	258	9.4	1.9	.81	21
29	74	76	79	48	---	100	31	142	6.8	1.8	.70	21
30	67	76	87	50	---	98	33	85	5.7	1.8	.60	23
31	68	---	70	52	---	98	---	64	---	2.3	8.1	---
TOTAL	1855	2103	2325	1650	1863	3717	1898	1795	721.9	191.7	73.56	362.0
MEAN	59.8	70.1	75.0	53.2	66.5	120	63.3	57.9	24.1	6.18	2.37	12.1
MAX	74	78	103	88	128	269	100	493	51	36	13	23
MIN	49	48	40	44	43	64	31	22	5.7	1.8	.60	2.8
AC-FT	3680	4170	4610	3270	3700	7370	3760	3560	1430	380	146	718
CAL YR 1977	TOTAL	22514.50	MEAN	61.7	MAX	736	MIN	4.5	AC-FT	44660		
WTR YR 1978	TOTAL	18555.16	MEAN	50.8	MAX	493	MIN	.60	AC-FT	36800		

06835500 FRENCHMAN CREEK AT CULBERTSON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

		DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)			
		OCT 21...	0900	63	500	7.6	11.0	30	10.6			
		NOV 16...	0845	74	480	7.7	6.0	40	13.1			
		DEC 27...	0945	52	450	7.8	.0	20	14.0			
		JAN 23...	1045	50	529	7.8	.0	25	12.9			
		MAR 20...	1445	109	400	7.7	13.0	350	10.2			
		APR 19...	1115	57	390	7.7	10.0	40	11.2			
		MAY 30...	1200	79	300	7.5	19.0	450	8.7			
		JUL 10...	1230	6.0	616	8.0	23.0	6	11.4			
		AUG 23...	0945	2.0	420	7.7	19.0	5	8.5			
		SEP 28...	0945	20	370	8.1	15.0	35	10.2			
DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	
JAN 23...	1045	8	220	7	60	17	22	.6	13	260	0	
JUL 10...	1230	5	240	18	58	23	38	1.1	19	270	0	
DATE	TIME	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)
JAN 23...	210	38	6.4	1.0	55	353	.48	47.7	2.8	.04	100	
JUL 10...	220	64	15	1.0	46	415	.56	6.72	4.1	.01	160	

KANSAS RIVER BASIN

06836000 BLACKWOOD CREEK NEAR CULBERTSON, NE

LOCATION.--Lat 40°14'10", long 100°48'39", in SE1/4SW1/4 sec.10, T.3 N., R.31 W., Hitchcock County, Hydrologic Unit 10250004, on right bank 500 ft (152 m) upstream from bridge on U.S. Highways 6 and 34, 0.2 mi (0.3 km) north of Burlington Northern Inc. bridge, 1 mi (2 km) east of Culbertson, and 1.8 mi (2.9 km) upstream from mouth.

DRAINAGE AREA.--320 mi² (830 km²), approximately, of which about 270 mi² (700 km²) contributes directly to surface runoff.

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

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,555.25 ft (778.840 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1967, at site 0.2 mi (0.3 km) downstream at present datum and Oct. 1, 1967, to Aug. 28, 1968, at site 0.8 mi (1.3 km) downstream at datum 8.96 ft (2.731 m) lower.

REMARKS.--Records fair. Natural flow affected by irrigation development above station, return flow from irrigated areas, and waste from Culbertson Canal.

AVERAGE DISCHARGE.--32 years, 6.57 ft³/s (0.186 m³/s), 4,760 acre-ft/yr (5.87 hm³/yr); median of yearly mean discharges, 5.8 ft³/s (0.164 m³/s), 4,200 acre-ft/yr (5.18 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft³/s (46.7 m³/s) June 17, 1955, gage height, 14.64 ft (4.462 m), site then in use; no flow Jan. 4-6, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 31, 1935, reached a stage of 24.0 ft (7.32 m), at site 0.2 mi (0.3 km) downstream, at present datum, from floodmarks, discharge, about 5,300 ft³/s (150 m³/s), from information by Nebraska Department of Roads.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 150 ft³/s (4.25 m³/s) and maximum(*):

Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)
Mar. 11	1700	*276	7.8	5.83	1.777
May 27	1800	258	7.3	5.60	1.707

Minimum daily discharge, 0.80 ft³/s (0.023 m³/s) June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1.9	2.1	1.6	1.6	2.3	1.4	7.2	5.1	4.2	6.0	11
2	2.0	1.9	1.8	1.6	1.8	1.9	1.5	6.7	4.1	6.7	7.3	12
3	1.9	1.9	1.8	1.6	1.8	1.9	1.6	3.4	4.8	5.7	8.6	2.1
4	1.6	1.9	1.8	1.6	1.9	2.3	1.5	4.2	4.5	5.3	7.3	1.1
5	1.8	1.8	1.8	1.8	1.9	2.2	1.6	4.9	4.3	7.1	4.2	1.0
6	1.8	1.9	1.8	1.9	1.8	2.2	1.6	6.1	5.2	2.3	2.8	1.0
7	1.4	1.9	1.8	1.9	1.9	2.2	1.5	10	5.8	1.2	3.4	.99
8	1.3	2.2	1.5	1.9	1.9	2.2	1.5	9.7	3.9	3.5	4.0	.96
9	1.3	1.9	1.3	1.8	1.9	3.8	1.6	8.1	3.4	3.9	3.7	1.0
10	1.4	2.1	1.6	1.7	1.9	100	1.6	8.7	3.0	3.1	4.8	1.1
11	1.6	2.1	1.6	1.6	1.9	248	1.2	6.1	2.6	3.0	1.7	1.1
12	1.6	2.1	1.8	1.6	1.9	77	1.2	5.4	2.8	3.1	4.4	1.1
13	1.6	2.1	1.6	1.8	2.1	11	1.1	4.5	2.9	2.9	5.0	1.1
14	1.6	1.9	1.6	1.6	1.9	4.5	1.3	4.3	3.0	3.2	6.5	1.1
15	1.6	1.8	1.6	1.8	1.9	2.5	1.2	2.6	3.0	3.8	8.0	1.1
16	1.9	1.8	2.2	1.8	1.9	1.9	1.2	4.0	2.9	5.4	5.6	1.0
17	1.8	1.9	2.2	1.6	1.8	2.2	1.2	2.5	2.6	6.4	6.6	1.1
18	1.7	1.9	1.9	1.5	1.6	1.8	1.2	2.8	2.4	6.9	6.7	1.1
19	1.5	1.6	1.9	1.8	1.9	1.8	5.4	2.4	2.3	6.3	3.6	1.1
20	1.5	2.1	1.9	1.6	1.9	1.6	5.5	2.0	1.8	7.0	4.2	1.1
21	1.5	1.9	1.8	1.8	1.6	1.6	9.4	1.8	.80	3.1	12	1.1
22	1.5	2.1	1.8	1.8	1.8	1.5	14	1.6	.90	5.3	7.5	1.1
23	1.6	2.1	1.8	1.8	2.2	1.4	10	1.8	1.6	4.5	8.0	1.1
24	1.9	1.9	1.8	1.8	5.0	1.4	12	1.9	1.9	2.4	4.9	1.1
25	1.8	1.9	1.9	1.8	38	1.4	19	6.4	1.9	2.8	6.2	1.1
26	1.8	2.5	1.9	1.6	53	1.4	11	1.8	1.8	2.5	8.7	1.1
27	1.8	2.2	1.9	1.6	13	1.3	6.5	106	1.5	1.8	8.3	1.1
28	1.8	1.8	1.9	1.6	2.6	1.2	4.7	146	2.3	1.5	7.8	1.1
29	1.9	2.1	1.8	1.6	---	1.2	3.3	23	2.1	4.0	6.1	1.0
30	1.9	2.1	1.8	1.8	---	1.3	3.7	6.5	2.3	3.8	5.7	1.1
31	1.9	---	1.8	1.9	---	1.4	---	4.5	---	5.4	5.7	---
TOTAL	53.1	59.3	55.8	53.2	154.4	488.4	129.5	406.9	87.50	128.1	185.3	54.05
MEAN	1.71	1.98	1.80	1.72	5.51	15.8	4.32	13.1	2.92	4.13	5.98	1.80
MAX	2.8	2.5	2.2	1.9	53	248	19	146	5.8	7.1	12	12
MIN	1.3	1.6	1.3	1.5	1.6	1.2	1.1	1.6	.80	1.2	1.7	.96
AC-FT	105	118	111	106	306	969	257	807	174	254	368	107
CAL YR 1977	TOTAL	2020.09	MEAN	5.53	MAX	228	MIN	.89	AC-PT	4010		
WTR YR 1978	TOTAL	1855.55	MEAN	5.08	MAX	248	MIN	.80	AC-PT	3680		

299

LOCATION.--Lat 40°08'50", long 100°39'55", in SW1/4SW1/4 sec.12, T.2 N., R.30 W., Red Willow County, Hydrologic Unit 10250004, on right bank 50 ft (15 m) downstream from privately owned bridge, 600 ft (183 m) downstream from siphon and wasteway on Meeker-Driftwood Canal, 4.5 mi (7.2 km) southwest of McCook, and 4.5 mi (7.2 km) upstream from mouth.

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

GAGE.--Water-stage recorder. Datum of gage is 2,493.78 ft (760.104 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 12, 1962, at site 0.2 mi (0.3 km) downstream in old channel at present datum, and Oct. 12, 1962, to Apr. 11, 1963, at site 0.5 mi (0.8 km) downstream at datum 3.75 ft (1.143 m) lower.

AVERAGE DISCHARGE.--32 years, 10.7 ft³/s (0.303 m³/s), 7,750 acre-ft/yr (9.56 hm³/yr); median of yearly mean discharges, 8.3 ft³/s (0.235 m³/s), 6,000 acre-ft/yr (7.40 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,740 ft³/s (134 m³/s) Aug. 7, 1950, gage height, 25.43 ft (7.751 m), at site then in use, from floodmark, from rating curve extended above 3,000 ft³/s (85.0 m³/s); no flow at times in 1946-50, 1952-56.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 205 ft³/s (5.81 m³/s) July 24, gage height, 12.05 ft (3.673 m), no peak above base of 300 ft³/s (8.50 m³/s); minimum daily, 0.35 ft³/s (0.010 m³/s) July 15.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	6.7	6.7	5.8	6.4	11	5.5	6.0	4.4	2.4	6.8	6.3
2	6.2	6.7	6.7	5.8	6.4	9.2	4.8	6.3	4.1	3.0	7.0	7.6
3	6.1	6.7	6.7	5.8	6.4	7.7	4.8	4.3	3.8	3.8	8.0	7.6
4	5.9	5.8	6.7	6.1	6.2	6.8	4.6	4.7	3.8	5.8	9.4	7.4
5	5.3	5.5	6.7	6.4	6.0	7.0	5.1	5.4	3.8	26	7.6	8.3
6	5.2	5.8	6.7	6.4	6.0	6.7	5.0	6.4	3.8	14	3.8	5.2
7	5.8	5.1	6.6	6.4	5.8	6.1	6.4	7.2	3.8	8.7	1.0	7.3
8	5.5	5.4	6.4	6.4	5.6	5.8	5.4	6.1	3.8	3.2	1.5	6.4
9	5.5	4.9	6.4	6.4	5.5	5.9	5.5	5.6	3.8	2.8	8.4	6.7
10	5.5	5.5	6.2	6.4	6.1	6.9	5.8	5.5	3.8	6.0	7.9	6.4
11	5.8	5.8	6.2	6.4	6.1	7.0	5.5	5.2	3.8	5.8	8.6	9.4
12	5.8	5.6	6.1	6.4	7.0	6.4	5.5	5.2	3.8	5.0	5.2	4.9
13	6.2	5.5	6.1	6.4	7.0	6.4	5.0	5.0	3.8	3.5	10	1.7
14	6.4	6.2	6.1	6.4	7.4	6.5	5.3	5.2	3.5	4.4	9.7	1.0
15	6.1	6.3	6.1	6.4	7.3	6.4	5.5	5.2	2.6	.35	12	2.7
16	6.4	5.2	6.1	6.4	7.4	6.4	5.5	5.2	6.4	2.4	15	3.0
17	6.4	4.7	6.4	6.6	8.0	6.2	5.6	5.2	13	6.7	14	1.7
18	6.5	4.7	5.8	6.6	8.2	6.4	5.7	5.2	2.2	7.2	12	3.2
19	6.7	5.2	6.1	6.8	8.5	6.4	5.6	5.2	7.1	9.0	12	3.8
20	6.7	6.4	6.1	7.0	8.8	6.4	5.3	5.5	2.4	17	12	4.1
21	7.0	6.1	5.5	7.0	8.6	6.4	5.0	4.1	2.4	14	18	4.1
22	7.0	6.1	5.8	6.7	9.6	6.4	5.5	4.4	3.9	12	14	5.2
23	7.0	6.4	5.8	6.7	12	6.4	5.2	4.2	11	18	10	5.5
24	6.7	6.4	6.1	6.7	29	6.4	5.2	4.8	5.3	101	4.4	5.8
25	7.0	6.4	6.1	6.4	46	6.4	4.3	5.8	3.2	17	7.0	5.2
26	7.0	6.4	6.1	6.4	52	7.6	3.1	6.0	4.3	9.0	5.3	5.2
27	6.8	6.4	5.8	6.6	34	6.7	4.4	5.0	4.5	6.1	4.2	4.1
28	9.1	6.4	5.8	6.4	15	6.7	4.6	4.1	3.5	4.6	3.8	4.9
29	7.6	6.7	5.8	6.1	---	6.1	3.5	4.6	4.1	5.6	6.1	5.8
30	7.6	6.7	5.8	6.1	---	5.7	4.5	4.0	.77	5.8	5.4	5.6
31	6.7	---	5.8	6.1	---	5.0	---	4.2	---	6.3	4.5	---
TOTAL	199.9	177.7	191.3	198.5	342.3	207.4	152.7	160.8	130.47	336.45	254.6	156.1
MEAN	6.45	5.92	6.17	6.40	12.2	6.69	5.09	5.19	4.35	10.9	8.21	5.20
MAX	9.1	6.7	6.7	7.0	52	11	6.4	7.2	13	101	18	9.4
MIN	5.2	4.7	5.5	5.8	5.5	5.0	3.1	4.0	.77	.35	1.0	1.0
AC-FT	397	352	379	394	679	411	303	319	259	667	505	310
CAL YR 1977	TOTAL	4419.87	MEAN	12.1	MAX	423	MIN	.77	AC-FT	8770		
WTR YR 1978	TOTAL	2508.2										

KANSAS RIVER BASIN

06837000 REPUBLICAN RIVER AT MCCOOK, NE

LOCATION.--Lat 40°11'15", long 100°37'05", in SW1/4NE1/4 sec.32, T.3 N., R.29 W., Red Willow County, Hydrologic Unit 10250004, on left bank 25 ft (8 m) downstream from bridge on U.S. Highway 83 at south edge of McCook, 2.5 mi (4.0 km) downstream from Driftwood Creek, and 10.5 mi (16.9 km) upstream from Red Willow Creek.

DRAINAGE AREA.--12,310 mi² (31,900 km²), approximately, of which about 6,260 mi² (16,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to June 1932, October 1954 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,456.37 ft (748.702 m) National Geodetic Vertical Datum of 1929. October 1930 to June 1932 nonrecording gage on former highway bridge 325 ft (99.1 m) upstream at different datum and October 1954 to Mar. 13, 1959, on highway bridge 25 ft (7.6 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and by storage in Bonny Reservoir, Enders Reservoir (station 06832000), and Swanson Lake (station 06829000).

AVERAGE DISCHARGE.--25 years, 194 ft³/s (5.494 m³/s), 140,600 acre-ft/yr (0.173 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,890 ft³/s (167 m³/s) Mar. 21, 1960, gage height, 9.14 ft (2.786 m); no flow for several days in July and August 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred May 31, 1935, discharge, about 245,000 ft³/s (6,940 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,490 ft³/s (42.2 m³/s) Aug. 21, gage height, 6.12 ft (1.865 m); minimum daily, 8.0 ft³/s (0.23 m³/s) Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	94	123	75	80	150	143	90	78	167	56	33
2	92	97	126	75	84	120	147	84	69	174	60	41
3	93	98	130	80	95	100	141	82	66	195	74	44
4	90	101	133	85	110	80	138	79	65	185	78	38
5	88	103	129	85	98	85	136	76	65	184	68	33
6	86	104	123	90	86	85	141	96	65	189	58	25
7	91	106	100	95	75	90	146	99	64	179	37	21
8	90	106	70	90	75	110	147	93	63	166	26	16
9	90	103	60	70	77	140	151	84	61	158	22	15
10	87	101	65	56	77	280	148	76	56	153	21	12
11	87	103	80	60	77	440	135	71	50	128	18	11
12	91	101	90	75	79	380	124	65	45	108	17	12
13	94	94	100	75	79	320	110	63	41	101	17	8.4
14	94	93	115	70	75	238	109	63	36	106	18	8.0
15	95	92	130	70	72	213	104	63	32	138	35	9.5
16	95	91	110	62	72	189	106	61	27	110	32	9.5
17	96	94	100	54	70	175	101	62	33	101	27	11
18	90	98	100	56	74	171	96	68	28	72	19	17
19	91	102	92	56	76	163	96	61	25	63	17	14
20	92	99	85	58	76	163	100	61	23	158	21	14
21	94	93	88	64	85	160	99	59	25	110	761	16
22	90	90	90	70	120	156	105	59	26	88	153	16
23	85	96	90	80	170	150	101	58	22	78	70	17
24	89	101	92	80	200	146	92	56	24	178	48	18
25	92	103	94	78	220	152	88	71	21	92	52	19
26	90	112	96	72	230	150	82	55	26	68	51	19
27	89	115	96	76	230	148	74	301	73	65	45	18
28	85	114	100	76	190	145	70	460	151	63	41	18
29	89	115	100	76	---	146	68	250	158	60	38	18
30	92	118	95	80	---	148	71	126	163	58	36	19
31	94	---	90	80	---	147	---	96	---	54	34	---
TOTAL	2824	3037	3092	2269	3052	5340	3369	3088	1681	3749	2050	570.4
MEAN	91.1	101	99.7	73.2	109	172	112	99.6	56.0	121	66.1	19.0
MAX	103	118	133	95	230	440	151	460	163	195	761	44
MIN	85	90	60	54	70	80	68	55	21	54	17	8.0
AC-FT	5600	6020	6130	4500	6050	10590	6680	6130	3330	7440	4070	1130
CAL YR 1977 TOTAL	46395.0	MEAN	127	MAX	1610	MIN	50	AC-FT	92020			
WTR YR 1978 TOTAL	34121.4	MEAN	93.5	MAX	761	MIN	8.0	AC-FT	67680			

06837000 REPUBLICAN RIVER AT MC COOK, NE--Continued

WATER QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1966 to current year.

INSTRUMENTATION.--Temperature recorder since Dec. 13, 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 38.5°C June 24, 1971; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 35.5°C June 19, 26; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	---	---	11.5	5.0	4.5	.5	.0	.0	.5	.0	.0	.0
2	---	---	11.0	2.0	6.0	.5	.5	.0	1.0	.0	.5	.0
3	---	---	12.0	4.5	8.0	2.0	.5	.0	.5	.0	.5	.0
4	21.0	11.5	11.0	3.0	6.5	4.0	.5	.0	1.0	.5	.0	.0
5	16.0	10.5	13.0	6.0	---	---	.5	.0	.5	.5	.0	.0
6	11.0	9.5	15.0	10.0	---	---	.5	.0	.5	.0	.0	.0
7	18.0	9.5	13.0	10.5	---	---	.5	.0	.5	.0	.0	.0
8	15.0	8.0	11.0	1.5	---	---	.5	.0	.5	.0	.5	.0
9	---	---	4.5	1.5	---	---	.0	.0	.5	.0	.0	.0
10	---	---	---	---	---	---	.5	.0	.5	.0	2.0	.0
11	---	---	---	---	---	---	.5	.0	.0	.0	4.5	1.5
12	---	---	---	---	.5	.0	.5	.0	.0	.0	5.0	3.0
13	---	---	---	---	.5	.0	.0	.0	.0	.0	5.5	4.5
14	18.5	9.5	---	---	.5	.0	.0	.5	.0	.0	7.0	4.5
15	11.5	7.0	---	---	.5	.0	.0	.5	.0	.0	7.0	5.5
16	17.0	5.0	---	---	.5	.0	.5	.0	.5	.0	7.0	5.5
17	16.5	8.0	8.0	---	.5	.5	.5	.0	.5	.0	9.0	5.5
18	17.0	6.5	---	---	.5	.0	.5	.0	.5	.0	10.0	7.0
19	17.0	6.0	---	---	1.0	.5	.5	.0	1.0	.5	10.0	8.0
20	18.0	8.0	---	---	.5	.0	.5	.0	1.0	.5	12.0	8.0
21	17.0	8.5	---	---	.5	.0	.5	.0	1.0	.0	13.5	8.0
22	13.0	7.0	---	---	.5	.0	.5	.0	1.0	.5	13.5	9.5
23	11.5	5.5	---	---	.5	.0	1.0	.5	1.0	.5	11.5	8.0
24	13.0	9.0	---	---	1.0	.0	1.0	.5	.5	.5	10.5	6.0
25	15.5	5.5	---	---	.5	.0	1.0	1.0	.5	.5	9.0	7.0
26	16.0	6.0	---	---	.0	.0	1.0	.5	.5	.0	11.5	6.0
27	15.0	6.5	---	---	.5	.0	1.0	.5	.5	.0	14.0	8.5
28	13.5	10.0	---	---	.5	.0	1.0	.5	.0	.0	14.5	9.5
29	16.0	8.0	6.0	.0	---	.0	1.0	.5	---	---	15.0	10.0
30	15.5	9.5	6.0	1.5	.0	.0	.5	.0	---	---	17.0	11.0
31	14.5	8.0	---	---	.0	.0	.5	.0	---	---	17.0	12.0
MONTH	21.0	5.0	15.0	.0	8.0	.0	1.0	.0	1.0	.0	17.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	15.5	11.5	13.5	9.5	---	---	34.5	24.0	---	---	23.0	18.5
2	16.0	10.0	---	---	---	---	33.5	24.5	---	---	23.5	18.0
3	16.5	12.0	---	---	---	---	32.0	23.5	---	---	24.0	19.0
4	17.0	11.5	15.5	8.0	---	---	31.5	24.0	---	---	24.0	18.5
5	18.0	12.0	14.0	9.0	---	---	31.5	24.5	---	---	---	---
6	16.0	11.0	9.5	6.5	---	---	30.0	24.5	---	---	---	---
7	18.5	11.5	18.5	6.5	---	---	30.0	24.0	---	---	---	---
8	19.5	14.5	17.0	8.0	---	---	31.5	24.0	---	---	---	---
9	17.0	11.0	21.5	7.0	---	---	30.0	25.5	---	---	---	---
10	13.5	9.0	25.5	10.5	---	---	26.5	22.0	---	---	---	---
11	15.5	8.0	26.0	15.0	---	---	---	---	---	---	---	---
12	16.0	10.5	21.0	13.5	---	---	---	---	---	---	---	---
13	14.5	10.0	24.5	9.0	---	---	---	---	---	---	---	---
14	13.0	10.0	25.5	12.0	---	---	---	---	---	---	---	---
15	10.0	8.5	26.0	14.0	---	---	---	---	---	---	---	---
16	8.5	8.0	22.0	13.5	---	---	---	---	---	---	---	---
17	10.5	7.0	16.0	13.0	---	---	---	---	---	---	---	---
18	---	---	26.5	12.0	---	---	---	---	---	---	---	---
19	11.0	---	29.0	16.5	35.5	21.0	---	---	---	---	---	---
20	---	---	27.0	13.5	32.0	18.5	---	---	---	---	---	---
21	---	---	26.5	14.0	29.0	18.5	---	---	23.5	18.0	---	---
22	---	---	23.5	17.0	---	---	---	---	25.0	21.0	---	---
23	---	---	29.5	16.5	---	---	---	---	25.5	20.5	---	---
24	---	---	28.0	17.0	---	---	---	---	25.5	20.0	---	---
25	---	---	29.0	15.5	---	---	---	---	24.5	20.0	---	---
26	---	---	30.5	16.0	35.5	21.5	---	---	25.0	20.0	---	---
27	---	---	23.5	18.0	34.0	22.0	---	---	23.0	19.0	---	---
28	---	---	18.5	16.0	33.5	24.0	---	---	23.0	19.0	---	---
29	---	---	18.5	14.5	32.0	24.5	---	---	20.0	17.0	---	---
30	---	---	---	---	31.5	24.0	---	---	21.5	16.5	---	---
31	---	---	---	---	---	---	---	---	21.0	16.5	---	---
MONTH	19.5	7.0	30.5	6.5	35.5	18.5	34.5	22.0	25.5	16.5	24.0	18.0

KANSAS RIVER BASIN

06837300 RED WILLOW CREEK ABOVE HUGH BUTLER LAKE, NE

LOCATION.--Lat 40°24'05", long 100°46'45", in NE1/4SE1/4 sec.13, T.5 N., R.31 W., Hayes County, Hydrologic Unit 10250007, on right bank 1,000 ft (305 m) above county road bridge, 7.2 mi (11.6 km) upstream from Red Willow Dam, and 12 mi (19 km) northeast of Culbertson.

DRAINAGE AREA.--600 mi² (1,550 km²), approximately, of which about 200 mi² (520 km²) contributes directly to surface runoff.

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

GAGE.--Water-stage recorder. Artificial control since March 1961. Datum of gage is 2,594.80 ft (790.895 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 23, 1961, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by pump irrigation development above station.

AVERAGE DISCHARGE.--18 years, 29.0 ft³/s (0.821 m³/s), 21,010 acre-ft/yr (25.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,020 ft³/s (114 m³/s) June 16, 1972, gage height, 13.27 ft (4.045 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s) on basis of slope-conveyance study; minimum daily, 4.0 ft³/s (0.11 m³/s) July 4, 5, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 150 ft³/s (4.25 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 11	2330	304 8.6	3.30 1.006
May 27	0500	*568 16.1	4.43 1.350

Minimum daily discharge, 6.4 ft³/s (0.18 m³/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	23	31	17	13	79	39	31	43	8.2	11	7.2
2	15	23	31	17	12	57	38	33	35	8.1	13	8.8
3	16	23	31	19	14	37	38	35	31	16	15	9.8
4	16	23	30	19	18	42	43	35	28	12	14	9.8
5	16	23	30	20	16	40	40	34	27	11	14	9.9
6	17	23	18	24	14	58	36	34	29	11	14	9.3
7	17	23	18	25	12	50	33	39	32	12	13	9.0
8	17	23	18	20	12	38	33	44	35	12	12	8.9
9	18	23	16	16	13	61	33	46	29	12	11	9.4
10	17	24	16	16	13	148	32	39	25	8.8	9.3	9.8
11	17	26	19	17	13	247	35	35	23	11	8.8	10
12	17	28	21	21	14	243	34	31	21	18	8.6	10
13	18	28	22	23	14	174	32	28	19	15	8.8	9.7
14	18	27	24	20	15	192	36	27	18	14	9.1	10
15	18	27	26	17	14	196	46	26	18	12	8.7	10
16	19	26	28	10	13	132	44	25	17	12	8.4	9.6
17	19	26	28	8.6	12	72	43	25	16	11	7.9	9.3
18	19	26	26	8.6	12	61	44	26	17	9.5	7.7	8.6
19	20	26	22	9.5	14	61	45	25	16	9.2	7.4	8.6
20	20	26	18	10	14	62	41	25	17	13	7.3	8.4
21	20	19	18	12	16	60	38	25	16	15	8.0	8.7
22	20	20	19	18	20	57	38	24	16	23	8.1	8.7
23	20	23	24	17	26	54	37	23	15	19	7.1	9.0
24	20	25	23	17	40	50	34	23	15	17	6.4	9.5
25	20	25	22	16	60	46	31	24	15	14	7.2	9.6
26	20	24	21	13	70	45	30	35	15	12	9.5	10
27	20	25	21	13	78	44	28	224	15	12	7.9	10
28	21	27	21	14	70	44	28	51	13	10	8.1	9.7
29	22	30	21	14	---	44	27	49	8.8	8.5	8.5	9.2
30	21	31	20	14	---	42	28	61	7.7	8.0	8.3	9.1
31	22	---	20	14	---	41	---	57	---	9.8	8.3	---
TOTAL	575	746	703	499.7	652	2577	1084	1239	632.5	384.1	296.4	279.6
MEAN	18.5	24.9	22.7	16.1	23.3	83.1	36.1	40.0	21.1	12.4	9.56	9.32
MAX	22	31	31	25	78	247	46	224	43	23	15	10
MIN	15	19	16	8.6	12	37	27	23	7.7	8.0	6.4	7.2
AC-FT	1140	1480	1390	991	1290	5110	2150	2460	1250	762	588	555

CAL YR 1977 TOTAL 9951.0 MEAN 27.3 MAX 132 MIN 10 AC-FT 19740
WTR YR 1978 TOTAL 9668.3 MEAN 26.5 MAX 247 MIN 6.4 AC-FT 19180

06837390 HUGH BUTLER LAKE NEAR MCCOOK, NE

LOCATION.--Lat 40°21'35", long 100°39'55", in SW1/4NW1/4 sec.31, T.5 N., R.29 W., Frontier County, Hydrologic Unit 10250007, in gate-control house at outlet tube of Red Willow Dam on Red Willow Creek, 12 mi (19 km) north of McCook.

DRAINAGE AREA.--730 mi² (1,890 km²), approximately, of which about 310 mi² (800 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--September 1961 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 10, 1962, nonrecording gage at present datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Sept. 5, 1961. Capacity, 31,470 acre-ft (38.8 hm³) between elevations 2,522.0 ft (769 m), sill of outlet works, and 2,581.8 ft (787 m), top of irrigation pool. Top of flood-control pool and crest of mean spillway at elevation 2,604.9 ft (794 m), capacity, 86,360 acre-ft (0.106 km³). Top of superstorage flood-control pool at elevation 2,627.8 ft (801 m), capacity, 162,600 acre-ft (0.200 km³). Dead storage, 6,310 acre-ft (7.78 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 41,680 acre-ft (51.4 hm³) July 15, 16, 1967, elevation, 2,584.14 ft (787.646 m); minimum since operation of reservoir began, 16,930 acre-ft (20.9 hm³) Sept. 8, 1978, elevation, 2,565.31 ft (781.906 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 37,810 acre-ft (46.6 hm³) June 11, elevation, 2,581.82 ft (786.939 m); minimum, 16,930 acre-ft (20.9 hm³) Sept. 8, elevation, 2,565.31 ft (781.906 m).

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

2,565	16,630	2,580	34,910
2,570	21,800	2,585	43,170
2,575	27,800		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26640	27070	27850	28910	29620	31470	35530	36390	37650	33380	26690	18250
2	26640	27070	27880	28920	29640	31580	35570	36400	37660	33100	26380	18010
3	26640	27080	27930	28950	29660	31580	35610	36420	37680	32850	26180	17760
4	26660	27080	27950	28990	29700	31620	35610	36430	37710	32630	26010	17550
5	26660	27080	27970	29010	29760	31680	35690	36540	37710	32400	25850	17340
6	26660	27120	27980	29040	29810	31760	35690	36590	37740	32170	25700	17100
7	26680	27170	28040	29090	29840	31820	35710	36660	37780	31930	25580	16940
8	26680	27240	28050	29080	29900	31870	35850	36670	37780	31750	25360	16940
9	26670	27240	28050	29090	29950	32170	35910	36690	37790	31550	25060	16960
10	26670	27240	28080	29120	29980	32600	35900	36720	37780	31310	24810	16970
11	26670	27260	28100	29150	30020	33020	35930	36770	37780	31040	24520	17020
12	26670	27290	28130	29200	30130	33470	35900	36770	37740	30870	24250	17020
13	26680	27330	28160	29240	30150	33760	35910	36770	37650	30740	23950	17040
14	26680	27350	28200	29240	30170	34080	35910	36770	37570	30600	23660	17050
15	26680	27400	28240	29300	30180	34400	35970	36770	37520	30430	23350	17070
16	26720	27420	28330	29310	30190	34620	36050	36770	37420	30260	23050	17080
17	26760	27430	28350	29320	30240	34740	36160	36770	37230	30030	22750	17110
18	26760	27440	28390	29360	30280	34880	36200	36870	36970	29690	22430	17120
19	26780	27480	28530	29360	30320	34930	36180	36890	36790	29410	22120	17130
20	26810	27470	28590	29390	30330	34990	36200	36890	36580	29160	21820	17130
21	26830	27450	28580	29420	30360	35070	36230	36890	36400	29050	21610	17150
22	26830	27480	28620	29470	30400	35110	36260	36870	36310	28940	21330	17170
23	26850	27510	28670	29500	30470	35160	36270	36890	35990	28860	21000	17190
24	26870	27530	28700	29530	30710	35210	36270	36890	35780	28780	20650	17210
25	26900	27570	28720	29540	31010	35270	36240	36900	35530	28670	20340	17220
26	26910	27630	28750	29560	31210	35280	36240	36920	35160	28540	20020	17250
27	26920	27660	28780	29570	31330	35350	36290	37470	34660	28310	19690	17220
28	26960	27680	28800	29580	31370	35380	36310	37530	34290	28010	19370	17160
29	26980	27740	28830	29600	---	35410	36320	37500	33990	27670	19070	17110
30	27010	27810	28870	29610	---	35460	36370	37530	33680	27350	18740	17130
31	27050	---	28910	29610	---	35500	---	37610	---	27020	18480	---
MAX	27050	27810	28910	29610	31370	35500	36370	37610	37790	33380	26690	18250
MIN	26640	27070	27850	28910	29620	31470	35530	36390	33680	27020	18480	16940
Δ	2574.41	2575.01	2575.84	2576.36	2577.62	2580.38	2580.93	2581.70	2579.20	2574.39	2566.88	2565.51
Δ	+380	+760	+1100	+700	+1760	+4130	+870	+1240	-3930	-6660	-8540	-1350
CAL YR 1977	MAX 35780	MIN 25820	Δ +2490									
WTR YR 1978	MAX 37790	MIN 16940	Δ -9540									

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

KANSAS RIVER BASIN

06837500 RED WILLOW CREEK NEAR MCCOOK, NE

LOCATION.--Lat 40°20'50", long 100°38'35", in SW1/4NW1/4 sec.6, T.4 N., R.29 W., Red Willow County, Hydrologic Unit 10250007, on left bank 45 ft (14 m) downstream from bridge on U.S. Highway 83, 3 mi (5 km) downstream from Red Willow Dam and 10 mi (16 km) north of McCook.

DRAINAGE AREA.--740 mi² (1,920 km²), approximately, of which about 320 mi² (830 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to September 1947. Annual maximums, water years 1958-60. October 1960 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder, concrete control since Dec. 23, 1965. Datum of gage is 2,485.97 ft (757.724 m) National Geodetic Vertical Datum of 1929. October 1940 to September 1947 water-stage recorder at site 45 ft (13.7 m) upstream at datum 9.55 ft (2.911 m) higher. Nov. 22, 1957, to Sept. 30, 1960, crest-stage gage, Oct. 1, 1960, to Apr. 5, 1961, nonrecording gage, and Apr. 6, 1961 to Sept. 26, 1974 water-stage recorder at site 45 ft (13.7 m) upstream, present datum.

REMARKS.--Records fair. Natural flow affected by irrigation development above station and, since Sept. 5, 1961, by storage in Hugh Butler Lake (station 06837390).

AVERAGE DISCHARGE.--25 years, 25.2 ft³/s (0.714 m³/s), 18,260 acre-ft/yr (22.5 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 22, 1947, gage height, 31.95 ft (9.738 m), present datum, from rating curve extended above 2,500 ft³/s (70.8 m³/s) on basis of contracted-opening measurement of peak flow; minimum daily, 0.60 ft³/s (0.017 m³/s) Sept. 22, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Flood of June 1, 1935, reached a stage of 33.45 ft (10.196 m), from floodmarks, discharge, 45,000 ft³/s (1,270 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 243 ft³/s (6.88 m³/s) June 27, gage height, 11.48 ft (3.499 m); minimum daily, 3.0 ft³/s (0.085 m³/s) June 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.2	4.2	4.6	4.3	4.3	4.3	4.8	4.4	136	160	135
2	4.0	4.2	4.5	4.7	4.3	4.4	4.5	4.5	3.7	134	157	136
3	4.0	4.2	4.5	4.7	4.4	4.5	4.4	4.6	3.7	134	139	136
4	4.0	4.2	4.4	4.7	3.7	4.6	4.4	4.7	3.8	128	107	136
5	4.0	4.3	4.4	4.7	4.2	4.6	4.4	4.7	3.5	120	107	134
6	4.1	4.3	4.2	4.5	4.3	4.5	4.4	5.4	3.0	119	108	132
7	4.3	4.3	4.4	3.9	4.3	4.4	4.4	5.0	3.5	104	111	96
8	4.2	4.5	4.2	4.5	4.3	4.5	4.5	4.7	4.0	95	131	8.8
9	4.0	4.4	3.9	4.6	4.3	4.6	4.9	4.6	3.9	94	144	7.7
10	4.0	4.4	4.0	4.7	4.3	4.7	4.4	4.6	3.9	102	139	6.8
11	4.0	4.5	4.0	4.7	4.3	4.5	4.3	5.6	4.0	139	135	6.0
12	3.9	4.3	4.0	4.7	4.4	4.5	7.5	4.4	7.8	140	134	6.0
13	3.5	4.3	4.2	4.7	4.7	4.5	21	4.3	4.2	117	134	6.3
14	3.4	4.3	4.4	4.7	4.6	4.5	6.2	4.3	4.3	96	150	6.6
15	3.6	4.3	4.4	4.7	4.5	4.3	5.8	3.7	3.9	96	161	6.0
16	3.8	4.3	4.4	4.8	4.4	3.7	5.7	4.0	4.4	94	163	6.0
17	3.9	4.3	4.4	4.8	4.4	3.7	5.5	4.4	6.1	124	157	5.6
18	3.9	4.3	4.4	4.7	4.7	3.7	5.2	4.5	108	144	153	5.6
19	4.1	4.3	4.7	4.8	4.7	3.6	4.4	3.5	10.1	143	152	5.2
20	4.0	4.2	4.4	4.9	4.7	3.6	4.3	3.2	8.6	133	152	4.8
21	4.0	4.2	4.4	4.9	4.7	3.6	3.8	3.2	9.0	97	145	4.6
22	3.9	4.3	4.7	4.8	4.7	3.6	3.9	3.3	10.4	68	139	4.6
23	4.1	4.3	4.7	4.9	4.7	3.5	4.6	3.6	12.2	67	168	4.4
24	4.1	4.2	4.7	4.8	4.9	3.5	4.6	8.4	12.2	61	167	4.4
25	4.2	4.1	4.4	4.5	4.4	3.5	4.7	3.1	12.4	53	168	4.2
26	4.1	4.1	4.2	4.7	4.4	3.6	4.8	2.8	20.2	63	166	4.2
27	4.2	4.4	4.2	4.5	4.4	4.0	4.5	2.3	23.7	104	166	4.2
28	4.2	4.4	4.6	4.5	4.2	3.5	4.6	2.3	19.4	144	165	5.5
29	4.3	4.2	4.7	4.5	---	3.3	4.5	2.3	15.9	143	161	5.0
30	4.5	4.5	4.7	4.5	---	3.4	4.7	2.3	14.1	143	156	5.6
31	4.1	---	4.6	4.3	---	3.8	---	2.0	---	155	150	---
TOTAL	124.4	128.8	135.9	144.0	124.2	125.0	159.2	279.0	2068.2	3490	4545	1127.6
MEAN	4.01	4.29	4.38	4.65	4.44	4.03	5.31	9.00	68.9	113	147	37.6
MAX	4.5	4.5	4.7	4.9	4.9	4.7	21	31	23.7	155	168	136
MIN	3.4	4.1	3.9	3.9	3.7	3.3	3.8	3.2	3.0	53	107	4.2
AC-FT	247	255	270	286	246	248	316	553	4100	6920	9020	2240
CAL YR 1977	TOTAL	7096.2	MEAN	19.4	MAX	148	MIN	3.3	AC-FT	14080		
WTR YR 1978	TOTAL	12451.3	MEAN	34.1	MAX	237	MIN	3.0	AC-FT	24700		

305

LOCATION.--Lat 40°14'10"N, Long 100°30'00"W, in NE1/4NE1/4 sec.17, T.3 N., R.28 W., Red Willow County, Hydrologic Unit 10250007, on right bank near downstream side of bridge on U.S. Highways 6 and 34, 0.8 mi (1.3 km) north of Red Willow and 2.5 mi (4.0 km) upstream from mouth.

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

REVISED RECORDS.--WSP 1510: 1945(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,398.64 ft (731.105 m) National Geodetic Vertical Datum of 1929. Prior to May 26, 1945, nonrecording gage at bridge 1.2 mi (1.9 km) upstream at datum 11.16 ft (3.402 m) higher, and May 26, 1945 to Aug. 2, 1974, water-stage recorder on left bank at downstream side of bridge, present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station, since Sept. 5, 1961, by storage in Hugh Butler Lake (station 06837390), and since June 1963 by Red Willow Canal, which diverts 4.5 mi (7.2 km) above station for irrigation of about 4,150 acres (16.8 km²).

AVERAGE DISCHARGE.--39 years, 30.8 ft³/s (0.872 m³/s), 22,310 acre-ft/yr (27.5 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 22, 1947, gage height, 18.36 ft (5.596 m), from rating curve extended above 6,800 ft³/s (193 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.33 ft³/s (0.009 m³/s) Sept. 8, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 161 ft³/s (4.56 m³/s) June 27, gage height, 6.67 ft (2.033 m); minimum daily, 1.1 ft³/s (0.031 m³/s) Oct. 10.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	4.1	9.5	7.5	7.4	10	9.3	2.5	4.4	44	80	91
2	6.9	4.2	9.0	8.0	7.4	9.6	11	1.8	2.2	41	81	82
3	6.9	4.3	8.8	8.0	8.0	9.0	10	1.8	2.2	43	88	80
4	5.5	4.2	8.8	8.5	9.0	8.5	9.9	1.8	2.0	27	64	82
5	5.7	4.4	8.3	9.0	8.6	9.0	10	1.8	2.2	21	60	88
6	5.7	4.6	7.8	11	7.6	10	9.9	2.7	2.1	20	59	87
7	5.7	4.4	7.8	13	7.0	12	9.8	2.1	1.8	21	58	91
8	1.3	4.6	8.0	10	7.0	13	9.8	1.9	1.7	12	70	41
9	1.2	4.2	7.0	11	7.0	15	9.8	1.7	1.6	13	100	16
10	1.1	4.4	7.2	11	7.0	18	9.6	1.9	1.7	13	101	7.3
11	1.4	4.7	8.0	11	7.0	18	9.6	1.7	1.5	36	87	6.4
12	2.0	4.7	8.5	13	7.0	16	9.6	1.8	1.4	56	87	19
13	2.0	4.7	9.5	13	7.0	15	4.8	1.9	2.2	27	86	7.8
14	2.4	4.8	10	12	6.8	13	1.8	2.1	1.5	18	89	7.2
15	4.1	4.8	11	10	6.6	10	1.6	2.0	1.6	21	100	6.8
16	4.7	4.8	10	8.5	6.0	9.7	1.4	1.9	1.2	20	83	6.6
17	4.9	4.6	8.5	6.0	5.6	9.6	1.4	2.1	2.6	24	82	6.2
18	3.6	4.7	7.5	6.0	6.0	9.7	1.4	3.3	5.6	69	94	6.2
19	3.5	4.9	7.5	6.2	6.4	9.6	1.4	2.7	8.1	72	104	6.2
20	3.5	4.6	7.0	6.4	6.4	9.8	1.4	2.5	5.9	74	106	6.2
21	3.6	3.0	7.5	7.0	6.8	9.7	1.5	2.4	3.3	56	110	6.2
22	3.5	3.5	8.0	7.8	10	9.8	1.6	2.6	4.6	30	64	5.9
23	3.9	3.5	9.0	8.6	12	9.7	1.5	2.3	5.9	25	104	5.6
24	4.3	4.0	8.0	8.6	14	9.8	1.3	2.5	6.6	26	116	5.6
25	4.0	4.8	7.0	8.4	13	9.8	1.4	4.0	6.6	20	115	5.4
26	3.9	5.1	8.0	8.0	13	10	1.6	2.2	8.6	18	116	5.2
27	4.0	5.6	9.2	8.0	12	8.1	1.6	4.8	13.9	36	114	5.2
28	4.1	5.2	9.5	8.0	12	3.3	1.8	7.0	14.8	70	112	34
29	4.5	5.1	9.5	7.6	---	5.4	1.6	6.3	7.5	72	113	44
30	4.5	1.9	9.0	7.6	---	8.7	2.0	6.2	4.8	70	108	10
31	4.5	---	8.5	7.4	---	8.7	---	6.6	---	74	113	---
TOTAL	119.0	149.5	262.9	276.1	233.6	327.5	149.4	88.9	1058.0	1169	2864	871.0
MEAN	3.84	4.98	8.48	8.91	8.34	10.6	4.98	2.87	35.3	37.7	92.4	29.0
MAX	6.9	1.9	11	13	14	18	11	7.0	14.8	74	116	91
MIN	1.1	3.0	7.0	6.0	5.6	3.3	1.3	1.7	1.4	12	58	5.2
AC-FT	236	297	521	548	463	650	296	176	2100	2320	5680	1730
CAL YR 1977	TOTAL	4554.6	MEAN	12.5	MAX	87	MIN	1.1	AC-FT	9030		
WTR YR 1978	TOTAL	7568.9	MEAN	20.7	MAX	148	MIN	1.1	AC-FT	15010		

KANSAS RIVER BASIN

307

06842000 HARRY STRUNK LAKE NEAR CAMBRIDGE, NE

LOCATION.--Lat 40°22'40", long 100°13'00", in NE1/4 sec.25, T.5 N., R.26 W., Frontier County, Hydrologic Unit 10250008, near right bank in control house at outlet tube of Medicine Creek Dam on Medicine Creek, 7 mi (11 km) northwest of Cambridge.

DRAINAGE AREA.--880 mi² (2,280 km²), approximately, of which about 640 mi² (1,660 km²) contributes directly to surface runoff.

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

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Aug. 18, 1960, nonrecording gage at present datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Aug. 8, 1949. Capacity, 32,230 acre-ft (39.7 hm³) between elevation 2,335.0 ft (712 m), sill of outlet gates, and 2,366.1 ft (721 m), top of storage pool and crest of slot in spillway. Top of flood-control pool and crest of main spillway at elevation 2,386.2 ft (727 m), capacity, 89,310 acre-ft (0.110 km³). Top of superstorage flood-control pool at elevation 2,400.0 ft (732 m), capacity, 147,400 acre-ft (0.182 km³). Maximum water-surface elevation, 2,408.9 ft (734 m), 196,000 acre-ft (0.242 km³). Dead storage, 4,910 acre-ft (6.05 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,750 acre-ft (68.7 hm³) Mar. 23, 1960, elevation, 2,374.10 ft (723.626 m); minimum since operation of reservoir began, 7,840 acre-ft (9.67 hm³) Sept. 7, 1978, elevation, 2,340.39 ft (713.351 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 41,590 acre-ft (51.3 hm³) Mar. 15, elevation, 2,368.40 ft (721.888 m); minimum, 7,840 acre-ft (9.67 hm³) Sept. 7, elevation, 2,340.39 ft (713.351 m).

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

2,340	7,600	2,360	27,100
2,345	11,000	2,365	35,140
2,350	15,250	2,370	44,890
2,355	20,550		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22880	25000	27500	30170	32750	37500	37100	37290	38530	33700	17030	8330
2	22880	25030	27620	30180	32800	37630	37180	37290	38600	32990	16620	8200
3	22950	25150	27660	30270	32890	37610	37140	37310	38660	32280	16400	8070
4	23030	25220	27780	30400	32890	37550	37140	37310	38720	31570	16320	8010
5	23040	25240	27810	30490	32970	37570	37180	37310	38810	30770	16250	7950
6	23080	25350	27840	30570	33150	37570	37140	37330	38870	30000	16190	7890
7	23210	25500	27900	30690	33200	37570	37080	37380	38950	29260	16070	7850
8	23260	25650	28000	30770	33370	37570	37140	37420	38990	28520	15840	7890
9	23400	25650	28030	30880	33470	37660	37550	37420	39040	27710	15530	7930
10	23400	25690	28050	30950	33560	38420	37530	37380	39120	27030	15280	7960
11	23440	25780	28120	31030	33660	39330	37530	37440	39160	26390	15070	8000
12	23440	25820	28210	31110	33840	40700	37530	37360	39200	25820	14820	8030
13	23570	25950	28310	31190	33890	41390	37340	37250	39240	25300	14540	8050
14	23660	26060	28420	31230	33960	41570	37420	37140	39280	24780	14200	8070
15	23660	26150	28520	31390	34060	41220	37500	36990	39320	24250	13760	8120
16	23750	26230	28700	31440	34130	40780	37590	36820	39320	23740	13390	8170
17	23800	26260	28810	31490	34250	40310	37700	36840	39140	23210	13030	8190
18	23870	26330	28950	31570	34300	39920	37760	37010	38950	22530	12580	8260
19	23960	26480	29090	31630	34430	39410	37680	37060	38570	21860	12180	8260
20	24050	26480	29170	31730	34480	39040	37650	37120	38270	21410	11790	8290
21	24130	26520	29200	31810	34530	38640	37610	37250	37950	21310	11660	8330
22	24150	26560	29270	31880	34720	38230	37610	37400	37720	21090	11520	8380
23	24220	26630	29380	31970	34770	37780	37610	37460	37530	20850	11100	8440
24	24310	26720	29470	32080	35270	37660	37570	37680	37330	20630	10690	8480
25	24410	26820	29580	32170	35870	37510	37440	37830	37100	20390	10320	8520
26	24520	26990	29660	32270	36520	37400	37380	37950	36660	20070	9990	8580
27	24590	27070	29750	32320	36970	37230	37380	38060	36210	19630	9630	8600
28	24680	25740	29810	32400	37360	37030	37480	38150	35690	19160	9290	8560
29	24720	27260	29920	32520	---	37060	37400	38230	35110	18650	8980	8520
30	24820	27400	30030	32620	---	37080	37340	38380	34390	18170	8700	8480
31	24900	---	30100	32690	---	37100	---	38450	---	17540	8480	---
MAX	24900	27400	30100	32690	37360	41570	37760	38450	39320	33700	17030	8600
MIN	22880	25000	27500	30170	32750	37030	37080	36820	34390	17540	8480	7850
Δ	2358.43	2360.20	2361.99	2363.57	2366.22	2366.08	2366.21	2366.80	2364.57	2352.29	2341.40	2341.40
Δ	+2070	+2500	+2700	+2590	+4670	-260	+240	+1110	-4060	-16850	-9060	000
CAL YR 1977	MAX 40700	MIN 18690	Δ +11460									
WTR YR 1978	MAX 41570	MIN 7850	Δ -14350									

Δ Elevation, in feet, at end of month.

Δ Change in contents, in acre-feet.

KANSAS RIVER BASIN

06842500 MEDICINE CREEK BELOW HARRY STRUNK LAKE, NE

LOCATION.--Lat 40°22'20", long 100°13'20", at center of sec.25, T.5 N., R.26 W., Frontier County, Hydrologic Unit 10250008, on right bank 0.5 mi (0.8 km) downstream from Medicine Creek Dam and 6.5 mi (10.5 km) northwest of Cambridge.

DRAINAGE AREA.--880 mi² (2,280 km²), approximately, of which about 640 mi² (1,660 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1950, published as "below Medicine Creek Dam." Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Concrete control since August 1950. Datum of gage is 2,295.26 ft (699.595 m) National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark.) Prior to Apr. 24, 1950, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records good. Flow regulated by Harry Strunk Lake (station 06842000).

AVERAGE DISCHARGE.--29 years, 64.4 ft³/s (1.824 m³/s), 46,660 acre-ft/yr (57.5 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) Mar. 23, 1960, gage height, 5.97 ft (1.820 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Nov. 13, 1952, Sept. 19, 1963, Sept. 27-29, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 430 ft³/s (12.2 m³/s) July 5, gage height, 3.14 ft (0.957 m); minimum daily, 0.16 ft³/s (0.005 m³/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	2.7	.72	1.0	.90	11	65	66	4.3	386	345	118
2	.16	.97	.76	1.0	.90	21	65	66	4.2	386	291	104
3	.17	.86	.80	1.0	.90	49	65	66	4.2	386	165	104
4	.23	.85	.81	1.0	.90	57	65	66	4.2	386	74	78
5	.37	.89	.74	1.0	.90	57	65	66	4.8	415	74	55
6	.47	.90	.74	1.0	.90	56	65	66	4.5	425	74	49
7	.57	.90	.80	1.0	.90	66	65	66	4.4	420	95	34
8	.68	1.0	.76	1.0	.90	70	65	67	4.4	420	145	.51
9	.84	.87	.71	1.0	.90	76	66	66	4.4	415	178	.40
10	.91	.99	.75	.97	.90	83	69	66	4.5	410	159	.34
11	.82	1.1	.80	.90	.90	101	67	66	4.4	374	145	.30
12	1.0	.90	.79	.90	.90	132	67	67	4.5	322	167	.31
13	1.1	.90	.79	.90	.90	244	67	66	4.5	308	167	.29
14	1.9	.90	.79	.90	.90	378	67	66	4.5	282	223	.31
15	1.3	.93	.80	.90	.90	415	67	134	4.5	269	271	.30
16	1.2	.97	.88	.90	.90	398	67	166	4.6	268	244	.24
17	1.3	.93	.82	.90	.90	374	67	52	4.6	285	232	.23
18	1.8	.90	.80	.90	.90	350	68	5.4	105	354	236	.30
19	1.5	.92	2.8	.90	.90	333	65	5.0	206	363	239	.22
20	.98	.91	.86	.90	.90	316	69	4.7	163	312	242	.20
21	1.4	.90	.75	.90	.90	299	68	4.8	150	213	113	.22
22	2.0	5.8	.98	1.0	1.0	288	68	4.9	135	170	76	.39
23	2.1	.78	.90	1.0	1.0	279	68	4.7	126	170	279	.80
24	2.6	.72	.90	.90	1.0	188	68	4.7	126	158	259	.80
25	2.5	.72	.89	1.1	.90	138	67	4.7	132	150	232	.91
26	2.4	.76	.89	.90	.90	137	66	4.5	187	172	223	.92
27	2.4	.74	1.0	.90	6.5	171	66	4.5	246	220	221	17
28	2.8	.72	.99	.90	11	148	66	4.5	282	259	220	51
29	2.7	.72	1.0	.90	---	83	66	4.4	316	256	204	48
30	3.0	.77	1.0	.90	---	65	66	4.3	374	265	181	18
31	3.3	---	1.0	.90	---	65	---	4.4	---	340	154	---
TOTAL	44.77	32.92	28.02	29.27	41.20	5448	1995	1343.5	2623.5	9559	5928	683.99
MEAN	1.44	1.10	.90	.94	1.47	176	66.5	43.3	87.5	308	191	22.8
MAX	3.3	5.8	2.8	1.1	11	415	69	166	374	425	345	118
MIN	.16	.72	.71	.90	.90	11	65	4.3	4.2	150	74	.20
AC-FT	89	65	56	58	82	10810	3960	2660	5200	18960	11760	1360

CAL YR 1977 TOTAL 13139.58 MEAN 36.0 MAX 321 MIN .16 AC-FT 26060
WTR YR 1978 TOTAL 27757.17 MEAN 76.0 MAX 425 MIN .16 AC-FT 55060

LOCATION.--Lat 40°17'05", long 100°08'35", in NW1/4SE1/4 sec.28, T.4 N., R.25 W., Furnas County, Hydrologic Unit 10250004, on left bank 400 ft (122 m) south of U.S. Highways 6 and 34, 0.5 mi (0.8 km) downstream from Medicine Creek, 1 mi (2 km) east of Cambridge, and 1.3 mi (2.1 km) upstream from Cambridge diversion dam.

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

REVISD RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,239.07 ft (682.469 m) National Geodetic Vertical Datum of 1929. Prior to July 13, 1948, nonrecording gage at site 150 ft (46 m) upstream at same datum and July 13, 1948, to Sept. 25, 1950, at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and since 1949 by regulation from upstream reservoirs.

AVERAGE DISCHARGE.--33 years, 326 ft³/s (9.232 m³/s), 236,200 acre-ft/yr (0.291 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 160,000 ft³/s (4,530 m³/s) June 22, 1947, gage height, 16.7 ft (5.09 m), from floodmarks, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.07 ft³/s (0.002 m³/s) Sept. 27, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum stage since at least 1826, 17.6 ft (5.36 m) May 31 to June 1, 1935, from information by local resident, discharge, about 280,000 ft³/s (7,930 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft³/s (42.5 m³/s) Mar. 12, gage height, 6.28 ft (1.914 m); minimum daily, 0.07 ft³/s (0.002 m³/s) Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	119	152	88	90	225	224	182	158	366	313	166
2	104	118	147	90	93	200	232	189	137	360	315	154
3	97	123	149	95	100	190	235	177	124	392	228	159
4	96	126	153	100	120	180	232	166	115	398	160	146
5	93	124	148	105	110	200	224	157	111	370	153	108
6	89	121	45	115	100	240	223	185	114	391	139	99
7	98	117	45	125	90	300	218	211	103	401	116	88
8	96	123	45	135	86	450	220	199	94	393	148	63
9	94	120	50	110	86	700	247	184	89	382	189	39
10	98	117	60	90	87	950	226	181	75	374	190	20
11	103	122	70	97	88	1250	219	173	61	361	168	5.0
12	103	125	80	100	90	1420	206	170	52	340	177	.38
13	104	127	100	105	91	1120	193	157	49	326	185	.33
14	103	126	125	105	92	970	200	149	40	293	209	.29
15	104	126	150	95	92	784	207	146	25	249	277	.26
16	107	122	160	90	92	681	210	262	16	249	276	.24
17	106	119	160	85	93	616	219	181	5.2	246	246	.23
18	107	114	150	84	95	586	222	115	24	296	238	.24
19	108	114	145	82	97	562	215	103	262	356	251	.16
20	108	110	130	80	100	538	207	82	228	330	256	.17
21	109	105	120	83	105	532	204	71	186	342	433	.16
22	106	100	130	86	120	520	200	72	160	257	384	.12
23	107	110	135	92	180	477	201	64	149	229	303	.11
24	111	125	130	100	240	420	193	66	149	199	298	.12
25	113	139	120	99	280	368	185	96	154	228	278	.11
26	112	126	108	98	320	351	182	116	191	182	263	.09
27	111	140	105	95	310	356	178	92	241	210	255	.07
28	112	137	100	92	275	371	173	337	328	233	246	18
29	116	132	100	90	---	276	165	455	389	240	230	19
30	122	136	98	90	---	235	162	272	352	232	208	15
31	117	---	95	90	---	228	---	188	---	290	184	---
TOTAL	3265	3663	3505	2991	3722	16296	6222	5198	4181.2	9515	7316	1102.08
MEAN	105	122	113	96.5	133	526	207	168	139	307	236	36.7
MAX	122	140	160	135	320	1420	247	455	389	401	433	166
MIN	89	100	45	80	86	180	162	64	5.2	182	116	.07
AC-FT	6480	7270	6950	5930	7380	32320	12340	10310	8290	18870	14510	2190
CAL YR 1977	TOTAL	72467.00	MEAN	199	MAX	2570	MIN	45	AC-FT	143700		
WTR YR 1978	TOTAL	66976.28	MEAN	183	MAX	1420	MIN	.07	AC-FT	132800		

KANSAS RIVER BASIN

06844000 MUDDY CREEK AT ARAPAHOE, NE

LOCATION.--Lat 40°18'20", long 99°54'40", in NW1/4NW1/4 sec.22, T.4 N., R.23 W., Furnas County, Hydrologic Unit 10250009, on left bank 10 ft (3 m) upstream from bridge on U.S. Highways 6 and 34, 0.2 mi (0.3 km) west of Arapahoe, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--246 mi² (637 km²).

PERIOD OF RECORD.--December 1950 to September 1972, and October 1977 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,143.92 ft (653.467 m), National Geodetic Vertical Datum of 1929. December 1950 to Jan. 11, 1951, nonrecording gage, and Jan. 12, 1951, to Sept. 30, 1972, recording gage at site on left bank 20 ft (6 m) downstream from bridge at present datum.

REMARKS.--Records poor prior to Apr. 26 and good thereafter. Natural flow affected by irrigation development above station and return flow from irrigated areas.

AVERAGE DISCHARGE.--22 years (1951-72, 1978), 15.2 ft³/s (0.430 m³/s), 11,010 acre-ft/yr (13.6 hm³/yr); median of yearly mean discharges, 11 ft³/s (0.312 m³/s), 8,000 acre-ft/yr (9.86 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,280 ft³/s (206 m³/s) June 16, 1957, gage height, 24.62 ft (7.504 m); no flow Aug. 26 to Sept. 2, 1953, July 23, 29, Aug. 4, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 31 ft (9.4 m) occurred June 22, 1947, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 369 ft³/s (10.5 m³/s) Mar. 13, gage height, 9.54 ft (2.908 m), from high-water mark, no peak above base of 750 ft³/s (21.2 m³/s); minimum daily, 2.8 ft³/s (0.079 m³/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	7.0	8.5	6.0	4.5	5.0	8.5	9.0	24	5.5	5.1	6.1
2	6.0	7.0	9.0	6.0	4.5	4.5	8.5	8.9	16	5.0	7.0	5.3
3	6.0	7.0	9.0	6.0	5.0	5.0	8.5	8.4	9.4	4.5	29	4.8
4	6.0	7.0	8.5	6.0	5.5	5.5	8.5	8.2	7.7	3.8	14	4.9
5	6.0	7.0	8.0	6.0	5.5	6.0	8.5	8.2	7.3	3.5	8.5	4.8
6	6.0	7.0	7.0	5.8	5.0	7.0	8.5	8.2	6.8	4.1	6.2	4.1
7	6.0	7.0	6.5	5.8	5.0	8.5	8.5	8.9	6.8	4.4	5.1	3.8
8	6.2	7.0	6.0	5.8	4.9	9.8	8.5	8.6	6.2	4.1	5.1	4.0
9	6.2	7.0	5.5	5.5	4.9	10	30	7.9	6.0	4.1	5.3	3.2
10	6.2	7.0	6.0	5.5	4.9	12	20	7.4	5.9	4.5	12	3.4
11	6.2	7.2	6.5	5.8	4.9	20	12	7.0	5.8	4.3	48	3.2
12	6.2	7.2	6.5	6.0	4.5	70	9.0	7.0	5.6	4.8	15	3.7
13	6.2	7.2	6.8	6.0	4.5	150	8.0	6.8	5.3	5.1	10	2.8
14	6.2	7.2	7.0	5.8	4.5	90	8.0	7.2	5.1	6.6	8.9	4.0
15	6.2	7.2	8.0	5.5	4.5	50	10	6.7	5.1	5.5	9.4	4.2
16	6.4	7.5	9.0	5.5	4.5	30	20	6.8	5.1	4.9	8.6	4.2
17	6.4	7.5	10	5.5	4.5	25	15	6.6	4.9	3.9	12	4.3
18	6.2	7.5	9.0	5.5	4.5	20	11	6.9	4.9	3.7	9.5	4.7
19	6.4	7.5	8.0	5.0	4.5	18	10	7.9	4.9	4.4	7.5	4.9
20	6.4	7.5	7.0	5.0	4.8	16	9.5	7.4	13	4.2	6.8	4.8
21	6.5	7.5	7.0	5.0	5.2	13	9.0	7.2	5.4	7.0	6.5	4.7
22	6.5	7.5	7.0	5.5	5.5	10	8.5	6.8	5.3	19	6.9	4.8
23	6.5	7.5	6.5	5.5	6.0	10	8.5	7.7	5.3	13	8.3	4.9
24	6.5	7.5	6.5	5.8	6.5	9.5	8.5	8.1	5.3	7.6	7.7	5.0
25	6.5	7.5	6.5	5.8	6.5	9.5	8.5	8.1	5.5	6.0	7.8	5.0
26	6.5	7.5	6.0	5.8	6.0	9.5	8.7	9.5	5.5	5.1	5.3	4.9
27	6.5	8.0	6.0	5.5	5.5	9.5	8.8	9.2	5.5	5.6	5.5	4.8
28	7.0	8.0	6.0	5.5	5.0	9.2	8.9	10	6.4	6.0	5.0	4.8
29	7.0	8.0	6.0	5.0	---	9.0	9.0	11	5.5	5.0	5.4	4.8
30	7.0	8.2	6.0	5.0	---	9.0	8.8	10	4.7	4.5	5.5	4.7
31	7.0	---	6.0	4.5	---	9.0	---	9.2	---	4.5	6.1	---
TOTAL	196.9	220.7	221.3	172.9	141.6	669.5	317.7	250.8	210.2	174.2	303.0	133.6
MEAN	6.35	7.36	7.14	5.58	5.06	21.6	10.6	8.09	7.01	5.62	9.77	4.45
MAX	7.0	8.2	10	6.0	6.5	150	30	11	24	19	48	6.1
MIN	6.0	7.0	5.5	4.5	4.5	4.5	8.0	6.6	4.7	3.5	5.0	2.8
AC-FT	391	438	439	343	281	1330	630	497	417	346	601	265

WTR YR 1978 TOTAL 3012.4 MEAN 8.25 MAX 150 MIN 2.8 AC-FT 5980

KANSAS RIVER BASIN

311

06844210 TURKEY CREEK NEAR EDISON, NE

LOCATION.--Lat 40°16'15", long 99°44'00", in the center of sec.31, T.4 N., R.21 W., Furnas County, Hydrologic Unit 10250009, on left bank 10 ft (3 m) downstream from bridge on State Highway 136, 2 mi (3 km) east of Edison and 5 mi (8 km) upstream from mouth.

PERIOD OF RECORD.--October 1977 to September 1978.

GAGE.--Water-stage recorder.

REMARKS.--Records poor. Natural flow affected by pump irrigation development above station and by return flow from irrigated areas.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 130 ft³/s (3.68 m³/s) Aug. 2, gage height, 5.70 ft (1.737 m); minimum daily, 0.74 ft³/s (0.021 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.0	3.4	1.6	2.4	3.5	5.8	5.4	5.9	2.6	2.6	2.5
2	3.4	3.0	3.4	1.8	2.2	3.0	5.6	5.4	5.0	2.6	63	2.0
3	3.4	3.0	3.6	2.0	2.8	3.0	5.6	5.1	4.7	2.9	22	1.4
4	3.2	3.0	3.2	1.8	3.6	3.0	5.4	4.9	4.6	3.2	5.5	1.4
5	3.0	3.0	3.0	2.2	3.2	3.4	5.4	4.9	4.5	2.8	2.7	1.2
6	3.0	3.0	2.9	2.8	3.0	4.0	7.0	5.4	4.5	2.6	2.2	1.2
7	3.0	3.0	2.9	2.8	3.0	4.2	6.5	6.0	4.5	3.4	2.1	1.2
8	3.0	3.0	2.9	2.6	3.0	5.0	6.0	5.7	4.3	3.8	2.4	.83
9	2.8	3.0	2.2	2.2	3.0	5.5	5.8	5.0	4.0	3.0	1.4	.74
10	2.8	2.9	2.2	2.0	3.2	6.5	5.4	4.7	3.9	3.6	1.1	.97
11	2.8	2.9	2.4	2.2	3.2	10	5.0	4.8	3.7	2.7	1.4	.94
12	2.6	2.9	2.6	2.4	3.0	20	4.8	5.0	3.5	2.2	1.5	.80
13	2.6	2.9	2.6	2.2	2.8	30	4.6	4.9	3.4	3.6	1.5	.78
14	2.6	2.9	2.8	2.0	2.8	24	4.6	4.9	3.3	3.0	1.3	.82
15	2.4	2.9	3.0	2.0	2.8	18	4.4	4.8	3.3	2.8	1.6	.82
16	2.4	3.0	3.0	1.8	3.0	16	4.4	4.8	2.9	2.0	1.9	.76
17	2.2	3.0	2.9	1.8	3.0	14	8.0	4.8	2.8	2.2	1.5	.83
18	2.2	3.1	2.9	1.8	3.2	12	7.8	5.2	2.7	2.4	1.6	.91
19	2.2	3.2	2.0	2.0	3.8	10	7.0	5.5	7.7	2.9	1.8	.81
20	2.2	3.2	1.4	2.0	3.7	8.6	5.8	5.3	7.8	3.3	1.8	.84
21	2.4	3.0	1.4	2.0	3.7	7.2	5.4	4.9	3.0	3.8	1.8	.94
22	2.4	3.1	1.5	2.6	4.0	6.5	5.4	4.7	2.9	3.9	2.2	.91
23	2.4	3.1	1.7	3.0	4.4	6.4	5.2	4.8	3.0	3.9	2.0	.92
24	2.4	3.2	1.7	3.2	5.0	6.4	5.0	4.8	3.1	3.2	2.0	.86
25	2.6	3.2	1.8	3.0	5.0	6.2	4.8	4.6	3.2	2.3	2.0	.90
26	2.6	3.3	1.8	2.8	4.6	6.2	4.6	4.5	3.2	2.4	1.8	.91
27	2.6	3.3	1.9	2.8	4.4	6.2	4.5	5.0	3.2	2.1	1.8	.97
28	2.8	3.4	1.9	2.8	3.8	6.0	4.8	7.0	3.1	2.0	2.0	.96
29	2.8	3.4	1.9	2.6	---	6.0	5.0	7.3	2.9	1.9	2.4	.92
30	2.8	3.4	1.9	2.6	---	6.0	5.1	5.8	2.7	1.6	2.8	.91
31	2.8	---	1.9	2.6	---	5.8	---	16	---	1.9	3.0	---
TOTAL	84.0	92.3	74.7	72.0	95.6	272.6	164.7	171.9	117.3	86.6	144.7	30.95
MEAN	2.71	3.08	2.41	2.32	3.41	8.79	5.49	5.55	3.91	2.79	4.67	1.03
MAX	3.6	3.4	3.6	3.2	5.0	30	8.0	16	7.8	3.9	63	2.5
MIN	2.2	2.9	1.4	1.6	2.2	3.0	4.4	4.5	2.7	1.6	1.1	.74
AC-FT	167	183	148	143	190	541	327	341	233	172	287	61
WTR YR 1978	TOTAL	1407.35	MEAN	3.86	MAX	63	MIN	.74	AC-FT	2790		

KANSAS RIVER BASIN

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE

LOCATION.--Lat 40°07'53", long 99°30'08", in NE1/4NE1/4 sec.19, T.2 N., R.19 W., Harlan County, Hydrologic Unit 10250009, on right bank 18 ft (5 m) downstream from bridge on State Highway 89, 200 ft (61 m) downstream from Burlington Northern Inc. bridge, 2 mi (3 km) west of Orleans, 2.8 mi (4.5 km) upstream from Sappa Creek, and 23 mi (37 km) upstream from Harlan County Dam.

DRAINAGE AREA.--15,640 mi² (40,500 km²), approximately, of which about 8,910 mi² (23,100 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,972.57 ft (601.239 m) National Geodetic Vertical Datum of 1929. Prior to June 2, 1948, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station and regulation by upstream reservoirs.

AVERAGE DISCHARGE.--31 years, 318 ft³/s (9.006 m³/s), 230,400 acre-ft/yr (0.284 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,600 ft³/s (1,150 m³/s) June 22, 1948, gage height, 11.25 ft (3.429 m), from rating curve extended above 29,000 ft³/s (821 m³/s); maximum gage height, 12.60 ft (3.840 m) Mar. 22, 1960, backwater from ice; no flow at times in 1952-57, 1963, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood since at least 1826 occurred June 1, 1935. Flood of June 23, 1947, reached a stage of 14.00 ft (4.267 m), from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 2,000 ft³/s (56.6 m³/s) Mar. 14, backwater from ice; maximum gage height, 6.92 ft (2.109 m) Mar. 12, backwater from ice; no flow Sept. 9-16, 18-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	119	146	100	84	300	306	235	330	73	.80	2.8
2	90	124	149	95	84	240	306	237	265	44	343	1.3
3	96	128	157	95	88	210	297	235	230	32	324	1.2
4	97	127	153	97	96	200	294	235	190	29	180	1.2
5	94	128	146	100	105	195	288	231	169	24	156	.40
6	94	130	100	110	105	200	282	232	153	25	55	.40
7	98	132	70	115	100	205	280	242	138	16	52	.40
8	97	139	52	105	97	215	275	254	126	10	39	.10
9	97	140	50	100	90	300	275	255	116	13	25	.00
10	98	140	54	98	90	470	285	241	99	18	109	.00
11	98	139	60	96	88	870	291	235	92	13	415	.00
12	98	138	67	97	86	1100	288	225	82	11	167	.00
13	99	139	77	98	88	1300	268	216	72	15	94	.00
14	102	140	98	100	88	1500	252	205	64	27	36	.00
15	101	140	130	100	88	1200	242	200	59	16	29	.00
16	102	138	150	94	88	1040	265	190	55	9.4	24	.00
17	104	138	165	84	89	925	272	220	49	12	26	.10
18	104	138	170	80	90	723	272	262	44	.90	25	.00
19	104	138	170	76	92	664	265	212	44	.15	16	.00
20	105	138	145	76	94	624	255	174	194	1.0	10	.00
21	108	125	140	77	97	592	250	158	174	13	8.4	.00
22	108	110	135	80	100	570	248	151	140	68	3.0	.00
23	106	105	140	84	105	546	240	155	102	86	9.5	.00
24	107	110	145	88	125	530	238	140	87	79	54	.00
25	111	125	145	90	175	510	235	133	72	44	13	.00
26	114	140	125	88	250	429	230	129	68	21	23	.00
27	112	173	115	86	300	401	220	136	64	15	12	.00
28	113	168	110	84	330	387	225	152	67	.7	11	.00
29	115	157	110	84	---	412	232	155	61	6.6	7.0	.00
30	118	150	105	84	---	370	229	385	61	1.0	5.7	.00
31	116	---	100	84	---	327	---	372	---	3.1	4.5	---
TOTAL	3194	4056	3679	2845	3312	17555	7905	6602	3467	743.15	2276.90	7.90
MEAN	103	135	119	91.8	118	566	264	213	116	24.0	73.4	.26
MAX	118	173	170	115	330	1500	306	385	330	86	415	2.8
MIN	88	105	50	76	84	195	220	129	44	.15	.80	.00
AC-FT	6340	8050	7300	5640	6570	34820	15680	13100	6880	1470	4520	16
CAL YR 1977	TOTAL	67842.00	MEAN 186	MAX 3310	MIN 21	AC-FT 134600						
WTR YR 1978	TOTAL	55642.95	MEAN 152	MAX 1500	MIN .00	AC-FT 110400						

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 18...	0915	104	736	7.8	9.0	25	11.0	4.0	K12000	270
NOV 21...	0915	100	690	7.5	.0	20	15.1	13	1200	100
DEC 19...	0930	50	610	7.7	1.0	22	14.6	5.7	120	17000
JAN 17...	0900	90	848	7.6	.0	35	11.2	2.0	78	125
FEB 14...	0930	95	747	7.8	.0	5	8.1	.6	K3200	8200
MAR 14...	0930	300	319	7.4	.0	230	12.3	9.6	30000	36000
APR 24...	0915	210	642	7.9	13.0	30	11.0	2.0	4000	6200
MAY 22...	0900	135	--	8.2	19.0	35	9.5	6.6	K15000	290
JUL 17...	0900	10	608	7.5	23.0	20	8.7	6.9	16000	850
AUG 15...	0915	20	532	8.0	19.0	40	8.9	4.8	K68000	1100

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 18...	23	--	.67	138	1.5	.09	.56	.65	2.2	.32
NOV 21...	25	488	.66	132	2.1	.04	.50	.54	2.6	.24
DEC 19...	22	405	.55	54.7	2.4	.16	.45	.61	3.0	.22
JAN 17...	25	--	.73	131	2.8	.14	.67	.81	3.6	.25
FEB 14...	23	475	.65	122	2.5	.16	2.6	2.8	5.3	.27
MAR 14...	10	210	.29	170	1.1	.23	2.0	2.2	3.3	.91
APR 24...	20	--	.58	244	1.4	.09	.81	.90	2.3	.29
MAY 22...	23	463	.63	169	.47	.01	.95	.96	1.4	.29
JUL 17...	22	--	.54	10.7	.00	.00	1.6	1.6	1.6	.42
AUG 15...	18	335	.46	18.1	.55	.14	.96	1.1	1.7	.42

KANSAS RIVER BASIN

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
OCT 18...	0915	13	290	4	77	24	47	1.2	18	350	0
JAN 17...	0900	8	330	23	88	26	51	1.2	18	370	0
APR 24...	0915	11	270	5	71	22	39	1.0	16	320	0
JUL 17...	0900	27	230	0	57	21	40	1.2	18	290	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS P) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT 18...	290	87	.9	41	491	.23	--	150	--	--
JAN 17...	300	100	.9	47	539	.24	7	150	5	10
APR 24...	260	68	.8	35	430	.21	--	130	--	--
JUL 17...	240	59	.7	37	398	.24	14	150	3	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 18...	--	20	--	20	--	--	--	--	--	--
JAN 17...	11	60	14	10	.1	.1	.0	5	1	20
APR 24...	--	10	--	0	--	--	--	--	--	--
JUL 17...	8	50	18	60	.3	.2	.1	0	0	30

LOCATION.--Lat 39°59'06", long 100°33'35", in NW1/4NE1/4 sec.10, T.1 S., R.29 W., Decatur County, Hydrologic Unit 1025000, on right bank at downstream side of bridge on U.S. Highway 83, 0.2 mi (0.3 km) north of Cedar Bluff, 1.0 mi (1.6 km) south of Kansas-Nebraska State line, and at mi 107.4 (0 km) (172.8 km).

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 2,520.33 ft (768.197 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 19, 1971, at site 0.1 mi (0.2 km) upstream at same datum. Aug. 19, 1971, to July 12, 1972, at site 0.8 mi (1.3 km) downstream at datum 5.00 ft (1.524 m) lower.

AVERAGE DISCHARGE.--33 years, 20.0 ft³/s (0.566 m³/s), 14,490 acre-ft/yr (17.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,940 ft³/s (225 m³/s) June 11, 1960, gage height, 18.71 ft (5.703 m); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1944 reached a stage of 18.16 ft (5.535 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 187 ft³/s (5.30 m³/s) July 4, gage height, 7.88 ft (2.402 m), no peak above base of 300 ft³/s (8.50 m³/s); no flow most days.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.04	.07	.00	.00	.00	106	.00	.00
5	.00	.00	.00	.00	.01	.12	.00	.00	.00	48	.00	.00
6	.00	.00	.00	.00	.00	.06	.00	.00	.00	4.5	.00	.00
7	.00	.00	.00	.00	.00	.03	.00	.00	.00	1.5	.00	.00
8	.00	.00	.00	.00	.00	.01	.00	.00	.00	.80	.00	.00
9	.00	.00	.00	.00	.00	.02	.00	.00	66	.50	.00	.00
10	.00	.00	.00	.00	.00	.04	.00	.00	20	.37	.00	.00
11	.00	.00	.00	.00	.00	.02	.00	.00	9.1	.25	.00	.00
12	.00	.00	.00	.00	.00	.02	.00	.00	6.0	.10	.00	.00
13	.00	.00	.00	.00	.00	.01	.00	.00	4.0	.00	.00	.00
14	.00	.00	.00	.00	.00	.01	.00	.00	2.1	.00	.00	.00
15	.00	.00	.00	.00	.00	.01	.00	.00	1.0	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.49	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.03	.00	.00	.00	.00	18	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.2	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.50	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.30	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.12	.00	---
TOTAL	.00	.00	.00	.00	.16	.42	.00	.00	108.95	208.74	.03	.00
MEAN	.000	.000	.000	.000	.006	.014	.000	.000	3.63	6.73	.001	.000
MAX	.00	.00	.00	.00	.07	.12	.00	.00	66	106	.03	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.3	.8	.00	.00	216	414	.06	.00
CAL YR 1977	TOTAL	1056.22	MEAN	2.89	MAX	290	MIN	.00	AC-FT	2100		
WTR YR 1978	TOTAL	318.30	MEAN	.87	MAX	106	MIN	.00	AC-FT	631		

06847000 BEAVER CREEK NEAR BEAVER CITY, NE

LOCATION.--Lat 40°07'12", long 99°53'35", in SW1/4SW1/4 sec.23, T.2 N., R.23 W., Furnas County, Hydrologic Unit 10250014, on left bank 400 ft (122 m) downstream from bridge on U.S. Highway 283, 3.5 mi (5.6 km) west of Beaver City, and at mi 24.7 (39.7 km).

DRAINAGE AREA.--1,950 mi² (5,050 km²), approximately, of which about 1,650 mi² (4,270 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1340: 1937-38(M), 1939, 1940-41(M), 1943(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,162.96 ft (659.270 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 13, 1947, nonrecording gages and Aug. 13, 1947, to Nov. 14, 1957, water-stage recorder, at site 400 ft (120 m) upstream at datum 2.0 ft (0.61 m) higher. Nov. 15, 1957, to Sept. 22, 1958, at site 3.6 mi (5.8 km) upstream at different datum.

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

AVERAGE DISCHARGE.--42 years, 25.9 ft³/s (0.733 m³/s), 18,760 acre-ft/yr (23.1 hm³/yr); median of yearly mean discharges, 19 ft³/s (0.538 m³/s), 13,800 acre-ft/yr (17.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,800 ft³/s (108 m³/s) July 19, 1944, gage height, 13.8 ft (4.21 m), from floodmark, site and datum then in use; no flow at times in 1937-40, 1946, 1953-57, 1959, 1969-74, 1976, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19 ft³/s (0.54 m³/s) Mar. 10, gage height, 2.89 ft (0.881 m), no peak above base of 400 ft/s (11.3 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.28	.47	.34	.39	.59	1.0	1.0	.21	.01	.00	.00
2	.17	.35	.48	.37	.39	.52	1.1	.99	.18	.04	.04	.00
3	.17	.31	.50	.41	.39	.50	.97	.90	.17	.07	.09	.00
4	.17	.30	.45	.43	.43	.45	.94	.88	.19	.05	.03	.00
5	.18	.28	.44	.45	.40	.50	.89	.87	.77	.03	.06	.00
6	.16	.30	.37	.45	.40	.54	.85	1.2	.73	.02	.07	.00
7	.15	.31	.36	.36	.37	.56	.90	1.1	.36	.01	.03	.00
8	.09	.27	.35	.31	.36	.98	1.0	.88	.37	.02	.01	.00
9	.09	.24	.34	.31	.36	4.3	1.1	.82	.35	.02	.00	.00
10	.06	.21	.34	.35	.36	13	.90	.75	.38	.02	.00	.00
11	.06	.17	.36	.36	.36	8.0	.92	.86	.28	.02	.00	.00
12	.06	.18	.37	.33	.35	9.6	.86	.82	.22	.02	.00	.00
13	.06	.15	.46	.33	.33	5.7	.88	.73	.22	.01	.00	.00
14	.06	.27	.53	.33	.33	3.2	.92	.71	.30	.02	.00	.00
15	.10	.30	.62	.34	.33	2.0	.92	.71	.30	.01	.00	.00
16	.13	.28	.67	.35	.34	1.6	.93	.72	.20	.01	.00	.00
17	.10	.26	.66	.36	.35	1.6	.97	.72	.17	.00	.00	.00
18	.15	.26	.57	.37	.36	1.7	.95	.80	.16	.00	.00	.00
19	.15	.31	.51	.38	.38	1.7	.99	.66	.15	.00	.00	.00
20	.17	.31	.50	.40	.39	1.4	.96	.66	.15	.04	.00	.00
21	.23	.31	.42	.43	.40	1.5	.94	.72	.14	.12	.00	.00
22	.25	.31	.43	.46	.43	1.6	.93	.71	.14	.03	.00	.00
23	.24	.31	.43	.49	.47	1.6	.91	.65	.14	.00	.00	.00
24	.24	.36	.41	.50	.50	1.1	.87	.66	.11	.01	.00	.00
25	.19	.41	.39	.47	.51	.96	.90	.57	.09	.07	.00	.00
26	.21	.46	.38	.47	.58	.85	.86	.58	.07	.02	.00	.00
27	.26	.55	.39	.46	.58	.84	.84	.44	.06	.00	.00	.00
28	.26	.50	.39	.43	.58	2.0	.83	.55	.08	.00	.00	.00
29	.26	.50	.39	.41	---	1.3	.89	.54	.01	.00	.00	.00
30	.27	.50	.36	.40	---	1.1	.95	.52	.00	.00	.00	.00
31	.24	---	.36	.39	---	1.1	---	.39	---	.00	.00	---
TOTAL	5.11	9.55	13.70	12.24	11.42	72.39	27.87	23.11	6.70	.67	.33	.00
MEAN	.16	.32	.44	.39	.41	2.34	.93	.75	.22	.022	.011	.000
MAX	.27	.55	.67	.50	.58	13	1.1	1.2	.77	.12	.09	.00
MIN	.06	.15	.34	.31	.33	.45	.83	.39	.00	.00	.00	.00
AC-FT	10	19	27	24	23	144	55	46	13	1.3	.7	.00

CAL YR 1977 TOTAL 782.21 MEAN 2.14 MAX 73 MIN .06 AC-FT 1550
WTR YR 1978 TOTAL 183.09 MEAN .50 MAX 13 MIN .00 AC-FT 363

06847500 SAPPA CREEK NEAR STAMFORD, NE

LOCATION.--Lat 40°07'53", long 99°33'15", in NW1/4NW1/4 sec.23, T.2 N., R.20 W., Harlan County, Hydrologic Unit 10250011, on left bank 40 ft (12 m) south of Burlington Northern Inc. track, 500 ft (152 m) downstream from bridge on county highway, 2 mi (3 km) east of Stamford, and 5.5 mi (8.8 km) upstream from mouth.

DRAINAGE AREA.--3,740 mi² (9,690 km²), approximately, of which about 3,280 mi² (8,500 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1919: 1960. WSP 2119: Drainage area. WDR NE-71-1: Calendar year totals.

GAGE.--Water-stage recorder. Datum of gage is 1,981.31 ft (603.903 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--33 years, 64.5 ft³/s (1.827 m³/s), 46,730 acre-ft/yr (57.6 hm³/yr); median of yearly mean discharges, 41 ft³/s (1.161 m³/s), 29,700 acre-ft/yr (36.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft³/s (1,230 m³/s) June 24, 1966, gage height, 22.13 ft (6.745 m), from floodmark, from contracted opening and flow-over-road measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 156 ft³/s (4.42 m³/s) Mar. 12, gage height, 5.76 ft (1.756 m), no peak above base of 1,000 ft³/s (28.3 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	12	4.6	.27	2.6	.00	.00	.00
2	.00	.00	.00	.00	.00	10	4.3	.34	8.3	.00	.00	.00
3	.00	.00	.00	.00	.00	8.0	3.9	.52	40	.00	.00	.00
4	.00	.00	.00	.00	.00	7.0	3.3	.69	18	.00	.00	.00
5	.00	.00	.00	.00	.00	12	3.1	1.4	5.9	.00	.00	.00
6	.00	.00	.00	.00	.00	20	1.6	2.1	4.0	.00	.00	.00
7	.00	.00	.00	.00	.00	30	.00	3.5	2.8	.00	.00	.00
8	.00	.00	.00	.00	.00	36	.00	4.2	1.5	.00	.00	.00
9	.00	.00	.00	.00	.00	40	.00	3.1	.70	.00	.00	.00
10	.00	.00	.00	.00	.00	72	.44	3.5	.34	.00	.00	.00
11	.00	.00	.00	.00	.00	99	1.0	3.0	.07	.00	.00	.00
12	.00	.00	.00	.00	.00	118	1.3	2.2	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	62	.01	1.6	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	35	.00	2.1	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	27	.00	2.3	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	17	.00	2.1	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	15	.00	2.0	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	14	.40	2.0	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	17	1.3	2.0	.01	.00	.00	.00
20	.00	.00	.00	.00	.00	15	1.6	3.3	20	.00	.00	.00
21	.00	.00	.00	.00	.00	13	.95	2.9	11	.00	.00	.00
22	.00	.00	.00	.00	.00	13	.73	2.5	.77	.00	.00	.00
23	.00	.00	.00	.00	.00	12	.98	2.3	.00	.08	.00	.00
24	.00	.00	.00	.00	.00	11	.46	2.1	.00	21	.00	.00
25	.00	.00	.00	.00	.00	8.7	.03	1.3	.00	9.0	.00	.00
26	.00	.00	.00	.00	.00	7.6	.18	.82	.00	1.0	.00	.00
27	.00	.00	.00	.00	.00	8.4	.38	.46	.00	.00	.00	.00
28	.00	.00	.00	.00	15	7.3	.24	.85	.00	.00	.00	.00
29	.00	.00	.00	.00	---	5.5	.38	.75	.00	.00	.00	.00
30	.00	.00	.00	.00	---	5.0	.16	.84	.00	.00	.00	.00
31	.00	---	.00	.00	---	4.9	---	5.1	---	.33	.00	---
TOTAL	.00	.00	.00	.00	15.00	762.4	31.34	62.14	115.99	31.41	.00	.00
MEAN	.000	.000	.000	.000	.54	24.6	1.04	2.00	3.87	1.01	.000	.000
MAX	.00	.00	.00	.00	15	118	4.6	5.1	40	21	.00	.00
MIN	.00	.00	.00	.00	.00	4.9	.00	.27	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	30	1510	62	123	230	62	.00	.00
CAL YR 1977	TOTAL	3577.89	MEAN 9.80	MAX 729	MIN .00	AC-FT 7100						
WTR YR 1978	TOTAL	1018.28	MEAN 2.79	MAX 118	MIN .00	AC-FT 2020						

KANSAS RIVER BASIN

06848500 PRAIRIE DOG CREEK NEAR WOODRUFF, KS

LOCATION.--Lat 39°59'09", long 99°28'39", in NW1/4NW1/4 sec.9, T.1 S., R.19 W., Phillips County, Hydrologic Unit 10250015, on left bank at downstream side of bridge on U.S. Highway 383, 1 mi (2 km) south of Kansas-Nebraska State line, 2.5 mi (4.0 km) west of Woodruff, and at mi 26.5 (42.6 km).

DRAINAGE AREA.--1,007 mi² (2,608 km²).

PERIOD OF RECORD.--October 1928 to September 1932, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 2,016.20 ft (614.538 m) National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Oct. 7, 1955.

REMARKS.--Records fair except those for winter periods, which are poor. Flow regulated to some extent since 1964 by Norton Reservoir 48.4 mi (77.9 km) upstream (see sta 06847950) and by irrigation development above station.

AVERAGE DISCHARGE.--38 years (water years 1929-32, 1945-78), 38.9 ft³/s (1.102 m³/s), 28,180 acre-ft/yr (34.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (425 m³/s) June 23, 1947, gage height, 21.04 ft (6.413 m), site and datum then in use, from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of contracted-opening measurement of 11,300 ft³/s (320 m³/s); no flow at times in 1945, 1948, 1950, 1954-61, 1963-66, 1971, 1972, 1976, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 451 ft³/s (12.8 m³/s) Mar. 11, gage height, 8.51 ft (2.594 m); no other peak above regulated base of 400 ft³/s (11.3 m³/s); no flow Sept. 2, 3, 7-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.96	2.3	3.0	2.0	90	8.1	4.7	4.6	.02	39	.01
2	.04	.92	2.2	2.9	2.0	62	7.7	4.8	12	.02	31	.00
3	.09	.90	2.2	2.9	2.0	45	7.4	4.4	20	.02	28	.00
4	.06	.90	2.1	3.0	2.0	35	6.8	3.8	17	.66	13	.01
5	.02	.90	2.1	3.0	2.0	29	6.7	3.7	10	.24	6.5	.02
6	.01	.92	2.1	3.1	1.9	23	6.4	5.0	7.1	6.8	4.6	.01
7	.02	.92	2.1	3.2	1.9	24	6.0	4.7	5.1	3.7	2.7	.00
8	.02	.92	2.1	3.0	1.9	30	5.5	3.9	4.3	.78	1.5	.00
9	.04	.90	2.2	2.7	1.8	145	4.9	3.5	3.2	1.5	37	.00
10	.11	.88	2.2	2.5	1.8	354	4.5	3.6	2.4	2.1	11	.00
11	.06	.85	2.3	2.4	1.8	335	4.2	4.5	2.0	4.9	.75	.00
12	.05	.84	2.6	2.3	1.7	187	4.0	4.4	2.1	1.5	.12	.03
13	.08	.80	3.1	2.2	1.7	123	3.4	3.1	1.8	1.4	.04	.04
14	.10	.78	3.6	2.1	1.7	71	3.2	2.8	.86	4.7	.03	.03
15	.08	.75	3.9	2.1	1.7	56	3.0	2.3	.47	7.0	3.4	.03
16	.16	.74	4.7	2.0	1.6	42	3.2	2.3	.36	2.4	.05	.03
17	.12	.74	5.3	2.0	1.6	34	4.0	2.4	.24	7.0	.01	.03
18	.12	.72	5.0	1.9	1.7	34	3.5	3.0	.14	12	.01	.05
19	.06	.72	5.2	1.9	2.0	26	3.6	3.5	.14	6.8	.01	.08
20	.08	.70	4.4	1.8	2.5	23	3.5	4.1	.23	17	.01	.03
21	.15	.72	4.6	1.8	3.2	28	3.3	3.7	.15	15	.01	.01
22	.25	.74	5.0	1.8	4.5	28	3.0	2.5	.16	72	.02	.04
23	.55	.75	5.0	1.8	10	24	2.6	2.3	.09	65	.01	.03
24	.70	.80	4.8	1.7	19	18	2.2	1.8	.05	49	.02	.02
25	.75	.90	4.6	1.7	57	14	1.3	1.5	.11	17	.01	.02
26	.86	1.1	4.0	1.8	92	12	1.3	1.3	.10	4.4	.03	.02
27	.90	1.4	3.9	1.8	181	11	1.8	.97	.04	1.4	.03	.02
28	.92	1.9	3.7	1.8	134	9.8	2.5	.92	.03	.33	.04	.03
29	.94	2.4	3.8	1.9	---	9.4	3.7	.93	.02	.14	.04	.03
30	.96	2.4	3.8	1.9	---	8.0	3.9	.68	.01	.13	.02	.03
31	.96	---	3.2	1.9	---	8.3	---	3.0	---	10	.02	---
TOTAL	9.35	29.87	108.1	69.9	538.0	1938.5	125.2	94.10	94.80	314.94	178.98	.65
MEAN	.30	1.00	3.49	2.25	19.2	62.5	4.17	3.04	3.16	10.2	5.77	.022
MAX	.96	2.4	5.3	3.2	181	354	8.1	5.0	20	72	39	.08
MIN	.01	.70	2.1	1.7	1.6	8.0	1.3	.68	.01	.02	.01	.00
AC-FT	19	59	214	139	1070	3850	248	187	188	625	355	1.3
CAL YR 1977	TOTAL	7129.79	MEAN	19.5	MAX	3290	MIN	.01	AC-FT	14140		
WTR YR 1978	TOTAL	3502.39	MEAN	9.60	MAX	354	MIN	.00	AC-FT	6950		

06849000 HARLAN COUNTY LAKE NEAR REPUBLICAN CITY, NE

LOCATION.--Lat 40°04'10", long 99°12'30", in sec.11, T.1 W., R.17 W., Harlan County, Hydrologic Unit 10250009, at left end of spillway on upstream side of Harlan County Dam on Republican River, 2 mi (3 km) southeast of Republican City and 8 mi (13 km) southeast of Alma.

DRAINAGE AREA.--20,750 mi² (53,700 km²), approximately, of which about 13,530 mi² (35,000 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--November 1952 to current year. Prior to October 1965 published as Harlan County Reservoir near Republican City.

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

REMARKS (REVISED).--Reservoir is formed by earthfill dam with gravity-type concrete spillway section; storage began Nov. 14, 1952. Capacity, 319,800 acre-ft (0.394 km³) between elevations 1,885.0 ft (575 m), sill of outlet gates, and 1,946.0 ft (593 m), top of storage pool. Top of flood-control pool at elevation 1,973.5 ft (602 m), capacity, 828,800 acre-ft (1.02 km³). Top of superstorage flood-control pool at elevation 1,975.5 ft (602 m), capacity, 875,600 acre-ft (1.08 km³). Figures given herein represent total contents. Water used for irrigation in the Bostwick irrigation project.

COOPERATION.--Capacity table furnished by Corps of Engineers (revised October 1, 1974).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 497,700 acre-ft (0.614 km³) Apr. 6, 1960, elevation, 1,955.67 ft (596.088 m); minimum since operation of reservoir began, 110,300 acre-ft (0.136 km³) Oct. 22 to Nov. 6, 1953, elevation, 1,922.00 ft (585.826 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 288,800 acre-ft (0.356 km³) June 7, elevation, 1,943.63 ft (592.418 m); minimum, 186,700 acre-ft (0.230 km³) Sept. 30, elevation, 1,934.35 ft (589.590 m).

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

1,930	150,000	1,945	306,400
1,935	192,800	1,950	376,000
1,940	244,700		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	199600	202000	207300	212700	218100	226100	260200	275600	287300	270600	218700	195400
2	199700	202100	207400	212700	218300	227100	260600	275800	287500	268400	219300	194800
3	199500	202100	207600	212900	218600	227500	261200	276100	288000	266100	220500	194000
4	199500	202200	207700	213300	218800	228100	261500	276600	288300	263300	220500	193200
5	199500	202400	208100	213500	218900	228600	263200	277000	288600	261100	220300	192600
6	199600	202600	207600	213600	219100	229200	263400	278300	288600	259400	220000	192100
7	200100	202900	207800	213800	219300	229500	263900	278800	288600	257400	219300	191400
8	199900	203400	207900	213900	219700	229900	264400	279200	288700	254900	218500	190700
9	199800	203700	207900	214100	220100	230600	265500	279300	288700	252700	217700	190500
10	199700	203500	207900	214200	220200	231600	265700	279700	288600	250100	217200	190200
11	199600	203500	208000	214400	220400	232900	266300	280200	288400	247900	217200	190000
12	199600	203700	208300	214700	221500	234900	266600	281000	288400	245400	216700	189900
13	199700	203900	208300	214800	221800	237600	266700	281100	288200	245100	216100	189800
14	199700	204100	208600	214800	221800	239900	267200	281200	288200	243600	215900	189500
15	199800	204200	208700	215300	222000	241800	268000	281600	288000	241500	215700	189400
16	199900	204600	209100	215700	222200	243100	268600	281700	287500	239100	215200	189300
17	199900	204500	209300	215700	222400	245200	270000	281800	286600	237200	214700	189100
18	200000	204400	209600	215900	222600	246800	270400	281900	285600	235600	213700	189100
19	200100	204800	210100	216000	222700	248300	270700	283600	285600	234000	212600	188800
20	200200	205000	210200	216200	222800	249700	270900	283700	284600	232400	211700	188600
21	200300	205000	210300	216300	222900	250800	271000	283900	283900	231600	211000	188300
22	200400	205100	210500	216400	223200	252100	272000	284900	283100	230700	209800	188000
23	200600	205100	210800	216700	223300	253200	272300	285100	282100	229400	208700	187700
24	200800	205200	211000	216900	223400	254200	272600	285300	280800	228600	207300	187500
25	200900	205300	211100	217200	223700	255200	272700	285300	279000	227600	205900	187500
26	201100	206100	211300	217200	224000	256100	273000	285400	277700	226700	204300	187500
27	201100	206000	211500	217200	224300	256800	273200	285800	276200	225500	202600	187300
28	201400	206100	211900	217400	225200	257400	274200	285900	275200	224200	201000	187000
29	201500	206700	212100	217600	---	258000	274400	285800	273800	222900	199300	186900
30	201800	207100	212200	217700	---	259000	275100	286100	272100	221500	197900	186700
31	201900	---	212700	217800	---	259600	---	287000	---	220000	196500	---
MAX	201900	207100	212700	217800	225200	259600	275100	287000	288700	270600	220500	195400
MIN	199500	202000	207300	212700	218100	226100	260200	275600	272100	220000	196500	186700
Δ	1935.93	1936.45	1937.01	1937.51	1938.22	1941.27	1942.54	1943.49	1942.30	1937.72	1935.38	1934.35
Δ	+2000	+5200	+5600	+5100	+7400	+34400	+15500	+11900	-14900	-52100	-23500	-9800
CAL YR 1977	MAX	267800	MIN	176700	Δ	+35800						
WTR YR 1978	MAX	288700	MIN	186700	Δ	-13200						

Δ Elevation, in feet, at end of month.

Δ Change in contents, in acre-feet.

KANSAS RIVER BASIN

06849500 REPUBLICAN RIVER BELOW HARLAN COUNTY DAM, NE

LOCATION.--Lat 40°04'45", long 99°10'05", in SW1/4 sec.6, T.1 N., R.16 W., Franklin County, Hydrologic Unit 10250016, on left bank 1.4 mi (2.3 km) west of Naponee, 1.4 mi (2.3 km) upstream from Turkey Creek, and 2.8 mi (4.5 km) downstream from Harlan County Dam.

DRAINAGE AREA.--20,760 mi² (53,800 km²), approximately, of which about 13,550 mi² (35,100 km²) contributes directly to surface runoff.

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

GAGE.--Water-stage recorder. Datum of gage is 1,863.38 ft (567.958 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records fair except those for winter period, which are poor. Flow completely regulated by Harlan County Lake (station 06849000) and partially regulated by six upstream reservoirs.

AVERAGE DISCHARGE.--25 years (1953-78), 286 ft³/s (8.100 m³/s), 207,200 acre-ft/yr (0.255 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,320 ft³/s (122 m³/s) June 25, 1957, gage height, 8.65 ft (2.637 m); minimum daily, 1.5 ft³/s (0.042 m³/s) Apr. 28, 29, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred June 1, 1935, discharge, about 260,000 ft³/s (7,360 m³/s), from slope-area measurement near Bloomington.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 908 ft³/s (25.7 m³/s) July 5, gage height, 3.58 ft (1.091 m); minimum daily, 2.0 ft³/s (0.057 m³/s) Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	8.6	4.9	3.5	2.2	7.5	7.3	6.1	10	585	309	271
2	11	9.7	4.9	3.6	2.0	6.3	7.3	4.9	10	655	229	236
3	11	9.4	4.9	3.6	2.5	6.0	7.3	4.9	10	670	31	206
4	10	9.4	4.3	3.7	3.4	4.5	7.9	4.9	9.4	775	24	203
5	10	9.4	4.3	3.7	3.0	4.5	8.5	4.3	9.4	856	101	185
6	11	10	5.1	4.0	2.6	8.0	26	7.6	9.4	847	182	155
7	12	9.4	4.8	4.0	2.2	8.5	16	8.6	9.4	808	194	122
8	12	9.8	3.8	3.0	2.2	12	14	7.5	9.9	804	232	72
9	11	8.3	3.8	3.0	2.5	30	14	6.1	9.4	789	257	37
10	10	4.0	3.6	3.0	2.5	90	14	6.1	9.3	786	446	14
11	10	3.7	5.0	3.0	3.0	187	11	5.5	9.3	802	282	16
12	9.4	3.7	6.0	3.5	3.4	87	10	6.9	21	810	254	16
13	9.4	3.1	5.0	3.5	3.0	57	10	7.3	10	760	236	20
14	9.2	3.1	5.1	3.2	3.0	22	9.2	7.3	13	640	282	14
15	9.4	3.1	5.4	3.0	2.8	11	8.5	7.3	49	655	313	15
16	8.6	3.1	5.5	2.8	2.8	6.1	7.8	6.7	137	672	86	16
17	8.6	3.6	4.4	2.6	2.6	5.1	7.0	7.1	281	677	97	17
18	8.6	3.4	4.6	2.6	2.6	5.5	6.1	8.5	329	645	194	17
19	7.9	3.7	5.0	2.8	3.0	4.7	6.1	7.3	409	620	194	16
20	8.5	3.7	4.0	3.0	3.0	4.6	4.9	7.1	386	625	194	15
21	8.6	4.0	4.5	3.0	3.0	5.4	5.5	6.6	334	620	191	14
22	8.6	4.3	4.8	3.5	4.5	5.5	5.5	11	322	470	206	13
23	8.0	3.7	4.0	4.0	6.0	5.4	4.3	12	398	264	236	12
24	8.5	3.9	4.3	4.0	7.5	4.1	3.7	6.1	517	260	285	12
25	7.0	4.3	5.2	3.8	10	5.2	3.7	11	587	243	333	13
26	7.8	4.5	4.9	3.5	25	5.0	4.3	12	531	197	455	13
27	7.4	5.7	4.3	3.5	20	4.9	4.3	11	429	185	575	13
28	7.9	5.5	4.9	3.2	12	7.0	4.3	11	378	226	534	13
29	7.9	4.9	4.3	2.6	---	6.1	4.9	11	374	282	513	14
30	8.6	4.9	4.9	2.6	---	6.7	4.9	11	421	392	414	13
31	8.6	---	4.3	2.4	---	6.7	---	10	---	396	310	---
TOTAL	288.5	167.9	144.8	101.2	142.3	629.3	248.3	244.7	6031.5	18016	8189	1793
MEAN	9.31	5.60	4.67	3.26	5.08	20.3	8.28	7.89	201	581	264	59.8
MAX	12	10	6.0	4.0	25	187	26	12	587	856	575	271
MIN	7.0	3.1	3.6	2.4	2.0	4.1	3.7	4.3	9.3	185	24	12
AC-FT	572	333	287	201	282	1250	493	485	11960	35730	16240	3560
CAL YR 1977	TOTAL	40734.4	MEAN	112	MAX	1010	MIN	1.6	AC-FT	80800		
WTR YR 1978	TOTAL	35996.5	MEAN	98.6	MAX	856	MIN	2.0	AC-FT	71400		

LOCATION.--Lat 40°06'12", long 98°58'45", in NW1/4NE1/4 sec.35, T.2 N., R.15 W., Franklin County, Hydrologic Unit 10250016, on right bank at downstream side of bridge on State Highway 136, 1 mi (2 km) northwest of Franklin and 3 mi (5 km) upstream from mouth.

PERIOD OF RECORD.--April 1948 to September 1956. Annual maximums and occasional low-flow measurements, water years 1961-68. October 1968 to September 1975, October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,858.34 ft (566.422 m) National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Dec. 19, 1952, nonrecording gage at site 1.5 mi (2.4 km) downstream at datum 30.27 ft (9.226 m) lower and Dec. 19, 1952, to Sept. 30, 1956, at present site at datum 0.84 ft (0.256 m) higher. Sept. 7, 1961, to Sept. 30, 1968, crest-stage gage and Oct. 1, 1968, to Sept. 30, 1975, recording gage at present site and datum.

AVERAGE DISCHARGE.--16 years (1948-56, 1968-75, 1978) 7.15 ft³/s (0.202 m³/s), 5,180 acre-ft/yr (6.39 hm³/yr).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35 ft³/s (0.99 m³/s) and maximum (*):

a High-water mark.

Minimum daily discharge, 3.0 ft³/s (0.085 m³/s) July 29.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	8.0	6.6	5.9	7.0	6.8	7.2	7.2	5.7	6.2	3.7	5.7
2	6.0	8.0	6.7	6.0	7.1	6.8	7.2	7.2	5.5	5.2	211	5.9
3	6.0	8.0	7.0	6.0	7.0	6.8	7.2	7.6	5.7	5.8	38	6.1
4	6.0	8.0	7.3	5.9	7.0	6.8	7.2	6.8	5.5	6.0	7.2	5.8
5	6.0	8.0	8.1	6.2	7.0	6.8	7.4	6.8	5.7	6.2	6.2	5.5
6	6.0	8.0	8.4	6.4	6.9	6.8	8.0	7.2	5.9	9.2	5.9	5.9
7	6.0	8.0	7.6	6.4	6.9	6.8	8.4	7.2	6.2	7.6	6.2	5.6
8	6.0	8.0	6.6	6.1	6.8	6.8	8.0	8.0	5.9	6.8	5.9	6.2
9	6.0	8.0	5.8	5.9	6.8	8.0	7.6	8.0	6.2	7.2	6.4	6.2
10	6.1	8.0	5.7	5.9	6.8	15	7.4	8.4	5.9	6.8	6.4	5.9
11	6.1	8.0	6.0	6.0	6.8	30	7.2	8.0	5.9	5.9	5.9	5.9
12	6.1	8.0	6.2	6.0	6.8	60	7.2	7.6	5.9	5.7	6.2	5.8
13	6.1	7.7	6.4	6.1	6.8	120	7.2	7.2	5.7	6.2	6.4	5.5
14	6.1	7.5	6.5	6.2	6.8	67	7.2	6.8	5.7	5.5	11	5.5
15	6.2	7.5	6.5	6.3	6.8	40	6.8	7.2	5.7	5.0	141	5.5
16	6.2	7.0	6.4	6.4	6.8	25	6.8	7.2	5.5	4.3	32	5.5
17	6.2	7.0	6.3	6.4	6.8	11	6.8	7.2	4.4	3.7	14	6.1
18	6.2	6.6	6.1	6.4	6.8	10	6.4	7.2	4.6	3.9	9.2	6.0
19	6.2	6.2	5.9	6.3	6.8	9.0	6.4	6.4	5.0	4.0	9.2	5.5
20	6.4	6.0	5.9	6.2	6.8	8.0	6.8	6.2	5.0	4.1	8.8	5.5
21	6.5	5.9	6.0	6.4	6.8	7.4	7.2	6.4	5.0	4.1	8.5	5.1
22	6.6	6.0	6.0	6.6	6.8	7.4	6.4	6.8	4.8	4.2	8.5	5.2
23	6.7	6.0	6.0	6.6	6.8	7.2	6.4	6.8	5.0	4.1	7.9	5.2
24	6.8	6.0	6.0	6.8	6.8	7.2	6.8	7.2	4.7	4.0	7.3	5.1
25	7.0	6.0	6.0	6.8	6.8	7.2	6.8	7.2	4.6	3.5	6.8	5.3
26	7.2	7.0	5.9	6.7	6.8	7.2	7.2	6.4	5.4	3.3	6.8	5.5
27	7.4	7.0	5.9	6.6	6.8	7.2	6.8	6.4	5.9	3.2	7.0	5.8
28	7.6	6.8	5.9	6.6	6.8	7.2	7.2	6.2	5.9	3.2	7.2	5.9
29	7.6	6.7	5.9	6.6	6.8	7.2	7.2	6.2	5.7	3.0	6.7	5.8
30	7.6	6.6	5.9	6.7	6.8	7.2	7.2	6.2	6.2	3.4	6.8	5.7
31	7.8	---	5.9	6.9	---	7.2	---	6.2	---	3.6	6.0	---
TOTAL	200.7	215.5	197.4	196.3	191.7	537.0	213.6	217.4	164.8	154.9	620.1	170.2
MEAN	6.47	7.18	6.37	6.33	6.85	17.3	7.12	7.01	5.49	5.00	20.0	5.67
MAX	7.8	8.0	8.4	6.9	7.1	120	8.4	8.4	6.2	9.2	211	6.2
MIN	6.0	5.9	5.7	5.9	6.8	6.8	6.4	6.2	4.4	3.0	3.7	5.1
AC-FT	398	427	392	389	380	1070	424	431	327	307	1230	338
WTR YR 1978	TOTAL	3079.6	MEAN 8.44	MAX 211	MIN 3.0	AC-FT 6110						

KANSAS RIVER BASIN

06851500 THOMPSON CREEK AT RIVERTON, NE

LOCATION.--Lat 40°05'21", long 98°45'38", in NW1/4NW1/4 sec.2, T.1 N., R.13 W., Franklin County, Hydrologic Unit 10250016, on left bank 8 ft (2 m) downstream from bridge on State Highway 136, at west edge of Riverton, 240 ft (73 m) upstream from Burlington Northern Inc. bridge, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--279 mi² (723 km²), of which about 190 mi² (492 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--April 1948 to September 1956, October 1968 to September 1975. Annual maximums, water years 1962-68 and occasional low-flow measurements, water years 1961-68. October 1977 to current year.

REVISED RECORDS.--WRD Nebr. 1972: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,753.38 ft (534.430 m) National Geodetic Vertical Datum of 1929. Apr. 1 to Oct. 1, 1948, nonrecording gage 240 ft (73 m) downstream at datum 2.32 ft (0.707 m) higher. Oct. 1, 1948 to July 11, 1950, water-stage recorder at present site at datum 1.32 ft (0.402 m) higher, July 12, 1950, to Sept. 30, 1956, and Oct. 1, 1968 to Sept. 30, 1975, at present site and datum. Sept. 7, 1961, to Sept. 30, 1968, crest-stage gage at present site and datum.

REMARKS.--Records poor prior to Feb. 28, fair thereafter. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--16 years (1948-56, 1968-75, 1978), 29.6 ft³/s (0.838 m³/s), 21,450 acre-ft/yr (26,400 m³/yr); median of yearly mean discharges, 27 ft³/s (0.765 m³/s), 19,600 acre-ft/yr (24.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s (346 m³/s) July 9, 1950, gage height, 13.22 ft (4.029 m), present datum, by slope-area measurement; minimum daily, 8.1 ft³/s (0.23 m³/s) Dec. 19, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft³/s (7.93 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 13	0100	*776 22.0	5.78 1.762	Aug. 15	1230	316 8.9	5.06 1.542
Aug. 2	0430	382 10.8	5.32 1.622				

Minimum daily discharge, 15 ft³/s (0.42 m³/s) Sept. 6-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	22	24	20	20	23	23	25	21	18	24	16
2	20	22	24	20	24	23	23	24	21	18	99	16
3	20	22	23	20	22	24	22	24	22	18	46	17
4	20	23	23	21	22	23	22	24	21	18	21	17
5	21	23	23	21	22	22	23	24	21	19	18	16
6	21	24	21	21	23	22	52	26	22	24	18	15
7	21	24	20	21	22	22	37	26	20	32	18	15
8	21	24	19	20	22	22	26	25	20	30	19	15
9	21	24	20	19	22	28	27	24	20	37	33	15
10	21	24	21	22	22	81	26	24	20	37	31	16
11	21	24	22	22	22	331	24	24	20	32	21	16
12	21	23	22	22	22	454	24	25	19	24	20	17
13	21	22	22	22	22	599	24	23	19	30	20	17
14	21	22	22	22	23	279	25	23	18	38	20	16
15	21	22	22	21	23	117	27	23	18	41	181	16
16	21	21	22	20	22	62	28	23	17	46	57	17
17	21	21	22	26	21	35	62	23	17	43	26	18
18	21	21	21	24	21	27	58	23	17	29	20	18
19	22	21	21	22	22	26	30	23	17	20	19	17
20	22	21	21	20	21	23	24	22	17	24	19	18
21	22	21	21	22	22	23	23	22	17	24	19	18
22	22	21	21	23	20	23	23	25	17	34	19	18
23	22	22	21	22	21	23	23	21	18	41	19	18
24	22	22	21	22	21	23	22	20	18	43	18	18
25	22	25	21	22	21	23	22	20	17	43	26	18
26	22	30	21	20	20	24	22	20	18	43	20	18
27	22	28	21	19	22	24	22	20	18	30	17	18
28	22	24	21	19	24	24	23	21	18	20	20	18
29	22	24	21	20	---	23	24	20	18	20	21	18
30	22	24	21	20	---	23	24	21	18	24	19	17
31	22	---	20	20	---	23	---	22	---	23	17	---
TOTAL	660	691	665	655	611	2499	835	710	564	923	945	507
MEAN	21.3	23.0	21.5	21.1	21.8	80.6	27.8	22.9	18.8	29.8	30.5	16.9
MAX	22	30	24	26	24	599	62	26	22	46	181	18
MIN	20	21	19	19	20	22	22	20	17	18	17	15
AC-FT	1310	1370	1320	1300	1210	4960	1660	1410	1120	1830	1870	1010
WTR YR 1978	TOTAL	10265	MEAN	28.1	MAX	599	MIN	15	AC-FT	20360		

06852000 ELM CREEK AT AMBOY, NE

LOCATION.--Lat 40°05'20", long 98°26'07", in NE1/4NW1/4 sec.3, T.1 N., R.10 W., Webster County, Hydrologic Unit 10250016, on left bank at downstream side of bridge on State Highway 136 at east edge of Amboy, 2.5 mi (4.0 km) upstream from mouth, and 4.5 mi (7.2 km) east of Red Cloud.

DRAINAGE AREA.--39.2 mi² (101.5 km²).

PERIOD OF RECORD.--April 1948 to December 1953. Annual maximums, water years 1959, 1961-77 and occasional low flow measurements, water years 1954-77. October 1977 to current year.

GAGE.--water -stage recorder. Datum of gage is 1,659.07 ft (505.685 m) National Geodetic Vertical Datum of 1929. Prior to July 17, 1952, nonrecording gage at upstream side of bridge at datum 7.26 ft (2.213 m) higher, and July 17, 1952, to Jan. 4, 1954, water-stage recorder, present site, at datum 6.26 ft (1.908 m) higher, and Sept. 6, 1961, to Sept. 30, 1977, crest-stage gage at present site and datum.

REMARKS.--Records poor prior to Mar. 28 and good thereafter. Natural flow affected by pump irrigation development above station.

AVERAGE DISCHARGE.--6 years (1949-53, 1978), 21.3 ft³/s (0.60 m³/s), 15,430 acre-ft (19.0 hm³) per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 6,000 ft³/s (170 m³/s) July 4, 1959, gage height, 17.05 ft (5.197 m), present datum; minimum daily, 11 ft³/s (0.31 m³/s) Aug. 24, 1949, Aug. 30, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 534 ft³/s (15.1 m³/s) Aug. 2, gage height, 12.21 ft (3.722 m); minimum daily, 12 ft³/s (0.34 m³/s) on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	18	16	14	15	20	16	16	17	14	15	13
2	17	18	16	15	15	20	16	14	17	14	87	12
3	17	18	16	17	16	18	16	14	16	15	18	12
4	17	18	16	16	17	15	16	14	16	13	16	12
5	17	18	15	16	15	16	16	14	17	13	15	12
6	17	18	14	17	15	16	18	17	20	14	15	12
7	17	18	14	15	15	16	17	17	19	14	15	12
8	16	18	13	14	15	18	18	15	17	14	15	12
9	16	18	12	14	15	20	18	14	16	13	15	12
10	16	18	12	14	15	25	18	14	15	13	15	12
11	16	17	13	15	17	40	17	15	15	13	17	12
12	16	17	13	16	17	75	17	16	14	12	15	12
13	16	17	14	16	16	95	17	15	14	12	14	13
14	16	17	16	15	16	84	17	14	14	12	15	13
15	16	17	17	15	15	60	17	15	13	12	16	13
16	16	16	18	15	15	30	18	15	13	12	15	13
17	16	17	17	15	15	20	23	15	13	12	16	13
18	16	18	17	15	15	20	44	15	12	14	14	20
19	16	18	15	15	16	19	22	15	12	15	14	21
20	16	17	14	15	16	19	19	16	12	14	14	15
21	17	15	14	15	16	18	18	15	12	14	14	14
22	17	15	15	16	17	18	17	16	12	21	13	14
23	17	15	17	16	18	18	17	18	13	15	12	13
24	17	16	16	16	20	17	16	17	13	15	12	13
25	17	16	16	15	23	17	15	17	13	14	13	13
26	17	16	16	15	23	17	15	16	14	14	13	13
27	17	16	16	15	22	17	15	17	14	13	13	13
28	17	17	16	15	21	17	15	17	14	12	13	13
29	17	17	16	15	---	17	16	16	14	12	13	14
30	17	17	16	15	---	16	16	16	14	12	13	14
31	17	---	16	15	---	17	---	17	---	12	13	---
TOTAL	514	511	472	472	471	835	540	482	435	419	518	400
MEAN	16.6	17.0	15.2	15.2	16.8	26.9	18.0	15.5	14.5	13.5	16.7	13.3
MAX	17	18	18	17	23	95	44	18	20	21	87	21
MIN	16	15	12	14	15	15	15	14	12	12	12	12
AC-FT	1020	1010	936	936	934	1660	1070	956	863	831	1030	793
WTR YR 1978	TOTAL	6069	MEAN	16.6	MAX	95	MIN	12	AC-FT	12040		

KANSAS RIVER BASIN

06852500 COURTLAND CANAL AT NEBRASKA-KANSAS STATE LINE

LOCATION.--Lat 40°00'15", long 98°07'55", in SW1/4SE1/4 sec.32, T.1 N., R.7 W., Nuckolls County, Ne., Hydrologic Unit 10250016, on left bank 0.2 mi (0.3 km) upstream from Nebraska-Kansas State line and 3.5 mi (5.6 km) southwest of Superior, Ne.

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

GAGE.--Water-stage recorder and concrete Parshall flume. Datum of gage is 1,612.46 ft (491.478 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Canal diverts from Republican River at Courtland diversion dam in sec.7, T.1 N., R.9 W. Water is used for irrigation in Nebraska and Kansas; figures published herein represent that portion which flows into Kansas.

AVERAGE DISCHARGE.--24 years, 78.0 ft³/s (2.209 m³/s), 56,510 acre-ft/yr (69.7 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 781 ft³/s (22.1 m³/s) Sept. 2, 1973, gage height, 5.05 ft (1.539 m); no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 594 ft³/s (16.8 m³/s) July 7, gage height, 4.22 ft (1.286 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	81	192	323	220
2	.00	.00	.00	.00	.00	.00	.00	.00	84	195	348	139
3	.00	.00	.00	.00	.00	.00	.00	.00	86	301	299	104
4	.00	.00	.00	.00	.00	.00	.00	.00	85	364	195	107
5	.00	.00	.00	.00	.00	.00	.00	.00	80	388	171	107
6	.00	.00	.00	.00	.00	.00	.00	.00	74	471	150	109
7	.00	.00	.00	.00	.00	.00	.00	.00	74	568	157	118
8	.00	.00	.00	.00	.00	.00	.00	.00	73	565	193	114
9	.00	.00	.00	.00	.00	.00	.00	.00	61	561	220	120
10	.00	.00	.00	.00	.00	.00	.00	23	57	557	242	120
11	.00	.00	.00	.00	.00	.00	.00	65	61	548	235	110
12	.00	.00	.00	.00	.00	.00	.00	18	52	544	245	77
13	.00	.00	.00	.00	.00	.00	.00	7.0	42	530	245	59
14	.00	.00	.00	.00	.00	.00	.00	6.7	47	532	242	46
15	.00	.00	.00	.00	.00	.00	.00	7.4	44	478	267	41
16	.00	.00	.00	.00	.00	.00	.00	16	43	432	292	33
17	.00	.00	.00	.00	.00	.00	.00	22	40	452	272	6.4
18	.00	.00	.00	.00	.00	.00	.00	23	44	488	223	4.8
19	.00	.00	.00	.00	.00	.00	.00	12	142	510	177	.00
20	.00	.00	.00	.00	.00	.00	.00	7.0	242	440	185	.00
21	.00	.00	.00	.00	.00	.00	.00	4.8	213	430	180	.00
22	.00	.00	.00	.00	.00	.00	.00	3.3	180	474	171	.00
23	.00	.00	.00	.00	.00	.00	.00	2.0	187	484	180	.00
24	.00	.00	.00	.00	.00	.00	.00	1.0	193	472	195	.00
25	.00	.00	.00	.00	.00	.00	.00	43	196	450	226	.00
26	.00	.00	.00	.00	.00	.00	.00	74	321	436	271	.00
27	.00	.00	.00	.00	.00	.00	.00	76	348	347	276	.00
28	.00	.00	.00	.00	.00	.00	.00	75	307	276	303	.00
29	.00	.00	.00	.00	---	.00	.00	74	272	251	312	.00
30	.00	.00	.00	.00	---	.00	.00	72	201	247	323	.00
31	.00	---	.00	.00	---	.00	---	73	---	278	289	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	705.20	3930	13261	7407	1635.20
MEAN	.000	.000	.000	.000	.000	.000	.000	22.7	131	428	239	54.5
MAX	.00	.00	.00	.00	.00	.00	.00	76	348	568	348	220
MIN	.00	.00	.00	.00	.00	.00	.00	.00	40	192	150	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	1400	7800	26300	14690	3240

CAL YR 1977 TOTAL 32800.10 MEAN 89.9 MAX 640 MIN .00 AC-FT 65060
WTR YR 1978 TOTAL 26938.40 MEAN 73.8 MAX 568 MIN .00 AC-FT 53430

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE

LOCATION.--Lat 40°04'05", long 98°22'25", in SW1/4NE1/4 sec.7, T.1 N., R.9 W., Webster County, Hydrologic Unit 10250016, on left bank 300 ft (91 m) upstream from Willow Creek, 0.2 mi (0.3 km) downstream from Courtland diversion dam, and 2 mi (3 km) southwest of Guide Rock.

DRAINAGE AREA.--22,040 mi² (57,100 km²), approximately, of which about 14,550 mi² (37,700 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,624.13 ft (495.035 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1959, at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station, by regulation of upstream reservoirs, and since Nov. 14, 1952, by storage in Harlan County Lake (station 06849000).

AVERAGE DISCHARGE.--28 years, 360 ft³/s (10.20 m³/s), 260,800 acre-ft/yr (0.322 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,200 ft³/s (827 m³/s) June 16, 1957, gage height, 20.73 ft (6.319 m), present datum; minimum daily, 0.1 ft³/s (0.003 m³/s) May 26, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood since at least 1826 occurred June 1 or 2, 1935, discharge, about 250,000 ft³/s (7,080 m³/s), from slope-area measurements near Bloomington and Hardy.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,120 ft³/s (60.0 m³/s) Aug. 3, gage height, 12.85 ft (3.917 m); minimum daily, 0.96 ft³/s (0.027 m³/s) June 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	138	104	80	55	115	155	124	69	11	118	122
2	110	122	108	60	55	111	150	135	22	81	919	181
3	106	118	110	65	65	100	145	126	11	78	1760	175
4	101	111	109	67	80	95	147	117	6.3	22	777	135
5	98	115	100	70	76	100	150	115	5.1	28	268	124
6	99	117	13	75	70	105	171	133	8.4	108	128	102
7	119	115	30	85	66	110	382	159	5.4	129	71	58
8	126	125	40	80	66	115	362	101	3.5	41	29	67
9	116	131	35	60	66	120	169	47	4.4	34	98	60
10	113	123	50	60	66	155	160	38	2.8	35	128	35
11	108	117	75	64	66	600	149	78	1.4	31	283	15
12	107	114	90	70	70	1190	142	117	1.5	26	167	33
13	107	110	100	70	70	1530	132	115	1.2	20	62	75
14	110	112	120	65	70	1410	126	105	3.3	111	27	112
15	112	112	126	60	66	927	121	94	2.3	72	191	109
16	111	110	138	58	60	588	131	94	1.2	64	1110	105
17	110	109	155	57	54	363	157	94	.96	50	169	119
18	108	113	141	55	58	272	237	92	17	91	3.2	168
19	108	114	129	55	60	237	221	90	53	32	38	139
20	108	107	115	60	60	204	174	92	25	28	51	106
21	110	93	100	65	68	177	159	94	134	72	36	94
22	112	94	105	75	75	176	151	94	85	271	17	97
23	110	102	110	72	90	170	145	133	35	337	4.0	97
24	116	100	110	72	95	168	141	121	8.3	141	1.1	96
25	120	101	105	70	100	168	131	46	89	79	4.4	97
26	120	87	105	64	100	168	126	19	82	37	31	95
27	122	119	105	68	110	174	119	12	73	55	22	90
28	122	122	110	62	120	169	119	9.3	56	24	121	89
29	122	118	110	60	---	167	124	8.4	3.7	12	170	88
30	125	107	110	55	---	162	126	5.3	6.1	7.9	145	87
31	203	---	100	55	---	159	---	11	---	43	168	---
TOTAL	3571	3376	3058	2034	2057	10305	4922	2619.0	816.86	2170.9	7116.7	2970
MEAN	115	113	98.6	65.6	73.5	332	164	84.5	27.2	70.0	230	99.0
MAX	203	138	155	85	120	1530	382	159	134	337	1760	181
MIN	98	87	13	55	54	95	119	5.3	.96	7.9	1.1	15
AC-FT	7080	6700	6070	4030	4080	20440	9760	5190	1620	4310	14120	5890
CAL YR 1977 TOTAL	44771.40			MEAN 123	MAX 2500	MIN 1.2	AC-FT 88800					
WTR YR 1978 TOTAL	45016.46			MEAN 123	MAX 1760	MIN .96	AC-FT 89290					

KANSAS RIVER BASIN

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1962 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 18...	1430	109	640	8.0	13.0	8	11.9	1.7	1500	100
NOV 21...	1345	87	668	7.8	1.0	10	15.1	1.2	500	320
DEC 19...	1445	129	560	7.9	2.0	12	14.4	2.6	K11	2400
JAN 17...	1500	57	701	7.5	.0	20	11.2	2.2	--	K62
FEB 14...	1430	55	587	7.4	.0	4	10.8	1.0	K88	1500
MAR 14...	1515	1400	210	7.3	.0	380	12.3	10	14000	46000
APR 24...	1415	149	648	7.9	15.5	15	10.6	2.4	4200	6800
MAY 22...	1415	89	--	8.0	19.0	10	9.8	2.0	3700	98
JUL 17...	1430	48	586	8.1	28.0	50	8.5	2.5	16000	88
AUG 15...	1445	110	560	8.1	26.0	60	7.9	3.0	K75000	5600
SEP 25...	1345	98	640	8.2	19.0	40	9.6	1.2	1200	160

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 18...	20	--	.57	123	.46	.03	.26	.29	.75	.16
NOV 21...	19	423	.58	99.4	1.1	.03	.45	.48	1.6	.16
DEC 19...	17	400	.54	139	1.2	.10	.65	.75	2.0	.16
JAN 17...	18	--	.60	67.9	1.7	.12	.42	.54	2.2	.16
FEB 14...	16	372	.51	55.2	1.7	.10	.17	.27	2.0	.17
MAR 14...	8.1	167	.23	631	1.6	.56	1.8	2.4	4.0	1.5
APR 24...	21	--	.60	178	.88	.09	1.1	1.2	2.1	.24
MAY 22...	19	410	.56	98.5	.36	.01	.56	.57	.93	.16
JUL 17...	21	--	.48	45.7	.27	.03	1.1	1.1	1.4	.21
AUG 15...	20	342	.47	102	.68	.01	1.8	1.8	2.5	.25
SEP 25...	21	408	.55	108	.46	.07	.62	.69	1.2	.17

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
OCT 18...	1430	7	280	48	83	17	30	.8	11	280	0
JAN 17...	1500	5	300	51	91	17	29	.7	10	300	0
APR 24...	1415	7	300	53	90	18	32	.8	11	300	--
JUL 17...	1430	12	220	20	54	20	38	1.1	16	240	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUD- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L AS P) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT 18...	230	90	.4	28	418	.12	--	70	--	--
JAN 17...	250	92	.4	35	441	.12	3	60	2	10
APR 24...	250	95	.4	27	442	.19	--	70	--	--
JUL 17...	200	78	.7	6.8	353	.08	8	130	4	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 18...	--	20	--	20	--	--	--	--	--	--
JAN 17...	1	30	9	80	.0	.0	.0	4	0	100
APR 24...	--	10	--	10	--	--	--	--	--	--
JUL 17...	6	40	11	20	.1	.0	.1	2	0	20

KANSAS RIVER BASIN

06853500 REPUBLICAN RIVER NEAR HARDY, NE

LOCATION.--Lat 39°59'33", long 97°55'53", in NW1/4NW1/4 sec.6, T.1S., R.5 W., in Kansas, Republic County, Hydrologic Unit, 10250016, at downstream side of highway bridge, 1.2 mi (1.9 km) southwest of Hardy and at mi 141.2 (227.2 km).

DRAINAGE AREA.--22,401 mi² (58,019 km²), of which about 7,500 mi² (19,425 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1904 to September 1915 (no winter records), April 1931 to current year. Prior to May 1932, published as "at Bostwick." Records for June 1896 to November 1903 published as "near Superior" in 18th to 22nd Ann. Repts., inclusive, Pt. 4, and WSP 75, 84, and 99, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1006: 1941. WSP 1340: 1905(M), 1907-9, 1912, 1914-15, 1931. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,501.46 ft (457.645 m) National Geodetic Vertical Datum of 1929. Prior to May 19, 1932, nonrecording gage at site at Bostwick, 20 mi (32 km) upstream at different datum.

REMARKS.--Records good except those for winter periods and period of no gage-height record Sept. 15-26, which are poor. Natural flow affected by irrigation development above station and by storage in six reservoirs in Colorado and Nebraska. Considerable regulation since 1952 by Harlan County Reservoir (see site 06849000).

AVERAGE DISCHARGE.--47 years (1913-14, 1932-78), 598 ft³/s (16.94 m³/s), 433,300 acre-ft/yr (0.534 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 225,000 ft³/s (6,370 m³/s) June 2, 1935, gage height, 19.4 ft (5.91 m), based on records for stations upstream; no flow Aug. 9-19, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stages since at least 1895, that of June 2, 1935, and 17.00 ft (5.182 m) June 24, 1947, discharge, 100,000 ft³/s (2,830 m³/s), based on records for upstream stations.

EXTREMES FOR CURRENT YEAR.--Peak discharges above regulated base of 2,500 ft³/s (70.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 11	unknown	2500 70.8	unknown
Sept. 17	unknown	*4000 113	unknown

Minimum discharge, 28 ft³/s (0.79 m³/s) June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	195	246	139	100	70	180	196	196	73	62	95	191
2	192	200	137	100	70	160	190	190	89	59	649	166
3	185	170	135	120	70	150	183	186	92	67	1210	180
4	182	159	135	120	90	150	180	190	73	107	1180	190
5	175	153	120	120	80	180	175	186	65	57	684	190
6	170	153	70	120	80	200	178	196	60	64	366	167
7	192	153	120	120	80	200	190	246	61	104	228	148
8	205	163	100	100	80	300	342	276	59	155	187	119
9	190	182	70	100	80	400	273	204	54	106	180	99
10	180	172	80	100	80	500	276	140	52	88	178	94
11	168	161	90	100	80	1000	240	133	50	77	184	79
12	165	157	100	120	80	1500	215	157	46	77	322	65
13	163	155	120	110	80	2500	192	177	45	61	279	60
14	165	155	140	110	80	2000	190	170	43	52	189	59
15	163	153	160	110	80	1500	190	160	42	79	157	100
16	159	149	175	90	70	1060	195	151	40	97	241	1000
17	159	145	175	90	70	730	508	134	35	86	762	3000
18	157	141	178	90	70	550	509	133	30	81	314	2000
19	155	143	161	90	80	475	408	137	30	81	149	1000
20	155	143	150	90	80	412	312	146	64	81	115	800
21	155	139	100	100	80	367	264	146	95	80	128	600
22	155	135	150	100	80	335	239	141	101	526	100	400
23	155	135	170	100	80	310	226	167	116	578	78	300
24	155	135	170	100	80	285	212	196	86	448	59	200
25	157	135	120	90	150	262	201	173	62	250	54	150
26	159	135	90	70	300	247	193	132	81	160	56	120
27	157	141	90	70	250	236	186	98	174	110	60	109
28	155	143	100	70	200	228	185	86	127	90	76	104
29	155	147	110	70	---	221	185	75	143	76	93	106
30	157	143	130	70	---	213	188	73	90	58	156	105
31	190	---	150	70	---	205	---	76	---	60	177	---
TOTAL	5225	4641	3935	3010	2770	17056	7221	4871	2178	4077	8706	11901
MEAN	169	155	127	97.1	98.9	550	241	157	72.6	132	281	397
MAX	205	246	178	120	300	2500	509	276	174	578	1210	3000
MIN	155	135	70	70	70	150	175	73	30	52	54	59
AC-FT	10360	9210	7810	5970	5490	33830	14320	9660	4320	8090	17270	23610

CAL YR 1977 TOTAL 75936 MEAN 208 MAX 6200 MIN 37 AC-FT 150600
WTR YR 1978 TOTAL 75591 MEAN 207 MAX 3000 MIN 30 AC-FT 149900

06879900 BIG BLUE RIVER AT SURPRISE, NE

LOCATION.--Lat 41°06'05", long 97°18'35", in NW1/4NW1/4 sec.15, T.13 N., R.1 E., Butler County, Hydrologic Unit 10270201, on left bank 50 ft (15 m) downstream from bridge on county road at south edge of Surprise.

DRAINAGE AREA.--345 mi² (894 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1964 to current year. Prior to October 1965, published as North Branch Big Blue River at Surprise.

GAGE.--Water-stage recorder and concrete broad-crested weir control. Altitude of gage is 1,520 ft (463 m), from topographic map.

REMARKS.--Records good above 5 ft³/s (0.14 m³/s) and poor below. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--14 years, 28.0 ft³/s (0.793 m³/s), 20,290 acre-ft/yr (25.0 hm³/yr); median of yearly mean discharges, 23 ft³/s (0.651 m³/s), 16,700 acre-ft/yr (20.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s (303 m³/s) July 19, 1965, gage height, 11.52 ft (3.511 m); no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 15	1900	*1920 54.4	7.90 2.408	Apr. 17	0845	377 10.7	3.54 1.079
Apr. 9	2245	516 14.6	3.97 1.210	June 23	0115	255 7.2	3.12 0.951

No flow Feb. 19-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.11	.48	.03	.08	.06	1.7	4.6	5.1	1.6	3.4	.06
2	.58	.10	.31	.05	.07	.08	1.7	3.7	2.4	.77	6.5	.05
3	.32	.10	.25	.09	.07	.05	1.9	3.4	1.5	.43	5.2	.02
4	.44	.09	.22	.09	.10	.04	1.3	3.0	1.1	.45	5.7	.11
5	.58	.16	.19	.06	.08	.07	1.2	2.0	1.0	.23	5.7	.08
6	.58	.22	.14	.08	.06	.05	1.4	3.7	1.2	1.9	3.9	.05
7	6.2	.27	.25	.10	.06	.06	2.4	7.8	1.1	10	2.8	.33
8	5.2	1.1	.75	.07	.11	.06	67	10	1.1	46	2.0	1.2
9	2.4	3.1	.87	.04	.36	.12	431	7.4	1.1	19	1.4	1.3
10	3.1	2.0	.86	.06	.46	6.0	460	4.4	1.3	11	22	1.1
11	2.2	4.6	.91	.09	.59	55	328	2.8	.98	7.5	7.8	1.2
12	1.2	4.0	.95	.12	.41	385	291	2.3	.56	18	1.8	.96
13	1.1	3.4	.82	.09	.04	941	99	1.7	.35	9.3	.89	.24
14	.57	4.2	.50	.10	.03	1480	104	1.2	.52	11	1.4	.03
15	.52	5.3	.57	.11	.03	1680	95	.99	.65	4.8	64	.01
16	.26	4.3	.55	.15	.02	1430	146	.97	.58	2.2	43	.04
17	.24	3.3	.57	.11	.03	1160	282	.89	.23	1.6	12	.05
18	.14	2.3	.40	.08	.03	777	208	.77	.20	1.2	5.0	.16
19	.17	1.8	.32	.14	.00	532	139	.85	.26	3.4	1.7	.06
20	.27	1.3	.25	.10	.00	305	84	.49	.36	4.6	.59	.08
21	.35	.44	.20	.07	.00	167	57	.42	.24	5.4	.33	.10
22	1.2	.54	.28	.13	.03	91	34	.41	73	8.5	.22	.08
23	1.2	.56	.31	.10	.03	44	23	.42	181	5.2	.20	.12
24	.37	.78	.10	.13	.06	30	18	.39	38	5.4	.37	.09
25	.21	.67	.05	.10	.15	23	11	3.0	23	3.7	.38	.08
26	.47	.53	.07	.07	.14	16	7.4	2.4	17	2.2	.35	.10
27	.55	.63	.08	.05	.10	10	5.4	15	5.2	1.4	.31	.08
28	.43	.70	.07	.06	.09	6.0	3.9	33	3.1	1.4	.19	.06
29	.27	.66	.07	.06	---	4.1	3.1	7.6	2.2	3.1	.13	.09
30	.31	.62	.05	.08	---	3.1	3.1	3.8	1.9	2.8	.12	.12
31	.25	---	.08	.07	---	2.5	---	6.1	---	2.8	.08	---
TOTAL	32.26	47.88	11.52	2.68	3.23	9148.29	2911.5	135.50	366.23	196.88	199.46	8.05
MEAN	1.04	1.60	.37	.086	.12	295	97.1	4.37	12.2	6.35	6.43	.27
MAX	6.2	5.3	.95	.15	.59	1680	460	33	181	46	64	1.3
MIN	.14	.09	.05	.03	.00	.04	1.2	.39	.20	.23	.08	.01
AC-FT	64	95	23	5.3	6.4	18150	5770	269	726	391	396	16
CAL YR 1977	TOTAL	11026.00	MEAN	30.2	MAX	1900	MIN	1.00	AC-FT	21870		
WTR YR 1978	TOTAL	13063.48	MEAN	35.8	MAX	1680	MIN	.00	AC-FT	25910		

KANSAS RIVER BASIN

06879900 BIG BLUE RIVER AT SURPRISE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-1970, 1974-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT , 1977					APR , 1978				
14...	1230	.85	271	10.0	28...	1335	3.9	249	--
NOV					JUN				
04...	1450	.09	372	--	01...	0755	5.1	672	--
JAN , 1978					29...				
26...	1210	.07	798	.5	AUG				
FEB					04...				
16...	1330	.02	860	.0	28...	0945	.19	310	24.5
MAR					SEP				
06...	1000	.05	599	.0	27...	1000	.06	530	17.0

06880000 LINCOLN CREEK NEAR SEWARD, NE

LOCATION.--Lat 40°54'57", long 97°08'43", in NW1/4NE1/4 sec.24, T.11 N., R.2 E., Seward County, Hydrologic Unit 10270201, on left bank 20 ft (6 m) downstream from county road bridge, 2 mi (3 km) west of Seward, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--446 mi² (1,155 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to September 1973, March 1974 to current year. Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,429.27 ft (435.641 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--24 years, (1953-73, 1974-78) 43.9 ft³/s (1.243 m³/s), 31,810 acre-ft/yr (39.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) June 17, 1957, gage height, 20.53 ft (6.258 m); minimum daily, 1.3 ft³/s (0.037 m³/s) July 31, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 15	0430	*1340 37.9	16.51 5.032	Apr. 18	0400	680 19.3	11.97 3.648
Apr. 9	2030	489 13.8	10.50 3.200				

a Backwater from ice.

Minimum daily discharge, 5.6 ft³/s (0.16 m³/s) Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.7	11	6.0	12	12	16	20	39	13	7.6	5.6
2	10	9.7	11	7.0	11	10	15	19	22	13	7.6	5.8
3	9.7	8.9	10	8.0	12	9.2	14	19	21	12	8.7	6.0
4	9.4	8.7	9.2	7.8	13	9.8	13	19	20	9.2	9.8	6.1
5	9.8	8.8	8.0	8.0	12	11	14	19	20	8.7	10	5.9
6	9.1	8.8	7.0	8.2	11	11	27	20	18	9.5	9.8	6.0
7	25	9.3	7.2	7.6	10	10	25	54	18	13	11	5.9
8	62	11	6.8	7.0	10	10	14	44	17	12	11	5.8
9	26	37	7.6	6.2	11	11	323	28	17	9.4	8.6	5.7
10	16	30	8.8	7.0	12	13	279	26	16	9.3	8.7	5.6
11	12	22	11	11	12	52	212	25	15	9.5	16	5.8
12	11	20	12	10	12	290	160	24	14	11	18	5.7
13	10	22	10	11	11	760	76	22	14	14	15	6.1
14	11	20	9.2	11	10	1120	116	20	13	21	14	6.6
15	10	24	8.8	10	8.8	1300	144	19	13	15	15	5.9
16	9.9	23	8.4	9.8	8.6	1180	195	21	14	13	36	5.9
17	9.9	19	7.6	9.2	8.2	978	354	22	14	13	40	6.0
18	9.7	16	7.0	9.4	8.8	855	607	22	14	12	33	6.9
19	9.7	15	6.4	9.2	9.8	718	364	21	14	12	23	6.5
20	9.5	14	6.6	10	10	434	187	30	15	15	19	6.4
21	9.5	13	6.8	11	11	266	100	22	15	13	15	6.4
22	12	12	7.4	11	12	146	71	20	15	11	14	5.9
23	18	12	7.8	12	11	95	62	31	20	10	11	5.9
24	13	12	6.6	12	12	67	45	27	32	9.6	9.9	6.0
25	10	13	7.6	11	11	48	36	27	25	8.8	8.9	5.8
26	9.5	12	7.0	8.6	14	38	31	70	18	8.6	8.0	5.8
27	9.4	12	8.0	9.4	13	32	27	27	15	8.2	8.8	6.0
28	9.4	12	8.8	10	14	28	25	24	14	8.0	8.5	6.1
29	9.6	11	8.0	11	---	23	24	25	14	7.8	7.7	6.3
30	9.7	11	8.6	10	---	20	25	25	13	7.8	7.6	6.4
31	9.9	---	8.0	11	---	18	---	21	---	7.6	6.4	---
TOTAL	410.7	456.9	258.2	290.4	311.2	8575.0	3601	813	529	345.0	427.6	180.8
MEAN	13.2	15.2	8.33	9.37	11.1	277	120	26.2	17.6	11.1	13.8	6.03
MAX	62	37	12	12	14	1300	607	70	39	21	40	6.9
MIN	9.1	8.7	6.4	6.0	8.2	9.2	13	19	13	7.6	6.4	5.6
AC-FT	815	906	512	576	617	17010	7140	1610	1050	684	848	359
CAL YR 1977	TOTAL	17548.7	MEAN	48.1	MAX	1500	MIN	3.5	AC-FT	34810		
WTR YR 1978	TOTAL	16198.8	MEAN	44.4	MAX	1300	MIN	5.6	AC-FT	32130		

KANSAS RIVER BASIN

06880000 LINCOLN CREEK NEAR SEWARD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
14...	1130	11	565	7.9	10.0	35	--	1.8	950	5100
NOV										
02...	1125	10	560	8.0	9.0	15	10.0	3.0	K170	3000
DEC										
14...	1100	9.1	570	7.6	.5	4	14.1	2.4	32	--
JAN										
04...	1015	7.7	690	7.1	.0	4	13.2	.8	K37	88
FEB										
15...	1545	8.8	550	7.4	.0	5	9.6	.8	K10	K160
MAR										
09...	1220	11	430	7.2	.5	5	--	3.0	K86	280
APR										
25...	1100	40	406	7.4	10.0	220	9.4	5.9	2500	47000
JUN										
02...	1050	30	290	8.2	15.5	800	8.2	2.7	14000	50000
26...	1410	24	397	7.4	26.0	420	8.4	3.9	5400	13800
AUG										
01...	1120	12	518	8.0	23.0	85	6.9	8.4	16000	6500
30...	1300	15	525	8.0	21.0	85	7.2	8.1	2400	2600
SEP										
26...	1135	3.5	560	7.9	15.0	65	6.7	3.4	1830	5700

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
14...	7.3	359	.49	10.7	2.4	.04	.96	1.0	3.4	.55
NOV										
02...	16	495	.67	13.4	1.4	.00	.83	.83	2.2	.52
DEC										
14...	6.5	--	.48	8.65	2.1	.10	.19	.29	2.4	.30
JAN										
04...	7.3	390	.53	8.11	2.2	.00	.50	.50	2.7	.30
FEB										
15...	6.2	342	.47	8.13	1.8	.10	.13	.23	2.0	.31
MAR										
09...	8.0	--	.46	10.0	1.6	.12	.73	.85	2.5	.31
APR										
25...	13	266	.36	28.7	3.0	.90	2.0	2.9	5.9	1.4
JUN										
02...	6.3	200	.27	16.2	4.6	.06	9.9	10	15	1.2
26...	10	--	.32	15.4	3.8	.01	3.1	3.1	6.9	1.1
AUG										
01...	50	--	.53	12.6	1.0	.01	2.6	2.6	3.6	.84
30...	7.0	--	.47	14.1	1.7	.05	2.1	2.1	3.8	.69
SEP										
26...	8.3	371	.50	3.51	1.5	.16	.84	1.0	2.5	.56

06880000 LINCOLN CREEK NEAR SEWARD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 14...	1100	5	240	0	74	14	28	.8	6.7	300	0
MAR 09...	1220	5	230	0	70	14	27	.8	6.6	300	0
JUN 26...	1410	20	140	0	47	6.1	18	.7	12	180	0
AUG 01...	1120	150	270	54	84	14	27	.7	15	260	0
30...	1300	12	200	7	60	13	30	.9	10	240	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L (070301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC 14...	250	40	.3	34	352	.26	--	40	--	--
MAR 09...	250	37	.3	27	338	.25	4	50	3	10
JUN 26...	150	27	.4	27	237	.49	--	70	--	--
AUG 01...	210	45	.4	24	388	.31	6	70	0	10
30...	200	71	.4	33	343	.39	8	50	<1	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE- RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 14...	--	20	--	260	--	--	--	--	--	--
MAR 09...	6	20	16	260	.0	.0	.0	11	0	20
JUN 26...	--	350	--	50	--	--	--	--	--	--
AUG 01...	4	20	5	100	.0	.0	.0	4	0	10
30...	6	<10	0	130	.1	.1	.0	7	0	<3

KANSAS RIVER BASIN

06880500 BIG BLUE RIVER AT SEWARD, NE

LOCATION.--Lat 40°54'05", long 97°05'55", in NW1/4NW1/4 sec.28, T.11 N., R.3 E., Seward County, Hydrologic Unit 10270201, at downstream end of left abutment of bridge on State Highway 15 at south edge of Seward, 0.5 mi (0.8 km) upstream from Plum Creek and 1.4 mi (2.3 km) downstream from Lincoln Creek.

DRAINAGE AREA.--1,101 mi² (2,852 km²).

PERIOD OF RECORD.--October 1953 to current year. Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,415.16 ft (431.341 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 19, 1969, at site 1.2 mi (1.9 km) upstream at datum 6.33 ft (1.929 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--25 years, 111 ft³/s (3.144 m³/s), 80,420 acre-ft/yr (99.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft³/s (433 m³/s) June 18, 1957; maximum gage height, 22.83 ft (6.959 m) June 16, 1967, site and datum then in use; no flow July 30, 31, 1955, result of irrigation pumping.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s (25.5 m³/s) and maximum(*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 16	0500	*3820 108	21.83 6.654	June 22	1100	1570 44.5	13.75 4.191
Apr. 10	0700	2210 62.6	17.51 5.337	June 25	0300	1670 47.3	14.18 4.322
Apr. 18	0600	1860 52.7	16.07 4.898				

Minimum daily discharge, 11 ft³/s (0.31 m³/s) Sept. 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	28	39	18	24	30	54	118	110	55	28	15
2	27	32	38	20	21	32	52	125	116	50	23	14
3	27	30	39	22	27	26	50	95	87	44	23	15
4	29	24	39	20	28	22	47	82	62	36	23	15
5	32	22	33	21	23	25	51	73	54	30	23	14
6	29	22	27	23	26	27	140	81	47	32	23	14
7	61	22	32	22	29	25	93	289	44	41	24	13
8	185	36	30	20	27	23	94	266	41	34	25	13
9	171	136	25	18	27	23	1020	236	39	29	25	12
10	149	132	28	18	29	35	2120	148	38	49	22	11
11	81	155	28	22	32	90	2050	107	37	57	37	11
12	57	96	28	24	28	500	1280	88	35	85	120	11
13	47	70	28	23	25	900	449	75	33	294	99	12
14	41	60	28	22	23	1700	551	69	32	255	64	15
15	37	74	29	25	21	3100	699	66	29	91	52	15
16	31	72	30	21	19	3810	714	63	25	72	154	15
17	27	64	32	19	18	3390	1030	59	24	92	274	17
18	27	58	32	23	19	2950	1790	55	26	51	165	22
19	27	56	31	20	27	2610	1570	52	26	35	112	17
20	27	54	30	17	32	2010	782	63	33	118	75	19
21	27	52	31	21	27	1420	373	57	699	353	52	16
22	32	50	32	22	37	710	268	51	1370	421	38	15
23	126	50	32	23	38	385	253	100	769	450	32	15
24	84	42	29	24	39	246	212	73	1360	316	25	14
25	44	42	27	22	35	168	159	68	1400	123	20	13
26	54	41	25	22	32	123	126	239	429	83	18	12
27	44	40	23	21	37	99	108	215	154	63	19	12
28	32	40	24	22	32	83	99	97	94	53	20	12
29	28	36	24	20	---	73	100	77	71	45	17	12
30	30	38	23	25	---	65	122	105	59	37	16	12
31	32	---	22	22	---	60	---	80	---	34	16	---
TOTAL	1672	1674	918	662	782	24760	16456	3372	7343	3528	1664	423
MEAN	53.9	55.8	29.6	21.4	27.9	799	549	109	245	114	53.7	14.1
MAX	185	155	39	25	39	3810	2120	289	1400	450	274	22
MIN	27	22	22	17	18	22	47	51	24	29	16	11
AC-FT	3320	3320	1820	1310	1550	49110	32640	6690	14560	7000	3300	839
CAL YR 1977	TOTAL	45635.3	MEAN 125	MAX 4180	MIN 4.5	AC-FT 90520						
WTR YR 1978	TOTAL	63254.0	MEAN 173	MAX 3810	MIN 11	AC-FT 125500						

06880520 BIG BLUE RIVER BELOW SEWARD, NE

LOCATION.--Lat 40°52'15", long 97°04'28", in NE1/4NE1/4NW1/4 sec.3, T.10 N., R.3 E., Seward County, Hydrologic Unit 10270202, at bridge on county road about 2.5 miles southeast of Seward.

PERIOD OF RECORD.--Water year 1973 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 14...	1410	51	590	7.7	11.0	40	--	1.8	1830	4200
NOV 02...	0950	38	720	7.8	10.0	20	7.0	19	1870	2100
DEC 14...	1300	32	910	7.6	2.5	6	12.3	6.2	K7730	--
JAN 04...	0930	19	900	7.2	.0	5	12.2	6.2	9330	1440
FEB 15...	1515	22	730	7.3	.0	4	9.2	11	29000	7800
MAR 09...	0945	26	550	7.3	.5	5	--	5.2	K19700	K4400
APR 25...	1010	155	563	7.3	10.0	150	10.0	8.0	5900	31000
JUN 02...	1015	165	520	8.1	16.5	400	8.0	18	15300	46000
26...	1325	415	263	6.9	25.0	430	5.6	9.2	8000	66000
AUG 01...	1025	43	600	7.7	23.0	60	4.4	17	11600	2100
30...	1130	26	555	7.9	21.0	70	4.8	15	K6600	1540
SEP 26...	1045	13	645	8.0	16.0	55	6.0	8.0	5600	6200

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 14...	10	376	.51	51.8	1.9	.23	1.1	1.3	3.2	.71
NOV 02...	7.4	368	.50	37.8	.36	.00	1.5	1.5	1.9	.75
DEC 14...	16	--	.79	50.2	2.1	.70	.60	1.3	3.4	.64
JAN 04...	20	592	.81	30.4	2.4	.53	.57	1.1	3.5	.66
FEB 15...	15	469	.64	27.9	2.1	1.0	.40	1.4	3.5	.64
MAR 09...	28	--	.63	32.3	2.1	1.2	.80	2.0	4.1	.72
APR 25...	13	372	.51	156	2.6	.49	2.0	2.5	5.1	.96
JUN 02...	15	365	.50	163	3.3	.05	4.2	4.2	7.5	1.3
26...	10	--	.19	159	2.5	1.2	3.8	5.0	7.5	1.1
AUG 01...	9.9	--	.51	43.7	1.4	.00	2.1	2.1	3.5	.86
30...	18	--	.46	23.9	2.8	.34	1.6	1.9	4.7	1.0
SEP 26...	11	403	.55	14.1	1.7	.21	2.8	3.0	4.7	.92

06880520 BIG BLUE RIVER BELOW SEWARD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 14...	1300	6	390	37	110	28	51	1.1	9.9	430	0
MAR 09...	0945	12	310	31	91	20	43	1.1	9.1	340	0
JUN 26...	1325	160	76	15	25	3.3	9.7	.5	11	74	0
AUG 01...	1025	80	240	19	70	16	33	.9	15	270	0
30...	1130	9	200	0	50	14	35	1.1	13	280	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC 14...	350	120	.3	33	581	.54	--	80	--	--
MAR 09...	280	74	.3	26	460	.68	4	90	1	20
JUN 26...	61	34	.4	12	142	.17	--	50	--	--
AUG 01...	220	76	.4	22	376	.43	4	100	0	10
30...	230	40	.4	25	340	.69	8	70	3	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 14...	--	30	--	640	--	--	--	--	--	--
MAR 09...	4	50	14	630	.0	.0	.0	8	0	30
JUN 26...	--	60	--	5	--	--	--	--	--	--
AUG 01...	3	20	5	210	.1	.1	.0	3	0	10
30...	6	50	37	240	.5	.5	.0	--	0	43

KANSAS RIVER BASIN

337

06880556 WEST FORK BIG BLUE RIVER BELOW HASTINGS, NE

LOCATION.--Lat 40°36'09", long 98°20'02", in NW1/4NW1/4SW1/4 sec.3, T.7 N., R.9 W., Adams County, Hydrologic Unit 10270203, at bridge on county road 1.4 miles north of U.S. Highway 6 and about 1.5 miles northeast of Hastings.

PERIOD OF RECORD.--Water year 1973 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
18...	1645	18	480	7.3	15.0	25	8.9	23	K500000	3300
NOV										
21...	1745	6.2	742	7.5	7.0	10	9.5	27	K940000	11000
DEC										
20...	0745	3.4	800	7.4	5.0	12	8.5	24	470000	190000
JAN										
18...	0800	4.0	700	7.4	4.0	8	8.3	21	150000	30000
FEB										
15...	0745	4.0	785	7.3	4.0	8	8.3	18	600000	K100000
MAR										
15...	0645	32	263	7.2	2.0	170	13.1	14	1600000	93000
APR										
24...	1800	4.8	590	7.3	15.0	60	3.2	18	3700000	20000
MAY										
23...	0800	4.3	596	7.1	19.0	20	4.9	18	1600000	14000
JUL										
18...	0730	20	485	7.4	24.0	55	5.7	9.2	360000	3200
AUG										
16...	0700	17	460	7.3	21.0	30	5.6	13	K320000	5600
SEP										
25...	1645	5.2	701	7.2	20.0	7	5.4	5.6	180000	1500

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
18...	26	--	.39	13.9	2.7	2.5	1.0	3.5	6.2	11
NOV										
21...	47	465	.63	7.78	8.2	7.7	1.5	9.2	17	6.2
DEC										
20...	72	513	.70	4.71	.00	7.8	1.3	9.1	9.1	9.0
JAN										
18...	58	--	.63	5.00	5.7	9.2	.60	9.8	16	7.5
FEB										
15...	60	474	.64	5.12	6.7	7.9	3.1	11	18	7.5
MAR										
15...	19	189	.26	16.3	4.0	1.4	2.9	4.3	8.3	1.9
APR										
24...	43	--	.52	4.94	4.4	10	2.0	12	16	6.6
MAY										
23...	24	377	.51	4.38	3.8	2.6	1.1	3.7	7.5	2.7
JUL										
18...	27	--	.39	15.6	3.6	.55	1.1	1.6	5.2	1.6
AUG										
16...	20	285	.39	13.1	3.3	.72	.88	1.6	4.9	2.2
SEP										
25...	44	438	.60	6.15	8.9	2.6	1.5	4.1	13	8.8

06880556 WEST FORK BIG BLUE RIVER BELOW HASTINGS, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
OCT 18...	1645	23	150	14	49	7.6	35	1.2	9.7	170	0
JAN 18...	0800	35	180	0	58	9.6	80	2.6	15	260	0
APR 24...	1800	40	170	0	51	9.2	59	2.0	13	240	0
JUL 18...	0730	35	160	25	52	8.5	32	1.1	9.5	170	0

DATE	ALKA- LITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT 18...	140	50	.6	25	287	4.3	--	110	--	--
JAN 18...	210	77	1.1	35	463	7.4	2	450	3	20
APR 24...	200	60	.4	27	381	6.3	--	260	--	--
JUL 18...	140	50	.4	25	288	1.5	3	90	4	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 18...	--	60	--	70	--	--	--	--	--	--
JAN 18...	10	180	17	40	.3	.0	.3	6	2	150
APR 24...	--	110	--	80	--	--	--	--	--	--
JUL 18...	5	60	13	40	.2	.2	.0	6	0	40

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE

LOCATION.--Lat 40°43'52", long 97°10'38", in SW1/4SW1/4 sec.23, T.9 N., R.2 E., Seward County, Hydrologic Unit 10270203, on right bank 60 ft (18 m) downstream from bridge on county road, 6.2 mi (10.0 km) northwest of Dorchester, and 19 mi (31 km) upstream from mouth.

DRAINAGE AREA.--1,206 mi² (3,124 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.-- WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,403.48 ft (427.781 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 14, 1970, at site 60 ft (18 m) upstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Some diversion by pumping for irrigation above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--20 years, 167 ft³/s (4.729 m³/s), 121,000 acre-ft/yr (0.149 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s (323 m³/s) Mar. 20, 1969, gage height, 20.34 ft (6.200 m); minimum daily, 12 ft³/s (0.34 m³/s) Dec. 31, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1950, reached a stage of 24.8 ft (7.56 m), present datum, from floodmarks, discharge, 49,400 ft³/s (1,400 m³/s), from contracted-opening and flow-over-road measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,960 ft³/s (112 m³/s) Mar. 16 at 0900, gage height, 16.90 ft (5.151 m), no other peak above base of 1,500 ft³/s (42.5 m³/s); minimum daily discharge, 29 ft³/s (0.82 m³/s) Jan. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	59	54	35	40	84	100	330	298	60	65	79
2	66	59	53	38	35	96	91	151	138	63	70	94
3	60	58	52	40	54	76	86	112	112	66	64	56
4	63	56	52	37	60	60	79	99	99	64	65	50
5	74	56	50	38	45	130	75	91	100	54	65	70
6	70	54	40	42	49	170	79	100	93	54	59	62
7	107	53	45	37	54	160	78	246	88	252	56	48
8	122	54	40	32	52	150	76	257	87	343	50	45
9	114	101	35	31	56	200	297	177	88	396	50	42
10	106	104	38	30	62	220	797	138	79	510	48	38
11	115	103	50	38	70	250	597	112	75	410	62	38
12	111	99	60	40	60	450	471	97	69	296	86	39
13	106	114	56	39	56	1300	432	89	67	160	66	39
14	92	115	54	40	52	2300	389	84	66	145	62	39
15	75	118	60	41	50	3210	296	81	63	125	91	255
16	65	114	55	32	36	3650	248	75	62	103	116	225
17	61	102	53	29	35	2830	469	71	61	85	97	164
18	59	88	45	38	37	2160	810	69	61	78	153	304
19	59	77	42	32	56	1680	866	78	58	82	164	125
20	60	70	37	30	60	1140	885	73	67	100	135	117
21	58	65	39	40	46	771	900	121	57	97	108	88
22	58	61	45	43	90	556	710	103	77	127	79	73
23	60	60	48	47	86	401	411	286	99	110	58	67
24	60	59	46	50	94	296	249	471	68	100	49	59
25	59	56	40	45	84	227	189	224	68	95	51	53
26	60	56	37	41	74	186	156	137	73	92	51	50
27	61	54	35	42	100	160	137	122	68	84	51	47
28	60	54	45	41	90	140	127	88	69	75	55	40
29	60	54	50	39	---	124	126	76	69	67	54	38
30	59	55	45	41	---	113	669	70	64	63	48	37
31	60	---	40	36	---	109	---	371	---	62	50	---
TOTAL	2309	2228	1441	1184	1683	23399	10895	4599	2543	4418	2278	2481
MEAN	74.5	74.3	46.5	38.2	60.1	755	363	148	84.8	143	73.5	82.7
MAX	122	118	60	50	100	3650	900	471	298	510	164	304
MIN	58	53	35	29	35	60	75	69	57	54	48	37
AC-FT	4580	4420	2860	2350	3340	46410	21610	9120	5040	8760	4520	4920
CAL YR 1977	TOTAL	50014	MEAN 137	MAX 1840	MIN 16	AC-FT 99200						
WTR YR 1978	TOTAL	59458	MEAN 163	MAX 3650	MIN 29	AC-FT 117900						

KANSAS RIVER BASIN

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 28...	1530	60	549	8.0	14.5	35	--	4.1	250	700
NOV 11...	1100	105	480	8.2	4.0	90	11.5	14	K620000	K250000
DEC 20...	1020	34	573	7.6	.5	5	11.2	2.8	K150	172
JAN 11...	1030	38	690	7.3	.0	3	12.3	1.0	230	--
31...	1400	37	595	7.9	.5	8	13.2	1.4	733	K64
MAR 15...	1330	3300	175	6.6	2.5	200	12.2	10	2600	--
APR 18...	1400	839	145	7.0	7.5	850	8.4	12	K134000	>100000
MAY 23...	0915	400	335	7.4	18.0	900	6.1	29	76000	K382000
JUN 30...	1130	52	690	8.4	27.0	80	11.3	5.6	1000	1600
JUL 28...	0915	76	510	8.1	22.5	80	7.7	5.8	1200	4900
AUG 24...	0835	50	440	8.0	23.0	95	7.0	11	2800	5200
SEP 21...	0830	99	383	7.7	13.0	280	8.3	5.2	44000	K139000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 28...	21	353	.48	57.2	1.8	.08	.61	.69	2.5	.84
NOV 11...	20	294	.40	83.3	1.6	.30	2.0	2.3	3.9	3.8
DEC 20...	29	--	.51	34.4	3.0	.07	.27	.34	3.3	.82
JAN 11...	27	407	.55	41.8	3.0	.13	.22	.35	3.4	.77
31...	24	405	.55	40.5	3.0	.06	.42	.48	3.5	.86
MAR 15...	9.6	--	.13	873	3.3	1.5	5.0	6.5	9.8	1.4
APR 18...	5.4	100	.14	227	1.8	.46	6.0	6.5	8.3	2.2
MAY 23...	12	416	.57	449	2.7	.05	8.2	8.2	11	1.9
JUN 30...	45	--	.54	55.3	.03	.04	2.2	2.2	2.2	.83
JUL 28...	22	356	.48	73.1	1.7	.05	1.5	1.5	3.2	.86
AUG 24...	15	--	.39	38.5	1.9	.03	1.2	1.2	3.1	.93
SEP 21...	25	246	.33	65.8	3.6	.06	4.8	4.9	8.5	1.4

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 20...	1020	4	230	20	72	13	37	1.1	8.1	260	0
MAR 15...	1330	160	44	5	12	3.3	5.0	.3	20	47	0
JUN 30...	1130	27	210	21	73	6.3	57	1.7	11	220	4
AUG 24...	0835	15	180	5	55	9.8	22	.7	12	210	0

DATE	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC 20...	210	56	.3	31	375	.79	--	70	--	--
MAR 15...	39	17	.1	7.7	98	.84	2	80	1	0
JUN 30...	190	72	.5	17	394	.48	--	130	--	--
AUG 24...	170	42	.4	25	285	.62	7	80	<1	10

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 20...	--	20	--	190	--	--	--	--	--	--
MAR 15...	8	170	9	200	3.0	3.0	.0	1	0	10
JUN 30...	--	30	--	40	--	--	--	--	--	--
AUG 24...	10	20	5	5	.1	.1	.0	6	0	<3

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-63, 1968 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1961 to September 1962, April 1968 to current year.

SEDIMENT RECORDS: October 1961 to September 1962.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 32.5°C July 24, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 31.5°C July 19, 20; minimum, 0.0°C on several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR PER (COLS. 100 ML) (31673)
OCT 28...	1150	143	516	7.9	14.0	45	--	9.0	1600	1800
NOV 11...	1345	314	625	8.4	5.0	60	11.7	18	80000	75000
DEC 21...	1000	227	300	7.6	.5	10	10.9	2.7	6000	5500
JAN 11...	1400	68	800	7.6	1.5	8	15.3	.7	K7670	--
FEB 03...	1100	79	680	8.8	1.5	5	13.4	7.0	K19500	3320
MAR 16...	1300	8910	185	6.6	.5	300	11.1	15	K1600	--
APR 18...	1100	2270	245	7.1	7.5	700	10.0	7.5	35000	K275000
MAY 23...	1015	210	625	8.1	19.0	111	7.8	26	2700	3000
JUN 30...	1330	190	470	8.1	28.5	200	7.1	16	1700	9000
JUL 28...	1115	202	480	8.0	24.5	140	--	9.8	4000	3900
AUG 24...	1030	98	435	8.1	25.0	100	6.9	15	5300	3700
SEP 21...	0935	461	250	7.5	14.5	800	7.5	10	35000	64000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 28...	15	334	.45	129	1.4	.16	.94	1.1	2.5	.73
NOV 11...	19	386	.53	327	1.4	.17	1.4	1.6	3.0	.84
DEC 21...	29	--	.62	279	2.8	.24	.68	.92	3.7	.73
JAN 11...	30	495	.67	90.9	2.9	.28	.72	1.0	3.9	.67
FEB 03...	23	448	.61	95.6	2.8	.45	.10	.55	3.4	.75
MAR 16...	8.1	--	.13	2330	3.0	1.7	5.4	7.1	10	1.2
APR 18...	6.2	--	.20	913	2.0	.44	6.2	6.6	8.6	1.6
MAY 23...	21	409	.56	232	1.4	.06	1.7	1.8	3.2	.77
JUN 30...	13	--	.38	145	1.6	.11	1.9	2.0	3.6	.91
JUL 28...	15	295	.40	161	2.2	.06	1.6	1.7	3.9	.79
AUG 24...	18	--	.38	74.1	2.2	.05	1.4	1.4	3.6	.88
SEP 21...	9.5	160	.22	199	2.2	.16	7.3	7.5	9.7	1.4

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 21...	1000	5	--	290	29	87	18	45	1.1	9.8	320	0
MAR 16...	1300	180	--	46	5	13	3.4	4.4	.3	20	50	0
APR 18...	1100	100	180	85	12	23	6.7	11	.5	11	89	0
JUN 30...	1330	43	--	170	12	56	6.9	27	.9	12	190	0
AUG 24...	1030	27	--	160	3	47	10	25	.9	16	190	0

DATE	ALKA- LINITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC TOTAL (UG/L AS AS) (01002)
DEC 21...	260	78	.3	31	456	--	--	--	--	--	.66	--
MAR 16...	41	15	.1	8.3	97	--	--	--	--	--	.75	--
APR 18...	73	30	.2	9.8	149	1.5	.35	1.2	5.1	1.5	.51	8
JUN 30...	160	55	.3	19	283	--	--	--	--	--	.46	--
AUG 24...	160	47	.4	23	280	--	--	--	--	--	.55	--

DATE	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDE RECOV- ERABLE (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
DEC 21...	--	--	80	--	--	--	--	--	--	--	--	--
MAR 16...	--	4	80	--	--	1	--	--	0	--	--	--
APR 18...	4	4	50	3	2	1	40	40	0	11	11	0
JUN 30...	--	--	80	--	--	--	--	--	--	--	--	--
AUG 24...	--	7	80	--	--	16	--	--	0	--	--	--

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN) (01054)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
DEC 21...	--	--	--	--	20	--	--	--	--	--	280
MAR 16...	--	--	6	--	160	--	--	13	--	--	140
APR 18...	46	42	4	35000	110	41	39	2	770	740	30
JUN 30...	--	--	--	--	30	--	--	--	--	--	20
AUG 24...	--	--	9	--	10	--	--	6	--	--	7

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE D RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, SUS- PENDE D TOTAL (UG/L AS SE) (01147)	SELE- NIUM, SUS- PENDE D TOTAL (UG/L AS SE) (01146)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, SUS- PENDE D RECOV- ERABLE (UG/L AS ZN) (01091)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC 21...	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	.0	.0	.0	--	--	1	0	--	--	10	--
APR 18...	1.1	.5	.6	1	1	0	0	160	140	20	50
JUN 30...	--	--	--	--	--	--	--	--	--	--	--
AUG 24...	.1	.1	.0	--	--	5	0	--	--	5	--

DATE	TIME	PCB, DIS- SOLVED (UG/L) (39517)	PCB, SUS- PENDE D TOTAL (UG/L) (39518)	ALDRIN, DIS- SOLVED (UG/L) (39331)	ALDRIN, SUS- PENDE D TOTAL (UG/L) (39332)	CHLOR- DANE, DIS- SOLVED (UG/L) (39352)	CHLOR- DANE, SUS- PENDE D TOTAL (UG/L) (39353)	DDD, DIS- SOLVED (UG/L) (39361)	DDD, SUS- PENDE D TOTAL (UG/L) (39362)	DDE, DIS- SOLVED (UG/L) (39366)
MAR 16...	1300	.0	.0	.00	.00	.0	.0	.00	.00	.00
APR 18...	1100	.0	.0	.00	.00	.0	.0	.00	.00	.00

DATE	DDE, SUS- PENDE D TOTAL (UG/L) (39367)	DDT, DIS- SOLVED (UG/L) (39371)	DDT, SUS- PENDE D TOTAL (UG/L) (39372)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- AZINON, SUS- PENDE D TOTAL (UG/L) (39573)	DI- ELDRIN, DIS- SOLVED (UG/L) (39381)	DI- ELDRIN, SUS- PENDE D TOTAL (UG/L) (39382)	ENDRIN, DIS- SOLVED (UG/L) (39391)	ENDRIN, SUS- PENDE D TOTAL (UG/L) (39392)	HEPTA- CHLOR, DIS- SOLVED (UG/L) (39411)
MAR 16...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR 18...	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00

DATE	HEPTA- CHLOR, SUS- PENDE D TOTAL (UG/L) (39412)	HEPTA- CHLOR EPOXIDE DIS- SOLVED (UG/L) (39421)	HEPTA- CHLOR EPOXIDE SUS- PENDE D TOTAL (UG/L) (39422)	LINDANE DIS- SOLVED (UG/L) (39341)	LINDANE SUS- PENDE D TOTAL (UG/L) (39342)	MALA- THION, DIS- SOLVED (UG/L) (39532)	MALA- THION, SUS- PENDE D TOTAL (UG/L) (39533)	METHYL PARA- THION, DIS- SOLVED (UG/L) (39602)	METHYL PARA- THION, SUS- PENDE D TOTAL (UG/L) (39603)	PARA- THION, DIS- SOLVED (UG/L) (39542)
MAR 16...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR 18...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	PARA- THION, SUS- PENDE D TOTAL (UG/L) (39543)	TOX- APHENE, DIS- SOLVED (UG/L) (39401)	TOX- APHENE, SUS- PENDE D TOTAL (UG/L) (39402)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-D, SUS- PENDE D TOTAL (UG/L) (39733)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4,5-T SUS- PENDE D TOTAL (UG/L) (39743)	SILVEX, DIS- SOLVED (UG/L) (39762)	SILVEX, SUS- PENDE D TOTAL (UG/L) (39763)
MAR 16...	.00	0	0	.21	.00	.02	.00	.00	.00
APR 18...	.00	0	0	.48	.00	.02	.00	.00	.00

KANSAS RIVER BASIN

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	17.5	15.5	16.0	13.0	4.0	3.0	.5	.0	2.5	2.0	3.5	1.5
2	15.5	14.5	13.0	11.0	4.0	3.0	.5	.0	2.0	1.5	3.0	1.5
3	15.0	13.0	13.0	11.5	4.0	3.0	.0	.0	3.0	1.5	3.0	1.5
4	15.0	14.0	13.5	11.5	3.0	3.0	1.0	.5	3.5	2.0	3.0	1.5
5	14.5	14.0	14.5	13.0	3.0	1.5	1.0	.5	3.0	2.0	3.5	1.5
6	14.0	13.0	15.0	14.5	1.5	1.0	1.0	.0	2.0	2.0	1.5	.5
7	14.0	12.5	15.5	15.0	2.0	1.5	1.0	.0	2.5	2.0	1.5	.5
8	14.0	12.5	15.5	14.0	2.0	1.5	.0	.0	3.0	2.0	1.0	.5
9	12.5	11.0	14.0	8.0	1.5	1.5	.0	.0	3.5	2.0	1.5	.5
10	12.5	11.5	8.0	6.0	1.5	1.5	.0	.0	3.5	2.0	1.5	.5
11	11.5	10.0	7.0	5.0	1.5	1.0	.0	.0	3.0	2.0	2.0	1.0
12	11.0	9.5	7.0	4.5	2.5	1.5	.0	.0	2.0	1.0	2.0	1.0
13	12.0	10.0	7.5	5.0	2.5	1.0	.0	.0	1.0	1.0	1.5	.5
14	13.0	11.0	8.0	5.5	2.5	1.0	.5	.0	3.0	1.0	2.0	.5
15	13.0	11.5	8.0	5.5	2.5	1.5	1.0	.0	4.0	1.5	1.5	.5
16	13.0	11.5	7.5	5.0	2.5	1.5	1.0	.0	2.5	1.5	1.0	.5
17	13.0	11.5	7.5	5.0	1.5	1.5	.0	.0	2.0	1.5	1.0	.5
18	13.0	11.5	7.0	4.5	1.5	1.0	.5	.5	2.0	1.0	3.0	1.0
19	13.0	11.0	7.0	4.5	1.5	1.0	1.0	.5	2.5	1.5	4.0	3.0
20	15.0	12.5	6.5	4.5	1.5	1.0	1.0	1.0	3.5	1.5	5.0	4.0
21	16.5	14.5	6.5	4.5	.5	.5	1.0	1.0	4.0	1.5	6.0	5.0
22	16.5	15.0	6.0	4.0	1.5	.5	1.5	.5	4.0	1.5	7.5	6.0
23	15.0	13.5	5.5	4.0	1.5	1.0	1.5	.5	4.5	1.5	7.5	7.5
24	13.5	13.0	5.0	3.5	1.5	.5	2.5	1.0	4.5	1.5	7.5	6.5
25	15.0	13.5	5.0	3.5	1.0	.5	2.0	1.0	4.0	1.5	7.5	6.0
26	16.0	14.0	4.5	3.5	1.0	.5	1.5	1.0	2.5	1.5	8.0	6.0
27	16.0	15.0	4.0	3.0	1.0	.5	1.0	1.0	3.5	1.5	9.5	7.5
28	16.0	14.0	3.5	2.5	1.5	.5	1.0	5.0	2.5	1.5	11.0	9.5
29	16.5	15.0	3.0	2.5	2.0	1.0	1.0	1.0	---	---	12.0	10.5
30	16.5	16.0	3.5	2.5	1.5	.5	2.0	1.0	---	---	14.0	10.5
31	16.0	15.0	---	---	1.0	.5	2.5	2.0	---	---	15.5	13.0
MONTH	17.5	9.5	16.0	2.5	4.0	.5	2.5	.0	4.5	1.0	15.5	.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	15.5	14.0	14.0	13.0	18.0	16.5	30.0	26.0	27.0	23.0	23.5	19.0
2	14.0	12.5	14.0	11.5	19.5	16.0	31.0	27.0	27.0	23.5	25.5	19.5
3	16.0	13.0	14.0	12.5	21.5	18.5	31.5	27.0	26.0	21.0	26.0	22.0
4	16.0	14.0	12.5	11.5	21.5	19.5	31.5	27.5	24.5	18.5	27.5	23.0
5	16.0	14.0	13.5	11.0	22.0	19.5	31.5	26.5	24.5	19.5	28.0	23.5
6	16.0	13.5	13.5	10.5	21.5	20.0	30.0	24.5	26.0	21.0	27.5	23.5
7	16.0	14.5	11.0	9.5	22.5	20.0	27.5	23.5	27.0	22.0	27.5	23.5
8	17.5	15.5	11.5	10.0	22.0	18.0	27.5	24.0	28.5	22.5	27.0	22.5
9	17.5	15.5	13.5	10.5	24.0	19.5	25.5	24.0	28.0	23.0	25.5	21.5
10	15.5	13.5	16.0	12.5	24.5	20.5	25.5	23.0	28.0	22.5	25.5	21.5
11	13.5	12.5	17.0	16.0	26.0	21.0	25.5	24.0	27.5	22.5	26.0	21.5
12	13.0	12.5	17.0	16.0	25.0	21.0	28.5	24.0	28.5	23.0	24.5	22.5
13	13.0	12.5	17.5	14.0	25.0	21.0	28.5	26.0	30.0	26.0	24.0	20.5
14	13.0	12.0	19.5	15.5	26.5	21.5	28.5	25.5	30.0	26.5	22.0	17.5
15	12.0	10.5	21.0	17.0	28.0	23.5	30.5	27.0	28.0	24.0	22.0	18.0
16	10.5	9.5	20.5	18.0	29.0	24.0	30.5	28.0	26.5	22.0	21.0	19.5
17	9.5	8.0	20.5	18.5	29.0	25.5	31.0	28.0	28.0	24.0	21.0	17.5
18	8.0	7.5	19.5	17.5	27.0	22.5	31.0	28.0	28.0	23.5	19.0	17.0
19	7.0	7.0	22.0	19.0	26.5	22.0	31.5	27.5	24.0	21.0	19.5	19.0
20	7.0	6.0	22.0	19.5	25.0	22.0	31.5	28.0	24.0	21.5	19.5	15.5
21	8.0	6.5	21.5	18.0	25.0	20.5	28.5	26.5	26.0	22.5	16.0	14.5
22	8.0	8.0	21.0	19.5	24.5	21.0	27.5	25.0	27.5	24.5	16.5	14.5
23	10.0	8.0	22.5	19.0	21.5	20.5	25.0	23.5	28.0	24.0	18.0	15.0
24	10.5	10.0	23.5	20.0	23.5	21.5	25.5	23.0	29.0	25.0	19.5	17.0
25	12.0	9.5	24.0	22.0	24.5	23.0	27.0	23.5	28.0	24.0	20.0	17.5
26	13.0	11.5	24.0	22.0	26.0	24.0	28.0	25.0	27.5	24.5	20.0	17.0
27	13.0	12.5	23.5	22.0	26.5	25.0	28.0	24.0	28.5	23.5	20.5	18.0
28	14.5	12.0	24.0	21.5	29.0	25.5	28.0	24.5	27.5	23.5	20.0	17.0
29	16.0	14.0	23.5	21.0	30.0	27.0	27.5	23.5	25.5	21.0	19.5	18.0
30	16.0	14.0	22.0	19.0	30.0	27.0	26.5	22.0	24.5	19.5	19.5	17.0
31	---	---	21.0	17.5	---	---	27.0	23.0	24.0	19.0	---	---
MONTH	17.5	6.0	24.0	9.5	30.0	16.0	31.5	22.0	30.0	18.5	28.0	14.5

KANSAS RIVER BASIN

347

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
MAR 16...	1055	8910	--	1010	24300	40	48
APR 18...	1100	2270	7.5	1920	11800	52	61

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR 16...	60	75	78	88	99	100
APR 18...	78	97	97	98	99	100

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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)
MAR 16...	1055	8910	4	26	32	42	90
APR 18...	1100	2270	4	--	0	5	28

DATE	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)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
MAR 16...	98	100	--	--	--	--
APR 18...	86	96	98	98	98	98

06881200 TURKEY CREEK NEAR WILBER, NE

LOCATION.--Lat 40°28'48", long 97°00'43", in NE1/4NE1/4 sec.19, T.6 N., R.4 E., Saline County, Hydrologic Unit 10270204, on left bank near downstream side of bridge on State Highway 41, 2.8 mi (4.5 km) west of Wilber.

DRAINAGE AREA.--460 mi² (1,191 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.-- WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,322.00 ft (402.946 m) National Geodetic Vertical Datum of 1929. Prior to July 10, 1970 at site 0.2 mi (0.3 km) downstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Many diversions above station for irrigation.

AVERAGE DISCHARGE.--19 years, 78.6 ft³/s (2.226 m³/s), 56,950 acre-ft/yr (70.2 hm³/yr); median of yearly mean discharges, 62 ft³/s (1.756 m³/s), 44,900 acre-ft/yr (55.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft³/s (207 m³/s) Mar. 28, 1960, gage height, 14.92 ft (4.548 m) site then in use; maximum gage height, 17.92 ft (5.462 m) Oct. 12, 1973, from highwater mark. No flow Sept. 20, 21, 24, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 16	1800	*3510 99.4	15.11 4.606
Apr. 19	1300	1210 34.3	11.92 3.633

Minimum daily discharge, 0.94 ft³/s (0.027 m³/s) Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	9.3	10	6.0	3.2	6.4	36	37	445	20	14	10
2	25	9.3	9.0	6.4	3.0	7.0	32	33	94	20	16	9.9
3	21	10	10	7.0	3.7	6.4	31	30	46	21	21	8.3
4	18	11	10	5.6	4.0	5.8	29	29	47	21	32	12
5	17	13	8.0	5.8	3.5	8.0	27	27	38	20	26	13
6	16	15	7.6	6.0	4.0	11	38	42	29	24	23	22
7	140	15	9.6	4.0	4.5	11	38	277	25	55	20	13
8	180	16	8.0	3.5	4.7	10	34	227	23	136	17	7.8
9	152	42	7.0	3.0	4.8	10	30	161	21	206	17	4.2
10	112	52	9.0	2.5	4.9	15	167	95	19	155	15	2.8
11	80	83	10	2.9	5.0	20	219	59	17	125	14	2.0
12	50	93	12	3.6	6.0	182	106	43	16	104	13	1.3
13	40	92	14	3.4	5.6	1270	51	37	15	61	14	1.1
14	30	94	15	3.3	5.0	2410	40	33	15	38	9.9	.94
15	20	88	17	3.7	4.0	3000	37	29	15	47	15	1.2
16	14	71	19	2.5	3.5	3380	44	26	15	23	29	20
17	10	60	17	2.2	3.4	2660	410	26	15	20	26	35
18	8.0	47	15	3.2	3.6	1970	963	24	14	19	24	21
19	7.0	37	14	3.0	4.0	1320	1150	22	16	83	20	238
20	6.8	29	13	2.8	4.3	825	917	22	32	38	20	93
21	6.8	20	11	3.5	3.8	515	316	22	372	74	15	122
22	6.8	23	13	3.9	5.0	318	162	22	380	354	9.9	91
23	6.8	21	15	4.3	5.6	214	113	22	137	166	8.2	42
24	6.8	21	16	4.5	6.0	153	84	22	59	104	6.4	26
25	6.8	19	13	4.1	6.0	107	66	21	39	54	5.4	19
26	6.8	14	12	3.8	5.8	78	56	22	28	48	5.8	14
27	6.8	15	10	4.0	7.4	65	49	29	55	34	6.3	9.7
28	6.7	13	13	3.7	6.6	58	47	29	29	22	5.0	6.7
29	7.1	11	14	3.4	---	56	44	25	23	16	5.0	5.0
30	7.6	11	12	3.6	---	47	39	29	21	13	5.1	3.5
31	10	---	10	3.2	---	40	---	356	---	15	4.4	---
TOTAL	1047.8	1054.6	373.2	122.4	130.9	18778.6	5375	1878	2100	2136	462.4	855.44
MEAN	33.8	35.2	12.0	3.95	4.68	606	179	60.6	70.0	68.9	14.9	28.5
MAX	180	94	19	7.0	7.4	3380	1150	356	445	354	32	238
MIN	6.7	9.3	7.0	2.2	3.0	5.8	27	21	14	13	4.4	.94
AC-FT	2080	2090	740	243	260	37250	10660	3730	4170	4240	917	1700
CAL YR 1977 TOTAL	26093.60		MEAN 71.5	MAX 1320	MIN .04	AC-FT 51760						
WTR YR 1978 TOTAL	34314.34		MEAN 94.0	MAX 3380	MIN .94	AC-FT 68060						

06881200 TURKEY CREEK NEAR WILBER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCOI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
28...	1230	6.7	562	7.8	14.0	30	--	5.2	K120	540
NOV										
11...	1215	84	410	8.0	5.0	95	11.4	13	K110000	K120000
DEC										
20...	1155	13	305	7.2	.5	10	10.9	3.3	K160	180
JAN										
11...	1215	2.9	1000	7.4	.0	5	13.1	1.3	K30	--
31...	1515	3.2	748	8.3	.5	5	12.7	1.4	K71	K48
MAR										
15...	1200	2950	156	6.7	2.0	100	12.0	10	2500	--
APR										
18...	1300	887	150	7.0	7.5	1100	--	4.0	K102000	>100000
MAY										
23...	1130	37	585	8.0	19.5	25	9.6	3.0	280	100
JUN										
30...	1230	19	440	7.6	28.5	170	4.6	3.6	1400	7000
JUL										
28...	1030	28	450	7.8	23.5	130	6.6	3.2	3100	7000
AUG										
24...	0945	6.1	569	7.7	23.0	70	5.6	3.4	600	1800
SEP										
21...	1120	125	234	7.5	15.0	500	--	4.4	70000	200000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
28...	49	367	.50	6.64	.24	.07	.87	.94	1.2	.64
NOV										
11...	17	263	.36	59.6	1.2	.09	1.8	1.9	3.1	.94
DEC										
20...	50	--	.52	13.3	.72	.09	.25	.34	1.1	.39
JAN										
11...	100	597	.81	4.67	.77	.09	.26	.35	1.1	.42
31...	78	482	.66	4.16	.63	.02	.31	.33	.96	.35
MAR										
15...	6.6	--	.11	629	2.6	1.4	3.5	4.9	7.5	1.2
APR										
18...	4.7	106	.14	254	1.4	.60	6.2	6.8	8.2	1.6
MAY										
23...	33	371	.50	37.1	.15	.03	.97	1.0	1.2	.45
JUN										
30...	25	--	.35	13.3	1.0	.12	1.4	1.5	2.5	.70
JUL										
28...	31	298	.41	22.5	1.9	.06	1.4	1.5	3.4	.68
AUG										
24...	74	--	.47	5.63	2.4	.10	1.2	1.3	3.7	.61
SEP										
21...	6.6	120	.16	40.5	4.6	.10	9.6	9.7	14	1.5

KANSAS RIVER BASIN

06881200 TURKEY CREEK NEAR WILBER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 20...	1155	6	210	25	64	13	48	1.4	7.9	230	0
MAR 15...	1200	140	35	2	9.4	2.8	3.3	.2	18	40	0
JUN 30...	1230	55	140	12	41	10	29	1.1	12	160	0
AUG 24...	0945	45	140	0	39	9.2	61	2.3	11	170	0

DATE	ALKA- LINIT (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L AS P) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC 20...	190	56	.3	26	379	.36	--	60	--	--
MAR 15...	33	12	.1	6.0	79	.81	2	70	3	10
JUN 30...	130	43	.4	21	260	.38	--	60	--	--
AUG 24...	140	41	.3	22	342	.41	6	80	2	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 20...	--	30	--	100	--	--	--	--	--	--
MAR 15...	13	170	9	1100	.0	.0	.0	1	0	10
JUN 30...	--	40	--	80	--	--	--	--	--	--
AUG 24...	11	40	3	100	.1	.1	.0	5	0	6

06881500 BIG BLUE RIVER AT BEATRICE, NE

LOCATION.--Lat 40°15'22", long 96°44'47", in SW1/4NW1/4 sec.3, T.3 N., R.6 E., Gage County, Hydrologic Unit 10270202, at left upstream corner of 6th Street and U.S. Highway 77 bridge in Beatrice, 0.7 mi (1.1 km) south of the intersection of U.S. Highways 136 and 77, 1.2 mi (1.9 km) downstream from Indian Creek, and 3.1 mi (5.0 km) upstream from Bear Creek.

DRAINAGE AREA.--3,900 mi² (10,101 km²), of which about 3,830 mi² (9,920 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1910 to September 1915, (monthly discharge only for some periods, published in WSP 1310), 1954, 1960-65, 1967-69, 1971-74 (discharge measurements only), October 1974 to current year. Gage-height records collected 1905-1910, 1916-1974 are in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,219.90 ft (371.826 m) National Geodetic Vertical Datum of 1929. October 1910 to September 1915 non-recording gage at present site and datum.

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

AVERAGE DISCHARGE.--9 years (water years 1911-15, 1975-78), 567 ft³/s (16.06 m³/s), 410,800 acre-ft/yr (0.507 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s (935 m³/s) July 23, 1911, gage height, 26.00 ft (7.925 m); minimum daily, 20 ft³/s (0.57 m³/s) Aug. 15, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since 1902, 49,100 ft³/s (1,390 m³/s) October 12, 1973, gage height, 33.02 ft (10.064 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 19	0300	*15800 447	21.78 6.639	July 19	1800	7600 215	14.46 4.407
Apr. 18	0300	8860 251	15.81 4.819	July 22	2200	12400 351	19.11 5.825
May 7	1200	7390 209	14.23 4.337	Sept. 8	0400	5220 148	11.66 3.554

Minimum daily discharge, 104 ft³/s (2.95 m³/s) Jan. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	190	216	104	120	135	446	1350	3210	455	267	144
2	278	185	208	108	120	130	416	1290	1750	375	248	128
3	254	182	210	112	114	125	394	938	943	333	214	127
4	238	178	208	118	116	120	369	704	594	309	211	197
5	220	175	205	122	118	125	357	619	498	285	213	185
6	214	175	130	126	120	135	346	1350	434	250	184	167
7	311	175	140	124	125	140	362	6770	383	700	178	162
8	946	207	120	122	130	145	400	5000	341	1500	187	164
9	710	488	120	118	135	150	468	2260	317	2000	195	158
10	535	634	160	114	140	170	551	1470	297	1600	192	148
11	448	505	190	122	145	210	2130	1120	289	1200	193	136
12	388	490	216	124	145	700	3290	902	269	871	192	126
13	346	462	212	125	145	3400	2960	715	250	1130	190	130
14	298	439	208	130	140	8000	2020	650	246	807	208	147
15	269	424	206	130	135	10000	1340	580	243	612	288	136
16	250	413	212	120	130	12500	1410	507	232	615	286	282
17	231	408	235	114	115	14000	4260	468	221	458	291	1560
18	216	405	285	120	115	15200	7900	451	213	359	292	3920
19	206	382	256	118	120	15300	6070	430	224	5110	347	2190
20	198	354	120	122	120	12400	4330	417	285	4000	397	2560
21	192	318	110	125	125	8580	3600	417	375	1740	377	2610
22	189	290	120	130	135	5510	2400	400	684	10400	334	1320
23	185	268	120	135	140	3180	1880	421	832	10200	274	740
24	186	260	120	135	135	1960	1500	443	1300	4160	227	464
25	182	244	114	130	130	1330	1180	599	959	1850	194	346
26	240	182	110	125	135	1020	996	810	1620	1370	172	289
27	238	203	108	124	140	839	866	604	2680	980	148	261
28	210	199	116	124	135	690	770	542	1850	737	153	217
29	198	226	118	122	---	596	710	609	1020	530	189	203
30	195	224	118	122	---	539	1270	542	609	398	160	196
31	192	---	112	122	---	493	---	1890	---	312	119	---
TOTAL	9016	9285	5123	3787	3623	117822	54991	35268	23168	55646	7120	19413
MEAN	291	310	165	122	129	3801	1833	1138	772	1795	230	647
MAX	946	634	285	135	145	15300	7900	6770	3210	10400	397	3920
MIN	182	175	108	104	114	120	346	400	213	250	119	126
AC-FT	17880	18420	10160	7510	7190	233700	109100	69950	45950	110400	14120	38510
CAL YR 1977	TOTAL	171923	MEAN 471	MAX 5550	MIN 54	AC-FT 341000						
WTR YR 1978	TOTAL	344262	MEAN 943	MAX 15300	MIN 104	AC-FT 682800						

KANSAS RIVER BASIN

06881502 BIG BLUE RIVER BELOW BEATRICE, NE

LOCATION.--Lat 40°14'55", long 96°42'46", in SE1/4SE1/4 sec.2, T.3 N., R.6 E., Gage County, Hydrologic Unit 10270202, at pipeline bridge about 2.0 miles downstream from bridge on U.S. Highway 77, about 1.3 miles southeast of Beatrice.

PERIOD OF RECORD.--Water year 1973 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 19...	1300	206	590	7.9	11.0	55	9.0	24	4300	900
NOV 08...	1015	174	715	7.6	13.5	25	9.1	6.0	K3070	900
DEC 20...	1100	118	770	7.9	.0	8	15.3	5.5	K2670	1000
JAN 10...	1700	122	825	7.7	.5	8	--	4.2	K850	1220
FEB 02...	1315	120	750	7.1	.0	3	12.5	8.4	9000	2200
MAR 16...	1200	12200	174	7.2	1.0	300	7.4	9.3	2030	K150000
APR 20...	1430	3850	198	7.4	5.5	600	7.8	13	56000	K100000
MAY 25...	1215	670	660	8.4	25.5	90	9.9	28	2800	1040
JUN 26...	1030	1800	240	7.6	25.5	1600	6.1	15	26000	120000
JUL 25...	1445	2020	225	7.5	25.0	450	6.4	14	10000	14800
AUG 23...	0920	277	396	7.9	25.0	180	7.3	12	4700	1400
SEP 18...	1500	3340	174	7.2	19.5	1000	6.0	16	500000	K1030000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 19...	50	356	.48	198	2.2	.13	.69	.82	3.0	.88
NOV 08...	49	452	.61	212	1.5	.11	.89	1.0	2.5	.90
DEC 20...	56	--	.67	156	2.6	.42	.57	.99	3.6	.73
JAN 10...	64	575	.78	189	3.4	.68	.72	1.4	4.8	.63
FEB 02...	58	505	.69	164	3.3	.48	.92	1.4	4.7	.64
MAR 16...	7.6	--	.12	2970	2.7	1.7	5.8	7.5	10	2.1
APR 20...	6.5	141	.19	1470	1.9	.30	5.3	5.6	7.5	1.7
MAY 25...	44	430	.58	778	1.1	.04	2.0	2.0	3.1	.82
JUN 26...	7.5	--	.21	734	3.2	.90	8.0	8.9	12	1.7
JUL 25...	8.1	148	.20	807	2.4	.57	2.5	3.1	5.5	1.0
AUG 23...	28	--	.34	185	2.1	.04	1.4	1.4	3.5	.92
SEP 18...	18	125	.17	1130	1.8	.02	5.7	5.7	7.5	1.8

06881502 BIG BLUE RIVER BELOW BEATRICE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 20...	1100	5	280	44	83	18	63	1.6	9.0	290	0
MAR 16...	1200	180	44	2	12	3.5	3.8	.2	17	52	0
JUN 26...	1030	150	78	22	22	5.7	12	.6	9.5	69	0
AUG 23...	0920	45	130	8	38	8.7	30	1.1	12	150	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC 20...	240	86	.4	32	491	.70	--	90	--	--
MAR 16...	43	12	.1	7.7	90	.67	3	80	2	0
JUN 26...	57	49	.3	11	151	.24	--	60	--	--
AUG 23...	120	37	.4	20	248	.54	6	80	<1	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 20...	--	20	--	180	--	--	--	--	--	--
MAR 16...	8	210	9	200	.7	.7	.0	1	0	10
JUN 26...	--	60	--	0	--	--	--	--	--	--
AUG 23...	6	50	1	2	.2	.2	.0	4	0	6

KANSAS RIVER BASIN

06882000 BIG BLUE RIVER AT BARNESTON, NE

LOCATION.--Lat 40°03'11", long 96°35'16", in SE1/4NW1/4 sec.13, T.1 N., R.7 E., Gage County, Hydrologic Unit 10270202, near left bank in tailrace of powerplant, 0.8 mi (1.3 km) northwest of Barneston, 2 mi (3 km) upstream from Plum Creek, and 5 mi (8 km) upstream from Nebraska-Kansas State line.

DRAINAGE AREA.--4,444 mi² (11,510 km²), of which about 4,370 mi² (11,318 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1932 to current year.

REVISED RECORDS.--WSP 896: 1932, 1935. WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,164.2 ft (354.85 m) National Geodetic Vertical Datum of 1929. Prior to June 9, 1941, water-stage recorder at site 1 mi (2 km) downstream at datum 0.44 ft (0.134 m) lower. June 9 to Nov. 17, 1941, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Low flow regulated by powerplant at Barneston, which has pondage of about 1,500 acre-ft (1.85 km³). No large tributaries between station and Nebraska-Kansas State line. Some pump diversions for irrigation above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--46 years, 771 ft³/s (21.83 m³/s), 558,600 acre-ft/yr (0.689 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,700 ft³/s (1,630 m³/s) June 9, 1941, gage height, 34.3 ft (10.45 m); minimum daily, 1 ft³/s (0.028 m³/s) Nov. 30, 1945.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft³/s (283 m³/s) and maximum(*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
a	----	22000 623	ice jam	June 27	1300	16200 459	19.94 6.078
Mar. 19	0830	19700 558	22.69 6.916	July 1	1230	12600 357	17.33 5.282
Apr. 18	0415	15400 436	19.39 5.910	July 7	0045	13200 374	17.75 5.410
May 7	0815	24500 694	25.05 7.635	July 22	unknown	*25200 714	b25.50 7.772

a Sometime during period between Mar. 13-15.

b From high water mark.

Minimum daily discharge, 90 ft³/s (2.55 m³/s) Dec. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	404	283	165	140	160	515	2010	6060	1100	532	186
2	359	328	134	135	140	193	446	1530	3170	671	474	179
3	442	215	152	150	140	210	456	1270	1920	527	416	174
4	292	139	277	155	145	153	414	901	1170	451	350	168
5	330	146	393	155	145	167	378	573	798	395	328	181
6	236	178	207	155	140	198	462	3570	972	7440	310	202
7	310	372	90	110	145	225	405	21900	264	7960	259	199
8	956	314	233	180	150	303	428	11400	491	3470	251	206
9	1230	1490	168	155	155	320	641	6000	480	2310	248	196
10	839	1520	93	125	155	349	1110	3900	430	1770	247	192
11	635	896	189	124	160	421	1720	2600	432	1360	239	192
12	523	693	349	122	165	2000	3570	1930	411	1220	260	189
13	486	617	268	120	200	6000	3420	1470	367	1800	247	189
14	403	568	247	120	180	10000	2600	1160	354	1130	251	187
15	381	525	246	118	160	18000	1620	930	336	823	321	187
16	245	500	98	124	140	16500	1850	783	348	756	362	187
17	377	487	218	135	130	16600	7080	693	236	624	360	882
18	287	491	288	125	120	16900	12300	654	287	499	377	6380
19	230	445	368	125	130	19100	8060	458	344	4650	381	3500
20	240	441	304	130	130	15800	5470	554	746	5650	472	3730
21	152	431	130	130	130	10100	4470	576	497	2490	476	4850
22	170	433	245	130	130	6350	3110	550	856	13700	441	2360
23	209	301	187	135	135	3530	2340	539	1030	18800	388	1260
24	374	245	91	130	150	2300	1760	566	1530	8590	323	774
25	312	439	140	135	160	1630	1460	627	1300	3870	272	577
26	136	205	160	140	150	1030	1180	917	2460	3040	236	449
27	142	149	330	135	160	1220	995	835	11100	2080	234	388
28	377	350	246	135	170	550	859	670	4970	1500	209	324
29	310	248	242	135	---	724	809	726	2580	1060	202	276
30	126	352	91	140	---	647	1890	732	1420	789	223	246
31	200	---	103	135	---	581	---	4480	---	616	196	---
TOTAL	11660	13922	6570	4208	4155	152261	71818	75504	47359	101141	9885	29010
MEAN	376	464	212	136	148	4912	2394	2436	1579	3263	319	967
MAX	1230	1520	393	180	200	19100	12300	21900	11100	18800	532	6380
MIN	126	139	90	110	120	153	378	458	236	395	196	168
AC-FT	23130	27610	13030	8350	8240	302000	142500	149800	93940	200600	19610	57540
CAL YR 1977	TOTAL	210694	MEAN	577	MAX	8830	MIN	36	AC-FT	417900		
WTR YR 1978	TOTAL	527493	MEAN	1445	MAX	21900	MIN	90	AC-FT	1046000		

06883000 LITTLE BLUE RIVER NEAR DEWESEE, NE

LOCATION.--Lat 40°19'58", long 98°04'00", in SW1/4NW1/4 sec.12, T.4 N., R.7 W., Nuckolls County, Hydrologic Unit 10270206, on right bank 10 ft (3 m) downstream from bridge on State Highway 14, 1 mi (2 km) upstream from Walnut Creek, 3.2 mi (5.1 km) southeast of Deweese, and 6 mi (10 km) northwest of Angus.

DRAINAGE AREA.--979 mi² (2,536 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1953 to September 1972, Oct. 1974 to current year.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,632.67 ft (497.638 m) National Geodetic Vertical Datum of 1929. Prior to May 16, 1957, non-recording gage at present site and datum; May 16, 1957, to Sept. 30, 1972, at site 1,500 ft (460 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--23 years (1954-72, 1975-78), 143 ft³/s (4.050 m³/s), 103,600 acre-ft/yr (0.128 km³/yr); median of yearly mean discharges, 120 ft³/s (3.398 m³/s), 86,900 acre-ft/yr (0.107 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,100 ft³/s (711 m³/s) Aug. 31, 1969, gage height, 18.57 ft (5.660 m), at previous site; minimum daily, 6.3 ft³/s (0.18 m³/s) Sept. 7, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 26, 1951, reached a stage of 14.9 ft (4.54 m), from information by local residents, discharge, 16,000 ft³/s (453 m³/s), based on records for former station at Angus.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 13	1600	*3210 90.9	8.18 2.493
Apr. 17	1830	3050 86.4	7.94 2.420

Minimum daily discharge, 6.3 ft³/s (0.18 m³/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	88	56	40	50	80	82	84	69	31	28	6.9
2	55	66	55	46	50	80	79	80	67	30	26	7.7
3	54	62	54	52	60	75	79	78	69	28	25	7.2
4	57	59	54	52	70	70	76	79	69	25	22	6.6
5	56	59	53	55	65	85	78	78	68	22	17	6.7
6	54	59	22	60	55	90	471	84	70	43	17	6.4
7	68	60	45	60	45	90	329	94	73	268	15	6.3
8	66	66	50	56	48	110	246	90	76	155	14	6.7
9	61	66	38	30	48	150	289	84	67	71	12	7.0
10	61	66	44	30	48	200	331	80	63	48	9.1	7.0
11	57	66	60	38	50	750	235	78	63	41	17	7.4
12	57	64	65	58	50	2110	198	79	61	38	24	13
13	58	64	70	60	50	3040	149	74	58	35	20	12
14	58	64	80	56	50	2650	130	73	58	38	17	13
15	57	64	75	30	50	1650	123	74	58	40	105	23
16	57	64	72	32	45	1070	164	75	56	33	311	25
17	59	62	57	34	40	646	1580	74	55	29	182	27
18	57	62	56	34	45	447	1870	72	54	26	104	30
19	58	62	57	36	55	353	925	72	52	26	57	25
20	59	62	55	38	55	274	445	133	54	26	40	23
21	60	62	27	40	60	215	251	129	47	29	32	24
22	59	58	45	45	65	181	172	91	62	32	23	24
23	58	58	60	45	75	160	142	93	59	29	19	25
24	58	56	58	45	90	139	122	94	49	25	19	26
25	59	57	55	42	85	119	111	86	43	23	14	27
26	59	59	55	40	85	109	102	75	41	21	15	28
27	60	59	55	42	85	101	97	72	42	19	14	28
28	60	57	58	45	80	95	94	70	38	18	12	28
29	60	55	62	45	---	90	90	69	35	17	10	28
30	62	56	60	48	---	86	87	69	31	17	8.6	29
31	107	---	54	50	---	85	---	70	---	18	8.1	---
TOTAL	1869	1862	1707	1384	1654	15400	9147	2553	1707	1301	1236.8	533.9
MEAN	60.3	62.1	55.1	44.6	59.1	497	305	82.4	56.9	42.0	39.9	17.8
MAX	107	88	80	60	90	3040	1870	133	76	268	311	30
MIN	54	55	22	30	40	70	76	69	31	17	8.1	6.3
AC-PT	3710	3690	3390	2750	3280	30550	18140	5060	3390	2580	2450	1060
CAL YR 1977	TOTAL	49544.0	MEAN	136	MAX	4130	MIN	22	AC-PT	98270		
WTR YR 1978	TOTAL	40354.7	MEAN	111	MAX	3040	MIN	6.3	AC-PT	80040		

KANSAS RIVER BASIN

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-1970, 1975-1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
NOV , 1977					MAY , 1978				
21...	1610	64	487	2.0	22...	1630	86	433	20.0
DEC					JUN				
19...	1715	58	478	1.0	20...	0925	55	458	16.5
JAN , 1978					JUL				
17...	1710	34	445	.0	17...	1715	27	418	32.0
FEB					AUG				
14...	1730	49	458	.0	15...	1715	125	228	25.5
APR					SEP				
24...	1635	120	388	14.0	25...	1525	28	435	23.0

06883570 LITTLE BLUE RIVER NEAR ALEXANDRIA, NE

LOCATION.--Lat 40°12'27", long 97°23'23", in SE1/4SE1/4 sec.23, T.3 N., R.1 W., Thayer County, Hydrologic Unit 10270206, on left bank 750 ft (229 m) upstream from bridge on State Highway 76, 2.7 mi (4.3 km) south of Alexandria, 9.8 mi (15.8 km) downstream from Dry Creek, and 5.7 mi (9.2 km) upstream from Big Sandy Creek.

DRAINAGE AREA.--1,557 mi² (4,033 km²).

PERIOD OF RECORD.--July 1959 to September 1972 (published as "near Gilead"), April 1974 (corrected) to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,359.29 ft (414.312 m) National Geodetic Vertical Datum of 1929. July 1959 to Sept. 30, 1972 at site 2.3 mi (3.7 km) upstream at datum 12.0 ft (3.66 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--17 years (1959-77, 1974-76), 231 ft³/s (6.542 m³/s), 167,400 acre-ft/yr (0.206 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s (725 m³/s) Mar. 28, 1960, gage height, 17.30 ft (5.273 m), site and datum then in use; minimum daily, 13 ft³/s (0.37 m³/s) Aug. 5, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 12	1830	ice jam	*17.55 5.349	Apr. 18	1430	3100 87.8	12.32 3.755
Mar. 14	0030	7970 226	16.40 4.999	Sept. 18	0730	3010 85.2	12.25 3.734

Minimum daily discharge, 14 ft³/s (0.40 m³/s) Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	115	94	66	70	86	137	182	406	86	45	19
2	109	175	90	68	68	80	139	173	190	77	59	17
3	97	130	91	64	66	76	133	159	142	69	112	17
4	96	98	92	60	76	70	139	153	128	58	172	16
5	95	93	90	58	80	74	143	149	122	49	112	16
6	95	90	84	58	82	80	162	189	119	52	62	15
7	170	90	80	56	86	82	309	322	118	63	43	14
8	158	131	86	56	80	90	425	221	119	99	33	14
9	122	196	76	54	80	100	307	197	119	343	29	15
10	110	148	80	54	86	120	309	182	116	215	24	15
11	99	122	86	56	76	500	416	167	110	124	24	15
12	90	103	90	56	74	1000	285	166	105	87	36	15
13	87	93	94	58	70	4000	249	160	104	69	32	16
14	90	88	98	58	66	7000	206	153	98	60	17	24
15	91	88	100	60	60	5230	179	145	98	52	32	25
16	89	83	104	58	56	2930	176	142	95	49	30	23
17	90	79	106	50	54	1890	405	139	95	47	86	641
18	90	74	100	56	58	1310	2710	138	93	44	135	2840
19	88	75	94	54	60	1140	1950	133	95	57	89	1870
20	90	75	80	54	62	783	1090	136	108	51	63	791
21	92	70	74	58	64	562	692	141	100	88	49	438
22	91	67	80	62	66	477	467	193	96	976	46	257
23	92	68	84	66	76	385	372	173	93	569	45	159
24	90	69	82	68	80	326	333	155	105	370	35	115
25	91	65	80	64	84	279	268	157	101	182	30	91
26	93	80	74	60	90	235	250	150	94	121	23	78
27	92	90	70	66	96	202	240	142	183	93	24	69
28	93	100	74	64	90	180	232	134	162	76	21	62
29	94	107	76	62	---	167	230	126	120	61	21	61
30	99	100	78	62	---	153	206	121	101	49	20	58
31	124	---	70	64	---	143	---	277	---	44	20	---
TOTAL	3121	2962	2657	1850	2056	29750	13159	5175	3735	4380	1569	7806
MEAN	101	98.7	85.7	59.7	73.4	960	439	167	125	141	50.6	260
MAX	170	196	106	68	96	7000	2710	322	406	976	172	2840
MIN	87	65	70	50	54	70	133	121	93	44	17	14
AC-FT	6190	5880	5270	3670	4080	59010	26100	10260	7410	8690	3110	15480
CAL YR 1977	TOTAL	101182	MEAN 277	MAX 5270	MIN 42	AC-FT 200700						
WTR YR 1978	TOTAL	78220	MEAN 214	MAX 7000	MIN 14	AC-FT 155100						

KANSAS RIVER BASIN

06884000 LITTLE BLUE RIVER NEAR FAIRBURY, NE

LOCATION.--Lat 40°06'54", long 97°10'13", in NW1/4NE1/4 sec.26, T.2 N., R.2 E., Jefferson County, Hydrologic Unit 10270207, on right bank 20 ft (6 m) downstream from bridge on State Highway 15, 0.8 mi (1.3 km) south of Fairbury, and 5.2 mi (8.4 km) upstream from Rose Creek.

DRAINAGE AREA.--2,350 mi² (6,087 km²).

PERIOD OF RECORD.--May 1908 to September 1915, October 1928 to September 1956 (published as "near Endicott"), October 1956 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1086: 1941(M). WSP 1390: 1908(M), 1912, 1915, 1935, 1939, 1945(M). WSP 1510: 1947 (calendar year figures only). WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,282.19 ft (390.812 m) National Geodetic Vertical Datum of 1929. May 23, 1908, to Sept. 30, 1915, nonrecording gage at present site at different datum. Apr. 26, 1929, to Sept. 24, 1957, nonrecording gage or water-stage recorder at site 3.5 mi (5.6 km) downstream at various datums.

REMARKS.--Records fair except those for winter period, which are poor. Some regulation at low stage by powerplants above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--57 years, 369 ft³/s (10.45 m³/s), 267,300 acre-ft/yr (0.330 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,800 ft³/s (1,070 m³/s) Oct. 12, 1973, gage height, 18.96 ft (5.779 m); minimum daily, 14 ft³/s (0.40 m³/s) Nov. 22, 1929, discharge measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 14	0730	*13500 99.1	12.66 0.811	July 22	0400	8460 240	10.60 3.231
Apr. 18	1400	5140 146	8.23 2.509	Sept. 17	2400	4990 141	8.11 2.472

Minimum daily discharge, 47 ft³/s (1.33 m³/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	130	149	96	98	140	241	282	1010	139	143	64
2	180	143	141	98	104	130	233	259	506	124	152	62
3	174	164	136	100	100	160	225	249	286	116	137	59
4	155	140	133	108	100	130	205	243	230	110	153	57
5	155	127	128	108	110	140	202	243	207	102	162	57
6	154	120	106	110	104	145	208	321	193	293	122	52
7	236	125	79	114	96	155	200	983	186	192	106	52
8	296	154	94	96	94	160	442	466	175	172	92	52
9	248	375	86	90	94	155	354	361	164	292	85	56
10	193	387	88	102	96	160	326	306	162	262	82	47
11	186	315	91	100	96	400	386	270	158	192	104	49
12	177	280	97	96	100	3000	348	259	150	156	118	49
13	164	246	100	94	120	10300	292	243	147	134	109	56
14	164	222	110	94	90	13000	258	230	146	122	99	58
15	161	205	120	93	88	9840	225	226	144	113	105	72
16	154	191	125	86	86	6860	215	218	141	103	116	64
17	150	180	130	90	84	4070	1130	212	136	92	114	460
18	143	171	136	94	84	2600	4570	207	133	92	201	3920
19	135	167	125	90	86	2200	3310	206	127	175	181	2380
20	133	160	94	90	90	1400	1670	203	147	100	153	1340
21	125	155	73	94	86	968	1190	197	172	197	126	795
22	123	141	87	100	90	730	768	218	174	4230	103	413
23	124	136	94	116	102	579	520	229	148	856	88	266
24	124	131	90	116	110	460	399	213	145	531	79	162
25	126	128	90	90	110	388	334	203	142	289	72	133
26	119	91	94	96	120	335	312	203	284	188	71	123
27	117	125	90	96	130	301	298	198	538	150	98	112
28	117	137	90	90	135	292	288	190	249	137	99	101
29	117	149	90	90	---	283	286	179	179	131	86	94
30	117	150	94	91	---	266	368	180	154	125	80	84
31	139	---	96	92	---	255	---	245	---	131	69	---
TOTAL	4889	5345	3256	3020	2803	60002	19803	8242	6733	10046	3505	11289
MEAN	158	178	105	97.4	100	1936	660	266	224	324	113	376
MAX	296	387	149	116	135	13000	4570	983	1010	4230	201	3920
MIN	117	91	73	86	84	130	200	179	127	92	69	47
AC-FT	9700	10600	6460	5990	5560	119000	39280	16350	13350	19930	6950	22390
CAL YR 1977 TOTAL	155845		MEAN 427	MAX 8250	MIN 64	AC-FT 309100						
WTR YR 1978 TOTAL	138933		MEAN 381	MAX 13000	MIN 47	AC-FT 275600						

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS

LOCATION.--Lat 39°58'48", long 97°00'16", NE1/4SW1/4 sec.8, T.1 S., R.4 E., Washington County, Hydrologic Unit 10270207, on right bank and 2 ft (1 m) downstream from bridge on county road, 0.6 mi (1.0 km) west of Hollenberg, Ks., and 1.75 mi (2.82 km) downstream from Nebraska-Kansas State line.

DRAINAGE AREA.--2,752 mi² (7,128 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1973 to February 1974 (discharge measurements only), March 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,216.10 ft (370.667 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Discharge measurements made prior to 1974 water year are published in table of miscellaneous sites in WDR NE-73.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft³/s (487 m³/s) Mar. 15, 1978, gage height, 16.58 ft (5.054 m) from high water mark; minimum daily, 40 ft³/s (1.13 m³/s) Dec. 17, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 12, 1973, reached a stage of 23.07 ft (7.032 m), present datum, from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 22	0200	*17200 487	*16.58 5.054	July 22	0700	11900 337	14.50 4.420
Apr. 8	2030	5600 159	10.51 3.203	Sept. 18	1800	5990 170	10.83 3.301
May 6	2000	4930 140	9.93 3.027				

Minimum daily discharge, 58 ft³/s (1.64 m³/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	183	198	108	116	205	325	434	970	279	194	88
2	231	171	186	112	122	220	314	355	785	212	236	84
3	221	214	181	114	118	190	307	331	419	173	217	79
4	219	192	176	116	120	170	286	311	311	147	692	73
5	198	179	175	116	125	220	283	297	271	129	487	75
6	203	173	150	116	112	290	300	1520	250	763	254	82
7	320	172	155	110	125	350	290	3160	236	1280	189	75
8	380	214	160	98	135	400	445	1490	224	327	166	73
9	345	598	145	98	130	450	493	844	217	319	149	66
10	264	546	145	110	140	520	477	571	204	420	135	75
11	236	426	150	108	150	800	467	465	192	308	161	58
12	230	370	160	108	140	3500	498	447	176	232	181	67
13	217	319	170	112	135	12200	395	424	172	191	187	101
14	210	273	180	116	135	16300	368	374	177	161	167	77
15	200	244	190	112	130	14400	338	344	177	153	163	82
16	195	228	195	108	125	9250	381	320	174	145	166	93
17	187	216	200	104	122	5230	847	302	169	135	178	280
18	178	210	195	116	118	3530	4460	288	163	136	197	5270
19	175	205	170	118	116	3360	4220	282	166	213	341	4510
20	180	200	165	110	118	2300	2320	276	193	208	328	3430
21	172	190	160	114	120	1590	1690	268	196	206	228	1630
22	166	180	180	120	130	1220	1220	268	259	7160	179	844
23	166	175	210	122	135	983	837	309	211	3930	147	511
24	168	170	170	120	160	759	626	299	193	1830	122	366
25	168	170	145	116	180	635	528	293	185	854	106	286
26	163	165	130	120	200	543	463	310	352	512	97	238
27	163	173	130	125	205	482	415	297	1240	378	96	214
28	160	196	135	122	195	440	391	290	1190	289	142	191
29	163	202	130	120	---	404	366	276	822	235	128	171
30	161	202	125	114	---	381	441	267	483	206	107	141
31	174	---	110	114	---	350	---	343	---	191	97	---
TOTAL	6456	7156	5071	3517	3857	81672	24791	16055	10777	21722	6237	19330
MEAN	208	239	164	113	138	2635	826	518	359	701	201	644
MAX	380	598	210	125	205	16300	4460	3160	1240	7160	692	5270
MIN	160	165	110	98	112	170	283	267	163	129	96	58
AC-FT	12810	14190	10060	6980	7650	162000	49170	31850	21380	43090	12370	38340
CAL YR 1977 TOTAL	191108			MEAN 524	MAX 9070	HIN 80	AC-FT 379100					
WTR YR 1978 TOTAL	206641			MEAN 566	MAX 16300	HIN 58	AC-FT 409900					

KANSAS RIVER BASIN

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS.--Continued

WATER QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML) (31673)
OCT 18...	1610	180	595	8.0	13.0	8	9.2	24	K180	116
NOV 08...	1215	188	560	7.8	13.5	20	9.6	6.2	K3670	K1980
DEC 20...	1315	164	610	7.6	.5	20	19.1	2.7	1830	1400
JAN 10...	1540	109	745	7.5	.5	7	15.6	4.8	730	128
FEB 02...	0945	122	660	7.2	.0	6	10.2	4.8	2600	4100
MAR 15...	1240	14500	173	7.4	1.5	600	10.3	9.5	2130	K75000
APR 19...	1340	4220	158	7.2	7.5	2000	7.6	12	65000	>100000
MAY 23...	1645	330	575	8.5	26.0	19	11.4	24	K38	240
JUN 26...	1300	217	530	8.7	30.0	80	9.5	9.0	3800	6200
JUN 27...	0930	1000	180	7.5	21.5	1800	6.6	11	133000	720000
JUL 25...	1215	358	270	7.8	25.0	450	6.7	8.8	13300	22000
AUG 23...	1115	145	447	8.2	25.5	100	7.8	9.0	1630	740
SEP 18...	1330	5480	158	7.3	18.5	2200	5.4	7.0	190000	320000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 18...	45	355	.48	173	.53	.02	.35	.37	.90	.32
NOV 08...	37	331	.45	168	.66	.09	.49	.58	1.2	.34
DEC 20...	41	--	.48	156	1.2	.23	1.6	1.8	3.0	.30
JAN 10...	54	454	.62	134	1.7	.37	.27	.64	2.3	.31
FEB 02...	43	387	.53	127	1.6	.21	.42	.63	2.2	.34
MAR 15...	7.7	--	.15	4190	2.5	1.2	7.6	8.8	11	1.5
APR 19...	9.6	--	.14	1190	1.9	.55	9.5	10	12	2.0
MAY 23...	33	368	.50	328	.13	.01	1.1	1.1	1.2	.29
JUN 26...	--	--	--	--	--	--	--	--	--	--
JUN 27...	14	--	.16	324	2.7	.95	6.0	6.9	9.6	1.3
JUL 25...	17	175	.24	169	2.9	1.2	2.6	3.8	6.7	.91
AUG 23...	44	--	.39	112	1.3	.06	.92	.98	2.3	.58
SEP 18...	5.0	--	.13	1360	1.5	.10	36	36	38	1.4

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
DEC 20...	1315	3	--	220	31	70	11	40	1.2	6.1	230	0
MAR 15...	1240	220	150	56	11	18	2.8	3.1	.2	16	56	0
APR 19...	1340	330	260	50	2	15	3.0	8.0	.5	8.7	58	0
JUN 27...	0930	250	220	59	11	18	3.4	12	.7	6.6	59	0
AUG 23...	1115	20	--	140	0	45	7.3	36	1.3	11	180	0
SEP 18...	1330	7	190	55	5	17	3.0	5.2	.3	7.4	61	0

DATE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC TOTAL (UG/L AS AS) (01002)
DEC 20...	190	44	.3	26	352	--	--	--	--	--	.26	--
MAR 15...	46	11	.1	8.4	107	2.5	.96	2.2	5.6	3.2	.56	3
APR 19...	48	16	.2	8.3	104	1.3	.30	.64	9.1	.94	.33	13
JUN 27...	48	17	.4	10	120	2.2	.01	1.3	5.6	1.3	.10	8
AUG 23...	150	30	.4	22	285	--	--	--	--	--	.38	--
SEP 18...	50	8.1	.4	8.7	92	1.5	.01	1.1	35	1.1	.15	27

DATE	ARSENIC SUS- PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CO) (01027)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CO) (01026)	CADMIUM DIS- SOLVED (UG/L AS CO) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDED RECOV- ERABLE (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDED RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
DEC 20...	--	--	50	--	--	--	--	--	--	--	--	--
MAR 15...	0	3	90	1	0	1	30	30	0	11	11	0
APR 19...	9	4	60	1	0	1	80	80	0	27	27	0
JUN 27...	7	1	70	3	3	0	85	85	0	32	32	0
AUG 23...	--	6	80	--	--	<1	--	--	10	--	--	--
SEP 18...	25	2	70	2	0	2	80	80	0	40	39	1

KANSAS RIVER BASIN

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE) (01044)	IRON, DIS- SOLVD (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN) (01054)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
DEC 20...	--	--	--	--	--	30	--	--	--	--	--	70
MAR 15...	36	31	5	27000	27000	200	33	12	21	640	600	40
APR 19...	90	83	7	51000	51000	230	76	75	1	1300	1300	30
JUN 27...	88	78	10	72000	72000	100	95	94	1	2000	2000	10
AUG 23...	--	--	24	--	--	20	--	--	3	--	--	3
SEP 18...	100	94	6	120000	120000	280	100	83	17	3100	3100	10

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE) (01146)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN) (01091)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC 20...	--	--	--	--	--	--	--	--	--	--	--
MAR 15...	.0	.0	.0	2	1	1	0	100	80	20	42
APR 19...	1.4	1.2	.2	0	0	0	0	240	240	0	80
JUN 27...	1.0	1.0	.0	1	1	0	0	280	270	10	38
AUG 23...	.1	.1	.0	--	--	1	0	--	--	10	--
SEP 18...	.4	.4	.0	0	0	0	0	260	240	20	81

DATE	TIME	PCB, DIS- SOLVED (UG/L) (39517)	PCB, SUS- PENDE TOTAL (UG/L) (39518)	ALDRIN, DIS- SOLVED (UG/L) (39331)	ALDRIN, SUS- PENDE TOTAL (UG/L) (39332)	CHLOR- DANE, DIS- SOLVED (UG/L) (39352)	CHLOR- DANE, SUS- PENDE TOTAL (UG/L) (39353)	DDD, DIS- SOLVED (UG/L) (39361)	DDD, SUS- PENDE TOTAL (UG/L) (39362)	DDE, DIS- SOLVED (UG/L) (39366)	DDE, SUS- PENDE TOTAL (UG/L) (39367)
MAR 15...	1240	.0	.0	.00	.00	.0	.0	.00	.00	.00	.00
APR 19...	1340	.0	.0	.00	.00	.0	.0	.00	.00	.00	.00
JUN 27...	0930	.0	.0	.00	.00	.0	.0	.00	.00	.00	.00

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	DDT, DIS- SOLVED (UG/L) (39371)	DDT, SUS- PENDE TOTAL (UG/L) (39372)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- AZINON, SUS- PENDE TOTAL (UG/L) (39573)	DI- ELDRIN, DIS- SOLVED (UG/L) (39381)	DI- ELDRIN, SUS- PENDE TOTAL (UG/L) (39382)	ENDRIN, DIS- SOLVED (UG/L) (39391)	ENDRIN, SUS- PENDE TOTAL (UG/L) (39392)	HEPTA- CHLOR, DIS- SOLVED (UG/L) (39411)	HEPTA- CHLOR, SUS- PENDE TOTAL (UG/L) (39412)
MAR 15...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR 19...	.00	.00	.00	.00	.01	.01	.00	.00	.00	.00
JUN 27...	.00	.01	.00	.00	.00	.01	.00	.00	.00	.00

DATE	HEPTA- CHLOR EPOXIDE DIS- SOLVED (UG/L) (39421)	HEPTA- CHLOR EPOXIDE SUS- PENDE TOTAL (UG/L) (39422)	LINDANE DIS- SOLVED (UG/L) (39341)	LINDANE SUS- PENDE TOTAL (UG/L) (39342)	MALA- THION, DIS- SOLVED (UG/L) (39532)	MALA- THION, SUS- PENDE TOTAL (UG/L) (39533)	METHYL PARA- THION, DIS- SOLVED (UG/L) (39602)	METHYL PARA- THION, SUS- PENDE TOTAL (UG/L) (39603)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PARA- THION, SUS- PENDE TOTAL (UG/L) (39543)
MAR 15...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR 19...	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
JUN 27...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOX- APHENE, DIS- SOLVED (UG/L) (39401)	TOX- APHENE, SUS- PENDE TOTAL (UG/L) (39402)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-D, SUS- PENDE TOTAL (UG/L) (39733)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4,5-T SUS- PENDE TOTAL (UG/L) (39743)	MIREX, DIS- SOLVED (UG/L) (39756)	MIREX, SUS- PENDE TOTAL (UG/L) (39757)	SILVEX, DIS- SOLVED (UG/L) (39762)	SILVEX, SUS- PENDE TOTAL (UG/L) (39763)
MAR 15...	0	0	.19	.00	.01	.00	--	--	.00	.00
APR 19...	0	0	.49	.00	.01	.00	--	--	.00	.00
JUN 27...	0	0	.81	.00	.03	.00	.00	.00	.00	.00

KANSAS RIVER BASIN

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
MAR 15...	1015	14500	1.5	2540	99400	34	36
APR 19...	1340	4220	7.5	7420	84500	42	46
JUN 27...	1030	1240	21.5	4490	15000	47	56
SEP 18...	1450	5480	18.5	8100	120000	56	61

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR 15...	54	87	91	93	95	97
APR 19...	61	98	99	100	--	--
JUN 27...	75	97	100	--	--	--
SEP 18...	75	96	98	99	100	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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)
MAR 15...	1015	14500	5	35	42	48	66
APR 19...	1340	4220	3	0	1	7	31
JUN 27...	1030	1240	5	0	1	8	24
SEP 18...	1450	5480	5	1	2	18	39

DATE	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)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
MAR 15...	79	85	92	98	99	100
APR 19...	57	76	93	98	99	100
JUN 27...	50	69	90	98	99	100
SEP 18...	64	78	92	98	100	--

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest stage partial record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft³/s)
Cheyenne River basin							
06396490	Warbonnet Creek near Harrison, NE	Lat 42°50'43", long 103°54'41", in SW1/4 sec.10, T.33 N., R.56 W., Sioux County, at culvert on all weather road, 11.5 miles north of Harrison.	24.5	1969-78	07-15-78	12.65	50
White River basin							
06443300	Deep Creek near Glen, NE	Lat 42°36'37", long 103°33'22", in SE1/4SE1/4 sec.32, T.31 N., R.53 W., Sioux County, at bridge 1.4 miles east of Glen.	10.9	1953-78	03-10-78	5.73	4
06443700	Soldiers Creek near Crawford, NE	Lat 42°41'18", long 103°32'09", in NE1/4SW1/4 sec.3, T.31 N., R.53 W., Sioux County, on right bank 6 miles west of Crawford.	52.6	1955-78	03-18-78	12.28	95
06445530	Chadron Creek tributary at Chadron State Park near Chadron, NE	Lat 42°41'49", long 103°00'09", in NE1/4NW1/4 sec.6, T.31 N., R.48 W., Daves County, on left downstream side of concrete box culvert on U.S. Highway 385, 9 miles south of Chadron.	2.59	1953-78	03-20-78	9.32	0.4
06445560	Chadron Creek at Chadron State Park near Chadron, NE	Lat 42°42'27", long 103°00'33", in SE1/4NE1/4 sec.36, T.32 N., R.49 W., Daves County, on left downstream wingwall of concrete culvert, 8 miles south of Chadron.	15.4	1953-78	03-10-78	8.34	1.7
Niobrara River basin							
06454400	Niobrara River tributary near Belmont, NE	Lat 42°36'16", long 103°22'31", in SE1/4SW1/4 sec.25, T.30 N., R.52 W., Daves County, on tree upstream from a concrete box culvert under State Highway 2, 1.2 miles southwest of Belmont, 7.5 miles northwest of Harland, and 10 miles south of Crawford.	2.59	1971-78	03-09-78	11.68	9
06456200	Pebble Creek near Esther, NE	Lat 42°35'38", long 103°03'55", in NW1/4NW1/4 sec.10, T.30 N., R.49 W., Daves County, on post in creek channel, 300 ft below bridge on county road 5 miles west of Esther (former post office) and U.S. Highway 385.	3.07	1953-78	03-10-78	11.08	20
06456400	Cottonwood Creek near Dunlap, NE	Lat 42°29'29", long 102°58'08", in SW1/4NW1/4 sec.16, T.29 N., R.48 W., Daves County, on downstream side of bridge on U.S. Highway 385, 2 miles northwest of Dunlap and 3 miles north of Niobrara River bridge.	82.2	1948, 1951-78	03-09-78	8.35	1.8
06457100	Point of Rocks Creek near Harland, NE	Lat 42°16'57", long 103°18'23", in SE1/4SE1/4 sec.30, T.27 N., R.51 W., Box Butte County, at upstream end of box culvert under graveled secondary road 10.8 miles south of Harland and 2.8 miles south of consolidated school at the intersection of State Highways 2 and 71.	7.10	1970-78	78		0
06457200	Berea Creek near Alliance, NE	Lat 42°08'20", long 102°52'41", in NE1/4SE1/4 sec.14, T.25 N., R.48 W., Box Butte County, at upstream side of county road, 2.9 miles north of the junction of Emerson and Third Street in Alliance.	32.3	1953-70a, 1971-78	03-10-78	13.90	125
06457800	Antelope Creek tributary near Gordon, NE	Lat 42°49'57", long 102°12'09", in SW1/4SW1/4 sec.18, T.33 N., R.41 W., Sheridan County, at bridge on State Highway 27, 2 miles north of Gordon and 2.5 miles north of U.S. Highway 20.	26.6	1953-78	03-18-78	13.61	730

See footnotes at end of table

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest stage partial record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft³/s)
Niobrara River basin--Continued							
06461300	Big Beaver Creek near Valentine, NE	Lat 42°56'24", long 100°27'25", in SE1/4SE1/4 sec.2, T.34 N., R.27 W., Cherry County, at box culvert under State Highway 12, 7.6 miles northeast of Valentine and 10.2 miles west of Sparks.	24.9	1971-78	06-25-78	13.72	(+)
06465300	Camp Creek near O'Neill, NE	Lat 42°39'08", long 98°39'26", in NW1/4SW1/4 sec.19, T.31 N., R.11 W., Holt County, on U.S. Highway 281, 13 miles north of O'Neill.	1.65	1958-78	07-21-78	(b)	c5
06465850	Bingham Creek near Niobrara, NE	Lat 42°42'12", long 98°02'54", in NW1/4SW1/4 sec.32, T.32 N., R.6 W., Knox County, at culvert on State Highway 14, 4.7 miles south of Niobrara.	46.5	1968-78	04-30-78	11.88	10
Weigand Creek basin							
06466950	Weigand Creek near Crofton, NE	Lat 42°43'36", long 97°37'55", in NW1/4NE1/4 sec.26, T.32 N., R.3 W., Knox County, at culvert on State Highway 12, 5.5 miles east of Lindy and 6.5 miles west of Crofton.	43.5	1968-78	07-21-78	10.60	140
Bow Creek basin							
06478520	West Bow Creek near Fordyce, NE	Lat 42°41'40", long 97°25'06", in NE1/4NW1/4 sec.3, T.31 N., R.1 W., Cedar County, at bridge on U.S. Highway 81, 1.2 miles southeast of Constance and 2.9 miles west of Fordyce.	52.7	1964-65, 1967-78	07-21-78	14.47	700
Omaha Creek basin							
06600800	South Omaha Creek tributary No. 2 near Walthill, NE	Lat 42°08'18", long 96°28'37", in NE1/4SW1/4 sec.13, T.25 N., R.8 E., Thurston County, at culvert on U.S. Highway 77, 0.6 mile south of State Highway 94 and 0.8 mile southeast of Walthill.	1.65	1950-78	03-18-78	11.95	400
06600900	South Omaha Creek at Walthill, NE	Lat 42°08'54", long 96°28'58", in SE1/4SE1/4 sec.11, T.25 N., R.8 E., Thurston County, at bridge on State Highway 94 at east edge of Walthill.	51.2	1951-78	03-18-78	16.88	1,100
Tekamah Creek basin							
06607800	South Branch Tekamah Creek tributary near Tekamah, NE	Lat 41°45'15", long 96°17'11", in NW1/4NW1/4 sec.34, T.21 N., R.10 E., Burt County, at bridge on east-west county road, 4 miles southwest of Tekamah.	4.08	1950-78	03-18-78	12.39	c300
New York Creek basin							
06608700	New York Creek tributary near Spiker, NE	Lat 41°38'24", long 96°18'27", in SW1/4SW1/4 sec.4, T.19 N., R.10 E., Washington County, at box culvert on east-west county road, 300 ft east of north-south county road and 2.2 miles north of Spiker.	1.55	1951-78	06-20-78	29.83	1,000
06608900	New York Creek east of Spiker, NE	Lat 41°36'53", long 96°16'14", in SE1/4SE1/4 sec.15, T.19 N., R.10 E., Washington County, on north-south dirt road, 200 ft south of county road and 2.6 miles east of Spiker.	13.9	1950-78	06-20-78	13.48	750

Annual maximum discharge at crest stage partial record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft ³ /s)
Papillion Creek basin							
06610700	Big Papillion Creek near Orum, NE	Lat 41°32'44", long 96°13'10", in NW1/4SE1/4 sec.7, T.18 N., R.11 E., Washington County, at bridge on State Highway 91, 2.7 miles east of Orum and 4.3 miles west of Blair.	8.52	1968-78	06-20-78	14.75	670
Platte River basin							
06678750	Dry Spottedtail Creek tributary near Mitchell, NE	Lat 42°07'00", long 103°49'22", in NW1/4NE1/4 sec.26, T.25 N., R.56 W., Sioux County, at upstream end of box culvert under State Highway 29, 3.6 miles north of Interstate Canal and 12 miles north of Mitchell.	15.0	1971-78	78		0
06684900	Hackberry Creek near Redington, NE	Lat 41°35'00", long 103°25'17", in NW1/4NW1/4 sec.34, T.19 N., R.53 W., Banner County, at upstream side of box culvert under State Highway 88, 8 miles west of Redington.	16.6	1970-78	07-06-78	13.24	600
06687600	Ash Hollow near Oshkosh, NE	Lat 41°15'05", long 102°20'28", in SE1/4SE1/4 sec.22, T.15 N., R.44 W., Garden County, at upstream side of box culvert under State Highway 27, 11 miles south of Oshkosh.	54.9	1968e, 1968, 1970-78	03-09-78	12.06	40
06762650	Lodgepole Creek tributary near Kimball, NE	Lat 41°17'57", long 103°36'32", in SE1/4SE1/4 sec.30, T.16 N., R.55 W., Kimball County, at upstream side of box culvert under State Highway 71, 6.5 miles north of Kimball.	8.68	1970-78	07-19-78	13.00	(+)
06763200	Lodgepole Creek tributary near Sunol, NE	Lat 41°10'00", long 102°43'25", in SE1/4SE1/4 sec.20, T.14 N., R.47 W., Cheyenne County, at upstream side of box culvert under graveled county road, 2 miles east and 0.6 mile north of Sunol.	15.6	1968e, 1968-78	78		0
06767200	North Fork Plum Creek tributary near Farnam, NE	Lat 40°42'18", long 100°14'24", in NW1/4SW1/4 sec.36, T.9 N., R.26 W., Lincoln County, at box culvert on State Highway 23, 0.1 mile east of north-south dirt road and 1.3 miles west of main street in Farnam.	1.83	1952-78	03-11-78	11.07	80
06767410	Plum Creek near Farnam, NE	Lat 40°41'13", long 100°08'42", in NE1/4NW1/4 sec.10, T.8 N., R.25 W., Frontier County, on east-west road 0.4 mile west of State Highway 23 and 4 miles southeast of Farnam.	80.4	1947, 1951-78	03-11-78	14.50	650
06767500	Plum Creek near Smithfield, NE	Lat 40°39'40", long 99°42'00", in NW1/4SW1/4 sec.15, T.8 N., R.21 W., Gosper County, on left bank just downstream from county highway bridge, 6.5 mi northeast of Smithfield.	229	1946-53*, 1954-68, 1969-75*, 1976-78	03-11-78	15.91	270
06768050	Buffalo Creek tributary No. 1 near Buffalo, NE	Lat 41°00'44", long 99°48'48", in SW1/4NE1/4 sec.15, T.12 N., R.22 W., Dawson County, at bridge east of Lutheran Church and School, 2 miles northeast of Buffalo.	2.08	1965-78	78		0
06768100	East Buffalo Creek near Buffalo, NE	Lat 41°00'17", long 99°50'14", in SE1/4SW1/4 sec.16, T.12 N., R.22 W., Dawson County, on bridge 100 ft south of fork in road and 1.2 miles north of road intersection at Buffalo.	5.21	1951-78	78		0
06768400	West Buffalo Creek near Buffalo, NE	Lat 40°59'22", long 99°52'21", in NW1/4NE1/4 sec.30, T.12 N., R.22 W., Dawson County, on bridge on dirt road, 2.0 miles west of crossroads at Buffalo.	17.1	1951-78	07-22-78		c0.2
06769100	Elm Creek tributary near Overton, NE	Lat 40°53'14", long 99°33'48", in SW1/4SE1/4 sec.26, T.11 N., R.20 W., Dawson County, at bridge on dirt road. 1.3 miles west and 10 miles north of Overton.	.58	1951-78	05-27-78	f13.77	c5

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest stage partial record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft³/s)
Platte River basin--Continued							
06769200	Elm Creek near Sumner, NE	Lat 40°51'24", long 99°32'21", in NW1/4NW1/4 sec.7, T.10 N., R.19 W., Dawson County, at concrete culvert on gravel road, 1.4 miles west and 6 miles south of Sumner.	14.9	1951-78	07-22-78	10.93	c1
06769300	Elm Creek tributary No. 2 near Overton, NE	Lat 40°51'02", long 99°32'21", in NW1/4SW1/4 sec.7, T.10 N., R.19 W., Dawson County, at culvert on gravel road, 7.5 miles north of Overton.	5.62	1951-78	07-21-78	12.06	210
06770600	Wood River tributary near Lodi, NE	Lat 41°11'58", long 99°50'21", in SE1/4NE1/4 sec.9, T.14 N., R.22 W., Custer County, at culvert on State Highway 40, 1.3 miles southeast of Lodi and 6.1 miles northwest of Oconto.	2.02	1952-78	07-21-78	11.33	c10
06770700	Wood River near Lodi, NE	Lat 41°10'15", long 99°48'17", in SW1/4NE1/4 sec.23, T.14 N., R.22 W., Custer County, at culvert on State Highway 40, 2.9 miles northwest of Oconto, 4 miles southeast of Lodi, and 10 miles southeast of Callaway.	12.9	1952-78	07-22-78	f13.03	194
06770800	Wood River near Oconto, NE	Lat 41°09'46", long 99°47'38", in SW1/4SW1/4 sec.24, T.14 N., R.22 W., Custer County, on State Highway 40, 2.6 miles northwest of Oconto.	26.4	1950, 1952-78	07-22-78	f13.42	330
06770900	Wood River at Oconto, NE	Lat 41°08'50", long 99°45'26", in NW corner sec.32, T.14 N., R.21 W., Custer County, at bridge on State Highway 21 just north of Oconto, 0.8 mile north of junction with State Highway 40.	44.8	1950, 1952-78	07-21-78	f13.86	190
06770910	Wood River near Lomax, NE	Lat 41°03'40", long 99°40'50", in SW1/4SW1/4 sec.25, T.13 N., R.21 W., Custer County, at bridge No. 7091 on State Highway 40, 50 ft downstream from Union Pacific Railroad bridge and 0.5 mile southeast of crossroads at Lomax.	79.6	1952-78	07-21-78	13.92	230
06771000	Wood River near Riverdale, NE	Lat 40°47'56", long 99°11'48", in NW1/4NW1/4 sec.31, T.10 N., R.16 W., Buffalo County, at downstream side of State Highway 40, 1.5 miles northwest of Riverdale.	379	1946-73*, 1974-78	03-15-78	10.95	978
06775700	North Fork Dismal River near Mullen, NE	Lat 41°51'08", long 101°02'14", in SE1/4NE1/4 sec.29, T.22 N., R.32 W., Hooker County, at upstream end of culvert under State Highway 97, 13 miles south of Mullen.	670	1971-78	07-21-78	15.55	87
06777600	Lillian Creek tributary near Broken Bow, NE	Lat 41°30'12", long 99°39'31", in SE1/4NE1/4 sec.30, T.18 N., R.20 W., Custer County, at bridge on north-south gravel road, 7.5 miles north of State Highway 2 in Broken Bow.	2.02	1952-78	08-11-78	12.35	c20
06777700	Lillian Creek near Broken Bow, NE	Lat 41°30'36", long 99°39'26", in NE1/4NE1/4 sec.30, T.18 N., R.20 W., Custer County, at bridge on north-south gravel road, 8 miles north of State Highway 2 in Broken Bow.	4.77	1947, 1951-78	08-11-78	11.76	c25
06777800	Lillian Creek tributary near Walworth, NE	Lat 41°37'33", long 99°34'13", in SE1/4SW1/4 sec.12, T.19 N., R.20 W., Custer County, on east-west dirt road, 2 miles south of Walworth.	2.04	1951-78	08-11-78	11.37	c1
06782600	South Branch Mud Creek tributary near Broken Bow, NE	Lat 41°25'57", long 99°42'09", in SW1/4NE1/4 sec.23, T.17 N., R.21 W., Custer County, at box culvert on State Highway 2, 4 miles northwest of Broken Bow.	.40	1951-78	08-11-78	13.83	c50

Annual maximum discharge at crest stage partial record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft³/s)
Platte River basin--Continued							
06782620	South Branch Mud Creek near Broken Bow, NE	Lat 41°24'33", long 99°40'44", in SW1/4SE1/4 sec.25, T.17 N., R.21 W., Custer County, at bridge on county road, 0.2 mile west of intersection with State Highway 2, near KCNI Tower, 1.8 mile northwest of courthouse in Broken Bow.	79.4	1976-78	08-11-78		(*)
06782900	Mud Creek tributary near Broken Bow, NE	Lat 41°22'32", long 99°38'17", in NE1/4NW1/4 sec.8, T.16 N., R.20 W., Custer County, at double concrete box culvert on State Highway 21, 1.8 miles south of State Highway 2 in Broken Bow.	5.90	1945, 1951-78	07-22-78	13.32	240
06784700	Turkey Creek near Farwell, NE	Lat 41°13'14", long 98°40'45", in NW1/4NE1/4 sec.3, T.14 N., R.12 W., Howard County, at bridge on State Highway 92, 0.2 mile west of School No. 78 and 2.7 miles west of Farwell.	27.2	1950, 1953-78	08-15-78	17.46	c25
06789400	Davis Creek southwest of North Loup, NE	Lat 41°24'32", long 98°48'32", in NE1/4NE1/4 sec.33, T.17 N., R.13 W., Valley County, at timber bridge 6.5 miles southwest of North Loup.	31.2	1951-78	07-20-78	16.14	60
06790600	East Branch Spring Creek tributary near Wolbach, NE	Lat 41°27'28", long 98°25'45", in NE1/4SE1/4 sec.11, T.17 N., R.10 W., Greeley County, at box culvert on county road, 0.6 mile south of east-west dirt road, 1.1 miles north of gravel road to Brayton, and 4.5 miles northwest of Wolbach.	1.52	1952-78	06-22-78	11.99	50
06790700	West Branch Spring Creek at Brayton, NE	Lat 41°27'27", long 98°28'38", in NE1/4SW1/4 sec.9, T.17 N., R.10 W., Greeley County, at steel truss bridge on north-south dirt road, 200 ft north of T in road and 0.4 mile south of Brayton.	19.5	1945, 1952-78	08-15-78	14.60	400
06791100	Spring Creek near Cushing, NE	Lat 41°17'08", long 98°22'42", in SW1/4NW1/4 sec.8, T.15 N., R.9 W., Howard County, at bridge 0.9 mile southwest of Cushing and 1.9 miles upstream from Loup River.	184	1948g, 1949-53g, 1953-78	08-15-78	(h)	c90
06793995	Skeedee Creek tributary near Genoa, NE	Lat 41°29'46", long 97°52'23", in NE1/4 NE1/4 sec.34, T.18 N., R.5 W., Nance County, at bridge on county road, 5 miles south of St. Edward and 7.5 miles northwest of Genoa.	.59	1964e, 1964, 1968-78	07-22-78	13.65	200
06794710	Bone Creek near David City, NE	Lat 41°16'42", long 97°02'51", in SW1/4SE1/4 sec.11, T.15 N., R.3 E., Butler County, at bridge on State Highway Spur 128, 1 mile north and 4.3 miles east of David City.	8.75	1963e, 1963, 1968-78	06-22-78	16.16	1,650
06799190	South Fork Union Creek tributary near Cornlea, NE	Lat 41°42'00", long 97°34'22", in SE1/4SW1/4 sec.17, T.20 N., R.2 W., Platte County, at culvert on State Highway 91, 0.5 mile west and 1.2 miles north of Cornlea.	6.54	1967-78	07-22-78	13.39	920
06799423	North Logan Creek near Laurel, NE	Lat 42°28'00", long 97°02'55", in NW1/4NW1/4 sec.26, T.29 N., R.3 E., Cedar County, at bridge on U.S. Highway 20, 2.2 miles east and 3 miles north of Laurel.	d25.3	1965e, 1965, 1967e, 1967-78	03-18-78	14.58	c300
06799850	Pond Creek near Schuyler, NE	Lat 41°31'15", long 97°03'33", in SE1/4NE1/4 sec.22, T.18 N., R.3 E., Colfax County, at culvert on State Highway 15, 4.7 miles north of Schuyler.	.54	1968-78	03-18-78	£9.00	30
06800350	Elkhorn River tributary near Mickerson, NE	Lat 41°30'34", long 96°33'06", in NE1/4NW1/4 sec.29, T.18 N., R.8 E., Dodge County, at bridge on county road, 4.5 miles southwest of Mickerson.	6.53	1968-78	03-18-78	15.16	c150

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest stage partial record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft³/s)
Platte River basin--Continued							
06803200	Antelope Creek at 48th Street, Lincoln, NE	Lat 40°47'16", long 96°39'13", in SE1/4SW1/4 sec.32, T.10 N., R.7 E., Lancaster County, on left downstream wingwall of culvert at 48th Street in Lincoln.	7.14	1951, 1958-78	03-13-78	10.68	730
06803300	Antelope Creek at 27th Street, Lincoln, NE	Lat 40°48'10", long 96°40'56", in NE1/4SE1/4 sec.25, T.10 N., R.6 E., Lancaster County, on downstream side of bridge at 27th and Alpha Streets in Lincoln.	10.6	1957-78	03-13-78		c800
06803400	Antelope Creek at 17th Street Lincoln, NE	Lat 40°49'26", long 96°41'47", in SW1/4NW1/4 sec.24, T.10 N., R.6 E., Lancaster County, on right bank 40 ft downstream from 17th Street bridge in Lincoln and 3,600 ft upstream from mouth.	12.1	1958-62#, 1963-78	03-13-78	16.50	1,200
06803540	Dee Creek near Alvo, NE	Lat 40°54'52", long 96°25'04", in SE1/4SE1/4 sec.17, T.11 N., R.9 E., Cass County, at bridge on county road, 2 miles west and 3 miles north of Alvo.	7.88	1961e, 1962-78	07-22-78	20.38	2,800
06803570	Dunlap Creek tributary near Weston, NE	Lat 41°12'25", long 96°48'46", in SE1/4SE1/4 sec.2, T.14 N., R.5 E., Saunders County, on tree just upstream from box culvert on State Highway 79, 200 ft north of U.S. Highway 30A and State Highway 92 and 3.5 miles northwest of Weston.	.43	1950-78	06-22-78	18.07	720
06803600	North Fork Wahoo Creek near Prague, NE	Lat 41°15'37", long 96°48'47", in NW1/4NW1/4 sec.24, T.15 N., R.5 E., Saunders County, at bridge on State Highway 79, 0.2 mile south of road intersection and 3.5 miles south of Prague.	15.4	1951-78	06-22-78	15.29	1,900
06803900	North Fork Wahoo Creek at Weston, NE	Lat 41°12'19", long 96°43'40", in NE1/4NW1/4 sec.10, T.14 N., R.6 E., Saunders County, at bridge on State Highway 92, 1 mile northeast of Weston.	43.3	1951-78	06-22-78	21.27	4,000
06804100	Silver Creek near Cedar Bluffs, NE	Lat 41°22'48", long 96°35'15", in NW1/4NE1/4 sec.11, T.16 N., R.7 E., Saunders County, at bridge on county road, 0.8 mile east of State Highway 109 and 1.5 miles southeast of Cedar Bluffs.	7.00	1950-78	03-18-78	12.60	c500
06804200	Silver Creek near Colon, NE	Lat 41°18'26", long 96°33'47", in NW1/4NW1/4 sec.6, T.15 N., R.8 E., Saunders County, at bridge on county road, 2.1 miles east of State Highway 109 and 2.5 miles east of Colon.	30.3	1950-78	03-18-78	12.69	600
06804300	Silver Creek tributary near Colon, NE	Lat 41°21'03", long 96°38'45", in NW1/4NE1/4 sec.20, T.16 N., R.7 E., Saunders County, at culvert on county road, 2.3 miles west of State Highway 109 and 4 miles northwest of Colon.	10.3	1951-78	03-18-78	13.38	200
06804400	Silver Creek tributary at Colon, NE	Lat 41°17'55", long 96°36'18", in NW1/4SW1/4 sec.2, T.15 N., R.7 E., Saunders County, at culvert on State Highway 109, 0.2 mile east of Colon.	17.6	1951-78	03-18-78	12.68	150
06804500	Silver Creek at Ithaca, NE	Lat 41°09'44", long 96°31'38", in NW1/4NE1/4 sec.28, T.14 N., R.8 E., Saunders County, at bridge on county road, 0.5 mile east of Ithaca.	80.0	1950-58#, 1959-78	03-18-78	11.30	1,000
06805510	Buffalo Creek near Gretna, NE	Lat 41°06'12", long 96°13'30", in NE1/4NW1/4 sec.18, T.13 N., R.11 E., Sarpy County, at bridge on county road, 1,100 ft downstream from junction of Buffalo Creek and left-bank tributary, 1,700 ft downstream from Interstate Highway 80, and 1 mile east and 2.5 miles south of Gretna.	4.29	1968-78	06-22-78	12.00	(+)

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

371

Annual maximum discharge at crest stage partial record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft³/s)
Weeping Water Creek basin							
06806440	Stove Creek at Elwood, NE	Lat 40°50'32", long 96°17'37", in SW1/4NW1/4 sec.15, T.10 N., R.10 E., Cass County, at bridge on State Highway 1 at south side of Elwood.	10.3	1950-78	07-22-78	18.50	2,200
06806460	Weeping Water Creek at Weeping Water, NE	Lat 40°51'18", long 96°07'10", in NW1/4NW1/4 sec.7, T.10 N., R.12 E., Cass County, at bridge of Missouri Pacific Railroad just south of north-south road, 1 mile southeast of Weeping Water.	80.1	1947, 1950-74, 1973-78e	07-22-78	15.70	11,000
06806470	Weeping Water Creek tributary near Weeping Water, NE	Lat 40°51'46", long 96°06'43", in NE1/4SW1/4 sec.6, T.10 N., R.12 E., Cass County, at culvert of Missouri Pacific Railroad, 1,400 ft west of north-south road and 1.5 miles southeast of Weeping Water.	.73	1950-78	07-22-78	15.58	700
Honey Creek basin							
06810060	Honey Creek near Peru, NE	Lat 40°26'38", long 95°45'12", in SW1/4NE1/4 sec.32, T.6 N., R.15 E., Nemaha County, at bridge on county road, 1 mile west and 2 miles south of Peru.	3.43	1968-78	05-07-78	11.44	220
Little Nemaha River basin							
06810100	Hooper Creek tributary near Palmyra, NE	Lat 40°46'10", long 96°25'23", in NW1/4NW1/4 sec.9, T.9 N., R.9 E., Otoe County, at bridge on east-west portion of State Highway 43, 300 ft east of turn in highway and 4.5 miles north of Palmyra.	8.00	1950-78	07-22-78	16.85	4,000
06810400	Little Nemaha River tributary near Syracuse, NE	Lat 40°40'05", long 96°11'54", in SE1/4SE1/4 sec.8, T.8 N., R.11 E., Otoe County, at multiple box culvert on county road, 50 ft west of crossroad, about 1.0 mile south of State Highway 2, and 1.5 miles northwest of Syracuse.	.71	1950-78	05-07-78	8.55	1
Big Nemaha River basin							
06815510	Temple Creek near Falls City, NE	Lat 40°08'36", long 95°36'27", in NE1/4NW1/4 sec.15, T.2 N., R.16 E., Richardson County, at culvert on U.S. Highway 73, 6 miles north of Falls City.	2.99	1968-78	06-27-78	10.62	580
Kansas River basin							
06828100	North Branch Indian Creek near Max, NE	Lat 40°09'52", long 100°23'51", in SW1/4SW1/4 sec.4, T.2 N., R.36 W., Dundy County, at bridge on county road, 1.8 miles above the mouth and 3.5 miles north of Max.	44.76	1962e, 1962, 1970-78	03-11-78	11.95	290
06829700	Thompson Canyon near Trenton, NE	Lat 40°09'44", long 100°57'31", in SE1/4SW1/4 sec.5, T.2 N., R.32 W., Hitchcock County, on downstream side of bridge on county road, 0.5 mile south and 2.8 miles east of Trenton.	9.06	1966e, 1968e, 1966-78	07-20-78	7.90	240
06834100	Spring Creek tributary near Grant, NE	Lat 40°49'52", long 101°48'57", in SW1/4SW1/4 sec.18, T.10 N., R.29 W., Perkins County, on downstream side of Burlington Northern Inc. railroad bridge, 57 ft upstream from culvert under State Highway 23 and 5.2 miles southwest of Grant.	17.9	1970-78	78		0
06835100	Bobtail Creek near Palisade, NE	Lat 40°18'17", long 101°06'40", in SE1/4NW1/4 sec.13, T.4 N., R.34 W., Hitchcock County, on downstream side of bridge on county road, 2.2 miles south of Palisade and 3.5 miles upstream from Frenchman Creek.	430.2	1966-67e, 1966-78	05-26-78	2.53	67

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest stage partial record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft ³ /s)
Kansas River basin--Continued							
06838200	Coon Creek at Indianola, NE	Lat 40°14'03", long 100°25'37", in NW1/4NE1/4 sec.13, T.3 N., R.28 W., Red Willow County, at bridge on U.S. Highways 6 and 34, 0.5 mile west of Indianola.	469	1961-78	08-23-78		c.2
06838550	Dry Creek at Bartley, NE	Lat 40°15'02", long 100°19'02", in SW1/4SE1/4 sec.1, T.3 N., R.27 W., Red Willow County, at bridge on U.S. Highway 6 and 34, 0.5 mile west of Bartley.	442	1961-78	03-11-78	8.91	175
06839000	Medicine Creek at Haywood, NE	Lat 40°39'23", long 100°36'41", in NE1/4NE1/4 sec.21, T.8 N., R.29 W., Frontier County, 150 ft downstream from bridge on county road and 0.2 mile east of Haywood.	4231	1951-58*, 1960-78	03-11-78	4.29	200
06839200	Elkhorn Canyon near Haywood, NE	Lat 40°36'10", long 100°42'02", in NE1/4SW1/4 sec.2, T.7 N., R.30 W., Frontier County, on tree on left bank, 10 ft downstream from bridge, 4.5 miles upstream from Brushy Creek, and 6 miles southwest of Haywood.	6.74	1952-78	05-29-78	11.69	137
06839700	Frazier Creek tributary near Haywood, NE	Lat 40°35'32", long 100°37'46", in SE1/4NE1/4 sec.8, T.7 N., R.29 W., Frontier County, at box culvert on U.S. Highway 83, 4.5 miles south of Haywood.	.72	1952-78	78		0
06839900	Fox Creek upstream from Cut Canyon near Curtis, NE	Lat 40°44'40", long 100°31'52", in SE1/4SE1/4 sec.17, T.9 N., R.28 W., Lincoln County, at timber bridge 8.0 miles north of Curtis.	31.8	1951-78	03-11-78	14.37	550
06839950	Cut Canyon near Curtis, NE	Lat 40°43'39", long 100°32'10", in NE1/4NW1/4 sec.29, T.9 N., R.28 W., Lincoln County, at timber bridge 6.5 miles north of Curtis.	25.6	1951-78	07-20-78	15.39	610
06849600	Turkey Creek near Holdrege, NE	Lat 40°19'33", long 99°22'04", in NW1/4SW1/4 sec.9, T.4 N., R.18 W., Harlan County, at bridge on U.S. Highway 183, 7.8 miles south of Holdrege.	22.9	1941, 1960, 1967e, 1967-78	08-02-78	16.68	1,540
06850000	Turkey Creek at Naponee, NE	Lat 40°04'34", long 99°08'17", in SW1/4SW1/4 sec.4, T.1 N., R.16 W., Franklin County, on downstream side of county bridge at east side of Naponee.	129	1948-53*, 1954-61e, 1962-77j, 1978e	08-02-78	8.56	1,160
06850200	Cottonwood Creek near Bloomington, NE	Lat 40°05'09", long 99°04'05", in SE1/4NE1/4 sec.1, T.1 N., R.16 W., Franklin County, on downstream side of county bridge, 1 mile upstream from south and 1.5 miles west of Bloomington.	15.6	1948-56*, 1957-61e, 1962-77j, 1978e	08-02-78	6.99	325
06850500	Republican River near Bloomington, NE	Lat 40°03'58", long 99°02'14", in NW1/4SE1/4 sec.8, T.1 N., R.15 W., Franklin County, 2 miles south of Bloomington.	21,000	1929-57*, 1960-67e, 1970-78k	07-27-78	2.16	k204
06851090	Republican River at Riverton, NE	Lat 40°05'26", long 98°46'03", in SE1/4SE1/4 sec.34, T.2 N., R.13 W., Franklin County, at bridge on county road 0.5 mile west of Riverton.	21,300	1963-67e, 1970-78k	07-27-78	3.27	k271
06851300	West Branch Thompson Creek tributary near Hildreth, NE	Lat 40°19'10", long 99°00'33", in NW1/4NW1/4 sec.15, T.4 N., R.15 W., Franklin County, on north-south county road, 2 miles southeast of Hildreth and 3 miles west of State Highway 10.	11.5	1953-78	03-13-78	13.00	150
06851400	West Branch Thompson Creek near Upland, NE	Lat 40°17'32", long 98°56'10", in NE1/4NE1/4 sec.30, T.4 N., R.14 W., Franklin County, on State Highway 4, 3 miles southwest of Upland.	128	1953-78	03-13-78	11.65	540

Annual maximum discharge at crest stage partial record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft³/s)
Kansas River basin--Continued							
06853100	Beaver Creek near Rosemont, NE	Lat 40°15'47", long 98°22'31", in NW1/4NE1/4 sec.6, T.3 N., R.9 W., Webster County, at county road bridge 1.8 miles southwest of Rosemont.	.752	1938-70+, 1971-78	03-13-78	3.63	315
06879850	Big Blue River tributary (site 1) near Hordville, NE	Lat 41°02'47", long 97°56'27", in SW1/4SW1/4 sec.31, T.13 N., R.5 W., Hamilton County, at bridge on east-west county road, 2.2 miles south and 2.8 miles west of Hordville.	4.07	1968-71 1972-74a, 1975-78	04-09-78	13.70	(+)
06880508	Plum Creek near Seward, NE	Lat 40°55'49", long 97°04'32", in NE1/4NW1/4 sec.15, T.11 N., R.3 E., Seward County, at bridge on county road, 0.6 mile north and 1.3 miles east of Seward.	85.5	1963e, 1963, 1968-78	04-09-78	17.70	1,300
06880590	North Branch West Fork Big Blue River tributary at Giltner, NE	Lat 40°47'04", long 98°08'57", in NE1/4NE1/4 sec.6, T.9 N., R.7 W., Hamilton County, at culvert on State Highway Spur 502, 0.7 mile north of Giltner.	7.52	1968-78	04-09-78	9.90	c10
06880720	School Creek near Harvard, NE	Lat 40°35'49", long 98°03'04", in NW1/4NW1/4 sec.7, T.7 N., R.6 W., Clay County, at bridge on black-top county road, 0.9 mile north of junction of U.S. Highway 6 and State Highway 14 and 3 miles southeast of Harvard.	51.5	1953-78	07-07-78	13.98	200
06880730	School Creek tributary No. 2 near Harvard, NE	Lat 40°36'42", long 98°02'36", in SE1/4SW1/4 sec.31, T.8 N., R.6 W., Clay County, at culvert on east-west portion of black-top county road, 100 ft north of Burlington Northern Inc. underpass and 3 miles east of Harvard.	16.4	1953-78	04-17-78	14.80	200
06880775	Beaver Creek tributary near Henderson, NE	Lat 40°48'52", long 97°48'43", in NW1/4NE1/4 sec.30, T.10 N., R.4 W., York County, at culvert on east-west county road, 0.3 mile west and 2 miles north of Henderson.	1.16	1968-78	78		0
06881250	South Fork Swan Creek tributary near Western, NE	Lat 40°18'18", long 97°10'46", in NE1/4NE1/4 sec.22, T.4 N., R.2 E., Jefferson County, at culvert on State Highway 15, 6.2 miles southeast of Western and 1.1 miles south and 6.3 miles east of Dakin.	.07	1968-78	07-07-78	11.41	(+)
06881450	Indian Creek at Beatrice, NE	Lat 40°17'08", long 96°44'47", in SE1/4NE1/4 sec.28, T.4 N., R.6 E., Gage County, at bridge on U.S. Highway 77 at north edge of Beatrice.	74.7	1960-78	07-06-78	14.78	2,050
06881530	Big Blue River tributary near Beatrice, NE	Lat 40°15'46", long 96°39'09", in SW1/4SE1/4 sec.32, T.4 N., R.7 E., Gage County, at upstream end of box culvert of U.S. Highway 136, 4.6 miles east of highway intersection in Beatrice.	1.86	1971-78	07-22-78	16.48	540
06883540	Spring Creek tributary near Ruskin, NE	Lat 40°06'50", long 97°49'13", in SE1/4NE1/4 sec.25, T.2 N., R.5 W., Muckolls County, at culvert on north-south county road, 2.3 miles south and 2.5 miles east of Ruskin.	2.11	1967-78	03-18-78	12.42	50
06883700	South Fork Big Sandy Creek near Davenport, NE	Lat 40°18'27", long 97°52'39", in SW1/4SW1/4 sec.15, T.4 N., R.5 W., Muckolls County, at wood bridge on dirt road, 50 ft north of State Highway 4 and 3.5 miles west of Davenport.	28.1	1950, 1952-78	04-17-78	13.23	1,300
06883955	Little Sandy Creek near Ohioa, NE	Lat 40°25'37", long 95°23'38", in SE1/4SE1/4 sec.16, T.5 N., R.1 W., Fillmore County, at bridge on east-west county road 1 mile south and 1.5 miles east of Ohioa.	11.6	1968-78	04-17-78	14.21	350

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest stage partial record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft ³ /s)
Kansas River basin--Continued							
06884005	Dry Branch tributary near Fairbury, NE	Lat 40°02'43", long 97°10'14", in SW1/4SE1/4 sec.14, T.1 N., R.2 E., Jefferson County, at bridge on State Highway 15, 3 miles north of Nebraska-Kansas State line and 6.4 miles south of Fairbury.	4.51	1968-78	04-17-78	8.93	c5

* Discharge not determined.

† Operated as a continuous-record gaging station.

a At site 1.2 miles downstream, drainage area 34.0 sq. mi.

b Stage below bottom of gage, which is 10.0 ft.

c Estimate.

d Approximate.

e Discharge measurements published in table for miscellaneous sites.

f Outside flood mark.

g At site 1 mile north, record considered equivalent.

h Stage below bottom of gage, which is 11.0 ft.

j Discharge measurements published in table for low-flow partial record sites.

k Discharge measurements only.

m At site 1.08 miles downstream, drainage area 5.03 sq. mi.

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of peak flow are designated by a dagger (†). Some measurements were made during periods of base flow when streamflow is primarily from ground-water storage and may be correlated with the simultaneous discharge of a nearby stream where continuous records are available to give a picture of the low-flow potentiality of the stream.

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
White River basin						
Big Bordeaux Creek (06445600)	White River	Lat 42°49'58", long 102°56'42", in NW1/4SW1/4 sec.14, T.33 N., R.48 W., Dawes County, at upstream side of bridge on county road 2.7 miles east of Chadron.	--		01-24-78	.26
Ponca Creek basin						
Hoosier Creek (06453525)	Spring Creek	Lat 42°53'40", long 98°45'52", in SE1/4NE1/4 sec.30, T.34 N., R.12 W., Boyd County, at upstream side of bridge on county road 1.3 miles upstream from mouth and 3.6 miles northwest of Spencer.	--		05-16-77 08-01-77 10-11-77 07-11-78	.40 .10 .15 .11
Spring Creek (06453528)	Ponca Creek	Lat 42°53'48", long 98°47'21", in NW1/4NE1/4 sec.25, T.34 N., R.13 W., Boyd County, at bridge on county road 3.3 miles southeast of Butte.	--		05-16-77 08-01-77 10-11-77 06-23-78	.10 0 .36 .31
Beaver Creek (06453530)	Ponca Creek	Lat 42°52'09", long 98°40'18", in NW1/4NE1/4 sec.1, T.33 N., R.12 W., Boyd County, at bridge on county road 0.2 mile upstream from mouth and 1.6 miles east of Spencer.	--		05-16-77 08-01-77 10-11-77 07-11-78	0 0 1.5 1.6
Whiskey Creek (06453565)	Ponca Creek	Lat 42°50'00", long 98°28'01", in NW1/4SW1/4 sec.14, T.33 N., R.10 W., Boyd County, at downstream side of bridge 0.3 mile upstream from mouth and in the town of Lynch.	--		05-16-77 08-01-77 10-11-77 07-11-78	0 0 .42 5.0
Niobrara River basin						
Coleman Creek (06461930)	Niobrara River	Lat 42°49'49", long 100°08'29", in SE1/4SE1/4 sec.16, T.33 N., R.24 W., Keya Paha County, 0.2 mile upstream from mouth and 4.6 miles southwest of Norden.	--		05-05-77 07-08-77 10-03-77 05-03-78	.90 .48 .66 1.0
Hulshoe Creek (06461940)	Niobrara River	Lat 42°49'37", long 100°08'12", in NW1/4NW1/4 sec.22, T.33 N., R.24 W., Keya Paha County, at bridge on county road 0.2 mile upstream from mouth and 4.4 miles southwest of Norden.	--		05-05-77 07-08-77 10-03-77 05-03-78	2.7 2.0 2.0 2.9
McGill Creek (06461960)	Niobrara River	Lat 42°47'54", long 100°04'57", in NE1/4NE1/4 sec.36, T.33 N., R.24 W., Keya Paha County, at bridge on county road 0.1 mile upstream from mouth and 5.1 miles southwest of Norden.	--		05-05-77 07-08-77 10-03-77 05-03-78	.90 .62 .70 1.1
Fairfield Creek (06461980)	Niobrara River	Lat 42°37'42", long 100°03'47", in NE1/4SE1/4 sec.31 T.33 N., R.23 W., Brown County, at bridge on county road 0.1 mile upstream from mouth and 4.9 miles south of Norden.	--		05-06-77 07-08-77 10-03-77 11-17-77 06-07-78	27 30 30 26 29
East Middle Creek (06461993)	Middle Creek	Lat 42°47'58", long 100°03'12", in NE1/4NW1/4 sec.32, T.33 N., R.23 W., Keya Paha County, at bridge on county road 0.2 miles upstream from mouth and 5.2 miles southeast of Norden.	--		05-06-77 07-08-77 10-03-77 05-03-78	.70 .46 .70 1.2
Middle Creek (06461955)	Niobrara River	Lat 42°47'45", long 100°03'12", in SE1/4NW1/4 sec.32, T.33 N., R.23 W., Keya Paha County, at bridge on county road 0.3 mile upstream from mouth and 5.5 miles southeast of Norden.	--		05-06-77 07-08-77 10-03-77 05-03-78	1.6 1.3 1.4 1.6
Turkey Creek (06462150)	Niobrara River	Lat 42°47'19", long 99°58'49", in SW1/4SW1/4 sec.36, T.33 N., R.23 W., Keya Paha County, at bridge on county road 0.2 mile upstream from mouth and 7.0 miles northwest of Hradville.	--		05-06-77 07-21-77 10-03-77 05-03-78	2.6 2.0 2.6 3.4

See footnotes at end of table.

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Niobrara River basin--Continued						
Chimney Creek (06462250)	Niobrara River	Lat 42°46'34", long 99°56'23", in SW1/4NE1/4 sec.6, T.32 N., R.22 W., Keya Paha County, at bridge on county road 0.3 mile upstream from south and 4.6 miles northwest of Headville.	--		05-06-77 07-21-77 10-03-77 05-03-78	1.0 .25 1.3 1.8
Cub Creek (06462350)	Niobrara River	Lat 42°46'08", long 99°53'08", in SE1/4SW1/4 sec.3, T.32 N., R.22 W., Keya Paha County, at bridge on county road 0.2 mile upstream from south and 1.9 miles northwest of Headville.	--		05-06-77 07-21-77 10-04-77 06-06-78	2.0 .61 1.7 2.2
Plum Creek 1 (06462450)	Niobrara River	Lat 42°34'08", long 100°06'22", in NW1/4SW1/4 sec.14, T.30 N., R.24 W., Brown County, at bridge on U.S. Highway 20, 2 miles west of Johnstown.	--	1969-73	11-17-77 06-06-78 08-07-78 09-25-78	21 26 20 24
Plum Creek 1 (06462470)	Niobrara River	Lat 42°40'01", long 100°03'26", in SE1/4SE1/4 sec.7, T.31 N., R.23 W., Brown County, at county road bridge 0.2 mile upstream from Sand Draw and 6.5 miles north of Johnstown.	--	1969-73	06-06-78 08-07-78 09-26-78	73 62 70
Rock Creek (06463005)	Niobrara River	Lat 42°45'28", long 99°50'47", in NE1/4SW1/4 sec.12, T.32 N., R.22 W., Keya Paha County, at bridge on county road 0.6 mile upstream from south and 0.2 mile east of Headville.	--		05-06-77 07-21-77 10-04-77 06-06-78	3.9 2.3 3.7 3.7
Jewett Creek (06463012)	Niobrara River	Lat 42°45'29", long 99°47'34", in NW1/4SW1/4 sec.9, T.32 N., R.21 W., Keya Paha County, at bridge on county road 1.7 miles upstream from south and 2.8 miles east of Headville.	--		05-12-77 07-21-77 10-04-77 06-06-78	1.7 .61 1.8 1.7
Skinner Creek (06463017)	Niobrara River	Lat 42°44'24", long 99°45'48", in SW1/4SE1/4 sec.15, T.32 N., R.21 W., Keya Paha County, at bridge on county road 0.3 mile upstream from south and 4.5 miles southeast of Headville.	--		05-12-77 07-22-77 10-04-77 07-14-78	.60 .25 .46 .63
Prosser Creek (06463025)	Niobrara River	Lat 42°44'37", long 99°43'10", in NW1/4SE1/4 sec.13, T.32 N., R.21 W., Keya Paha County, at bridge on county road 1.1 mile upstream from south and 5.7 miles southeast of Springview.	--		05-12-77	.40
Thomas Creek (06463030)	Niobrara River	Lat 42°44'12", long 99°40'49", in NE1/4NE1/4 sec.20, T.32 N., R.20 W., Keya Paha County, at bridge on county road 0.3 mile upstream from south and 4.6 miles west of Riverview.	--		05-12-77 07-22-77	.20 0
Luckey Creek (06463033)	Niobrara River	Lat 42°44'12", long 99°40'31", in NW1/4NW1/4 sec.21, T.32 N., R.20 W., Keya Paha County, at bridge on county road 0.3 mile upstream from south, 3.8 miles southwest of Riverview and 7.2 miles southeast of Springview.	--		05-12-77 07-22-77 10-04-77 05-23-78	.20 .10 .21 .34
Rickman Creek (06463037)	Niobrara River	Lat 42°44'12", long 99°39'03", in NE1/4NW1/4 sec.22, T.32 N., R.20 W., Keya Paha County, at bridge on county road 0.3 mile upstream from south and 2.9 miles northwest of Riverview.	--		05-12-77 07-22-77 10-04-77 05-23-78	.60 .34 .66 .67
Beeman Creek (06463040)	Niobrara River	Lat 42°43'59", long 99°37'35", in SW1/4NW1/4 sec.23, T.32 N., R.20 W., Keya Paha County, at bridge on county road 0.4 mile upstream from south and 1.8 mile northwest of Riverview.	--		05-12-77 07-22-77 10-04-77 05-22-78	1.2 .89 1.1 .20
Long Pine Creek 1 (06463050)	Niobrara River	Lat 42°32'59", long 99°42'23", in NE1/4NW1/4 sec.30, T.30 N., R.20 W., Brown County, at timber bridge 0.1 mile downstream from bridge on U.S. Highway 20 and 0.9 mile northwest of Long Pine.	--		06-07-78 08-09-78 09-27-78	51 48 50
Bone Creek 1 (06463090)	Long Pine Creek	Lat 42°32'51", long 99°52'33", in NE1/4NE1/4 sec.27, T.30 N., R.22 W., Brown County, at bridge on U.S. Highway 20, 0.6 mile west of junction of highways 7 and 20 in Ainsworth.	--	1969-73	06-07-78 08-08-78 09-26-78	2.7 2.1 1.7

Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Niobrara River basin--Continued						
Bone Creek (06463210)	Long Pine Creek	Lat 42°36'33", long 99°46'23", in SW1/4SW1/4 sec.34, T.31 N., R.21 W., Brown County, at bridge on county road 6.3 miles northeast of Ainsworth and 6.3 miles northwest of Long Pine.	--		05-18-77 07-19-77 10-26-77 06-07-78	56 41 19 22
Sand Draw ¹ (06463290)	Bone Creek	Lat 42°34'08", long 99°58'08", in NE1/4NE1/4 sec.14, T.30 N., R.23 W., Brown County, at bridge on county road 4.5 miles east and 0.7 mile north of Johnstown.	--		06-07-78 08-08-78 09-26-78	1.4 .80 .90
Sand Draw ¹ (06463310)	Bone Creek	Lat 42°38'10", long 99°51'10", in NE1/4NE1/4 sec.26, T.31 N., R.22 W., Brown County, at bridge on county road 8.6 miles south of Headville and about 4.5 miles upstream from Bone Creek.	--		06-07-78 08-08-78 09-26-78	4.9 9.8 6.9
Sand Draw (06463315)	Bone Creek	Lat 42°38'18", long 99°49'01", in SE1/4SE1/4 sec.19, T.31 N., R.21 W., Brown County, at upstream side of bridge on county road 2.4 miles upstream from mouth and 6.8 miles northeast of Ainsworth.	--		05-18-77 07-19-77 10-26-77 06-06-78	6.7 8.4 6.5 6.8
Bone Creek ¹ (06463350)	Long Pine Creek	Lat 42°40'16", long 99°46'06", in NE1/4SW1/4 sec.10, T.31 N., R.21 W., Brown County, at bridge on U.S. Highway 183, 2.8 miles west and 8.4 miles north of Long Pine.	--	1969-73	06-07-78 08-08-78 09-26-78	51 66 48
Short Pine Creek (06463510)	Long Pine Creek	Lat 42°42'28", long 99°38'28", in NE1/4NE1/4 sec.34, T.32 N., R.20 W., Rock County, 0.1 mile upstream from mouth and 3.0 miles southwest of Riverview.	--		05-17-77 07-28-77 11-01-77 06-17-78	1.0 .66 3.0 .81
Wentworth Creek (06463520)	Niobrara River	Lat 42°43'59", long 99°36'42", in SE1/4NW1/4 sec.24, T.32 N., R.20 W., Keya Paha County, at bridge on county road 1.3 miles upstream from mouth and 1.0 mile northwest of Riverview.	--		05-13-77 07-22-77	0 0
Sand Creek (06463530)	Niobrara River	Lat 42°43'08", long 99°35'49", in SW1/4NW1/4 sec.30, T.32 N., R.19 W., Rock County, 0.3 mile upstream from mouth and 0.9 miles southwest of Riverview.	--		05-17-77 07-25-77 10-31-77	2.3 2.0 2.4
Wyan Creek (06463540)	Niobrara River	Lat 42°43'47", long 99°34'56", in NE1/4SE1/4 sec.19, T.32 N., R.19 W., Keya Paha County, 0.4 mile upstream from mouth and 0.7 miles east of Riverview.	--		05-13-77 07-22-77 10-04-77 06-14-78	2.2 1.2 2.0 1.7
Elk Creek (06463550)	Niobrara River	Lat 42°43'21", long 99°34'38", in NW1/4NW1/4 sec.29, T.32 N., R.19 W., Rock County, 0.2 mile upstream from mouth and 1.1 mile southeast of Riverview.	--		05-17-77	3.7
Coon Creek (06463560)	Niobrara river	Lat 42°43'34", long 99°29'37", in SE1/4SW1/4 sec.24, T.32 N., R.19 W., Rock County, at bridge on county road 0.6 mile upstream from mouth and 0.9 mile southwest of Carns.	--		05-17-77 07-22-77 10-31-77 06-19-78	5.4 4.0 4.6 4.7
Laughing Water Creek (06463570)	Niobrara River	Lat 42°43'34", long 99°29'02", in SE1/4SE1/4 sec.24, T.32 N., R.19 W., Rock County, at bridge on county road 0.3 mile upstream from mouth and 0.7 mile south of Carns.	--		05-17-77 07-22-77 10-31-77 06-19-78	3.4 2.0 3.7 3.5
Rock Creek (06463580)	Niobrara River	Lat 42°43'08", long 99°26'41", in SE1/4NE1/4 sec.29, T.32 N., R.18 W., Rock County, at downstream side of bridge on county road 3.2 miles upstream from mouth and 2.4 miles southeast of Carns.	--		05-17-77 07-22-77 10-31-77 06-19-78	4.3 2.6 5.1 4.7
Willow Creek (06463620)	Niobrara River	Lat 42°46'26", long 99°21'41", in NW1/4SW1/4 sec.6, T.32 N., R.17 W., Rock County, at bridge on county road 0.4 mile upstream from mouth and 1.4 miles southwest of Mariaville.	--		05-13-77 07-28-77 10-31-77 06-19-78	2.8 .80 3.7 2.0

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Niobrara River basin--Continued						
Oak Creek (06463640)	Niobrara River	Lat 42°46'26", long 99°21'22", in NE1/4SW1/4 sec.6, T.32 N., R.17 W., Rock County, at bridge on county road 0.3 mile upstream from mouth and 1.1 miles southwest of Mariaville.	--		05-13-77	3.3
					07-28-77	1.6
					10-31-77	3.4
					06-19-78	2.6
Ash Creek (06463680)	Niobrara River	Lat 42°46'52", long 99°19'33", in NE1/4NE1/4 sec.5, T.32 N., R.17 W., Rock County, at bridge on county road, 0.1 mile upstream from mouth and 0.4 mile northeast of Mariaville.	--		05-13-77	10
					07-28-77	6.1
					10-31-77	12
					06-19-78	7.3
Haughin Creek (06463730)	Big Anne Creek	Lat 42°47'42", long 99°20'20", in SW1/4SE1/4 sec.29, T.33 N., R.17 W., Keya Paha County, at bridge on county road 0.4 mile upstream from mouth and 1.5 miles northwest of Mariaville.	--		05-13-77	1.6
					07-28-77	1.5
					10-31-77	2.1
					07-03-78	2.2
Simpson Creek (06463750)	Niobrara River	Lat 42°47'55", long 99°17'23", in NW1/4SW1/4 sec.26, T.33 N., R.17 W., Keya Paha County, at bridge on county road 0.7 mile upstream from mouth and 3.0 miles northeast of Mariaville.	--		05-13-77	.90
					07-28-77	.87
					10-31-77	.81
					07-03-78	1.1
Otter Creek (06463780)	Niobrara River	Lat 42°08'10", long 99°13'51", in SW1/4NW1/4 sec.29, T.33 N., R.16 W., Holt County, 0.5 mile upstream from mouth and 5.7 miles northeast of Mariaville.	--		05-26-77	6.2
					07-27-77	3.4
					10-19-77	5.1
Clay Creek (06463800)	Niobrara River	Lat 42°48'37", long 99°10'37", in SE1/4SE1/4 sec.22, T.33 N., R.16 W., Holt County, at bridge on county road 1.2 miles upstream from mouth and 8.7 miles northeast of Mariaville.	--		05-26-77	1.2
					07-27-77	.20
					10-19-77	.62
					06-21-78	.45
Beaver Creek (06463830)	Niobrara River	Lat 42°44'56", long 99°07'33", in SW1/4NW1/4 sec.18, T.32 N., R.15 W., Holt County, at upstream side of bridge on county road 4.9 miles southwest of Dustin and 10.5 miles northeast of Stuart.	--		05-26-77	4.4
					07-27-77	1.6
					10-12-77	4.5
					06-21-78	1.8
Beaver Creek (06463850)	Niobrara River	Lat 42°48'29", long 99°07'23", in NW1/4NE1/4 sec.30, T.33 N., R.15 W., Holt County, at bridge on county road 1.9 miles west of Dustin and 14.9 miles northeast of Stuart.	--		05-26-77	11
					07-27-77	3.5
					10-12-77	9.8
					06-21-78	5.7
Holt Creek (06464520)	Keya Paha River	Lat 42°59'02", long 99°42'41", in NE1/4NE1/4 sec.30, T.35 N., R.20 W., Keya Paha County, at upstream side of bridge on county road 1.2 miles upstream from Nebraska-South Dakota State line and 5.2 miles southeast of Hewela, South Dakota.	--		05-20-77	9.7
					07-18-77	1.7
					10-20-77	5.2
					06-27-78	9.6
Burton Creek (06464650)	Keya Paha River	Lat 42°56'18", long 99°35'00", in NE1/4NW1/4 sec.8, T.34 N., R.19 W., Keya Paha County, at upstream side of bridge on county road 2.0 miles northeast of Burton.	--		05-20-77	5.9
					07-18-77	1.6
Spring Creek (06464750)	Keya					

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Niobrara River basin--Continued						
Big Sandy Creek (06464930)	Niobrara River	Lat 42°48'57", long 98°58'34", in NW1/4SW1/4 sec.21, T.33 N., R.14 W., Holt County, at bridge on county road 5.6 miles northeast of Dustin and 20.3 miles north of Atkinson.	--		05-26-77 07-27-77 10-11-77 06-21-78	32 12 28 16
Big Sandy Creek (06464935)	Niobrara River	Lat 42°50'55", long 98°54'27", in SW1/4NE1/4 sec.12, T.33 N., R.14 W., Holt County, at bridge on county road 0.5 mile upstream from mouth, 5.4 miles southwest of Butte, and 8.4 miles northeast of Dustin.	--		05-26-77 07-27-77 11-07-77 06-21-78	52 23 41 28
Little Sandy Creek (06464938)	Niobrara River	Lat 42°50'20", long 98°52'59", in NE1/4NE1/4 sec.18, T.33 N., R.13 W., Holt County, at bridge on county road 0.1 mile upstream from mouth and 4.5 miles northwest of Catalpa.	--		05-26-77 07-27-77 10-11-77 06-21-78	3.9 2.2 3.6 3.8
Spring Creek (06464979)	Brush Creek	Lat 42°49'02", long 98°49'25", in NE1/4SE1/4 sec.22 T.33 N., R.13 W., Holt County, 0.1 mile upstream from mouth and 3.6 miles northeast of Catalpa.	--		10-19-77	16
Brush Creek (06464980)	Niobrara River	Lat 42°49'02", long 98°49'25", in NE1/4SE1/4 sec.22, T.33 N., R.13 W., Holt County, at section line 0.1 mile downstream from Spring Creek, 1.0 mile upstream from mouth and 3.7 miles northeast of Catalpa.	--		05-26-77 07-26-77 10-20-77 06-27-78	30 2.1 3.8 5.2
Turkey Creek (06464995)	Niobrara River	Lat 42°48'16", long 98°44'25", in NW1/4SW1/4 sec.28, T.33 N., R.12 W., Holt County, at bridge on county road 1.9 miles upstream from mouth and 6.5 miles northeast of Catalpa.	--		05-26-77 07-26-77 10-19-77 06-15-78	5.9 4.4 4.7 4.2
Eagle Creek ¹ (06465050)	Niobrara River	Lat 42°38'01", long 98°46'21", in SW1/4NW1/4 sec.30, T.31 N., R.12 W., Holt County, at county road bridge 4.3 miles south and 6 miles west of midway.	--	1969-77	04-12-78 09-11-78	22 11
East Branch Eagle Creek ¹ (06465100)	Eagle Creek	Lat 42°37'35", long 98°45'49", in SW1/4SE1/4 sec.30, T.31 N., R.12 W., Holt County, at county road bridge 5 miles south and 5.4 miles west of Midway.	--	1969-77	04-12-78 09-11-78	9.5 5.6
Eagle Creek (06465310)	Niobrara River	Lat 42°45'53", long 98°34'06", in SE1/4NW1/4 sec.11 T.32 N., R.11 W., Holt County, at bridge on county road 1.7 miles upstream from mouth and 6.8 miles west of Redbird.	--		05-26-77 07-25-77 10-18-77 11-21-77 06-08-78	48 24 32 23 41
Redbird Creek ¹ (06465398)	Niobrara River	Lat 42°39'33", long 98°33'31", in NE1/4SE1/4 sec.14, T.31 N., R.11 W., Holt County, at site 3.2 miles east and 2.7 miles south of Beek.	--	1969-77	04-12-78 09-11-78	20 8.3
Blackbird Creek ¹ (06465420)	Redbird Creek	Lat 42°39'46", long 98°34'24", in SW1/4NW1/4 sec.14, T.31 N., R.11 W., Holt County, at county road bridge 2.4 miles east and 2.3 miles south of Beek.	--	1969-77	04-12-78 09-11-78	10 3.4
Redbird Creek (06465440)	Niobrara River	Lat 42°45'41", long 98°26'40", in NE1/4SE1/4 sec.11, T.32 N., R.10 W., Holt County, at downstream side of bridge on county road 0.9 mile upstream from mouth and at Redbird.	--		05-25-77 07-25-77 10-18-77 11-21-77 06-08-77	38 11 20 17 23
Louse Creek (06465455)	Niobrara River	Lat 42°46'07", long 98°26'05", in NE1/4NW1/4 sec.12, T.32 N., R.10 W., Holt County, at bridge on county road 0.1 mile upstream from mouth and 0.6 mile northeast of Redbird.	--		05-25-77 07-25-77 10-18-77 06-08-78	10 5.4 9.0 9.6
Sand Creek (06465465)	Niobrara River	Lat 42°46'21", long 98°24'57", in SE1/4SW1/4 sec.6, T.32 N., R.9 W., Holt County, at downstream side of bridge on county road 0.2 mile upstream from mouth and 1.6 miles northeast of Redbird.	--		05-25-77 07-25-77 10-18-77 06-08-78	1.1 1.97 1.0 1.0

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
Niobrara River basin--Continued						
Squaw Creek (06465483)	Niobrara River	Lat 42°45'30", long 98°18'09", in SW1/4SW1/4 sec.7, T.32 N., R.8 W., Knox County, at bridge on county road 0.2 mile upstream from mouth and 5.3 miles northwest of Pishelville.	--		05-25-77	3.6
					07-25-77	2.6
					10-18-77	2.9
					06-08-78	3.4
Steel Creek (06465495)	Niobrara River	Lat 42°45'04", long 98°17'22", in SE1/4NE1/4 sec.18, T.32 N., R.8 W., Knox County, at bridge on county road 0.5 mile upstream from mouth and 4.3 miles northwest of Pishelville.	--		05-25-77	14
					07-25-77	7.2
					10-18-77	11
Pishel Creek (06465515)	Niobrara River	Lat 42°43'32", long 98°12'38", in NE1/4NE1/4 sec.26, T.32 N., R.8 W., Knox County, at bridge on county road 0.5 mile upstream from mouth and 0.1 mile southeast of Pishelville.	--		05-25-77	2.2
					07-25-77	.02
					10-18-77	.30
					06-08-78	1.5
Verdigre Creek (06465685)	Niobrara River	Lat 42°35'29", long 98°01'49", in SE1/4NE1/4 sec.8, T.30 N., R.6 W., Knox County, at bridge on county road (old State Highway 14) 0.2 mile south of Verdigre.	440	1947-51	04-27-77	95
					05-18-77	87
					06-06-77	74
					06-27-77	70
					07-25-77	70
					08-10-77	70
					08-31-77	85
					09-21-77	89
					10-05-77	86
					10-24-77	87
					11-14-77	123
					11-22-77	76
					12-06-77	64
					12-28-77	92
					01-17-78	73
					02-06-78	102
					02-28-78	120
					03-20-78	884
					04-11-78	124
					05-16-78	123
Niobrara River (06466000)	Missouri River	Lat 42°44'50", long 98°03'00", in SW1/4 sec.17, T.32 N., R.6 W., near left bank on downstream side of bridge on State Highway 12, 0.8 mile southwest of Niobrara.	--	1902, 1910-13a, 1954-58a, 1974,1976	06-08-77	904
Bazile Creek basin						
Bazile Creek (06466250)	Missour River	Lat 42°32'53", long 97°53'22", in SE1/4NW1/4 sec.27, T.30 N., R.5 W., Knox County, at bridge on State Highway 13, 2.5 miles northeast of Bazile Mills.	--		10-18-77	16
Bow Creek basin						
Bow Creek (06478350)	Missouri River	Lat 42°43'50", long 97°08'50", in SE1/4SW1/4 sec.24, T.32 N., R.2 E., Cedar County, at bridge on State Highway 12, 0.7 mile south of St. James.	--		10-18-77	18
Platte River basin						
Birdwood Creek (06691500)	Platte River	Lat 41°18'06", long 101°04'05", in SW1/4NE1/4 sec.2, T.15 N., R.33 W., Lincoln County, at highway bridge 5.2 miles downstream from mouth of West Birdwood Creek, 8.2 miles upstream from mouth, and 10.5 miles northeast of Sutherland.	--	1913-15a	09-20-77	146

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

381

Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
Platte River basin--Continued						
Lodgepole Creek ¹ (06762550)	South Platte River	Lat 41°14'50", long 103°38'32", in SW1/4NW1/4 sec.28, T.15 N., R.55 W., Kimball County, at county road bridge 0.8 mile north of U.S. Highway 30 at east edge of Kimball.	--	1973-77	10-11-77	.52
					11-28-77	7.6
					12-19-77	2.5
					01-16-78	4.9
					02-15-78	3.7
					03-20-78	9.7
					04-17-78	8.1
					05-18-78	7.0
					06-19-78	2.7
					07-17-78	22
					08-07-78	10
09-18-78	3.5					
South Platte River ¹ (06764880)	Platte River	Lat 40°07'33", long 101°34'35", in NW1/4SW1/4 sec.4, T.13 N., R.37 W., Keith County, at bridge on access road between U.S. Highway 30 and Interstate 80, about 0.5 mile southeast of Roscoe.	--	1976-77	10-17-77	107
					11-14-77	76
					12-20-77	100
					01-23-78	106
					02-21-78	151
					03-28-78	147
					04-24-78	72
					05-22-78	38
					06-27-78	68
					07-24-78	8.8
					08-30-78	.74
Spring Creek ¹ (06768015)	Platte River	Lat 40°45'13", long 99°40'22", in SW1/4NW1/4 sec.13, T.9 N., R.21 W., Dawson County, 3.2 miles southeast of Lexington.	--	1973-77	10-19-77	6.0
					11-22-77	8.5
					12-20-77	11
					01-18-78	8.0
					02-15-78	3.0
					03-15-78	110
					04-25-78	16
					05-23-78	14
					07-18-78	7.6
					08-16-78	74
					09-26-78	45
North Channel ¹ (06770205)	Platte River	Lat 40°40'30", long 99°00'27", in NW1/4SE1/4 sec.10, T.8 N., R.15 W., Buffalo County, 4 miles east of Kearney.	--	1973-77	10-19-77	187
					11-22-77	19
					12-20-77	16
					01-18-78	16
					02-15-78	17
					03-15-78	40
					04-25-78	81
					05-23-78	192
					07-18-78	50
					08-16-78	180
					09-26-78	216
Wood River (06771000)	Platte River	Lat 40°47'56", long 99°11'48", in NW1/4NW1/4 sec.31, T.10 N., R.16 W., Buffalo County, near right bank on downstream side of bridge on State Highway 40, 1.5 mile northwest of Riverdale.	--	1946-73 [†]	03-15-78	560
Wood River (06771500)	Platte River	Lat 40°46'17", long 98°47'51", in NW1/4NW1/4 sec.9, T.9 N., R.13 W., Buffalo County, on left bank 10 feet downstream from bridge on county highway and 2.5 miles northeast of Gibbon.	--	1949-76 [†]	03-15-78	511
Wood River ¹ (06772200)	Platte River	Lat 40°56'05", long 98°16'56", in SW1/4NW1/4SW1/4 sec.7, T.11 N., R.8 W., Merrick County, at bridge on county road 1.0 mile south of U.S. Highway 30 and 3.0 miles east of Grand Island.	--	1973-77	10-13-77	27
					11-16-77	29
					12-15-77	14
					01-05-78	12
					02-07-78	8.1
					03-01-78	40
					04-12-78	83
					05-03-78	47
					06-14-78	31
					07-06-78	41
					08-16-78	21
09-07-78	15					

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
Platte River basin--Continued						
Wood River (06772500)	Platte River	Lat 40°57'56", long 98°12'22", at center of west line of sec.35, T.12 N., R.8 W., Herrick County, at timber bridge 3.2 miles southwest of Chapman.	--	1957-60a 1961-77	10-05-77	25
					11-03-77	28
					12-30-77	13
					01-24-78	8.7
					02-16-78	9.4
					03-29-78	53
					04-20-78	195
					05-24-78	34
					06-21-78	26
					07-13-78	57
					08-23-78	15
09-27-78	5.1					
Silver Creek (06772900)	Platte River	Lat 41°18'55", long 97°41'14", in SE1/4SW1/4 sec.32, T.16 N., R.3 W., Herrick County, at bridge on county road 1.1 miles southwest of Silver Creek.	--	1966	09-13-78	.03
Prairie Creek (06773400)	Platte River	Lat 41°14'56", long 97°58'58", in NE1/4NE1/4 sec.27, T.15 N., R.6 W., Herrick County, at bridge on State Highway 14, 10 miles north of Central City.	--	1966	04-05-78	15.3
					09-13-78	.47
Prairie Creek (06773500)	Platte River	Lat 41°19'15", long 97°41'40", in SW1/4NW1/4 sec.29, T.16 N., R.3 W., Herrick County, at bridge on State Highway 39, 1.8 miles northwest of Silver Creek and 11 miles upstream from south.	--	1949-53a 1966	04-05-78	33.6
					09-13-78	.50
Middle Loup River (06777000)	Loup River	Lat 41°49'02", long 99°58'15", in NE1/4SW1/4 sec.3, T.21 N., R.23 W., Blaine County, on right bank at upstream side of Laughran bridge 9 miles upstream from Rifle Creek and 15 miles northwest of Milburn.	--	1952-56a, 1958a, 1960-64a, 1969-77	10-03-77	730
					10-20-77	704
					10-25-77	754
					11-01-77	805
					11-10-77	826
					11-14-77	810
					12-06-77	836
					12-21-77	769
					01-30-78	800
					02-23-78	822
					03-16-78	896
					04-25-78	321
					05-02-78	816
					06-15-78	729
					07-06-78	754
					07-11-78	757
					07-18-78	688
					07-24-78	743
					07-31-78	734
					08-08-78	694
08-16-78	862					
08-24-78	711					
08-29-78	718					
09-05-78	670					
09-12-78	666					
09-19-78	704					
09-26-78	736					
Middle Loup River (06781000)	Loup River	Lat 41°04'00", long 98°42'45", in NE1/4SE1/4 sec.29, T.13 N., R.12 W., Howard County, at county road bridge 0.5 mile south of Boelus and 4 miles upstream from South Loup River.	--	1952-55a	09-20-78	427
Deer Creek (06781530)	Middle Loup	Lat 41°05'37", long 98°42'37", in SE1/4SE1/4 sec.17, T.13 N., R.12 W., Howard County, at upstream side of bridge on county road 1.2 miles north of Boelus.	--	1977	05-25-78	.38
					08-17-78	2.2
South Loup River (06782000)	Loup River	Lat 41°02'40", long 99°22'30", in NW1/4NE1/4 sec.4, T.12 N., R.18 W., Buffalo County, at bridge on State Highway 183 and 7.5 miles southeast of Cumro.	--	1946-53a	09-21-78	98.4
South Loup River (06782500)	Loup River	Lat 41°00'42", long 98°54'44", in SW1/4NW1/4 sec.16, T.12 N., R.14 W., Buffalo County, at county road bridge, 0.5 mile south of Ravenna city limits, and 1.4 mile upstream from Mud Creek.	--	1940-58a 1967-75a	09-20-78	89.8

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Platte River basin--Continued						
South Branch Mud Creek (06782700)	Mud Creek	Lat 41°24'27", long 99°38'51", in SE1/4NW1/4 sec.32, T.17 N., R.20 W., Custer County, at bridge on State Highway 2, 0.2 mile upstream from confluence with North Branch of Mud Creek and 0.3 mile west of Arrow Hotel at town square in Broken Bow.	--	1945* 1951-75*	09-21-78	0
Mud Creek ¹ (06783000)	South Loup River	Lat 41°22'30", long 99°35'10", in NW1/4SW1/4NW1/4 sec.11, T.16 N., R.20 W., Custer County, at bridge on State Highway 2 about 3 miles southeast of Broken Bow.	--	1949-53* 1973-77	10-06-77 11-17-77 12-20-77 01-27-78 02-23-78 03-09-78 04-25-78 05-23-78 06-06-78 07-27-78 08-17-78 09-21-78	1.5 1.5 1.2 .86 .93 2.0 2.8 2.3 3.7 1.6 2.2 1.7
Mud Creek (06783300)	South Loup River	Lat 41°08'47", long 99°08'16", in NW1/4NE1/4 sec.34, T.14 N., R.16 W., Sherman County, at bridge on State Highway 2, 1.1 miles southeast of Litchfield.	--	1972-73	09-20-78	12.7
Clear Creek (06783400)	Mud Creek	Lat 41°08'48", long 99°06'15", in NW1/4NW1/4 sec.36, T.14 N., R.16 W., Sherman County, at bridge on county road 2.5 miles southeast of Litchfield.	--	1972-73	09-20-78	0
Oak Creek ¹ (06784400)	Middle Loup	Lat 41°11'30", long 98°41'25", in SW1/4SW1/4 sec.10, T.14 N., R.12 W., Howard County, at upstream side of bridge on county road 3.6 miles southwest of Farwell.	--	1977	05-25-78 08-17-78	15 27
Oak Creek ¹ (06784500)	Middle Loup	Lat 41°07'10", long 98°36'45", in NW1/4NW1/4 sec.8, T.13 N., R.11 W., Howard County, at downstream side of bridge on county road 2 miles west of Dannebroeg.	--	1949-57 1977	05-25-78 08-17-78	24 45
Dry Creek ¹ (06784505)	Oak Creek	Lat 41°06'18", long 98°36'16", in NE1/4NW1/4 sec.17, T.13 N., R.11 W., Howard County, at downstream side of bridge on county road 3.3 miles southwest of Dannebroeg.	--	1977	05-25-78 08-17-78	2.0 4.5
Turkey Creek (06784750)	Middle Loup River	Lat 41°10'48", long 98°36'50", in SE1/4SE1/4 sec.18, T.14 N., R.11 W., Howard County, at upstream side of bridge on county road 3.1 miles north of Nysted.	--	1977	05-25-78 08-17-78	2.5 5.0
Turkey Creek ¹ (06784810)	Middle Loup River	Lat 41°09'28", long 98°31'06", in SE1/4NE1/4 sec.25, T.14 N., R.11 W., Howard County, at upstream side of bridge on county road 3.2 miles northeast of Dannebroeg.	--	1977	05-25-78 08-17-78	8.6 30
Turkey Creek Tributary ¹ (06784820)	Turkey Creek	Lat 41°10'55", long 98°29'39", in NW1/4SW1/4 sec.17, T.14 N., R.10 W., Howard County, at downstream side of bridge on county road 3 miles southwest of St. Paul.	--	1977	05-25-78 08-17-78	1.6 1.5
Unnamed Creek ¹ (06785020)	Middle Loup River	Lat 41°12'48", long 98°28'35", in SW1/4NW1/4 sec.4, T.14 N., R.10 W., Howard County, at downstream side of bridge on county road near west edge of St. Paul.	--	1977	05-25-78 08-17-78	.10 13
Calamus River (06787000)	North Loup River	Lat 41°56'48", long 99°23'10", in NW1/4SE1/4 sec.22, T.23 N., R.18 W., Loup County, at bridge on U.S. Highway 183, 14.1 miles north of Taylor.	--	1931a, 1932*, 1933-39a, 1955-64a 1977	06-05-78 06-29-78 07-21-78 08-09-78 08-28-78 09-19-78	245 250 258 192 208 187

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
Platte River basin--Continued						
Dane Creek ¹ (06788495)	North Loup River	Lat 98°54'01", long 41°36'31", in NE1/4NE1/4 sec.20, T.19 N., R.14 W., Valley County, at bridge on State Highway 11 at northwest edge of Ord.	--	1962a 1977	12-15-77 04-26-78 09-29-78	.53 .65 16
Myra Creek ¹ (06788990)	North Loup River	Lat 41°29'54", long 98°46'46", in SE1/4SW1/4 sec.26, T.18 N., R.13 W., Valley County, at bridge on State Highway 11 at west edge of North Loup.	--	1977	04-26-78 09-29-78	1.1 .45
Auger Creek ¹ (06790245)	North Loup River	Lat 41°17'38", long 98°34'26", in SE1/4SE1/4 sec.4, T.15 N., R.11 W., Howard County, at upstream side of bridge on State Highway 11, 0.5 mile north of Elba.	--	1977	05-25-78 08-17-78	.85 1.0
Unnamed Creek ¹ (06790255)	North Loup River	Lat 41°16'22", long 98°33'24", in SE1/4NE1/4 sec.15, T.15 N., R.11 W., Howard County, downstream side of bridge on State Highway 11, 0.5 mile southeast of Elba.	--	1977	05-25-78 08-17-78	.11 .10
Spring Creek (06791100)	Loup River	Lat 41°17'08", long 98°22'35", in SE1/4NW1/4 sec.8, T.15 N., R.9 W., Howard County, at bridge 0.9 mile southwest of Cushing and 1.9 miles upstream from Loup River.	184	1948 1949-53* 1953-78*	04-18-78 09-19-78	30 4.3
Beaver Creek ¹ (06793600)	Loup River	Lat 41°41'00", long 95°58'25", in NW1/4NW1/4 sec.26, T.20 N., R.6 W., Boone County, at county road bridge 1.3 miles southeast of junction of State Highways 14, 39, and 19 at east edge of Albion.	--	1973-77	10-31-77 11-21-77 12-13-77 01-03-78 02-14-78 03-06-78 04-17-78 05-08-78 06-19-78 07-10-78 08-01-78 09-11-78	57 25 48 47 35 61 267 115 39 30 16 31
Shell Creek (06795000)	Loup River	Lat 41°44'30", long 97°45'00", in NW1/4NW1/4 sec.2, T.20 N., R.4 W., Madison County, on left bank just downstream from highway bridge, 1 mile east of Newman Grove and 5 miles downstream from North Branch.	122	1947-67* 1969*	09-26-77	998
Elkhorn River (06796968)	Platte River	Lat 42°32'20", long 98°59'38" in SW1/4SE1/4 sec.30, T.30 N., R.14, W., Holt County, at upstream side of bridge on county road 1.2 miles northwest of Atkinson.	--		07-27-77	8.5
Dry Creek (06796976)	Elkhorn River	Lat 42°30'23", long 98°58'10", in NE1/4NE1/4 sec.8, T.29 N., R.14 W., Holt County, at upstream side of bridge on State Highway 11, 0.6 mile upstream from mouth and 1.0 mile south of Atkinson.	--		07-26-77	.31
Holt Creek (06796980)	Elkhorn River	Lat 42°27'45", long 98°50'09", in NW1/4NE1/4 sec.28, T.29 N., R.13 W., Holt County, at upstream side of bridge on county road 1.2 miles upstream from mouth and 2.0 miles southwest of Emmet.	--	1968-69*	07-26-77	8.8
Elkhorn River (06796985)	Platte River	Lat 42°28'11", long 98°47'32", in NE1/4SE1/4 sec.23, T.29 N., R.13 W., Holt County, at upstream side of bridge on county road 0.7 mile southeast of Emmet.	--		07-26-77	27
Elkhorn River (06799300)	Platte River	Lat 41°56'25", long 97°13'00", in SE1/4NE1/4 sec.29, T.23 N., R.2 E., Stanton County, at bridge on State Highway 57, south edge of Stanton.	--	1968-69	08-01-78	343
Plus Creek (06799345)	Elkhorn River	Lat 41°53'57", long 96°44'28", in NE1/4NW1/4 sec.9, T.22 N., R.6 E., Cuming County, at bridge on county road 4 miles east and 2 miles south of Beemer.	--	1968-69	10-17-77	1.9

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

385

Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Platte River basin--Continued						
Cuning Creek (06799365)	Elkhorn River	Lat 41°40'05", long 96°38'09", in NW1/4NE1/4 sec.32, T.20 N., R.7 E., Dodge County, at bridge on county road, 0.5 mile east of northeast corner of Scribner.	--	1968-69	10-21-77	1.7
Pebble Creek (06799385)	Elkhorn River	Lat 41°38'59", long 96°39'01", in SE1/4NE1/4 sec.6, T.19 N., R.7 E., Dodge County, at bridge on county road, 0.5 mile south of southeast corner of Scribner.	--	1968-69	10-21-77	4.2
Salt Creek ¹ (06803080)	Platte River	Lat 40°46'13", long 96°43'05", in SW1/4SW1/4 sec.2, T.9 N., R.6 E., Lancaster County, at bridge on county road 0.9 mile west of U.S. Highway 77 and at northwest corner of State Penitentiary, Lincoln.	221	1971-77	10-19-77 11-18-77 12-05-77 01-16-78 02-08-78 03-28-78 04-18-78 05-24-78 06-20-78 07-27-78 08-09-78 09-28-78	14 41 13 12 15 66 640 25 10 138 6.0 180
Salt Creek (06803087)	Platte River	Lat 40°47'00", long 96°47'34", in NW1/4NW1/4 sec.6, T.9 N., R.6 E., Lancaster County, upstream from bridge on Van Dorn Street in southwest Lincoln and 0.4 mile upstream from Haines Branch.	--		08-16-77	32
Salt Creek ¹ (06803190)	Platte River	Lat 40°50'03", long 96°42'03", in NE1/4SE1/4 sec.14, T.10 N., R.6 E., Lancaster County, at bridge at 14th Street at Lincoln, Nebr., 0.3 mile upstream from confluence with Oak Creek and 2.1 miles downstream from Middle Creek.	411	1971-77	12-05-77 03-28-78 06-21-78 08-09-78	18 118 28 42
Oak Creek ¹ (06803493)	Salt Creek	Lat 40°50'10", long 96°42'03", in SE1/4NE1/4 sec.14, T.10 N., R.6 E., Lancaster County, at bridge on 14th Street 0.2 mile upstream from confluence with Salt Creek, Lincoln.	258	1971-77	12-05-77 03-28-78 06-21-78 08-09-78	7.5 93 172 35
Salt Creek (06803512)	Platte River	Lat 40°53'05", long 96°38'10", in NW1/4NW1/4 sec.33, T.11 N., R.7 E., Lancaster County, at bridge on U.S. Highway 77, 1.8 miles north of Lincoln.	--		08-16-77	921
Salt Creek ¹ (06803525)	Platte River	Lat 40°54'18", long 96°35'09", in NW1/4SW1/4 sec.24, T.11 N., R.7 E., Lancaster County, at bridge 0.5 mile north of Interstate Highway 80 and 3 miles southwest of Waverly.	815	1971-77	10-19-77 11-18-77 12-06-77 01-17-78 02-08-78 03-30-78 04-18-78 05-24-78 06-19-78 07-27-78 08-08-78 09-28-78	87 196 48 64 120 214 2000 300 135 296 85 106
Salt Creek ¹ (06803565)	Platte River	Lat 41°01'34", long 96°24'22", in NW1/4NW1/4 sec.10, T.12 N., R.9 E., Saunders County, at bridge on county road 2 miles southwest of Ashland.	1,118	1971-77	10-19-78 11-17-78 12-06-78 01-17-79 02-07-78 03-30-78 04-18-78 05-23-78 06-19-78 07-18-78 08-08-78 09-28-78	120 175 54 100 80 259 3830 1000 140 172 115 120
Salt Creek (06803567)	Platte River	Lat 41°02'12", long 96°21'57", in NW1/4SW1/4 sec.1, T.12 N., R.9 E., Saunders County, at bridge on State Highway 63 at south edge of Ashland.	--		08-18-77	306

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Platte River basin--Continued						
Silver Creek ¹ (06804495)	Wahoo Creek	Lat 41°12'22", long 96°32'37", in NE1/4NE1/4 sec.8, T.14 N., R.8 E., Saunders County, at bridge on county road 3.9 miles east of intersection of 1st Street and U.S. Highway 77 in Wahoo.	--	1974-77	10-19-77 11-17-77 12-07-77 01-18-78 02-07-78 03-31-78 04-19-78 05-23-78 06-22-78 07-18-78 08-08-78 09-20-78	5.4 7.8 4.0 3.3 4.5 5.3 35 10 4.4 5.0 4.5 5.6
Silver Creek (06804500) *	Wahoo Creek	Lat 41°09'44", long 96°31'38", in NW1/4NE1/4 sec.28, T.14 N., R.8 E., Saunders County, at bridge on county road, 0.5 mile east of Itasca.	80	1950-58* 1959-77*	08-09-77	376
Wahoo Creek (06804520)	Salt Creek	Lat 41°03'17", long 96°21'38", in SE1/4NW1/4 sec.36, T.13 N., R.9 E., Saunders County, at bridge on State Highway 63, 0.6 mile north of Ashland	--		08-18-77	111
Hill Creek ¹ (06805499)	Platte River	Lat 41°00'13", long 96°09'35", in NE1/4SE1/4 sec.15, T.12 N., R.11 E., Cass County, at railroad bridge at north edge of Louisville.	--	1973-77	07-20-78	19
Cedar Creek ¹ (06805525)	Platte River	Lat 41°00'05", long 96°07'15", in SE1/4SE1/4 sec.13, T.12 N., R.11 E., Cass County, at bridge on State Highway 66, 2.0 miles east of Louisville.	--	1973-77	07-20-78	92
Fourmile Creek ¹ (06805565)	Platte River	Lat 41°01'02", long 95°57'46", in SE1/4SW1/4 sec.9, T.12 N., R.13 E., at county road bridge 1 mile north of State Highway 66, 3.25 miles west of Maiden Lane in Plattsmouth, and 3.67 miles upstream from mouth.	--	1975-77	05-31-78 07-20-78	20 142
Weeping Water Creek basin						
Weeping Water Creek ¹ (06806460) *	Missouri River	Lat 40°51'18", long 96°07'10", in NW1/4NW1/4 sec.7, T.10 N., R.12 E., Cass County, at bridge of Missouri Pacific Railroad just south of north-south road, 1 mile southeast of Weeping Water.	--	1947, 1950-77	07-20-78	887
South Branch Weeping Water Creek ¹ (06806495)	Weeping Water Creek	Lat 40°48'45", long 95°56'43", in SW1/4SE1/4SW1/4 sec.22, T.10 N., R.13 E., Cass County, at bridge on U.S. Highway 34, 1.1 miles west of Union.	--	1973-77	05-08-78 05-31-78 07-20-78	158 23 570
Kansas River basin						
Horse Creek (06824200)	Republican River	Lat 40°02'23", long 101°41'09", in SE1/4NE1/4 sec.23, T.1 N., R.39 W., Dundy County, at county road bridge 0.5 mile upstream from south and 2 miles east of Parks.	--	1949, 1951-60a, 1961-77	05-03-78 06-19-78	1.4 1.2
Indian Creek (06828200)	Republican River	Lat 40°07'48", long 101°21'44", on line between secs.22 and 23, T.2 N., R.36 W., Dundy County, at county road bridge 0.2 mile north of U.S. Highway 34 and 2.5 miles east of Max.	--	1949, 1951-60a, 1961-77	05-03-78 06-19-78	6.0 .93
Turkey Creek (06850000) *	Republican River	Lat 40°04'34", long 99°08'17", in SW1/4SW1/4 sec.4, T.1 N., R.16 W., Franklin County, at county road bridge at east side of Naponee, 0.8 mile upstream from mouth.	138	1948-53a, 1954-60a, 1961-77	10-10-77 03-28-78 05-22-78 06-19-78 07-06-78 08-02-78 08-28-78	7.8 12 11 6.4 7.8 504 12
Cottonwood Creek (06850200) *	Republican River	Lat 40°05'08", long 99°03'56", in SE1/4NE1/4 sec.1, T.1 N., R.16 W., Franklin County, at county road bridge 1 mile upstream from south and 1.5 miles west of Bloomington.	15.6	1948-56a, 1957, 60a, 1961-77	03-28-78	5.4

387

Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
Kansas River basin--Continued						
Big Blue River (06879855)	Kansas River	Lat 41°01'54", long 97°49'33", in NW1/4NW1/4 sec.7, T.12 N., R.4 W., York County, at bridge on county line road 2.5 miles west of Arborville.	--	1970c, 1974-77	10-12-77 06-19-78 07-19-78 08-08-78 08-21-78 09-26-78	0 0 0 .34 0 0
Lincoln Creek (06879980)	Big Blue River	Lat 40°54'23", long 97°49'26", NW1/4SW1/4 sec.19, T.11 N., R.4 W., York County, at bridge on county line 4 miles northeast of Hampton.	--	1969-70, 1974-77	10-12-77 11-02-77 06-19-78 07-19-78 08-08-78 08-21-78 09-26-78	0 0 0 4.9 4.0 .27 0
Lincoln Creek (06879995)	Big Blue River	Lat 40°57'51", long 97°20'44", NE1/4NW1/4 sec.36, T.12 N., R.1 W., Seward County, at county road bridge 4.5 miles north of Utica.	--	1968-70, 1974-77	10-12-77 11-03-77 06-20-78 07-18-78 08-10-78 08-23-78 09-26-78	.56 0 .01 6.5 6.4 2.2 0
West Fork Big Blue River (06880556)	Big Blue River	Lat 40°36'28", long 98°20'06", in NW1/4NW1/4 sec.3, T.7 N., R.9 W., Adams County, at county road bridge 2 miles northeast of Hastings.	--	1973-77	10-18-77 11-21-77 12-20-77 01-18-78 02-15-78 03-15-78 04-24-78 05-23-78 07-18-78 08-16-78 09-25-78	18 6.2 3.4 4.0 4.0 32 4.8 4.3 20 17 5.2
West Fork Big Blue River (06880559)	Big Blue River	Lat 40°41'41", long 98°03'06", SW1/4NW1/4 sec.6, T.8 N., R.6 W., Clay County, at county road bridge 3.1 miles northwest of Eldorado.	--	1977	10-13-77 11-01-77 06-19-78 07-19-78 08-08-78 08-22-78 09-28-78	16 10 6.4 20 9.0 9.7 3.4
West Fork Big Blue River (06880610)	Big Blue River	Lat 40°43'28", long 97°50'35", in SW1/4SW1/4 sec.19, T.9 N., R.4 W., Hamilton County, at county road bridge 5.4 miles east of Stockham.	--	1969-70, 1974-77	10-13-77 11-01-77 06-19-78 07-19-78 08-08-78 08-21-78 09-26-78	13 17 5.2 28 20 16 3.2
School Creek (06880745)	West Fork Big Blue River	Lat 40°38'25", long 97°46'58", in NE1/4NE1/4 sec.25, T.8 N., R.5 W., Clay County, at county road bridge on county line 3 miles northeast of Sutton.	--	1974-77	10-13-77 06-19-78 07-18-78 08-08-78 08-22-78 09-28-78	2.4 .15 6.2 4.3 1.3 0
West Fork Big Blue River (06880760)	Big Blue River	Lat 40°47'08", long 97°22'05", in NE1/4NE1/4 sec.1, T.9 N., R.1 W., York County, at bridge on county line 4 miles west of Beaver Crossing.	--	1969-70, 1974-77	10-13-77 11-03-77 06-19-78 07-18-78 08-09-78 08-22-78 09-27-78	68 40 31 62 34 40 20
Beaver Creek (06880770)	West Fork Big Blue River	Lat 40°51'33", long 97°49'26", in SW1/4SW1/4 sec.6, T.10 N., R.4 W., York County, at bridge on county-line road 4 miles southeast of Hampton.	--	1969-70, 1972-77	10-12-77 11-02-77 06-19-78 07-19-78 08-08-78 08-21-78 09-26-78	0 0 0 1.8 1.2 0 0
Beaver Creek (06880785)	West Fork Big Blue River	Lat 40°47'49", long 97°20'44", NE1/4SE1/4 sec.25, T.10 N., R.1 W., Seward County, at county road bridge 3.5 miles northwest of Beaver Crossing.	--	1968-70, 1974-77	10-13-77 06-20-78 07-18-78 08-09-78 08-22-78 09-27-78	1.8 3.4 7.9 2.1 4.7 3.8

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
Kansas River basin--Continued						
Indian Creek (06880788)	West Fork Big Blue River	Lat 40°43'15", long 97°21'53", SE1/4NE1/4 sec.25, T.9 N., R.1 W., Seward County, at bridge on county line 1 mile west of Cordova.	--	1969-70, 1974-77	10-13-77	1.5
					11-02-77	0
					06-19-78	0
					07-18-78	.04
					08-09-78	.34
					08-22-78	.49
	09-28-78	0				
Turkey Creek (06881110)	Big Blue River	Lat 40°33'12", long 97°22'05", SW1/4SW1/4 sec.19, T.7 N., R.1 E., Saline County, at bridge on county line 3.7 miles northeast of Milligan.	--	1968-69 1976-77	10-13-77	5.4
					06-19-78	1.8
					07-18-78	11
					08-09-78	7.0
					08-22-78	.27
					09-27-78	.10
Big Sandy Creek (06883583)	Little Blue River	Lat 40°21'02", long 97°52'37", in SW1/4SW1/4 sec.34, T.5 N., R.5 W., Clay County, at county road bridge 4 miles southwest of Ong.	--	1970c, 1974-77	10-13-78	5.0
					06-19-78	0
					07-18-78	3.1
					08-09-78	3.5
					08-22-78	1.6
					09-27-78	0
Little Sandy Creek (06883590)	Big Sandy Creek	Lat 40°22'56", long 97°49'26", in SE1/4SE1/4 sec.24, T.5 N., R.5 W., Clay County, at county road bridge 1.2 miles southeast of Ong.	--	1970, 1974-77	10-13-78	1.9
					06-19-78	0
					07-18-78	1.0
					08-09-78	.05
					08-22-78	.55
					09-27-78	0
Dry Sandy Creek (06883925)	Big Sandy Creek	Lat 40°21'02", long 97°32'45", SW1/4SE1/4 sec.33, T.5 N., R.2 W., Fillmore County, at bridge on county line 1.4 miles northeast of Bruning.	--	1976-77	10-13-77	.08
					06-19-78	0
					07-18-78	8.1
					08-08-78	1.5
					08-22-78	.14
					09-27-78	.35

* Also a crest-stage gage.

* Operated as a continuous-record gaging station.

1 Also published with additional data elsewhere in this report.

a Gage heights, or gage heights and discharge measurements only.

A series of measurements was made in the fall of 1977 on streams throughout the State to document the effect of the prolonged summer drought on streamflow.

The following tabulation shows the years of previous measurements, date, time, measured discharge, water temperature, and specific conductance for each site. The sites are listed in downstream order.

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study

Stream	Location	Measured previously (water years)	Measurements				
			Date	Time	Dis-charge (ft ³ /s)	Specific Conductance Micromhos	Temperature °C
Cheyenne River basin							
Hat Creek near Harrison, NE	Lat 42°45'57", long 103°46'10", in NW¼NW¼ sec. 10, T.32 N., R.55 W., Sioux County.	-----	11-30-77	1430	2.0	387	6.0
Hat Creek near Ardmore, SD	Lat 43°01'15", long 103°40'10", in NE¼NE¼ sec. 21, T.12 S., R.4 E., Fall River County, South Dakota.	-----	11-15-77	0940	7.3	615	3.0
White River basin							
White River tributary near Glen, NE 06-4432.00	Lat 42°37'03", long 103°39'11", in SW¼NW¼ sec. 34, T.31 N., R.54 W., Sioux County.	1953-70*	12-15-77	1000	.35	337	9.0
White River near Chadron, NE 06-4455.00	Lat 42°56'52", long 102°54'02", in NE¼SW¼ sec. 6, T.34 N., R.47 W., Dawes County.	1931-43‡	11-29-77	1130	7.8	805	.5
White Clay Creek at White Clay, NE	Lat 42°59'15", long 102°34'24", in SE¼SE¼ sec. 24, T.35 N., R.45 W., Sheridan County.	-----	12-21-77	1100	6.0	530	.5
Chadron Creek at Chadron State Park, NE 06-4455.60	Lat 42°42'24", long 103°00'41", in SE¼NE¼ sec. 36, T.32 N., R.49 W., Dawes County.	1953-77*	11-23-77	1300	.96	422	3.0
Niobrara River basin							
Pebble Creek near Dunlap, NE 06-4563.00	Lat 42°29'50", long 102°58'28", in SW¼SE¼ sec. 8, T.29 N., R.48 W., Dawes County.	1953-70*	11-23-77	----	0	---	----
Cottonwood Creek near Dunlap, NE 06-4564.00	Lat 42°29'29", long 102°58'08", in SW¼NW¼ sec. 16, T.29 N., R.48 W., Dawes County.	1951-77*	11-23-77	1140	7.8	448	.5
Box Butte Creek near Dunlap, NE	Lat 42°27'50", long 102°37'44", in SE¼NW¼ sec. 29, T.29 N., R.45 W., Sheridan County.	-----	11-07-77	1545	.76	408	12.0
Niobrara River near Hay Springs, NE 06-4565.00	Lat 42°29'00", long 102°41'40", in NW¼NW¼ sec. 23, T.29 N., R.46 W., Sheridan County.	1950-64‡	11-07-77	1515	24	438	11.0
Pine Creek near Rushville, NE	Lat 42°32'23", long 102°28'52", in NE¼NE¼ sec. 33, T.30 N., R.44 W., Sheridan County.	-----	11-07-77	1120	21	187	11.0
Bear Creek near Eli, NE 06-4585.00	Lat 42°54'02", long 101°30'27", in SE¼SW¼ sec. 24, T.34 N., R.36 W., Cherry County.	1947-57‡	12-15-77	1310	11	185	.5
Fairfield Creek near Norden, NE	Lat 42°47'32", long 100°03'47", in NE¼SE¼ sec. 31, T.33 N., R.23 W., Brown County.	-----	11-17-77	1245	26	198	5.5
Plum Creek at Johnstown, NE 06-4624.50	Lat 42°34'08", long 100°06'22", in NW¼SW¼ sec. 14, T.30 N., R.24 W., Brown County.	1969-75a	11-17-77	1005	21	169	3.5
Plum Creek near Johnstown, NE 06-4624.70	Lat 42°40'01", long 100°03'26", in SW¼SE¼ sec. 7, T.31 N., R.23 W., Brown County.	1969-75a	11-17-77	1123	63	185	5.5
Niobrara River at Meadville, NE 06-4630.00	Lat 42°45'05", long 99°51'00", in NW¼NW¼ sec. 13, T.32 N., R.22 W., on line between Brown and Keya Paha Counties.	1950-52‡	11-30-77	1055	1170	227	0.0
Bone Creek at Ainsworth, NE 06-4630.90	Lat 42°32'51", long 99°52'33", in NE¼NE¼ sec. 27, T.30 N., R.22 W., Brown County.	1969-75a	11-30-77	1430	4.0	183	6.0
Bone Creek near Long Pine, NE 06-4633.50	Lat 42°40'16", long 99°46'06", in NE¼SW¼ sec. 10, T.31 N., R.21 W., Brown County.	1969-75a	11-17-77	1440	46	248	7.0
Eagle Creek near Redbird, NE 06-4653.10	Lat 42°45'53", long 98°34'06", in SE¼NW¼ sec. 11, T.32 N., R.11 W., Holt County.	1977b	11-21-77	1430	23	337	.5
Redbird Creek near Redbird, NE	Lat 42°45'41", long 98°26'40", in NE¼SE¼ sec. 11, T.32 N., R.10 W., Holt County.	1977b	11-21-77	1525	17	340	.5
Verdigre Creek at Verdigre, NE 06-4656.85	Lat 42°35'29", long 98°01'49", in SE¼NE¼ sec. 8, T.30 N., R.6 W., Knox County.	1948-51b (Pub. in WSP 1559)	11-22-77	1050	76	328	0.0

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study--continued.

Stream	Location	Measured previously (water years)	Date	Time	Measurements		
					Dis- charge (ft ³ /s)	Specific Conductance Micromhos	Temperature °C
Bazile Creek basin							
Bazile Creek at Bazile Mills, NE	Lat 42°30'42", long 97°54'15", in SW ¹ / ₄ SE ¹ / ₄ sec. 4, T.29 N., R.5 W., Knox County.	-----	11-23-77	1315	21	430	1.0
Bow Creek basin							
West Bow Creek near Fordyce, NE 06-4785.20	Lat 42°41'40", long 97°25'06", in NE ¹ / ₄ NW ¹ / ₄ sec. 3, T.31 N., R.1 W., Cedar County.	1964-65* 1968-77*	11-23-77	1130	3.7	625	1.5
Aowa Creek basin							
Aowa Creek near Ponca, NE	Lat 42°33'32", long 96°42'17", in NE ¹ / ₄ SE ¹ / ₄ sec. 22, T.30 N., R.6 E., Dixon County.	-----	11-28-77	1200	13	738	.5
Omaha Creek basin							
North Omaha Creek near Walthill, NE	Lat 42°10'22", long 96°30'15", in SE ¹ / ₄ NE ¹ / ₄ sec. 3, T.25 N., R.8 E., Thurston County.	-----	11-28-77	1355	1.8	725	.5
South Omaha Creek tributary near Walthill, NE 06-6006.00	Lat 42°06'02", long 96°29'58", in SW ¹ / ₄ NW ¹ / ₄ sec. 35, T.25 N., R.8 E., Thurston County.	1950-67*	11-28-77	1525	.04	695	.5
South Omaha Creek near Walthill, NE 06-6007.00	Lat 42°07'20", long 96°29'23", in SW ¹ / ₄ SE ¹ / ₄ sec. 23, T.25 N., R.8 E., Thurston County.	1950-67*	11-28-77	1500	.84	645	.5
South Omaha Creek at Walthill, NE 06-6009.00	Lat 42°08'54", long 96°28'58", in SE ¹ / ₄ SE ¹ / ₄ sec. 11, T.25 N., R.8 E., Thurston County.	1951-77*	11-28-77	1435	1.7	782	.5
Blackbird Creek basin							
South Blackbird Creek near Macy, NE	Lat 42°06'11", long 96°20'19", in SE ¹ / ₄ SW ¹ / ₄ sec. 30, T.25 N., R.10 E., Thurston County.	-----	11-28-77	1630	2.9	708	.5
Tekamah Creek basin							
Tekamah Creek tributary near Tekamah, NE 06-6076.00	Lat 41°47'27", long 96°17'23", in NW ¹ / ₄ SE ¹ / ₄ sec. 16, T.21 N., R.10 E., Burt County.	1950-60*	11-29-77	0745	.03	796	.5
South Branch Tekamah Creek near Craig, NE 06-6077.00	Lat 41°46'09", long 96°18'41", in NE ¹ / ₄ NW ¹ / ₄ sec. 29, T.21 N., R.10 E., Burt County.	1950-67*	11-29-77	0900	.20	728	.5
South Branch Tekamah Creek trib. near Tekamah, NE 06-6078.00	Lat 41°45'15", long 96°17'11", in NW ¹ / ₄ NW ¹ / ₄ sec. 34, T.21 N., R.10 E., Burt County.	1950-77*	11-29-77	0830	.31	675	1.0
South Branch Tekamah Creek near Tekamah, NE 06-6079.00	Lat 41°45'56", long 96°16'51", in SW ¹ / ₄ NW ¹ / ₄ sec. 27, T.21 N., R.10 E., Burt County.	1950-67*	11-29-77	0925	.78	776	.5
New York Creek basin							
New York Creek north of Spiker, NE 06-6088.00	Lat 41°37'32", long 96°18'34", in NE ¹ / ₄ NE ¹ / ₄ sec. 17, T.19 N., R.10 E., Washington Co.	1951-75*	11-29-77	1215	.45	595	3.0
New York Creek at Herman, NE 06-6090.00	Lat 41°39'30", long 96°12'10", in SE ¹ / ₄ NW ¹ / ₄ sec. 32, T.20 N., R.11 E., Washington Co.	1946-69†	11-29-77	1050	1.8	728	.5
Papillion Creek basin							
Big Papillion Creek near Orum, NE 06-6107.00	Lat 41°32'44", long 96°13'10", in NW ¹ / ₄ SE ¹ / ₄ sec. 7, T.18 N., R.11 E., Washington Co.	1968-77*	11-02-77	0830	1.0	577	7.0
Big Papillion Creek near Irvington, NE	Lat 41°18'16", long 96°06'10", in NE ¹ / ₄ NE ¹ / ₄ sec. 6, T.15 N., R.12 E., Douglas County.	-----	11-02-77	0945	16	735	9.0
Little Papillion Creek at Center St. at Omaha, NE	Lat 41°14'21", long 96°00'58", in NE ¹ / ₄ SW ¹ / ₄ sec. 25, T.15 N., R.12 E., Douglas County.	-----	11-02-77	1145	14	600	13.0
West Papillion Creek near Boys Town, NE	Lat 41°15'53", long 96°10'28", in SW ¹ / ₄ SW ¹ / ₄ sec. 15, T.15 N., R.11 E., Douglas County.	-----	11-02-77	1045	3.8	885	9.0
West Papillion Creek at Millard, NE	Lat 41°12'25", long 96°07'37", in SW ¹ / ₄ SE ¹ / ₄ sec. 1, T.14 N., R.11 E., Douglas County.	-----	11-02-77	1300	5.4	870	10.5
South Papillion Creek near Millard, NE	Lat 41°10'27", long 96°07'02", in NW ¹ / ₄ NW ¹ / ₄ sec. 19, T.14 N., R.12 E., Sarpy County.	-----	11-02-77	1345	2.1	590	12.0
Hell Creek near Ralston, NE	Lat 41°12'11", long 96°05'36", in NE ¹ / ₄ NW ¹ / ₄ sec. 8, T.14 N., R.12 E., Douglas County.	-----	11-02-77	1445	3.4	830	13.5
Big Papillion Creek near Bellevue, NE	Lat 41°06'06", long 95°54'55", in NW ¹ / ₄ NE ¹ / ₄ sec. 14, T.13 N., R.13 E., Sarpy County.	-----	11-03-77	0930	69	770	12.0

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study--continued

Stream	Location	Measured previously (water years)	Measurements				
			Date	Time	Dis-charge (ft ³ /s)	Specific Conductance Micromhos	Temperature °C
Platte River basin							
Horse Creek at WY-NE State line 06-6771.00	Lat 41°54'53", long 104°03'29", in SW ¹ / ₄ SE ¹ / ₄ sec. 34, T.23 N., R.60 W., Goshen Co., WY	1969-71†	11-01-77	1010	13	1150	6.5
Kiowa Creek near Lyman, NE 06-6773.00	Lat 41°55'23", long 103°59'50", in SW ¹ / ₄ NW ¹ / ₄ sec. 36, T.23 N., R.58 W., Scotts Bluff Co.	1961-65†	11-01-77	1115	30	1330	6.0
Brown Canyon Drain near Mitchell, NE 06-6787.00	Lat 41°54'22", long 103°50'52", in NE ¹ / ₄ SW ¹ / ₄ sec. 5, T.22 N., R.56 W., Scotts Bluff Co.	1961-65†	11-01-77	1230	1.4	1170	8.0
Dutch Flats Drain near Mitchell, NE 06-6788.00	Lat 41°58'53", long 103°49'58", in SW ¹ / ₄ NW ¹ / ₄ sec. 9, T.23 N., R.56 W., Scotts Bluff Co.	1961-65b	11-01-77	1320	8.8	990	10.0
Hale Drain near Scottsbluff, NE 06-6808.00	Lat 41°54'06", long 103°37'21", in SW ¹ / ₄ SE ¹ / ₄ sec. 6, T.22 N., R.54 W., Scotts Bluff Co.	1961-65b	11-01-77	1430	9.7	556	9.5
Gering Drain at Mitchell-Gering Canal nr. Gering, NE 06-6813.00	Lat 41°47'00", long 103°41'01", in NW ¹ / ₄ NE ¹ / ₄ sec. 22, T.21 N., R.55 W., Scotts Bluff Co.	1961-65b	11-01-77	0900	16	1640	6.5
Alliance Drain near Minitare, NE 06-6822.00	Lat 41°52'23", long 103°30'20", in SW ¹ / ₄ SE ¹ / ₄ sec. 18, T.22 N., R.53 W., Scotts Bluff Co.	1961-65†	11-01-77	1535	10	750	9.5
Ninemile Drain near Minatare, NE 06-6823.00	Lat 41°53'02", long 103°26'00", in NE ¹ / ₄ NW ¹ / ₄ sec. 14, T.22 N., R.53 W., Scotts Bluff Co.	1961-65†	11-01-77	1620	27	768	9.0
Wildhorse Drain near Bayard, NE 06-6832.00	Lat 41°50'07", long 103°19'03", in NE ¹ / ₄ SW ¹ / ₄ sec. 35, T.22 N., R.52 W., Morrill County.	1961-62b	11-01-77	1705	6.4	754	8.5
Pumpkin Creek near Harrisburg, NE	Lat 41°38'47", long 103°40'29", in NW ¹ / ₄ SW ¹ / ₄ sec. 4, T.19 N., R.55 W., Banner County.	-----	11-01-77	0755	.03	765	1.5
Lawrence Fork near Redington, NE	Lat 41°34'53", long 103°15'34", in NW ¹ / ₄ NE ¹ / ₄ sec. 36, T.19 N., R.52 W., Morrill County.	-----	11-01-77	----	0	---	----
Rush Creek near Lisco, NE	Lat 41°27'01", long 102°31'54", in NE ¹ / ₄ NW ¹ / ₄ sec. 17, T.17 N., R.45 W., Garden County.	-----	11-01-77	----	0	---	----
Ash Hollow Creek near Lewellen, NE	Lat 41°18'20", long 102°07'03", in NW ¹ / ₄ NE ¹ / ₄ sec. 3, T.15 N., R.42 W., Garden County.	-----	11-01-77	----	0	---	----
Birdwood Creek near Sutherland, NE 06-6915.00	Lat 41°18'06", long 101°04'39", in SW ¹ / ₄ NW ¹ / ₄ sec. 2, T.15 N., R.33 W., Lincoln County.	1913-15†	11-04-77	1410	123	186	11.0
Sidney Draw near Sidney, NE	Lat 41°07'31", long 103°02'46", in NW ¹ / ₄ SW ¹ / ₄ sec. 3, T.13 N., R.50 W., Cheyenne County.	-----	11-03-77	----	0	---	----
Plum Creek near Smithfield, NE 06-7675.00	Lat 40°39'40", long 99°42'00", in NW ¹ / ₄ SW ¹ / ₄ sec. 15, T.8 N., R.21 W., Gosper County.	1946-53† 1954-68* 1969-75†	11-03-77	----	0	---	----
Platte River tributary near Overton, NE 06-7679.95	Lat 40°40'17", long 99°34'23", in SW ¹ / ₄ SE ¹ / ₄ sec. 10, T.8 N., R.20 W., Dawson County.	1968-72a	11-14-77	----	0	---	----
Larson Drain south of Overton, NE 06-7679.96	Lat 40°40'17", long 99°34'40", in SE ¹ / ₄ SW ¹ / ₄ sec. 10, T.8 N., R.20 W., Phelps County.	1968-72a	11-14-77	1400	2.4	1100	11.5
Platte River tributary near Westmark, NE 06-7680.30	Lat 40°39'25", long 99°31'33", in SE ¹ / ₄ SW ¹ / ₄ sec. 18, T.8 N., R.19 W., Phelps County.	1968-72a	11-14-77	----	0	---	----
Buffalo Creek near Darr, NE 06-7685.00	Lat 40°54'01", long 99°49'55", in NW ¹ / ₄ NE ¹ / ₄ sec. 28, T.11 N., R.22 W., Dawson County.	1946-69†	11-07-77	----	0	---	----
Buffalo Creek near Overton, NE 06-7690.00	Lat 40°44'02", long 99°30'14", in NE ¹ / ₄ SE ¹ / ₄ sec. 20, T.9 N., R.19 W., Dawson County.	1949-58†	11-07-77	----	0	---	----
Elm Creek near Overton, NE 06-7695.00	Lat 40°50'32", long 99°30'14", in NE ¹ / ₄ NE ¹ / ₄ sec. 17, T.10 N., R.19 W., Dawson County.	1946-58†	11-07-77	----	0	---	----
South Channel Platte trib. No. 1 near Westmark, NE 06-7699.40	Lat 40°39'18", long 99°26'53", in NW ¹ / ₄ NE ¹ / ₄ NW ¹ / ₄ sec. 23, T.8 N., R.19 W., Phelps County.	1968-72a	11-09-77	----	0	---	----
South Channel near Elm Creek, NE 06-7699.50	Lat 40°40'04", long 99°25'02", in SE ¹ / ₄ NE ¹ / ₄ NE ¹ / ₄ sec. 13, T.8 N., R.19 W., Phelps County.	1968-72a	11-09-77	1720	7.9	878	4.5
South Channel Platte River trib. No. 2 near Elm Creek, NE 06-7699.58	Lat 40°39'25", long 99°24'11", in SE ¹ / ₄ SW ¹ / ₄ SE ¹ / ₄ sec. 8, T.8 N., R.18 W., Phelps County.	1968-72a	11-09-77	----	0	---	----
South Channel Platte River trib. No. 4 near Holdrege, NE 06-7699.94	Lat 40°34'18", long 99°22'46", in NE ¹ / ₄ SE ¹ / ₄ SE ¹ / ₄ sec. 17, T.7 N., R.18 W., Phelps County.	1968-72a	11-09-77	1615	.82	1420	4.5

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study--continued

Stream	Location	Measured previously (water years)	Date	Time	Measurements			
					Dis- charge (ft ³ /s)	Specific Conductance Micromhos	Temperature °C	
Platte River basin--Continued								
South Channel Platte River trib. No. 4 near Odessa, NE 06-7699.98	Lat 40°39'24", long 99°17'49", in SE SW SW SW sec. 18, T.8 N., R.17 W., Phelps County.	1968-72a	11-09-77	1420	.04	1180	1.0	
Platte River tributary near Odessa, NE 06-7700.01	Lat 40°39'18", long 99°15'13", in NW NW NW NW sec. 21, T.8 N., R.17 W., Phelps County.	1968-72a	11-09-77	----	0	---	----	
Platte River tributary No. 2 near Odessa, NE 06-7700.02	Lat 40°39'24", long 99°12'48", in SE SW SW SW sec. 14, T.8 N., R.17 W., Phelps County.	1968-72a	11-09-77	1200	.14	458	4.0	
North Dry Creek near Kearney, NE 06-7701.90	Lat 40°35'58", long 99°08'37", in SE SE SE SE sec. 5, T.7 N., R.16 W., Kearney County.	1968-71‡	11-08-77	1600	7.9	1140	8.0	
North Dry Creek south of Kearney, NE 06-7701.95	Lat 40°38'32", long 99°06'52", in SE SE SE SE sec. 22, T.8 N., R.16 W., Kearney County.	1968-72a	11-08-77	1440	8.1	1040	8.1	
Whiskey Slough near Kearney, NE 06-7701.98	Lat 40°38'45", long 99°08'26", in SW NW SW NW sec. 21, T.8 N., R.16 W., Kearney County.	1968-72a	11-08-77	1400	.18	1400	8.0	
Crooked Creek drain at Newark, NE 06-7702.50	Lat 40°39'05", long 98°58'16", in NE SE NE SE sec. 23, T.8 N., R.15 W., Kearney County.	1968-72a	11-07-77	1220	5.3	532	13.0	
Dry Creek near Axtell, NE 06-7703.30	Lat 40°32'33", long 99°05'10", in NE SE SE SE sec. 26, T.7 N., R.16 W., Kearney County.	1968-72a	11-04-77	----	0	---	----	
Dry Creek near Minden, NE 06-7703.35	Lat 40°34'44", long 98°57'07", in NE SE NE SE sec. 13, T.7 N., R.15 W., Kearney County.	1968-72a	11-04-77	----	0	---	----	
Lost Creek near Axtell, NE 06-7703.40	Lat 40°35'23", long 99°05'01", in NW NW SW SW sec. 12, T.7 N., R.16 W., Kearney County.	1968-72a	11-04-77	1350	1.7	498	14.5	
Lost Creek near Minden, NE 06-7703.45	Lat 40°35'43", long 98°57'07", in SE NE NE NE sec. 12, T.7 N., R.15 W., Kearney County.	1968-72a	11-04-77	----	0	---	----	
Dry Creek at Cairo, NE 06-7730.00	Lat 41°00'18", long 98°36'16", in SW SW SW SW sec. 18, T.12 N., R.11 W., Hall County.	1949-53‡	11-22-77	----	0	---	----	
North Branch Middle Loup River near Mullen, NE	Lat 42°08'30", long 101°12'38", in SE NW NW NW sec. 18, T.25 N., R.33 W., Cherry County.	-----	11-28-77	1500	24	168	5.0	
Middle Branch Middle Loup River near Mullen, NE	Lat 42°07'00", long 101°13'13", in NE NE NE NE sec. 25, T.25 N., R.34 W., Cherry County.	-----	11-28-77	1550	13	225	8.5	
South Branch Middle Loup River near Mullen, NE	Lat 42°05'16", long 101°13'58", in NE NE NE NE sec. 3, T.24 N., R.34 W., Hooker County.	-----	11-28-77	1630	5.0	363	3.5	
Middle Loup River near Mullen, NE 06-7745.00	Lat 42°04'09", long 101°02'09", in SE NE NE NE sec. 8, T.24 N., R.32 W., Hooker County.	1946-48‡	11-29-77	1210	138	212	8.0	
Middle Loup River near Seneca, NE 06-7750.00	Lat 42°02'56", long 100°56'10", in SW SW SW SW sec. 17, T.24 N., R.31 W., Hooker County.	1948-53‡	11-29-77	1620	204	208	9.0	
North Fork Dismal River near Mullen, NE 06-7757.00	Lat 41°51'06", long 101°02'09", in SE NE NE NE sec. 29, T.22 N., R.32 W., Hooker County.	1971-77*	11-29-77	1050	49	235	5.0	
South Fork Dismal River near Mullen, NE	Lat 41°51'06", long 101°02'09", in SE NE NE NE sec. 29, T.22 N., R.32 W., Hooker County.	-----	11-29-77	1015	31	180	4.5	
Dismal River (at Dunning Dam site) near Gem, NE 06-7760.00	Lat 41°46'46", long 100°16'56", in NW NW NW NW sec. 24, T.21 N., R.26 W., Thomas County.	1946-53‡	11-30-77	1500	278	188	7.0	
South Loup River near Stapleton, NE	Lat 41°29'45", long 100°29'53", in SW SW SW SW sec. 25, T.18 N., R.28 W., Logan County.	-----	12-07-77	1035	3.2	235	1.0	
South Loup River at Arnold, NE	Lat 41°25'11", long 100°12'01", in NW NE NE NE sec. 28, T.17 N., R.25 W., Custer County.	-----	12-07-77	1140	24	231	1.0	
Spring Creek (near mouth) near Callaway, NE	Lat 41°16'22", long 99°47'55", in SE NE NE NE sec. 14, T.15 N., R.22 W., Custer County.	-----	12-07-77	1400	.57	418	2.5	
South Loup River near Cumro, NE 06-7820.00	Lat 41°02'45", long 99°23'20", in NW NW NW NW sec. 5, T.12 N., R.18 W., Buffalo County.	1946-53‡	11-07-77	1330	148	358	12.0	
Mud Creek near Broken Bow, NE 06-7830.00	Lat 41°22'30", long 99°35'10", in NW SW SW SW sec. 11, T.16 N., R.20 W., Custer County.	1949-53‡ 1973-77b	11-17-77	1020	1.5	755	4.0	
Clear Creek near Litchfield, NE	Lat 41°09'26", long 99°06'50", in SW NE NE NE sec. 26, T.14 N., R.16 W., Sherman County.	-----	11-07-77	1530	.09	787	12.0	

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study--continued

Stream	Location	Measured previously (water years)	Measurements				
			Date	Time	Dis- charge	Specific Conductance	Temperature
					(ft ³ /s)	Micromhos	°C
Platte River basin--Continued							
Oak Creek at Dannebrog, NE 06-7845.10	Lat 41°06'36", long 98°33'01", in NW¼SW¼ sec. 11, T.13 N., R.11 W., Howard County.	-----	11-22-77	1400	22	697	0.5
Turkey Creek near Dannebrog, NE 06-7848.00	Lat 41°09'24", long 98°33'22", in SW¼NW¼ sec. 26, T.14 N., R.11 W., Howard County.	1966-70‡	11-22-77	1300	5.4	850	2.0
North Loup River at Brownlee, NE	Lat 42°17'05", long 100°37'38", in SE¼NW¼ sec. 30, T.27 N., R.28 W., Cherry County.	-----	11-30-77	0840	172	180	1.0
North Loup River at Purdum, NE	Lat 42°04'10", long 100°14'44", in NW¼NW¼ sec. 8, T.24 N., R.25 W., Blaine County.	-----	11-30-77	1150	325	170	3.0
Goose Creek near Elsmere, NE	Lat 42°10'19", long 100°11'26", in NW¼NE¼NE¼ sec. 2, T.25 N., R.25 W., Cherry County.	-----	11-30-77	1040	15	257	4.0
Dane Creek at Ord, NE 06-7884.95	Lat 41°36'31", long 98°54'01", in NE¼NE¼ sec. 20, T.19 N., R.14 W., Valley County.	1962 1977b	12-15-77	1510	.53	825	1.5
Mira Creek at North Loup, NE 06-7889.90	Lat 41°29'50", long 98°46'59", in SE¼SW¼ sec. 26, T.18 N., R.13 W., Valley County.	-----	11-30-77	1610	1.0	710	4.5
Davis Creek near Cotesfield, NE 06-7895.00	Lat 41°24'13", long 98°41'30", in NW¼SW¼ sec. 34, T.17 N., R.12 W., Howard County.	1947-48b 1949-58‡	12-01-77	1100	4.0	675	1.5
Spring Creek at Wolbach, NE	Lat 41°24'13", long 98°41'30", in NW¼NW¼NW¼ sec. 6, T.16 N., R.9 W., Howard County.	-----	12-01-77	1550	3.2	807	3.0
Spring Creek at Cushing, NE 06-7910.00	Lat 41°17'55", long 98°22'29", in NE¼SW¼ sec. 5, T.15 N., R.9 W., Howard County.	1947-48b 1949-53‡	11-22-77	1030	6.0	625	1.5
Spring Creek near Cushing, NE 06-7911.00	Lat 41°17'16", long 98°22'46", in SW¼NW¼ sec. 8, T.15 N., R.9 W., Howard County.	1949-53‡	12-01-77	1355	7.7	655	3.0
Cedar Creek near Gables, NE	Lat 41°59'23", long 98°54'01", in SE¼SE¼ sec. 2, T.23 N., R.14 W., Garfield County.	-----	11-17-77	1240	6.9	210	4.0
Cedar River at Primrose, NE 06-7917.50	Lat 41°37'17", long 98°15'10", in NE¼SE¼NE¼ sec. 17, T.19 N., R.8 W., Boone County.	1960-64‡ 1966*	12-01-77	1140	189	248	2.0
Cedar River at Belgrade, NE 06-7918.00	Lat 41°28'26", long 98°04'53", in SE¼NE¼ sec. 2, T.17 N., R.7 W., Nance County.	1959-65‡ 1966*	12-01-77	1515	216	268	3.0
Beaver Creek at Loretto, NE 06-7935.00	Lat 41°45'50", long 98°04'50", in NE¼ sec. 26, T.21 N., R.7 W., Boone County.	1944-53‡	12-01-77	1340	63	225	3.0
Clear Creek near Columbus, NE	Lat 41°22'17", long 97°21'56", in NW¼SW¼ sec. 7, T.16 N., R.1 E., Butler County.	-----	11-02-77	1130	26	567	10.0
Lost Creek near Schuyler, NE 06-7948.10	Lat 41°25'17", long 97°06'00", in NE¼NE¼ sec. 29, T.17 N., R.3 E., Colfax County.	-----	11-04-77	0940	6.6	365	8.0
Lost Creek at Schuyler, NE	Lat 41°26'09", long 97°03'42", in NE¼NE¼ sec. 22, T.17 N., R.3 E., Colfax County.	-----	10-25-77	----	10	---	----
Loseke Creek at Tarnov, NE	Lat 41°37'05", long 97°24'32", in NE¼SE¼ sec. 15, T.19 N., R.1 W., Platte County.	-----	11-21-77	0918	Trace	148	0.0
Skull Creek at Linwood, NE	Lat 41°25'01", long 96°56'17", in SW¼SE¼NW¼ sec. 26, T.17 N., R.4 E., Butler County.	-----	11-22-77	1015	5.5	685	0.0
Elkhorn River near Stuart, NE 06-7969.50	Lat 42°35'45", long 99°12'31", in SE¼SE¼ sec. 5, T.30 N., R.16 W., Holt County.	1968-69b	11-22-77	1525	.48	175	----
North Branch Elkhorn River near Stuart, NE 06-7969.60	Lat 42°37'04", long 99°12'14", in SW¼NW¼ sec. 33, T.31 N., R.16 W., Holt County.	1968-69b	11-22-77	----	0	---	----
Elkhorn River at Atkinson, NE 06-7969.70	Lat 42°31'05", long 98°58'05", in NE¼SE¼NE¼ sec. 5, T.29 N., R.14 W., Holt County.	1968-69b	11-22-77	1430	13	235	----
Holt Creek near Emmet, NE 06-7969.80	Lat 42°27'45", long 98°50'09", in NW¼NE¼ sec. 28, T.29 N., R.13 W., Holt County.	1968-69b	11-22-77	1300	11	188	----
Elkhorn River at O'Neill, NE 06-7970.00	Lat 42°26'40", long 98°38'11", in SE¼NE¼ sec. 31, T.29 N., R.11 W., Holt County.	1931-32‡ 1969b	11-21-77	1300	38	242	0.0
Dry Creek near O'Neill, NE 06-7972.00	Lat 42°24'46", long 98°37'48", in NW¼SW¼ sec. 8, T.28 N., R.11 W., Holt County.	1968-69b	11-21-77	1130	6.2	209	0.0

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study--continued

Stream	Location	Measured previously (water years)	Measurements				
			Date	Time	Dis-charge (ft ³ /s)	Specific Conductance Micromhos	Temperature °C
Platte River basin--Continued							
Elkhorn River at Meadow Grove, NE 06-7988.00	Lat 42°02'43", long 97°44'04", in NW¼NW¼ sec. 24, T.24 N., R.4 W., Madison County.	1960-65†	12-02-77	1050	279	298	0.5
Elkhorn River near Battle Creek, NE 06-7989.00	Lat 42°01'13", long 97°35'38", in SE¼SW¼ sec. 30, T.24 N., R.2 W., Madison County.	1968-69b	12-02-77	1225	335	315	.5
Battle Creek at Battle Creek, NE 06-7989.20	Lat 42°00'47", long 97°35'55", in SW¼NW¼ sec. 31, T.24 N., R.2 W., Madison County.	1968-69b	12-02-77	1320	13	534	3.0
North Fork Elkhorn River above Pierce, NE 06-7990.20	Lat 42°14'18", long 97°32'25", in NW¼SW¼SW¼ sec. 10, T.26 N., R.2 W., Pierce County.	1968-69b	11-23-77	0945	10	598	.5
Dry Creek near Pierce, NE 06-7990.30	Lat 42°14'11", long 97°32'25", in SW¼SW¼SW¼ sec. 10, T.26 N., R.2 W., Pierce County.	1968-69b	11-08-77	1030	6.8	447	12.0
Yankton Slough near Pierce, NE 06-7990.40	Lat 42°13'22", long 97°30'02", in SW¼SW¼ sec. 13, T.26 N., R.2 W., Pierce County.	1968-69b	11-08-77	----	0	---	----
Willow Creek near Pierce, NE 06-7990.50	Lat 42°11'15", long 97°32'25", in NW¼SW¼NW¼ sec. 34, T.26 N., R.2 W., Pierce County.	1961-63b 1968-69b	11-08-77	0930	9.3	297	12.0
North Fork Elkhorn River near Hadar, NE 06-7991.10	Lat 42°06'14", long 97°25'58", in NW¼NE¼ sec. 33, T.25 N., R.1 W., Pierce County.	1968-69b	11-08-77	0830	41	418	12.5
Union Creek at Madison, NE 06-7992.15	Lat 41°49'42", long 97°28'12", in NW¼NE¼ sec. 6, T.21 N., R.1 W., Madison County.	-----	10-21-77	----	1.7	---	----
Union Creek at Madison, NE 06-7992.30	Lat 41°49'54", long 97°27'12", in SW¼SE¼ sec. 32, T.22 N., R.1 W., Madison County.	-----	11-21-77	1015	15	648	.5
Union Creek near Stanton, NE 06-7992.90	Lat 41°54'55", long 97°15'17", in NE¼NE¼ sec. 1, T.22 N., R.1 E., Stanton County.	1962-64b	11-21-77	1225	33	649	.5
Elkhorn River at Stanton, NE 06-7993.00	Lat 41°56'25", long 97°13'00", in SE¼NE¼ sec. 29, T.23 N., R.2 E., Stanton County.	1968-69b	12-01-77	1445	493	386	.5
Payne Creek near Stanton, NE	Lat 41°58'57", long 97°08'47", in SW¼SW¼NE¼ sec. 12, T.23 N., R.2 E., Stanton County.	-----	11-21-77	1340	.40	1030	.5
Rock Creek near Beemer, NE 06-7993.25	Lat 41°54'49", long 96°51'12", in NW¼NE¼ sec. 4, T.22 N., R.5 E., Cuming County.	1968-69b	11-22-77	1525	8.5	595	6.5
Plum Creek near Beemer, NE 06-7993.45	Lat 41°53'57", long 96°44'28", in NE¼NW¼ sec. 9, T.22 N., R.6 E., Cuming County.	1968-69b	11-22-77	1445	18	925	1.0
Cuming Creek at Scribner, NE 06-7993.65	Lat 41°40'05", long 96°38'09", in NW¼NE¼ sec. 32, T.20 N., R.7 E., Dodge County.	1968-69b	11-22-77	1150	14	685	.5
Pebble Creek near Scribner, NE	Lat 41°39'52", long 96°42'38", in SW¼NW¼ sec. 35, T.20 N., R.6 E., Dodge County.	-----	11-22-77	1340	14	618	.5
Silver Creek near Scribner, NE	Lat 41°39'20", long 96°42'04", in SW¼SE¼ sec. 35, T.20 N., R.6 E., Dodge County.	-----	11-22-77	1300	1.2	755	1.0
Elkhorn River near Hooper, NE 06-7994.00	Lat 41°37'28", long 96°32'51", in NW¼NE¼ sec. 17, T.19 N., R.8 E., Dodge County.	1968-69b	12-01-77	1240	539	500	.5
Middle Logan Creek at Laurel, NE 06-7994.10	Lat 42°26'24", long 97°05'44", in SE¼SE¼ sec. 32, T.29 N., R.3 E., Cedar County.	1968-69b	11-28-77	1015	4.5	675	3.0
South Logan Creek at Wayne, NE	Lat 42°13'37", long 97°00'53", in NW¼SW¼ sec. 18, T.26 N., R.4 E., Wayne County.	-----	11-21-77	1510	6.5	781	.5
South Logan Creek near Wakefield, NE	Lat 42°16'29", long 96°54'01", in SE¼NE¼ sec. 36, T.27 N., R.4 E., Dixon County.	-----	10-19-77	----	7.1	---	----
West Fork Maple Creek at Clarkson, NE	Lat 41°43'40", long 97°06'50", in NW¼NW¼ sec. 8, T.20 N., R.3 E., Colfax County.	-----	10-21-77	----	.7	---	----
West (Middle) Fork Maple Creek near Schuyler, NE 06-7999.00	Lat 41°32'02", long 96°57'39", in SW¼NW¼ sec. 15, T.18 N., R.4 E., Colfax County.	1968-69b	11-04-78	0840	.8	768	10.0
Salt Creek subwatershed No. 3 near Sprague, NE 06-8013.00	Lat 40°37'26", long 96°43'50", in NW¼NE¼ sec. 34, T.8 N., R.6 E., Lancaster County.	1954-59†	11-01-77	0840	8.4	1850	10.5
Salt Creek subwatershed No. 1 near Roca, NE 06-8014.00	Lat 40°38'30", long 96°38'55", in SE¼SE¼ sec. 20, T.8 N., R.7 E., Lancaster County.	1954-61†	11-01-77	----	0	----	----

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study--continued

Stream	Location	Measured previously (water years)	Date	Time	Measurements		
					Dis- charge (ft ³ /s)	Specific Conductance Micromhos	Temperature °C
Platte River basin--Continued							
Salt Creek subwatershed No. 12 near Roca, NE 06-8015.00	Lat 40°39'23", long 96°38'38", in SW ¹ SW ⁴ sec. 16, T.8 N., R.7 E., Lancaster County.	1954-61†	11-01-77	----	0	----	----
Salt Creek subwatershed No. 34 near Roca, NE 06-8025.00	Lat 40°38'30", long 96°39'45", in SW ¹ SW ⁴ sec. 20, T.8 N., R.7 E., Lancaster County.	1951-61‡	11-01-77	0945	.21	448	11.0
Haines Branch at Van Dorn St., Lincoln, NE 06-8030.98	Lat 40°47'13", long 96°43'35", in SW ¹ SE ⁴ sec. 34, T.10 N., R.6 E., Lancaster County.	-----	11-01-77	1330	2.8	1030	12.0
Middle Creek at Lincoln, NE 06-8031.80	Lat 40°48'05", long 96°44'43", in SW ¹ SE ⁴ sec. 28, T.10 N., R.6 E., Lancaster County.	-----	11-01-77	1300	2.9	1560	12.0
Antelope Creek at 17th St., at Lincoln, NE 06-8034.00	Lat 40°49'26", long 96°41'74", in SW ¹ NW ⁴ sec. 24, T.10 N., R.6 E., Lancaster County.	1958-62‡ 1963-77*	11-01-77	1345	1.7	3150	14.5
Dee Creek near Alvo, NE 06-8035.40	Lat 40°54'52", long 96°25'04", in SE ¹ SE ⁴ sec. 17, T.11 N., R.9 E., Cass County.	1961b 1962-77*	11-01-77	1000	.52	570	10.0
Dee Creek at Greenwood, NE 06-8035.50	Lat 40°56'59", long 96°27'23", in NE ¹ SW ⁴ sec. 6, T.11 N., R.9 E., Cass County.	1960‡ 1961-63*	11-01-77	1045	.36	615	10.0
North Fork Wahoo Creek near Prague, NE 06-8036.00	Lat 41°15'37", long 96°48'47", in NW ¹ NW ⁴ sec. 24, T.15 N., R.5 E., Saunders County.	1951-77*	11-03-77	1225	1.0	650	9.5
North Fork Wahoo Creek trib. near Weston, NE 06-8037.00	Lat 41°13'19", long 96°48'36", in SW ¹ SW ⁴ sec. 36, T.15 N., R.5 E., Saunders County.	1950-67*	11-03-77	1220	1.8	638	9.5
North Fork Wahoo Creek at Weston, NE 06-8039.00	Lat 41°12'19", long 96°43'40", in NE ¹ NW ⁴ sec. 10, T.14 N., R.6 E., Saunders County.	1951-77*	11-03-77	1320	3.4	675	9.5
Silver Creek near Colon, NE 06-8042.00	Lat 41°18'26", long 96°33'47", in NW ¹ NW ⁴ sec. 6, T.15 N., R.8 E., Saunders County.	1950-77*	11-01-77	1315	1.4	510	9.5
Silver Creek at Ithaca, NE 06-8045.00	Lat 41°09'44", long 96°31'38", in NW ¹ NE ⁴ sec. 28, T.14 N., R.8 E., Saunders County.	1950-58‡ 1959-77*	11-01-77	1235	5.5	547	10.5
Clear Creek near Ashland, NE	Lat 41°04'36", long 96°22'13", in SE ¹ SE ⁴ sec. 23, T.13 N., R.9 E., Saunders County.	-----	11-01-77	1140	17	880	10.5
Buffalo Creek near Gretna, NE 06-8055.10	Lat 41°06'12", long 96°13'30", in NE ¹ NW ⁴ sec. 18, T.13 N., R.11 E., Sarpy County.	1968-77*	11-02-77	1515	.04	675	10.0
Weeping Water Creek at Elmwood, NE 06-8064.00	Lat 40°51'06", long 96°17'23", in SW ¹ NW ⁴ sec. 10, T.10 N., R.10 E., Cass County.	1950-67*	11-03-77	1300	.24	545	13.5
Stove Creek near Elmwood, NE 06-8064.20	Lat 40°48'55", long 96°18'31", in SW ¹ SW ⁴ sec. 21, T.10 N., R.10 E., Cass County.	1950-67*	11-03-77	1415	.25	648	17.0
Stove Creek at Elmwood, NE 06-8064.40	Lat 40°50'32", long 96°17'37", in SW ¹ NW ⁴ sec. 15, T.10 N., R.10 E., Cass County.	1950-77*	11-03-77	1345	.70	600	14.0
Weeping Water Creek at Weeping Water, NE 06-8064.60	Lat 40°51'18", long 96°07'10", in NW ¹ NW ⁴ sec. 7, T.10 N., R.12 E., Cass County.	1947* 1950-77*	11-03-77	1130	8.5	562	12.5
Little Nemaha River basin							
Hooper Creek near Palmyra, NE 06-8102.00	Lat 40°46'10", long 96°25'23", in NW ¹ NW ⁴ sec. 32, T.9 N., R.8 E., Otoe County.	1950-77*	11-03-77	1500	4.4	638	13.5
Kansas River basin							
Horse Creek near Parks, NE 06-8242.00	Lat 40°02'29", long 101°41'08", in SE ¹ NE ⁴ sec. 23, T.1 N., R.39 W., Dundy County.	1949b	10-31-77	1435	1.1	448	13.0
Spring Creek near Benkelman, NE	Lat 40°02'39", long 101°32'34", in NE ¹ NW ⁴ sec. 19, T.1 N., R.37 W., Dundy County.	-----	10-31-77	1400	.04	766	12.0
Republican River at Max, NE 06-8280.00	Lat 40°06'06", long 101°23'51", in NE ¹ NE ⁴ sec. 32, T.2 N., R.36 W., Dundy County.	1928-45‡	10-31-77	1300	63	537	15.0
Indian Creek near Max, NE 06-8282.00	Lat 40°07'47", long 101°21'33", in SE ¹ NE ⁴ NE ⁴ sec. 22, T.2 N., R.36 W., Dundy County.	1949b	10-31-77	1220	2.1	576	12.0
Muddy Creek at Stratton, NE 06-8284.90	Lat 40°08'38", long 101°14'06", in SW ¹ NW ⁴ NE ⁴ sec. 14, T.2 N., R.35 W., Hitchcock County.	1978‡	10-31-77	1140	.16	695	11.0
Republican River at Culbertson, NE 06-8300.00	Lat 40°13'15", long 100°50'07", in SE ¹ SE ⁴ sec. 17, T.3 N., R.31 W., Hitchcock County.	1913-15*	10-31-77	0940	11	850	12.0

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study--continued

Stream	Location	Measured previously (water years)	Measurements					
			Date	Time	Dis-charge (ft ³ /s)	Specific Conductance Micromhos	Temperature °C	
Kansas River basin--Continued								
Frenchman Creek near Champion, NE 06-8305.00	Lat 40°28'17", long 101°47'45", in NW¼SW¼ sec. 19, T.6 N., R.39 W., Chase County.	1932-40†	11-01-77	0930	7.7	387	9.0	
Frenchman Creek below Champion, NE 06-8310.00	Lat 40°28'14", long 101°44'14", in NW¼SW¼ sec. 22, T.6 N., R.39 W., Chase County.	1934-56†	11-01-77	0850	17	417	8.0	
Spring Creek near Wauneta, NE	Lat 40°30'20", long 101°21'24", in SW¼NW¼ sec. 12, T.6 N., R.36 W., Chase County.	-----	11-15-77	1055	10	457	6.5	
Stinking Water Creek near Wauneta, NE 06-8345.00	Lat 40°29'43", long 101°20'05", in NE¼NW¼ sec. 18, T.6 N., R.35 W., Hayes County.	1940-50†	11-15-77	1215	18	457	8.5	
Red Willow Creek northeast of McCook, NE 06-8379.00	Lat 40°16'45", long 100°32'24", in SW¼SE¼ sec. 25, T.4 N., R.29 W., Red Willow County.	1958-61*	11-03-77	0925	3.8	538	8.0	
Coon Creek at Indianola, NE 06-8382.00	Lat 40°13'55", long 100°25'46", in NW¼NE¼ sec. 13, T.3 N., R.28 W., Red Willow County.	1961-77*	11-03-77	0835	1.9	710	7.0	
Dry Creek at Bartley, NE 06-8385.00	Lat 40°15'02", long 100°19'03", in SW¼SE¼ sec. 1, T.3 N., R.27 W., Red Willow County.	1955-57†	11-03-77	0800	.03	725	6.0	
Medicine Creek at Maywood, NE 06-8390.00	Lat 40°39'13", long 100°36'45", in NE¼NE¼ sec. 21, T.8 N., R.29 W., Frontier County.	1951-58† 1960-77*	11-03-77	1200	24	460	8.0	
Fox Creek at Curtis, NE 06-8400.00	Lat 40°38'07", long 100°29'19", in SE¼NW¼ sec. 27, T.8 N., R.28 W., Frontier County.	1947* 1951-58† 1960-70*	11-03-77	1240	3.8	454	8.0	
Medicine Creek at Stockville, NE	Lat 40°32'00", long 100°22'11", in SW¼NE¼ sec. 34, T.7 N., R.27 W., Frontier County.	-----	11-03-77	1050	42	494	7.0	
Dry Creek near Curtis, NE 06-8405.00	Lat 40°38'33", long 100°26'45", in SW¼SE¼ sec. 24, T.8 N., R.28 W., Frontier County.	1947* 1951-58† 1960-70*	11-03-77	----	0	---	----	
Muddy Creek at Arapahoe, NE 06-8440.00	Lat 40°18'20", long 99°54'40", in NW¼NW¼ sec. 22, T.4 N., R.23 W., Furnas County.	1950-72†	11-04-77	0900	7.0	637	5.5	
East Branch Turkey Creek near Smithfield, NE 06-8441.50	Lat 40°28'59", long 99°44'52", in SE¼SE¼SW¼ sec. 18, T.6 N., R.18 W., Gosper County.	1968-73a	11-03-77	1450	.49	570	10.0	
East Branch Turkey Creek trib. nr. Smithfield, NE 06-8441.60	Lat 40°28'59", long 99°44'52", in SW¼SE¼SW¼ sec. 18, T.6 N., R.18 W., Gosper County.	1968-73a	11-03-77	----	0	---	----	
East Branch Turkey Creek near Bertrand, NE 06-8441.70	Lat 40°26'22", long 99°45'55", in SE¼SW¼ sec. 36, T.6 N., R.22 W., Gosper County.	1968-73a	11-03-77	1520	1.1	609	9.0	
West Branch Turkey Creek near Bertrand, NE 06-8441.80	Lat 40°26'09", long 99°46'29", in NE¼NE¼ sec. 2, T.5 N., R.22 W., Gosper County.	1968-73a	11-03-77	1545	.01	690	7.0	
Turkey Creek near Edison, NE 06-8442.00	Lat 40°18'18", long 99°44'19", in NW¼NW¼ sec. 19, T.4 N., R.21 W., Furnas County.	1968-73a	11-04-77	0925	2.4	583	4.5	
Flag Creek near Orleans, NE 06-8475.50	Lat 40°08'04", long 99°27'49", in SE¼SE¼ sec. 16, T.2 N., R.19 W., Harlan County.	1949a 1951-60b 1961-74a 1976a	11-04-77	1015	.61	653	5.0	
Rope Creek near Orleans, NE 06-8475.60	Lat 40°07'51", long 99°24'44", in NW¼NE¼ sec. 24, T.2 N., R.19 W., Harlan County.	1949a 1951-60b 1961-74a 1976a	11-04-77	1040	.18	615	5.0	
Eureka Creek near Naponee, NE 06-8494.00	Lat 40°04'50", long 99°11'25", in NE¼SW¼ sec. 1, T.1 N., R.17 W., Franklin County.	1949b	11-04-77	1200	.76	665	15.0	
Turkey Creek at Naponee, NE 06-8500.00	Lat 40°04'34", long 99°08'17", in SW¼SW¼ sec. 4, T.1 N., R.16 W., Franklin County.	1948-53† 1954-61b 1962-77*	11-04-77	1340	8.9	569	10.0	
Cottonwood Creek near Bloomington, NE 06-8502.00	Lat 40°05'09", long 99°04'05", in SE¼NE¼ sec. 1, T.1 N., R.16 W., Franklin County.	1948-56† 1957-61b 1962-77*	11-04-77	1415	4.2	528	12.0	
Little Cottonwood Creek near Bloomington, NE 06-8504.00	Lat 40°05'14", long 99°03'31", in NE¼NW¼ sec. 6, T.1 N., R.15 W., Franklin County.	1949b	11-04-77	1450	1.7	507	10.0	
Republican River near Bloomington, NE 06-8505.00	Lat 40°03'58", long 99°02'14", in NW¼SE¼ sec. 8, T.1 N., R.15 W., Franklin County.	1929-57† 1960-67b 1970-78*	11-10-77	0955	25	676	2.0	

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study--continued

Stream	Location	Measured previously (water years)	Measurements				
			Date	Time	Dis-charge (ft ³ /s)	Specific Conductance Micromhos	Temperature °C
Kansas River basin--Continued							
Walnut Run near Franklin, NE 06-8510.20	Lat 40°05'51", long 98°55'00", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 32, T.2 N., R.14 W., Franklin County.	1949b 1951-60b 1961-73a	11-07-77	1015	.54	449	3.0
Farmers Creek near Inavale, NE 06-8516.00	Lat 40°05'24", long 98°41'43", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T.2 N., R.12 W., Webster County.	1949b 1951-60b 1961-73a	11-10-77	1105	3.5	579	5.5
Walnut Creek near Inavale, NE	Lat 40°04'09", long 98°41'45", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T.1 N., R.12 W., Webster County.	-----	11-10-77	----	0	---	----
Indian Creek near Red Cloud, NE 06-8517.00	Lat 40°05'25", long 98°34'06", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T.2 N., R.11 W., Webster County.	1949b 1951-60b 1961-73a	11-10-77	1155	2.2	592	5.0
Crooked Creek near Red Cloud, NE 06-8518.00	Lat 40°05'25", long 98°30'42", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T.2 N., R.11 W., Webster County.	1949b 1951-60b 1961-74a	11-10-77	1225	1.6	513	3.0
Elm Creek at Amboy, NE 06-8520.00	Lat 40°05'20", long 98°26'07", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T.1 N., R.10 W., Webster County.	1948-53† 1954-60b 1959* 1961-77*	11-08-77	0915	18	478	13.0
Willow Creek near Guide Rock, NE 06-8522.00	Lat 40°05'26", long 98°23'45", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T.2 N., R.10 W., Webster County.	1949b 1951-60b 1961-74a	11-08-77	0845	1.5	408	13.0
Beaver Creek near Rosemont, NE 06-8531.00	Lat 40°15'42", long 98°22'29", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T.3 N., R.9 W., Webster County.	1968-70b 1971-77*	11-10-77	----	0	---	----
Lost Creek near Superior, NE	Lat 40°03'27", long 98°04'56", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T.1 N., R.7 W., Nuckolls County.	-----	11-07-77	1735	.54	880	12.0
Big Blue River near Polk, NE 06-8798.60	Lat 41°02'54", long 97°46'10", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T.13 N., R.4 W., Polk County.	1969-70a	11-02-77	----	0	---	----
Prairie Creek near Stromsberg, NE 06-8798.85	Lat 41°07'02", long 97°36'54", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T.13 N., R.3 W., Polk County.	1968-69a	11-02-77	----	0	---	----
Kezan Creek near Garrison, NE 06-8798.45	Lat 41°08'47", long 97°09'33", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T.14 N., R.2 E., Butler County.	1968-69a	11-03-77	1115	1.4	995	9.0
Lincoln Creek near Hampton, NE 06-8799.80	Lat 40°54'23", long 97°49'26", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T.11 N., R.4 W., York County.	1969a	11-02-77	----	0	---	----
Lincoln Creek near Utica, NE 06-8799.95	Lat 40°57'51", long 97°20'44", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T.12 N., R.1 W., York County.	1968-69a	11-03-77	----	0	---	----
Plum Creek near Seward, NE 06-8805.08	Lat 40°55'44", long 97°04'29", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 15, T.11 N., R.3 E., Seward County.	1968-77*	11-02-77	1315	3.4	825	10.0
Plum Creek at Seward, NE 06-8805.10	Lat 40°54'51", long 97°05'03", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T.11 N., R.3 E., Seward County.	1968-69a	11-02-77	1220	4.6	855	10.0
Big Blue River near Milford, NE 06-8805.50	Lat 40°42'40", long 96°59'38", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 32, T.9 N., R.4 E., Seward County.	1968-69a	11-03-77	1510	53	778	13.5
West Fork Big Blue River near Eldorado, NE 06-8805.60	Lat 40°42'27", long 98°00'49", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T.9 N., R.6 W., Hamilton County.	1969a	11-01-77	1745	10	515	10.5
Flessner Creek near Stockham, NE 06-8806.00	Lat 40°43'20", long 97°59'41", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T.9 N., R.6 W., Hamilton County.	1968-69a	11-01-77	----	0	---	----
West Fork Big Blue River near Stockham, NE 06-8806.10	Lat 40°43'28", long 97°50'35", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T.9 N., R.4 W., Hamilton County.	1969-77a	11-01-77	1555	17	572	11.0
School Creek near Sutton, NE 06-8807.45	Lat 40°38'25", long 97°46'58", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T.8 N., R.5 W., Clay County.	1974-77a	11-01-77	1650	5.5	310	10.5
School Creek near Grafton, NE 06-8807.50	Lat 40°41'23", long 97°44'44", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T.8 N., R.4 W., Fillmore County.	1968-69a	11-01-77	1510	3.5	377	10.5
West Fork Big Blue River near McCool Junction, NE 06-8807.55	Lat 40°42'15", long 97°36'53", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T.9 N., R.3 W., York County.	1970a	11-01-77	1415	22	515	11.5
West Fork Big Blue River near Beaver Crossing, NE 06-8807.60	Lat 40°52'19", long 97°22'00", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T.10 N., R.1 E., Seward County.	1969-70a 1974-77a	11-03-77	0945	40	595	9.5
Beaver Creek near Hampton, NE 06-8807.70	Lat 40°51'36", long 97°49'26", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T.10 N., R.4 W., York County.	1969-70a 1972-77a	11-02-77	----	0	---	----

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study--continued

Stream	Location	Measured previously (water years)	Measurements				
			Date	Time	Dis- charge (ft ³ /s)	Specific Conductance Micromhos	Temperature °C
Kansas River basin--Continued							
Beaver Creek at York, NE	Lat 40°51'35", long 97°35'43", in SW ⁴ SW ⁴ sec. 6, T.10 N., R.2 W., York County.	-----	11-02-77	1445	.92	547	17.0
Indian Creek near Exeter, NE 06-8807.87	Lat 40°41'48", long 97°09'26", in NW ⁴ NW ⁴ sec. 1, T.8 N., R.2 E., Seward County.	1969-70a	11-01-77	----	0	---	----
Indian Creek near Cordova, NE 06-8807.88	Lat 40°43'15", long 97°21'53", in SE ⁴ NE ⁴ sec. 25, T.9 N., R.1 W., York County.	1969-70a 1974-77b	11-02-77	----	0	---	----
West Fork Big Blue River at Beaver Crossing, NE 06-8807.90	Lat 40°46'10", long 97°16'46", in NW ⁴ NE ⁴ sec. 11, T.9 N., R.1 E., Seward County.	1965b, 1967b 1967-68*	11-03-77	1300	53	378	10.5
Johnson Creek near Dorchester, NE 06-8808.50	Lat 40°41'47", long 97°07'09", in NW ⁴ NW ⁴ sec. 5, T.8 N., R.3 E., Saline County.	1964-66a 1968-69a	11-01-77	1130	.06	365	12.0
Squaw Creek near Crete, NE 06-8810.10	Lat 40°34'36", long 96°58'03", in SW ⁴ NW ⁴ sec. 15, T.7 N., R.4 E., Saline County.	1968-69a	11-01-77	----	0	---	----
Clatonia Creek near DeWitt, NE 06-8811.05	Lat 40°24'23", long 96°53'30", in NW ⁴ NW ⁴ sec. 17, T.5 N., R.5 E., Gage County.	1968-69a	11-08-77	0930	.17	447	13.0
Cub Creek near Beatrice, NE 06-8814.30	Lat 40°17'38", long 96°49'09", in SW ⁴ SW ⁴ sec. 24, T.4 N., R.5 E., Gage County.	1968-69a	11-07-77	1320	.62	515	14.0
Indian Creek at Beatrice, NE 06-8814.50	Lat 40°17'11", long 96°44'55", in SE ⁴ NE ⁴ sec. 28, T.4 N., R.6 E., Gage County.	1960-77* 1968-69a	11-07-77	1210	1.5	417	14.0
Bear Creek near Beatrice, NE 06-8815.20	Lat 40°15'40", long 96°41'48", in NW ⁴ NE ⁴ sec. 1, T.3 N., R.6 E., Gage County.	1968-69a	11-07-77	1435	3.7	655	14.0
Big Blue River tributary near Beatrice, NE 06-8815.30	Lat 40°15'53", long 96°39'32", in SW ⁴ SE ⁴ sec. 32, T.4 N., R.7 E., Gage County.	1971-77*	11-07-77	----	0	---	----
Cedar Creek near Holmsville, NE 06-8815.50	Lat 40°14'09", long 96°40'23", in SE ⁴ SE ⁴ sec. 7, T.3 N., R.7 E., Gage County.	1968-69a	11-07-77	1600	.06	638	14.0
Mud Creek near Holmsville, NE 06-8816.50	Lat 40°10'40", long 96°38'41", in SE ⁴ SW ⁴ sec. 33, T.3 N., R.7 E., Gage County.	1968-69a	11-07-77	1645	1.0	605	14.0
Sand Creek near Holstein, NE 06-8825.50	Lat 40°23'32", long 98°36'27", in NW ⁴ NW ⁴ sec. 19, T.5 N., R.11 W., Adams County.	1968-69a	11-02-77	----	0	---	----
Cottonwood Creek near Roseland, NE 06-8826.50	Lat 40°25'17", long 98°33'03", in NW ⁴ NW ⁴ sec. 10, T.5 N., R.11 W., Adams County.	1968-69a	11-02-77	----	0	---	----
Little Blue River near Ayr, NE	Lat 40°27'27", long 98°23'52", in NW ⁴ SW ⁴ sec. 25, T.6 N., R.10 W., Adams County.	-----	11-02-77	1000	9.4	483	9.0
Little Blue River below Pawnee Creek near Pauline, NE 06-8829.00	Lat 40°23'47", long 98°13'08", in SW ⁴ SW ⁴ sec. 15, T.5 N., R.8 W., Clay County.	1962-68† 1969*	11-02-77	1150	51	457	11.0
Pawnee Creek at Spring Ranch, NE 06-8829.50	Lat 40°24'26", long 98°13'25", in NE ⁴ NE ⁴ sec. 16, T.5 N., R.8 W., Clay County.	1968-69a	11-02-77	1115	2.0	408	9.5
Little Blue River above Oxbow Creek near Angus, NE 06-8833.00	Lat 40°17'39", long 98°01'35", in SE ⁴ SE ⁴ sec. 20, T.4 N., R.6 W., Nuckolls County.	1963b 1966-69a	11-02-77	1310	69	442	10.0
Little Blue River at Angus, NE 06-8835.00	Lat 40°16'27", long 97°58'02", in NW ⁴ sec. 35, T.4 N., R.6 W., Nuckolls County.	1912b 1950-53†	11-02-77	1350	70	435	11.0
Elk Creek near Oak, NE 06-8835.10	Lat 40°14'10", long 97°55'54", in SW ⁴ SW ⁴ sec. 7, T.3 N., R.5 W., Nuckolls County.	1968-69a	11-02-77	1445	8.0	483	10.0
Spring Creek at Hebron, NE 06-8835.53	Lat 40°09'22", long 97°35'30", in SW ⁴ NW ⁴ sec. 7, T.2 N., R.2 W., Thayer County.	1968-69a	11-03-77	1050	8.7	358	10.0
Dry Creek near Hebron, NE 06-8835.63	Lat 40°08'56", long 97°31'18", in SE ⁴ SE ⁴ sec. 10, T.2 N., R.2 W., Thayer County.	1968-69a	11-03-77	1130	1.5	440	11.0
Big Sandy Creek near Davenport, 06-8835.85	Lat 40°20'02", long 97°49'05", in NW ⁴ NW ⁴ sec. 7, T.4 N., R.4 W., Thayer County.	1968-69a	11-02-77	----	0	---	----
Big Sandy Creek at Alexandria, NE	Lat 40°14'06", long 97°23'11", in SW ⁴ SW ⁴ sec. 12, T.3 N., R.1 W., Thayer County.	-----	11-03-77	1250	23	287	13.5

Discharge measurements made at miscellaneous sites during the 1978 water year for drought study--continued

Stream	Location	Measured previously (water years)	Date	Time	Measurements		
					Dis- charge (ft ³ /s)	Specific Conductance Micromhos	Temperature °C
Kansas River basin--Continued							
South Fork Big Sandy Creek near Davenport, NE 06-8837.00	Lat 40°18'31", long 97°52'29", in SW¼SW¼ sec. 15, T.4 N., R.5 W., Nuckolls County.	1950*b	11-02-77	----	0	---	----
Big Sandy Creek near Powell, NE 06-8839.50	Lat 40°13'04", long 97°18'51", in NE¼NE¼ sec. 21, T.3 N., R.1 E., Jefferson County.	1968-69a	11-03-77	1345	30	365	12.5
Little Sandy Creek near Powell, NE 06-8839.60	Lat 40°13'04", long 97°14'36", in NW¼NE¼ sec. 19, T.3 N., R.2 E., Jefferson County.	1968-69a	11-03-77	1430	2.2	350	12.0
Little Blue River at Fairbury, NE 06-8839.95	Lat 40°08'43", long 97°12'03", in NE¼NE¼ sec. 16, T.2 N., R.2 E., Jefferson County.	1968-69a	11-03-77	1530	185	433	12.0
Rose Creek near Endicott, NE 06-8840.10	Lat 40°04'35", long 97°06'40", in SW¼SE¼ sec. 5, T.1 N., R.3 E., Jefferson County.	1968-69a	11-03-77	1640	18	618	11.0
Little Blue River at Steel City, NE 06-8840.20	Lat 40°01'44", long 97°01'36", in NW¼NW¼ sec. 30, T.1 N., R.4 E., Jefferson County.	1968-69a	11-03-77	1730	224	448	12.0

* Operated as a crest-stage gage.

† Operated as a continuous-record gaging station.

a Published as a low-flow partial-record station.

b Published as a miscellaneous station.

PLATTE RIVER BASIN

Buffalo Creek basin seepage investigations

A series of observations were made on Buffalo Creek and its tributaries in Custer and Dawson Counties, Nebr., during the 1978 water year. The data collected were used to determine ground-water/surface-water relationships in the area and will be used to calibrate a numerical model of the hydrologic system of the area. The observations are listed in downstream order.

<u>Location</u>	<u>Observation of zero flow or measured discharge, in cubic feet per second</u>	
	March 30, 1978	
West Buffalo Creek 16 mi north of Gothenburg in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T.14 N., R.25 W.	0	
West Buffalo Creek 15 mi north of Gothenburg in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T.14 N., R.25 W.	.04	
East Buffalo Creek 15 mi north of Gothenburg in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T.14 N., R.25 W.	0	
Buffalo Creek 15 mi north of Gothenburg in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T.14 N., R.25 W.	0	
Buffalo Creek 12 mi north of Gothenburg in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T.13 N., R.25 W.	0	
Buffalo Creek 10 mi north of Gothenburg in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T.13 N., R.25 W.	0	
Buffalo Creek 9 mi northeast of Gothenburg in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T.12 N., R.25 W.	0	
Buffalo Creek 7 mi northeast of Gothenburg in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T.12 N., R.25 W.	0	
Buffalo Creek 5 mi northeast of Gothenburg in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T.12 N., R.25 W.	0	
Buffalo Creek 4 mi northeast of Gothenburg in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T.12 N., R.24 W.	0	

Silver Creek basin and Prairie Creek basin seepage investigations

Two series of discharge measurements were made on Silver Creek, Prairie Creek, and their tributaries in Merrick, Nance, and Platte Counties, Nebr., during the 1978 water year. The data collected were used to determine ground-water/surface-water relationships and will be used to calibrate a numerical model of the hydrologic system of the area. The measurements are listed in downstream order.

Silver Creek basin

<u>Location</u>	<u>Measured discharge, in cubic feet per second</u>	
	Apr. 4, 5	Sept. 13
Silver Creek near Central City Municipal Airport in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T.13 N., R.7 W.	0	----
Silver Creek northwest of Central City in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 29, T. 14 N., R. 6 W.	0	0
Unnamed tributary north of Central City in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T.14 N., R.6 W.	0	----
Silver Creek north of Central City in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T.14 N., R.6 W.	.33	0
Silver Creek northeast of Central City in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T.14 N., R.6 W.	.88	0
Silver Creek west of Clarks in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T.15 N., R.5 W.	1.3	0
Silver Creek northwest of Clarks in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T.15 N., R.5 W.	.27	0
Silver Creek north of Clarks in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, T.15 N., R.4 W.	1.2	0
Silver Creek northwest of Havens in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T.15 N., R.4 W.	1.9	0
Unnamed tributary northwest of Havens in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T.15 N., R.4 W.	0	----
Unnamed tributary northwest of Havens in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 10, T.15 N., R.4 W.	.08	----
Unnamed tributary near Clarks in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T.14 N., R.5 W.	0	----
Unnamed tributary west of Clarks in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 3, T.14 N., R.5 W.	.22	0
Unnamed tributary north of Clarks in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T.15 N., R.4 W.	.98	0
Unnamed tributary west of Havens in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T.15 N., R.4 W.	2.2	0
Unnamed tributary north of Havens in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T.15 N., R.4 W.	3.0	0
Silver Creek north of Havens in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T.15 N., R.4 W.	7.0	.05
Silver Creek southwest of Silver Creek in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T.15 N., R.3 W.	9.1	0
Silver Creek near Silver Creek in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T.16 N., R.3 W.	----	.03
Unnamed tributary west of Silver Creek in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T.16 N., R.3 W.	0	----
Unnamed tributary west of Silver Creek in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T.16 N., R.3 W.	.04	----
Silver Creek at Silver Creek in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T.16 N., R.3 W.	13	0

Prairie Creek basin

Prairie Creek southwest of Archer in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T.13 N., R.7 W.	0	----
Mores Creek southwest of Archer in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T.13 N., R.7 W.	0	----
Prairie Creek at Archer in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T.14 N., R.7 W.	0	----
Prairie Creek 1 mi northeast of Archer in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T.14 N., R.7 W.	0	0
Prairie Creek 2 mi northeast of Archer in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 10, T.14 N., R.7 W.	.01	0

Silver Creek basin and Prairie Creek basin seepage investigations--Continued

Prairie Creek basin--Continued

<u>Location</u>	<u>Measured discharge, in cubic feet per second</u>	
	Apr. 4, 5	Sept. 13
Prairie slough 2 mi northeast of Worms in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T.13 N., R.8 W.	2.2	0
Unnamed prairie slough tributary near Worms in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T.13 N., R.8 W.	.57	0
Prairie slough west of Archer in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T.14 N., R.8 W.	4.4	0
Unnamed prairie slough tributary west of Archer in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T.14 N., R.8 W.	.07	----
Prairie slough northwest of Archer in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, T.14 N., R.7 W.	6.0	0
Prairie slough northeast of Archer in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T.14 N., R.7 W.	8.0	0
Prairie Creek 3 mi northeast of Archer in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T.14 N., R.7 W.	7.7	0
Prairie Creek 6 mi northeast of Archer in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T.15 N., R.6 W.	12	.23
Prairie Creek 8 mi northeast of Archer in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T.15 N., R.6 W.	-----	.86
Unnamed Prairie Creek tributary 8 mi northeast of Archer in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T.15 N., R.6 W.	0	----
Prairie Creek 8 mi north of Central City in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T.15 N., R.6 W.	15	----
Prairie Creek 8 mi northwest of Clarks in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T.15 N., R.6 W.	15	.47
Prairie Creek 7 mi northwest of Clarks in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T.15 N., R.5 W.	19	.23
Prairie Creek 6 mi northwest of Clarks in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T.15 N., R.5 W.	21	.54
Prairie Creek 6 mi southwest of Merchiston in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4, T.15 N., R.5 W.	-----	.20
Prairie Creek 5 mi south of Merchiston in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T.16 N., R.5 W.	25	0
Unnamed Prairie Creek tributary 5 mi southeast of Merchiston in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T.16 N., R.5 W.	0	----
Unnamed Prairie Creek tributary 5 mi south of Merchiston in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T.16 N., R.5 W.	0	----
Prairie Creek 5 mi southeast of Merchiston in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T.16 N., R.5 W.	24	0
Unnamed Prairie Creek tributary southeast of Merchiston in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T.16 N., R.4 W.	0	----
Unnamed Prairie Creek tributary southeast of Merchiston in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T.16 N., R.5 W.	0	----
Unnamed Prairie Creek tributary southeast of Merchiston in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T.16 N., R.4 W.	0	----
Prairie Creek 5 mi northwest of Havens in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T.16 N., R.4 W.	26	0
Unnamed Prairie Creek tributary 4 mi north of Havens in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T.16 N., R.4 W.	0	----
Unnamed Prairie Creek tributary 5 mi north of Havens in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T.16 N., R.4 W.	0	----
Prairie Creek 5 mi north of Havens in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T.16 N., R.4 W.	27	0
Unnamed Prairie Creek trib. 3 mi northwest of Silver Creek in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T.16 N., R.4 W.	0	----
Prairie Creek 2 mi northwest of Silver Creek in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 29, T.16 N., R.3 W.	34	.50
Prairie Creek 2 mi northeast of Silver Creek in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T.16 N., R.3 W.	35	0
Prairie Creek 4 mi northeast of Silver Creek in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T.16 N., R.3 W.	38	.09
Prairie Creek 5 mi northeast of Silver Creek in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T.16 N., R.2 W.	47	.80

Loup River basin seepage investigations

A series of discharge measurements were made on the Loup River, Middle Loup River, South Loup River, and smaller tributaries in Nance, Merrick, Howard, Hall, Buffalo, Sherman, Custer, and Logan Counties, Nebr., during the 1978 water year. The measurements were made during the period September 19-21, 1978. The data collected will be used to determine ground-water/surface-water relationships and will be used to calibrate a numerical model of the hydrologic system of the area. The measurements are listed in downstream order.

<u>Location</u>	<u>Measured discharge, in cubic feet per second</u>	
	September 19-21	
Middle Loup River at Boelus in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T.13 N., R.12 W.	427	
Deer Creek near Boelus in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T.13 N., R.12 W.	.88	
South Loup River 9 mi west of Stapleton in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T.17 N., R.29 W.	0	
South Loup River 7 mi west of Stapleton in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T.17 N., R.29 W.	0	
South Loup River 6 mi west of Stapleton in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T.17 N., R.29 W.	0	
South Loup River 4 mi west of Stapleton in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T.17 N., R.28 W.	0	
South Loup River 3 mi west of Stapleton in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T.18 N., R.28 W.	.01	
South Loup River at Stapleton in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T.18 N., R.28 W.	2.4	
Unnamed tributary in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T.18 N., R.28 W.	0	
South Loup River 1 mi north of Stapleton in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T.18 N., R.28 W.	2.9	
Unnamed tributary near Gandy in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T.17 N., R.28 W.	0	

Loup River basin seepage investigations--Continued

<u>Location</u>	<u>Measured discharge, in cubic feet per second</u>	
	September 19-21	
South Loup River near Gandy in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32, T.18 N., R.27 W.		2.8
South Loup River 3 mi northeast of Gandy in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T.18 N., R.27 W.		2.2
South Loup River 5 mi northeast of Gandy in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T.18 N., R.27 W.		3.2
South Loup River 6 mi northeast of Gandy in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T.18 N., R.26 W.		9.0
South Loup River 8 mi northwest of Arnold in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T.18 N., R.26 W.		8.9
South Loup River 5 mi northwest of Arnold in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T.17 N., R.26 W.		9.6
South Loup River 2 mi northwest of Arnold in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T.17 N., R.25 W.		11
South Loup River at Arnold in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T.17 N., R.25 W.		20
Sand Creek near Arnold in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T.17 N., R.25 W.		0
Sand Creek near Arnold in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T.17 N., R.25 W.		.26
Devils Gulch near Arnold in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T.17 N., R.25 W.		0
South Loup River 3 mi east of Arnold in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T.17 N., R.25 W.		35
South Loup River 7 mi southeast of Arnold in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T.16 N., R.24 W.		43
Powell Canyon 6 mi east of Arnold in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T.17 N., R.24 W.		0
Powell Canyon 8 mi southeast of Arnold in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T.16 N., R.24 W.		0
South Loup River 7 mi northeast of Callaway in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T.16 N., R.24 W.		52
South Loup River 3 mi northeast of Callaway in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T.16 N., R.23 W.		60
Sand Creek 1 mi west of Callaway in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T.15 N., R.23 W.		0
Sand Creek at south edge of Callaway in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T.15 N., R.23 W.		.03
Sand Creek at east edge of Callaway in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T.15 N., R.23 W.		.36
Cottonwood Creek 1 mi southeast of Callaway in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T.15 N., R.23 W.		0
South Loup River 2 mi east of Callaway in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T.15 N., R.22 W.		61
South Loup River 3 mi southeast of Callaway in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T.15 N., R.22 W.		68
South Loup River 6 mi southeast of Callaway in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T.15 N., R.22 W.		71
Spring Creek 6 mi east of Callaway in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T.15 N., R.22 W.		0
Spring Creek 6 mi southeast of Callaway in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T.15 N., R.22 W.		.29
Yellow Dog Canyon 6 mi east of Callaway in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T.15 N., R.22 W.		0
Yellow Dog Canyon 6 mi southeast of Callaway in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T.15 N., R.22 W.		.02
Unnamed tributary to South Loup River in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T.15 N., R.22 W.		.01
South Loup River 6 mi north of Oconto in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32, T.15 N., R.21 W.		81
Unnamed tributary to South Loup River in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T.14 N., R.21 W.		0
Unnamed tributary to South Loup River in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T.14 N., R.21 W.		.31
South Loup River at Pressey State special-use area in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T.14 N., R.21 W.		87
Ash Creek 8 mi northeast of Oconto in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T.15 N., R.21 W.		0
Ash Creek 6 mi northeast of Oconto in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T.14 N., R.20 W.		0
South Loup River 7 mi northeast of Oconto in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T.14 N., R.20 W.		90
Unnamed tributary to South Loup River in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T.14 N., R.20 W.		0
South Loup River 8 mi east of Oconto in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T.14 N., R.20 W.		100
Burr Oak Creek 8 mi east of Oconto in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T.14 N., R.20 W.		.03
South Loup River 9 mi northeast of Eddyville in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T.13 N., R.20 W.		87
Deer Creek 9 mi northeast of Eddyville in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T.13 N., R.19 W.		0
Warm Swamp 6 mi northeast of Eddyville in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T.13 N., R.20 W.		0
Warm Swamp 8 mi northeast of Eddyville in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T.13 N., R.19 W.		.02
South Loup River 9 mi northeast of Eddyville in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T.13 N., R.19 W.		88
Boxelder Creek 10 mi northeast of Eddyville in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 10, T.13 N., R.19 W.		0
Unnamed tributary to South Loup River in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T.13 N., R.19 W.		0
South Loup River 9 mi northeast of Sumner in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T.13 N., R.18 W.		94
South Loup River 8 mi north of Miller in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4, T.12 N., R.18 W.		98
Otter Creek 8 mi north of Miller in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T.12 N., R.18 W.		0
Elk Creek 8 mi northeast of Miller in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T.12 N., R.18 W.		0
South Loup River 8 mi northeast of Miller in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T.12 N., R.18 W.		90
South Loup River 9 mi northeast of Miller in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T.12 N., R.17 W.		94

Loup River basin seepage investigations--Continued

<u>Location</u>	<u>Measured discharge, in cubic feet per second</u>	
	September 19-21	
Death Creek 7 mi northeast of Miller in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T.12 N., R.17 W.		0
South Loup River 7 mi west of Pleasanton in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T.12 N., R.17 W.		87
Swenson Creek 6 mi west of Pleasanton in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T.12 N., R.17 W.		0
Deer Creek 7 mi southwest of Pleasanton in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T.11 N., R.17 W.		0
Deer Creek 7 mi west of Pleasanton in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T.12 N., R.17 W.		0
South Loup River 4 mi west of Pleasanton in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T.11 N., R.16 W.		96
Rusco Creek 3 mi southwest of Pleasanton in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T.11 N., R.16 W.		0
South Loup River at Pleasanton in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T.12 N., R.16 W.		90
Dry Creek near Pleasanton in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T.12 N., R.16 W.		0
Sand Creek at Poole in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T.12 N., R.15 W.		0
South Loup River at Poole in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T.12 N., R.15 W.		86
Cedar Creek 3 mi south of Poole in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T.11 N., R.15 W.		0
Cedar Creek at Poole in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T.12 N., R.15 W.		.17
South Loup River at Ravenna in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T.12 N., R.14 W.		90
Mud Creek at Broken Bow in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32, T.17 N., R.20 W.		0
Mud Creek 1 mi east of Broken Bow in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T.17 N., R.20 W.		.19
Mud Creek 3 mi southeast of Broken Bow in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T.16 N., R.20 W.		1.7
Unnamed tributary to Mud Creek in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T.16 N., R.19 W.		0
Mud Creek 2 mi west of Berwyn in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T.16 N., R.19 W.		1.8
Mud Creek 1 mi southeast of Berwyn in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 22, T.16 N., R.19 W.		3.0
Tiltotsons Canyon 4 mi southeast of Berwyn in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T.15 N., R.19 W.		0
Goose Valley 4 mi northwest of Ansley in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T.16 N., R.19 W.		0
Mud Creek 3 mi northwest of Ansley in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T.16 N., R.18 W.		3.6
Unnamed tributary to Mud Creek near Ansley in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T.15 N., R.18 W.		0
Mud Creek at Ansley in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T.15 N., R.18 W.		5.1
Comer Canyon at Ansley in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T.15 N., R.18 W.		0
Mud Creek 2 mi southeast of Ansley in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T.15 N., R.18 W.		7.1
Unnamed tributary to Mud Creek in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T.15 N., R.18 W.		0
Mud Creek 1 mi northwest of Mason City in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T.15 N., R.17 W.		12
Mud Creek 2 mi east of Mason City in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T.15 N., R.17 W.		12
Unnamed tributary to Mud Creek in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T.15 N., R.17 W.		0
Mud Creek 4 mi southeast of Mason City in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T.14 N., R.17 W.		10
Unnamed tributary to Mud Creek in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T.14 N., R.17 W.		0
Mud Creek 1 mi northwest of Litchfield in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T.14 N., R.16 W.		12
Unnamed tributary to Mud Creek in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T.14 N., R.16 W.		0
Mud Creek 1 mi southeast of Litchfield in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T.14 N., R.16 W.		13
Clear Creek 2 mi southeast of Litchfield in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T.14 N., R.16 W.		0
Mud Creek 2 mi north of Hazard in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T.13 N., R.15 W.		15
Mud Creek at Hazard in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T.13 N., R.15 W.		14
Unnamed tributary to Mud Creek in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32, T.13 N., R.15 W.		0
Mud Creek 2 mi southeast of Hazard in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T.13 N., R.15 W.		15
Bloody Run 3 mi southeast of Hazard in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T.13 N., R.15 W.		0
Bloody Run 4 mi southeast of Hazard in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T.13 N., R.15 W.		.01
Mud Creek 4 mi southeast of Hazard in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 4, T.12 N., R.15 W.		15
Mud Creek 4 mi west of Ravenna in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T.12 N., R.15 W.		13
Mud Creek 2 mi west of Ravenna in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T.12 N., R.15 W.		14
Dry Creek 1 mi west of Ravenna in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T.12 N., R.14 W.		0
Mud Creek at Ravenna in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T.12 N., R.14 W.		16
Beaver Creek 2 mi northeast of Ravenna in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T.13 N., R.14 W.		0
Beaver Creek 1 mi northeast of Ravenna in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T.12 N., R.14 W.		0
South Loup River 5 mi northeast of Ravenna in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T.12 N., R.13 W.		103
South Loup River 3 mi southwest of Boelus in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T.12 N., R.13 W.		99

Loup River basin seepage investigations--Continued

<u>Location</u>	<u>Measured discharge, in cubic feet per second</u>	
	September 19-21	
Sweet Creek 5 mi southwest of Boelus in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T.12 N., R.13 W.	0	
Sweet Creek 2 mi southeast of Boelus in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T.12 N., R.12 W.	0	
South Loup River 2 mi southeast of Boelus in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T.13 N., R.12 W.	94	
Middle Loup River 5 mi east of Boelus in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T.13 N., R.11 W.	516	
Middle Loup River at Dannebrog in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T.13 N., R.11 W.	529	
Oak Creek at Dannebrog in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T.13 N., R.11 W.	34	
Turkey Creek 3 mi north of Dannebrog in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T.14 N., R.11 W.	7.2	
Turkey Creek 4 mi northeast of Dannebrog in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 19, T.14 N., R.10 W.	11	
Middle Loup River at St. Paul in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T.14 N., R.10 W.	469	
Lake Creek 2 mi southeast of St. Paul in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T.14 N., R.10 W.	0	
Lake Creek 1 mi east of St. Paul in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T.14 N., R.10 W.	.04	
Lake Creek 2 mi northeast of St. Paul in NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T.14 N., R.10 W.	0	
Unnamed tributary to Lake Creek in NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T.14 N., R.10 W.	.01	
North Loup River 3 mi north of St. Paul in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T.15 N., R.10 W.	823	
Loup River near Cushing in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T.15 N., R.9 W.	1290	
Spring Creek at Cushing in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T.15 N., R.9 W.	4.3	
Loup River 4 mi north of Palmer in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T.15 N., R.8 W.	1280	
Cottonwood Creek 4 mi north of Palmer in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T.15 N., R.8 W.	0	
Elk Creek 3 mi northeast of Palmer in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T.15 N., R.8 W.	0	
Loup River 6 mi northeast of Palmer in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T.15 N., R.7 W.	1230	
Unnamed tributary to Loup River in NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T.15 N., R.8 W.	.02	
Horse Creek 9 mi northeast of Palmer in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T.16 N., R.7 W.	.07	
Unnamed tributary to Loup River in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T.16 N., R.7 W.	0	
Unnamed tributary to Loup River in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T.16 N., R.7 W.	0	
Unnamed tributary to Loup River in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T.15 N., R.7 W.	0	
Loup River 6 mi southwest of Fullerton in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T.15 N., R.6 W.	1320	
Loup River at Fullerton in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T.16 N., R.6 W.	1160	
Cedar River at Fullerton in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T.16 N., R.6 W.	171	
Loup River 2 mi northeast of Fullerton in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T.16 N., R.5 W.	1320	
Plum Creek 4 mi northeast of Fullerton in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4, T.16 N., R.5 W.	.62	
Council Creek 7 mi northeast of Fullerton in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T.17 N., R.5 W.	0	
Loup River below Loup River power canal diversion in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T.16 N., R.4 W.	18	

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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NIOBRARA RIVER BASIN

06459350 - AINSWORTH CANAL NR JOHNSTOWN NE (LAT 42 33 30 LONG 100 05 14)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
JUN , 1978									
06...	1715	55	165	8.7	25.0	82	6	27	3.5
AUG									
07...	1540	460	164	8.8	25.0	68	0	21	3.7
SEP									
25...	1615	--	159	8.7	20.5	74	--	24	3.3

06462450 - PLUM CREEK AT JOHNSTOWN, NEBR (LAT 42 34 08 LONG 100 06 22)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
JUN , 1978									
06...	1620	26	200	7.9	23.5	79	0	25	4.0
AUG									
07...	1500	20	173	8.1	26.0	68	0	22	3.1
SEP									
25...	1545	24	459	7.9	19.5	75	--	25	3.0

06462470 - PLUM CREEK NEAR JOHNSTOWN, NEBR (LAT 42 40 01 LONG 100 03 26)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
JUN , 1978									
06...	1520	73	202	7.5	22.5	81	0	26	3.8
AUG									
07...	1615	62	174	8.2	26.5	70	0	23	3.1
SEP									
26...	0855	70	169	7.2	14.5	75	--	25	3.0

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LILITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
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06459350 - AINSWORTH CANAL NR JOHNSTOWN NE (LAT 42 33 30 LONG 100 05 14)

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LILITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
JUN , 1978									
06...	7.1	.3	--	93	0	76	11	.9	.03
AUG									
07...	6.9	.4	5.4	94	0	77	7.1	1.1	.09
SEP									
25...	7.0	.4	5.0	--	--	--	11	1.4	.09

06462450 - PLUM CREEK AT JOHNSTOWN, NEBR (LAT 42 34 08 LONG 100 06 22)

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LILITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
JUN , 1978									
06...	9.4	.5	--	110	0	90	5.5	1.8	.85
AUG									
07...	6.7	.4	5.2	88	0	72	6.4	1.7	.92
SEP									
25...	6.9	.3	5.0	--	--	--	5.9	1.4	.78

06462470 - PLUM CREEK NEAR JOHNSTOWN, NEBR (LAT 42 40 01 LONG 100 03 26)

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LILITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
JUN , 1978									
06...	8.4	.4	--	110	0	90	4.5	1.3	.67
AUG									
07...	6.8	.4	5.6	97	0	80	4.8	1.2	.63
SEP									
26...	7.0	.4	4.9	--	--	--	6.4	1.3	.67

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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NIOBRARA RIVER BASIN--Continued

06463050 - LONG PINE CREEK AT LONG PINE, NEBR. (LAT 42 32 59 LONG 099 42 23)

JUN , 1978									
07...	1630	51	130	8.2	15.0	49	0	16	2.1
AUG									
09...	1210	48	128	7.8	21.0	53	0	17	2.5
SEP									
27...	0945	50	122	7.5	12.0	52	--	17	2.3

06463090 - BONE CREEK AT AINSWORTH, NEBR (LAT 42 32 51 LONG 099 52 33)

JUN , 1978									
07...	0815	2.7	179	7.5	13.0	75	0	24	3.7
AUG									
08...	0800	2.1	175	7.5	15.0	73	0	23	3.7
SEP									
26...	1300	1.7	169	7.9	19.0	71	--	23	3.3

06463290 - SAND DRAW NR JOHNSTOWN NE (LAT 42 34 08 LONG 099 58 08)

JUN , 1978									
07...	0900	1.4	170	7.5	14.0	79	0	26	3.4
AUG									
08...	0925	.80	149	7.2	19.0	61	0	20	2.8
SEP									
26...	0955	.90	173	7.4	14.5	57	--	19	2.3

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS AS CO3) (00445)	ALKA- LILITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
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06463050 - LONG PINE CREEK AT LONG PINE, NEBR. (LAT 42 32 59 LONG 099 42 23)

JUN , 1978									
07...	5.7	.4	--	68	0	56	3.9	.9	.43
AUG									
09...	5.5	.3	3.9	67	0	55	3.5	.9	1.0
SEP									
27...	5.7	.3	3.7	--	--	--	5.0	1.1	1.1

06463090 - BONE CREEK AT AINSWORTH, NEBR (LAT 42 32 51 LONG 099 52 33)

JUN , 1978									
07...	7.8	.4	--	93	0	76	4.2	1.8	2.2
AUG									
08...	7.0	.4	4.8	98	0	80	4.1	2.0	2.6
SEP									
26...	6.9	.4	4.9	--	--	--	5.3	2.4	2.7

06463290 - SAND DRAW NR JOHNSTOWN NE (LAT 42 34 08 LONG 099 58 08)

JUN , 1978									
07...	8.0	.4	--	100	0	82	5.5	1.0	.12
AUG									
08...	6.7	.4	4.3	86	0	71	2.7	.9	.27
SEP									
26...	5.8	.3	3.1	--	--	--	3.9	1.1	.17

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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NIOBRARA RIVER BASIN--Continued

06463310 - SAND DRAW NR MEADVILLE NE (LAT 42 38 10 LONG 099 51 10)

JUN , 1978									
07...	1135	5.7	241	8.2	15.5	95	0	29	5.5
AUG									
08...	1145	9.8	225	8.1	27.0	84	0	26	4.7
SEP									
26...	1120	6.9	228	7.8	19.0	98	--	32	4.5

06463350 - BONE CREEK NEAR LONG PINE, NEBR (LAT 42 40 16 LONG 099 46 06)

JUN , 1978									
07...	1440	51	236	8.1	17.5	92	0	29	4.7
AUG									
08...	1515	66	218	7.8	30.0	85	0	27	4.3
SEP									
26...	1500	48	205	8.0	26.0	100	--	34	4.0

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
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06463310 - SAND DRAW NR MEADVILLE NE (LAT 42 38 10 LONG 099 51 10)

JUN , 1978									
07...	13	.6	--	130	0	107	8.8	3.3	2.1
AUG									
08...	11	.5	7.4	118	0	97	8.0	2.2	1.4
SEP									
26...	13	.6	7.7	--	--	--	12	3.0	2.1

06463350 - BONE CREEK NEAR LONG PINE, NEBR (LAT 42 40 16 LONG 099 46 06)

JUN , 1978									
07...	10	.5	--	120	0	98	6.7	4.0	1.2
AUG									
08...	9.9	.5	8.1	118	0	97	6.1	3.2	1.1
SEP									
26...	9.8	.4	7.2	--	--	--	7.9	3.1	1.1

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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NIOBRARA RIVER BASIN--Continued

06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)

APR , 1978										
12...	1130	22	258	7.4	11.0	9	120	12	39	5.1
SEP										
11...	1505	11	248	8.9	27.0	5	110	3	37	4.2

06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)

APR , 1978										
12...	1210	9.5	275	7.2	12.0	6	140	0	47	5.0
SEP										
11...	1420	5.6	246	8.7	25.0	4	120	0	42	3.9

06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)

APR , 1978										
12...	1345	20	202	7.6	14.0	15	96	5	32	3.8
SEP										
11...	1140	8.3	194	7.6	26.0	5	82	0	28	2.9

06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 34 24)

APR , 1978										
12...	1300	10	301	7.1	13.5	15	150	1	50	5.8
SEP										
11...	1300	3.4	241	8.0	26.0	6	110	0	39	4.2

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L HCO3) (00440)	CAR- BONATE (MG/L AS CACO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
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06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)

APR , 1978									
12...	9.0	.4	6.3	130	0	110	12	4.0	.2
SEP									
11...	8.5	.4	6.4	97	16	110	5.9	4.3	.2

06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)

APR , 1978									
12...	6.9	.3	5.4	170	0	140	4.6	2.2	.3
SEP									
11...	7.2	.3	5.1	160	0	130	2.4	1.7	.3

06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)

APR , 1978									
12...	7.6	.3	5.0	110	0	90	11	3.0	.2
SEP									
11...	6.9	.3	4.8	100	0	82	4.1	2.1	.2

06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 34 24)

APR , 1978									
12...	9.8	.4	5.3	180	0	150	15	3.8	.3
SEP									
11...	7.5	.3	5.5	140	0	110	5.5	2.5	.2

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
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NIOBRARA RIVER BASIN--Continued

06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)

APR , 1978									
12...	37	194	.26	11.5	3.8	.13	30	40	20
SEP									
11...	43	187	.25	5.55	3.1	.09	30	20	0

06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)

APR , 1978									
12...	46	206	.28	5.28	1.1	.03	30	30	20
SEP									
11...	55	200	.27	3.02	.71	.03	40	70	10

06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)

APR , 1978									
12...	37	164	.22	8.86	2.2	.08	30	80	30
SEP									
11...	50	155	.21	3.47	1.5	.06	40	30	0

06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 34 24)

APR , 1978									
12...	40	226	.31	6.10	1.5	.07	30	50	50
SEP									
11...	49	190	.26	1.74	1.6	.07	40	30	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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PLATTE RIVER BASIN

06778860 - FARWELL CANAL AT HWY 58 ABV SHERMAN RES NE (LAT 41 22 23 LONG 099 00 44)

MAY , 1978									
24...	1345	319	193	8.3	25.0	81	0	26	3.9
AUG									
16...	1525	372	205	7.5	22.5	80	0	25	4.2

06781530 - DEER CREEK NEAR BOELUS NE (LAT 41 05 37 LONG 098 42 37)

MAY , 1978									
25...	1415	38	1020	7.9	25.0	590	150	160	46
AUG									
17...	1440	2.2	333	7.3	26.0	140	0	41	8.6

06784400 - OAK CREEK NEAR FARWELL NE (LAT 41 11 30 LONG 098 41 25)

MAY , 1978									
25...	1500	15	565	8.2	24.5	290	0	84	20
AUG									
17...	1530	27	480	8.2	24.5	220	0	63	14

06784500 - OAK CREEK NR DANNEBROG NEBR (LAT 41 07 10 LONG 098 36 45)

MAY , 1978									
25...	1300	24	645	8.2	22.0	330	10	96	21
AUG									
17...	1320	45	430	7.4	22.5	190	0	56	11

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
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06778860 - FARWELL CANAL AT HWY 58 ABV SHERMAN RES NE (LAT 41 22 23 LONG 099 00 44)

MAY , 1978									
24...	8.4	.4	--	110	0	90	3.3	1.4	.14
AUG									
16...	8.5	.4	6.4	110	0	90	--	--	.47

06781530 - DEER CREEK NEAR BOELUS NE (LAT 41 05 37 LONG 098 42 37)

MAY , 1978									
25...	21	.4	--	540	0	443	130	19	.08
AUG									
17...	8.5	.3	18	170	0	139	18	5.6	3.1

06784400 - OAK CREEK NEAR FARWELL NE (LAT 41 11 30 LONG 098 41 25)

MAY , 1978									
25...	18	.5	--	380	0	312	16	6.5	.82
AUG									
17...	16	.5	13	280	0	230	14	5.4	1.7

06784500 - OAK CREEK NR DANNEBROG NEBR (LAT 41 07 10 LONG 098 36 45)

MAY , 1978									
25...	25	.6	--	390	0	320	28	8.0	.47
AUG									
17...	12	.4	15	230	0	189	19	6.3	2.9

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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PLATTE RIVER BASIN--Continued

06784505 - DRY C NR DANNEBROG NE (LAT 41 06 18 LONG 098 36 16)

MAY , 1978									
25...	1345	2.0	852	8.0	22.0	440	63	130	29
AUG									
17...	1410	4.5	565	7.7	23.5	250	39	73	17

06784750 - TURKEY CREEK NEAR NYSTED NE (LAT 41 10 48 LONG 098 36 50)

MAY , 1978									
25...	1545	2.5	725	8.2	28.0	320	0	81	28
AUG									
17...	1600	5.0	579	7.8	27.0	230	0	66	17

06784810 - TURKEY CREEK NORTHEAST OF DANNEBROG NE (LAT 41 09 28 LONG 098 31 06)

MAY , 1978									
25...	1130	8.6	762	7.9	22.0	340	0	91	27
AUG									
17...	1150	30	405	7.5	21.5	160	0	48	10

06784820 - TURKEY CREEK TRIBUTARY NR ST PAUL NE (LAT 41 10 55 LONG 098 29 39)

MAY , 1978									
25...	1050	1.6	551	7.9	22.0	300	21	82	23
AUG									
17...	1115	1.5	445	7.6	22.5	200	0	58	13

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
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06784505 - DRY C NR DANNEBROG NE (LAT 41 06 18 LONG 098 36 16)

MAY , 1978									
25...	40	.8	--	460	0	377	100	16	2.7
AUG									
17...	23	.6	19	260	0	213	67	9.2	4.3

06784750 - TURKEY CREEK NEAR NYSTED NE (LAT 41 10 48 LONG 098 36 50)

MAY , 1978									
25...	55	1.3	--	440	0	361	34	13	.76
AUG									
17...	28	.8	21	320	0	262	23	7.9	3.6

06784810 - TURKEY CREEK NORTHEAST OF DANNEBROG NE (LAT 41 09 28 LONG 098 31 06)

MAY , 1978									
25...	47	1.1	--	420	0	344	54	15	3.8
AUG									
17...	17	.6	17	200	0	164	23	6.1	4.4

06784820 - TURKEY CREEK TRIBUTARY NR ST PAUL NE (LAT 41 10 55 LONG 098 29 39)

MAY , 1978									
25...	12	.3	--	340	0	279	24	5.7	.90
AUG									
17...	9.5	.3	11	250	0	205	15	3.2	.87

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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PLATTE RIVER BASIN--Continued

06785020 - UNNAMED CREEK AT ST PAUL NE (LAT 41 12 48 LONG 098 28 35)

MAY , 1978									
25...	1020	.10	547	8.1	21.5	290	0	75	26
AUG									
17...	1040	13	248	7.3	24.0	110	0	34	5.1

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION (MG/L RATIO) (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
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06785020 - UNNAMED CREEK AT ST PAUL NE (LAT 41 12 48 LONG 098 28 35)

MAY , 1978									
25...	11	.3	--	370	0	303	10	3.1	.02
AUG									
17...	7.8	.3	8.6	140	0	115	7.2	1.8	.52

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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PLATTE RIVER BASIN--Continued

06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)

APR , 1978										
26...	1340	.65	825	7.7	13.5	12	400	33	120	25
SEP										
29...	1150	16	189	7.3	17.0	9	74	0	23	4.0

06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)

APR , 1978										
26...	1000	1.1	713	7.3	12.0	20	370	0	100	28
SEP										
29...	0945	.45	622	7.4	14.5	4	300	0	88	20

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUD- RIDE, DIS- SOLVED (MG/L AS F) (00950)
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06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)

APR , 1978										
26...	29	.6	21	450	0	370	66	17	.2	
SEP										
29...	8.7	.4	7.5	95	0	78	9.7	2.4	.4	

06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)

APR , 1978										
26...	20	.5	19	470	0	390	28	9.0	.2	
SEP										
29...	25	.6	16	380	0	310	31	6.3	.3	

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
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06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)

APR , 1978										
26...	29	541	.74	.95	2.5	.44	80	20	280	
SEP										
29...	55	160	.22	7.08	.52	.17	50	30	10	

06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)

APR , 1978										
26...	29	467	.64	1.39	E.25	.64	80	20	970	
SEP										
29...	47	434	.59	.53	2.9	.37	110	40	320	

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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PLATTE RIVER BASIN--Continued

06790245 - AUGER CREEK AT ELBA NE (LAT 41 17 38 LONG 098 34 26)

MAY , 1978									
25...	0915	.85	739	7.9	20.0	370	34	100	30
AUG									
17...	0920	1.0	385	7.5	22.0	170	0	51	11

06790255 - UNNAMED CREEK SOUTH OF ELBA NE (LAT 41 16 22 LONG 098 33 24)

MAY , 1978									
25...	0945	.11	478	8.4	22.0	270	7	74	20
AUG									
17...	1005	.10	525	8.2	22.0	270	0	75	19

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
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06790245 - AUGER CREEK AT ELBA NE (LAT 41 17 38 LONG 098 34 26)

MAY , 1978									
25...	32	.7	--	410	0	336	68	18	.65
AUG									
17...	9.0	.3	10	210	0	172	14	5.3	1.0

06790255 - UNNAMED CREEK SOUTH OF ELBA NE (LAT 41 16 22 LONG 098 33 24)

MAY , 1978									
25...	10	.3	--	320	0	262	11	3.2	.08
AUG									
17...	9.0	.2	8.4	330	0	271	11	3.6	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
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PLATTE RIVER BASIN--Continued

06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)

DEC , 1977										
05...	1020	6.0	1350	8.2	.5	--	10	14.2	1.5	600
MAR , 1978										
28...	1300	25	760	8.1	11.0	30	35	10.9	5.8	933
JUN										
20...	1100	7.0	765	8.0	21.0	--	35	6.7	4.0	K990
AUG										
09...	0850	2.5	1210	8.0	24.0	6	30	6.8	2.9	550

06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)

DEC , 1977										
05...	1310	18	14500	8.1	.0	--	10	14.4	2.8	70
MAR , 1978										
28...	1015	118	2580	7.7	9.0	45	40	11.4	3.8	2130
JUN										
21...	1015	28	10000	8.1	22.0	--	9	13.1	4.6	2000
AUG										
09...	1030	41	7520	8.2	25.0	8	10	12.8	5.0	2200

06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)

DEC , 1977										
05...	1245	7.5	6000	8.3	.0	--	6	13.8	1.8	97
MAR , 1978										
28...	0845	93	1810	8.1	9.0	18	45	11.8	4.0	K40
JUN										
21...	0915	172	850	7.5	21.0	--	3100	7.7	6.9	46000
AUG										
09...	1050	35	7250	7.9	26.0	9	25	8.3	3.8	K615

DATE	TIME	STREP- TOCOC- CI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
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06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)

DEC , 1977										
05...	2200	--	--	--	--	--	--	--	--	--
MAR , 1978										
28...	4800	240	52	70	16	66	1.9	11	230	0
JUN										
20...	2800	--	--	--	--	--	--	--	--	--
AUG										
09...	1080	320	83	94	21	130	3.2	8.4	290	0

06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)

DEC , 1977										
05...	500	--	--	--	--	--	--	--	--	--
MAR , 1978										
28...	4100	220	60	60	18	460	13	14	200	0
JUN										
21...	1000	--	--	--	--	--	--	--	--	--
AUG										
09...	3160	360	100	89	34	1500	34	14	320	0

06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)

DEC , 1977										
05...	500	--	--	--	--	--	--	--	--	--
MAR , 1978										
28...	920	250	37	64	22	280	7.7	12	260	0
JUN										
21...	74000	--	--	--	--	--	--	--	--	--
AUG										
09...	800	360	44	88	33	1400	32	15	380	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKA- LINITY (MG/L AS CACD3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
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PLATTE RIVER BASIN--Continued

06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)

DEC , 1977	--	--	190	--	--	762	--	1.04	12.3	.68
05...	--	--	190	--	--	762	--	1.04	12.3	.68
MAR , 1978	190	80	78	.4	15	441	450	.60	29.8	1.2
28...	190	80	78	.4	15	441	450	.60	29.8	1.2
JUN	--	--	46	--	--	474	--	.64	8.96	1.1
20...	--	--	46	--	--	474	--	.64	8.96	1.1
AUG	240	120	170	.5	17	707	704	.96	4.77	1.3
09...	240	120	170	.5	17	707	704	.96	4.77	1.3

06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)

DEC , 1977	--	--	3900	--	--	7790	--	10.6	379	.81
05...	--	--	3900	--	--	7790	--	10.6	379	.81
MAR , 1978	160	110	650	.4	12	1290	1420	1.75	411	1.2
28...	160	110	650	.4	12	1290	1420	1.75	411	1.2
JUN	--	--	3000	--	--	5610	--	7.63	424	.05
21...	--	--	3000	--	--	5610	--	7.63	424	.05
AUG	260	300	2200	.6	14	4250	4310	5.78	479	.34
09...	260	300	2200	.6	14	4250	4310	5.78	479	.34

06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)

DEC , 1977	--	--	1500	--	--	3220	--	4.38	65.2	1.5
05...	--	--	1500	--	--	3220	--	4.38	65.2	1.5
MAR , 1978	210	79	390	.4	8.7	974	984	1.32	245	.73
28...	210	79	390	.4	8.7	974	984	1.32	245	.73
JUN	--	--	150	--	--	460	--	.63	214	.00
21...	--	--	150	--	--	460	--	.63	214	.00
AUG	310	270	2100	1.0	9.8	4100	4100	5.58	387	.05
09...	310	270	2100	1.0	9.8	4100	4100	5.58	387	.05

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
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06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)

DEC , 1977	.13	.71	.84	1.5	.20	--	--	--	--
05...	.13	.71	.84	1.5	.20	--	--	--	--
MAR , 1978	.51	1.4	1.9	3.1	.58	.40	260	--	--
28...	.51	1.4	1.9	3.1	.58	.40	260	--	--
JUN	.00	1.1	1.1	2.2	.84	--	--	--	--
20...	.00	1.1	1.1	2.2	.84	--	--	--	--
AUG	.06	.70	.76	2.1	.27	.19	360	--	--
09...	.06	.70	.76	2.1	.27	.19	360	--	--

06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)

DEC , 1977	.92	1.1	2.0	2.8	.23	--	--	--	--
05...	.92	1.1	2.0	2.8	.23	--	--	--	--
MAR , 1978	.65	1.4	2.0	3.2	.46	.33	230	--	--
28...	.65	1.4	2.0	3.2	.46	.33	230	--	--
JUN	.03	1.2	1.2	1.3	.24	--	--	--	--
21...	.03	1.2	1.2	1.3	.24	--	--	--	--
AUG	.03	.81	.84	1.2	.19	.12	530	--	--
09...	.03	.81	.84	1.2	.19	.12	530	--	--

06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)

DEC , 1977	.63	.57	1.2	2.7	.22	--	--	--	--
05...	.63	.57	1.2	2.7	.22	--	--	--	--
MAR , 1978	.39	1.6	2.0	2.7	.30	.13	150	--	--
28...	.39	1.6	2.0	2.7	.30	.13	150	--	--
JUN	.00	1.4	1.4	1.4	.99	--	--	--	--
21...	.00	1.4	1.4	1.4	.99	--	--	--	--
AUG	.09	1.0	1.1	1.2	.15	.15	550	--	--
09...	.09	1.0	1.1	1.2	.15	.15	550	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
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PLATTE RIVER BASIN--Continued

06803523 - STEVENS CREEK AT HIGHWAY 6, NEAR LINCOLN, NEBR. (LAT 40 52 35 LONG 096 36 16)

DEC , 1977										
07...	1300	1.9	870	7.6	.5	9	8	--	1.0	480
APR , 1978										
05...	0930	4.2	640	8.4	13.5	11	15	10.8	3.9	K46
JUN										
19...	1145	135	750	8.1	29.0	7	20	9.0	3.0	1130
AUG										
08...	1300	3.1	752	8.2	26.0	9	15	9.3	7.2	650

06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)

JUL , 1978										
20...	1345	19	262	7.0	23.0	300	--	5.4	10	K60000

06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)

JUL , 1978										
20...	1410	92	116	6.8	23.0	480	--	6.0	13	K200000

06805565 - FOURMILE CREEK NEAR PLATTS MOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)

MAY , 1978										
31...	1230	20	522	8.2	18.5	13	90	9.4	3.1	4500
JUL										
20...	1450	142	154	6.9	23.5	480	--	6.9	8.2	K60000

DATE	STREP- TOCOC FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
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06803523 - STEVENS CREEK AT HIGHWAY 6, NEAR LINCOLN, NEBR. (LAT 40 52 35 LONG 096 36 16)

DEC , 1977										
07...	740	390	25	110	27	65	1.4	7.3	440	0
APR , 1978										
05...	720	270	7	77	18	36	1.0	8.5	310	3
JUN										
19...	2100	330	11	93	24	47	1.1	6.2	390	0
AUG										
08...	2000	320	8	90	23	47	1.1	6.3	380	0

06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)

JUL , 1978										
20...	--	73	3	22	4.4	11	.6	19	85	0

06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)

JUL , 1978										
20...	--	47	15	9.3	5.7	3.9	.2	10	39	0

06805565 - FOURMILE CREEK NEAR PLATTS MOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)

MAY , 1978										
31...	--	240	27	65	19	17	.5	4.0	260	0
JUL										
20...	--	49	0	14	3.4	4.4	.3	9.2	66	0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKA- LINIT (MG/L CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS S04) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
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PLATTE RIVER BASIN--Continued

06803523 - STEVENS CREEK AT HIGHWAY 6, NEAR LINCOLN, NEBR. (LAT 40 52 35 LONG 096 36 16)

DEC , 1977										
07...	360	110	28	.2	26	565	591	.77	2.90	1.9
APR , 1978										
05...	260	73	18	.2	11	396	398	.54	4.49	.63
JUN										
19...	320	79	17	.4	18	471	477	.64	172	.00
AUG										
08...	310	82	16	.4	16	475	468	.65	3.98	.76

06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)

JUL , 1978										
20...	70	14	26	.5	8.8	183	148	.25	9.39	2.9

06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)

JUL , 1978										
20...	32	27	4.7	.3	6.7	79	87	.11	19.6	2.0

06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)

MAY , 1978										
31...	210	30	5.6	.3	22	335	292	.46	18.1	11
JUL										
20...	54	9.6	6.6	.3	8.1	134	89	.18	51.4	2.3

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
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06803523 - STEVENS CREEK AT HIGHWAY 6, NEAR LINCOLN, NEBR. (LAT 40 52 35 LONG 096 36 16)

DEC , 1977									
07...	.20	.36	.56	2.5	.31	.28	120	--	--
APR , 1978									
05...	.11	.78	.89	1.5	.20	.16	80	--	--
JUN									
19...	.00	1.3	1.3	1.3	.31	.20	110	--	--
AUG									
08...	.00	.99	.99	1.8	.27	.16	110	--	--

06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)

JUL , 1978									
20...	.64	14	15	18	1.7	.22	140	230	120

06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)

JUL , 1978									
20...	.30	21	21	23	1.6	.09	50	80	60

06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)

MAY , 1978									
31...	.06	3.4	3.5	15	.30	.17	60	70	420
JUL									
20...	.22	16	16	18	1.7	.13	130	200	110

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)
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PLATTE RIVER BASIN--Continued

06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)

JUL , 1978	20...	1340	23	19.0	4640	288	55	67	91	99	--
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06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)

JUL , 1978	20...	1410	116	23.0	7760	2430	39	52	75	98	100
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06805565 - FOURMILE CREEK NEAR PLATTSBROUGH, NEBR. (LAT 41 01 02 LONG 095 57 46)

MAY , 1978	31...	1230	20	18.5	175	9.0	--	--	--	94	--
JUL	20...	1450	142	23.5	7640	2930	37	49	74	99	100

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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. FALL DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. FALL DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. FALL DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. FALL DIAM. % FINER THAN 16.0 MM (80172)
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06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)

JUL , 1978	20...	1340	23	3	0	4	15	31	61	79	93	99	100
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06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)

JUL , 1978	20...	1410	116	3	35	48	54	72	92	98	100	--	--
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ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
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WEEPING WATER CREEK BASIN

06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)

JUL , 1978										
20...	1800	887	138	7.0	22.5	300	--	6.0	7.0	K200000

06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)

MAY , 1978										
08...	1130	158	245	7.3	11.5	150	--	9.5	6.9	80000
31...	0915	22	515	8.1	18.0	13	110	8.5	4.2	2300
JUL										
20...	1710	570	172	7.0	23.0	240	--	4.2	6.8	60000

DATE	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (MG/L AS CAC03) (00410)
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06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)

JUL , 1978										
20...	64	12	16	5.8	3.6	.2	7.8	63	0	52

06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)

MAY , 1978										
08...	120	9	33	8.1	9.7	.4	8.2	130	0	110
31...	240	11	70	16	20	.6	4.7	280	0	230
JUL										
20...	58	0	19	2.6	5.6	.3	7.5	76	0	62

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
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WEEPING WATER CREEK BASIN--Continued

06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)

JUL , 1978									
20...	8.9	3.6	.3	6.0	92	83	.13	220	2.1

06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)

MAY , 1978									
08...	24	4.0	.3	14	181	166	.25	77.2	4.7
31...	32	6.3	.3	21	333	309	.45	19.8	5.4
JUL									
20...	7.5	3.3	.3	8.3	122	92	.17	188	2.4

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
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06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)

JUL , 1978									
20...	.20	17	17	19	1.9	.06	40	170	60

06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)

MAY , 1978									
08...	.13	.97	1.1	5.8	1.4	.21	60	300	140
31...	.00	1.7	1.7	7.1	.43	.21	60	20	200
JUL									
20...	.13	21	21	23	2.1	.08	70	110	110

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
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WEEPING WATER CREEK BASIN--Continued

06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)

JUL , 1978	20...	1800	887	22.5	6760	16200	44	57	83	99	100	--
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06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)

MAY , 1978	08...	1130	158	11.5	3340	1430	33	40	60	98	99	100
	31...	0915	22	18.0	263	16	--	--	--	87	--	--
JUL	20...	1710	570	23.0	10700	16500	32	44	72	100	--	--

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

MAY , 1978	08...	1200	623	11.5	4440	7470	31	37	55	97	99	100
	31...	1100	202	18.5	486	265	--	--	--	96	--	--
JUL	20...	1550	3730	23.0	13600	137000	36	42	64	94	--	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	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)
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06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)

JUL , 1978	20...	1800	887	1	--	0	5	44
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06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)

MAY , 1978	08...	1130	158	3	39	48	66	92
	31...	0915	22	5	32	34	46	68

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

MAY , 1978	08...	1200	623	3	32	45	62	72
				BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. FALL DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. FALL DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. FALL DIAM. % FINER THAN 16.0 MM (80172)
				BED MAT. FALL DIAM. % FINER THAN 32.0 MM (80173)				

06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)

JUL , 1978	20...	91	98	99	99	100	--
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06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)

MAY , 1978	08...	98	100	--	--	--	--
	31...	89	100	--	--	--	--

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

MAY , 1978	08...	77	83	90	93	94	94
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WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
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WEEPING WATER CREEK BASIN--Continued

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

MAY , 1978										
08...	1230	623	285	7.2	11.5	120	--	9.5	5.6	100000
31...	1100	202	465	7.9	18.5	25	200	9.9	3.6	7670
JUL										
20...	1545	3730	200	7.1	23.0	160	--	3.5	6.6	K180000
		HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (MG/L AS K) (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LITY CAR- BONATE (MG/L AS CAC03) (00445)

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

MAY , 1978										
08...	120	12	34	8.2	10	.4	7.7	130	0	110
31...	220	22	63	15	16	.5	5.5	240	0	200
JUL										
20...	83	5	24	5.5	6.8	.3	7.6	94	0	77
		SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SI02) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

MAY , 1978										
08...	20	4.4	.2	12	182	161	.25	306	4.0	
31...	32	6.8	.5	16	301	273	.41	164	4.8	
JUL										
20...	9.0	2.7	.3	8.3	121	111	.16	1220	2.6	
		NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)

06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)

MAY , 1978										
08...	.31	.99	1.3	5.3	1.9	.14	60	370	130	
31...	.06	1.9	2.0	6.8	.58	.18	90	20	60	
JUL										
20...	.10	18	18	21	1.9	.05	40	300	90	

403403098244001. Local number 7N-10W-23AB.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

DATUM.--Altitude of land-surface datum is 1,927 ft (587 m). Measuring point: Top of casing 1.0 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--August 1934 to October 1938; August 1948 to December 1950; and January 1951 to current year.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	118.41	.....	117.55	.....	117.00	116.49	116.34	116.09	116.06	118.75	120.85	120.72
10	118.39	117.96	117.33	.....	116.86	116.51	116.30	116.00	116.12	116.89	122.07	120.28
15	118.33	117.82	.....	117.06	116.86	116.60	116.25	115.94	116.20	118.42	120.57	119.95
20	118.17	117.97	.....	117.03	116.80	116.47	116.25	115.94	116.31	120.95	119.80	119.65
25	118.08	117.70	.....	.....	116.72	116.44	116.21	115.97	116.17	119.93	122.18	119.53
EOH	118.02	117.56	.....	116.87	116.66	116.41	116.08	116.00	117.10	120.89	122.11	119.45

WTR YEAR 1978 MAX 115.83 MAY 20, 1978 MIN 122.50 AUG 28, 1978

H TAPE MEASUREMENT

BLAINE COUNTY

414958100061501. Local number 22N-24W-33CA.

LOCATION.--Lat 41°49'58", long 100°06'15", NE1/4SW1/4 sec.33, T.22 N., R.24 W., Hydrologic Unit 10210001, approximately 500 ft (152 m) west of junction of State Highways 91 and 2 north of Dunning. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 13 ft (4.0 m), screened 11 to 13 ft (3.4 to 4.0 m).

DATUM.--Altitude of land-surface datum is 2,618 ft (798 m). Measuring point: Top of casing 1.40 ft (0.43 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.04 ft (0.32 m) below land-surface datum, Mar. 8, 1950; lowest, 6.97 ft (2.12 m) below land-surface datum, Aug. 8, 1951.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978																	
DATE		WATER LEVEL	DATE		WATER LEVEL	DATE		WATER LEVEL	DATE		WATER LEVEL	DATE		WATER LEVEL			
OCT	3	3.28	DEC	6	3.49	FEB	21	3.04	MAY	2	2.37	JUL	5	4.03	SEP	5	4.96
OCT	24	3.54	JAN	9	3.48	MAR	14	2.50	MAY	22	2.87	JUL	25	4.41	SEP	27	5.01
NOV	14	3.29	JAN	30	3.50	APR	4	2.31	JUN	13	3.37	AUG	15	4.62			

BOONE COUNTY

413323098074501. Local number 18N-7W-4CA.

LOCATION.--Lat 41°33'23", long 98°07'45", NE1/4SW1/4 sec.4, T.18 N., R.7 W., Hydrologic Unit 10210010, at junction of State Highways 52 and 56 approximately 1 mi (1.6 km) east of Cedar Rapids. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 22 ft (6.7 m), screened 20 to 22 ft (6.1 to 6.7 m).

DATUM.--Altitude of land-surface datum is 1,762 ft (537 m). Measuring point: Top of casing 2.90 ft (0.88 m) above land-surface datum.

PERIOD OF RECORD.--November 1936 to October 1942; April 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.57 ft (2.61 m) below land-surface datum, May 4, 1973; lowest, 15.17 ft (4.62 m) below land-surface datum, Oct. 26, 1940.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	11.21	MAY 4	10.07						

BOX BUTTE COUNTY

420945102551501. Local number 25N-48W-4DDD.

LOCATION.--Lat 42°09'45", long 102°55'15", SE1/4SE1/4SE1/4 sec.4, T.25 N., R.48 W., Hydrologic Unit 10150003, approximately 3.6 miles (5.8 km) south and 2.8 mi (4.5 km) east of Berea. Owner: U.S. Geological Survey.

AQUIFER.--Marsland Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 204 ft (62.2 m), screened 190 to 193 ft (57.9 to 58.8 m).

DATUM.--Altitude of land-surface datum is 4,032.95 ft (1,229.24 m). Measuring point: Top of pipe 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels in vicinity of well are affected by large withdrawals of ground water for irrigation use.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.14 ft (19.25 m) below land-surface datum, Jan. 25, 1950; lowest, 94.97 ft (28.95 m) below land-surface datum, Oct. 21, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
WATER		WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 21	94.97										

BROWN COUNTY

423307099494501. Local number 30N-21W-19CC.

LOCATION.--Lat 42°33'07", long 99°49'45", SW1/4SW1/4 sec.19, T.30 N., R.21 W., Hydrologic Unit 10150004, 1.2 mi (1.9 km) east of junction of U.S. Highway 20 and Route 7 in Ainsworth. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 52 ft (15.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,511.44 ft (765.49 m). Measuring point: Top of casing 0.20 ft (0.06 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumpage of ground water for irrigation and seepage losses from nearby irrigation project. Water-quality records for the 1978 water year are published elsewhere in this report.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.35 ft (10.47 m) below land-surface datum, Jan. 25, 1974, Jan. 17, 1978; lowest, 40.96 ft (12.48 m) below land-surface datum, Sept. 7, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	35.03	34.60	34.47	34.40	.....	34.53	34.54	34.62	34.67	34.90	34.76	34.82
10	34.92	34.59	34.45	34.44	.....	34.56	34.57	34.59	34.68	34.89	34.81	34.88
15	34.87	34.56	34.36	34.41	.....	34.63	34.61	34.58	34.65	34.74	34.77	34.87
20	34.74	34.57	34.44	34.42	.....	34.58	34.62	34.64	34.72	34.84	34.71	34.80
25	34.70	34.52	34.41	34.41	34.56	34.59	34.65	34.61	34.91	34.80	34.75	34.71
EOM	34.64	34.44	34.43	.....	34.55	34.55	34.60	34.69	34.79	34.76	34.78	34.63

WTR YEAR 1978 MAX 34.35 JAN 17, 1978 MIN 34.97 JUL 6, 1978

GROUND-WATER LEVELS

BUFFALO COUNTY

404618098504401. Local number 9N-14W-1DC.

LOCATION.--Lat 40°46'18", long 98°50'44", SW1/4SE1/4 sec.1, T.9 N., R.14 W., Hydrologic Unit 10200102, 1.3 mi (2.1 km) north of the intersection of Route 30 and the North-South range-line road on the east side of Gibbon, then 0.5 mi (0.8 km) west on section-line road. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 38 ft (11.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,060.43 ft (628.02 m). Measuring point: Top of casing 0.80 ft (0.24 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumpage from nearby irrigation wells. Water-quality records for the 1978 water year are published elsewhere in this report.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.36 ft (4.68 m) below land-surface datum, June 11, 1952; lowest, 29.11 ft (8.87 m) below land-surface datum, Sept. 9, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	26.97	26.36	26.03	25.73	25.57	25.35	25.13	24.85	24.62	26.65	28.32	28.72
10	26.83	26.29	25.99	25.72	25.49	25.33	25.08	24.82	24.56	27.37	28.89	28.88
15	26.73	26.21	25.90	25.66	25.46	25.33	25.06	24.76	24.53	27.67	29.06	28.51
20	26.62	26.19	25.88	25.64	.....	25.25	25.04	24.75	24.54	28.16	28.50	28.17
25	26.53	26.12	25.86	.....	.....	25.22	24.97	24.69	24.53	28.09	29.06	27.92
BOM	26.42	26.05	25.82	.....	.....	25.16	24.89	24.66	25.54	28.50	28.47	27.73

WTR YEAR 1978 MAX 24.47 JUN 24, 1978 MIN 29.06 AUG 15, 1978

BUFFALO COUNTY

404345098560001. Local number 9N-14W-19DD.

LOCATION.--Lat 40°43'45", long 98°56'00", SE1/4SE1/4 sec.19, T.9 N., R.14 W., Hydrologic Unit 10200102, 4.7 mi (7.6 km) west-southwest of Gibbon on U.S. Highway 30. Owner: Robert D. Lewis.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (0.61 m), depth 54 ft (16.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,102.16 ft (640.74 m). Measuring point: Hole in pump base 0.70 ft (0.21 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumping of well and of nearby wells for irrigation supplies.

PERIOD OF RECORD.--October 1930 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.55 ft (6.87 m) below land-surface datum, June 9, 1931; lowest, 35.20 ft (10.73 m) below land-surface datum, Aug. 30, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	33.40	MAY 8	31.30								

BUTLER COUNTY

411420097173002. Local number 15N-1E-27DD2.

LOCATION.--Lat 41°14'20", long 97°17'30", SE1/4SE1/4 sec.27, T.15 N., R.1 E., Hydrologic Unit 10270201, 2 mi (3.2 km) north of the northeast corner of Rising City. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 210.0 ft (64.01 m), perforated 199 to 210 ft (60.7 to 64.0 m).

DATUM.--Altitude of land-surface datum is 1,618 ft (493 m). Measuring point: Top of platform, at land-surface datum.

REMARKS.--Replacement for 411420097173001, local number 15N-1E-27DD, period of record June 1958 to January 1977. Water levels in well affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 106.48 ft (32.46 m) below land-surface datum, May 2, 1978; lowest, 174.50 ft (53.19 m) below land-surface datum, Aug. 3, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	115.98H	OCT 25	112.32	NOV 20	109.91	DEC 15	108.14	FEB 10	107.72H	MAY 31	106.88
OCT 5	115.64	OCT 31	111.52	NOV 25	109.90	DEC 20	108.15	MAR 7	107.38H	JUL 5	120.08
OCT 10	114.36	NOV 5	111.31	NOV 30	109.65	DEC 25	108.05	APR 4	107.01H	AUG 9	160.39H
OCT 15	113.70	NOV 10	110.58	DEC 5	108.70H	DEC 31	107.90	MAY 2	106.48H	SEP 12	118.69H
OCT 20	112.88	NOV 15	110.35	DEC 10	108.14	JAN 12	108.32H				

WTR YEAR 1978 MAX 106.48 MAY 2, 1978 MIN 160.39 AUG 9, 1978

H TAPE MEASUREMENT

CHASE COUNTY

403220101384001. Local number 7N-38W-28CC.

LOCATION.--Lat 40°32'20", long 101°38'40", SW1/4SW1/4 sec.28, T.7 N., R.38 W., Hydrologic Unit 10250005, about 0.5 mi (0.8 km) north of Imperial. Owner: Roy Hust.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled unused observation water-table well, diameter 18 in (0.46 m), depth 143 ft (43.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,284.6 ft (1,001.1 m). Measuring point: Top of casing 0.30 ft (0.09 m) above land-surface datum.

REMARKS.--Recording gage was installed on this well from December 1948 to December 1963. Water levels in well are affected by irrigation pumpage in area.

PERIOD OF RECORD.--December 1944; December 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.82 ft (22.20 m) below land-surface datum, June 29, 1964; lowest measured, 98.60 ft (30.05 m) below land-surface datum, Oct. 5, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	96.90								

CHASE COUNTY

403235101395501. Local number 7N-38W-29CBB.

LOCATION.--Lat 40°32'35", long 101°39'55", NW1/4NW1/4SW1/4 sec.29, T.2 N., R.38 W., Hydrologic Unit 10250005, 0.5 mi (0.8 km) north and 1 mi (1.6 km) west of Imperial on U.S. Highway 6, then 0.5 mi (0.8 km) north on gravel road. Owner: U.S. Geological Survey.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5.50 in (0.14 m), depth 230 ft (70.1 m), perforated 190 to 230 ft (57.9 to 70.1 m).

DATUM.--Altitude of land-surface datum is 3,290.30 ft (1,002.88 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels in well are affected by irrigation pumpage in area.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.87 ft (17.03 m) below land-surface datum, July 4, 1964; lowest, 90.12 ft (27.47 m) below land-surface datum, Aug. 31, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	81.85	79.73	78.67	77.34	76.68	75.65	75.06	74.90	74.44	83.87	.....	88.65
10	81.53	79.65	78.32	77.24	76.27	75.61	75.18	74.68	74.22	84.13H	87.60	89.60
15	81.29	79.22	77.94	76.97	76.23	75.80	75.04	74.55	74.35	.....	87.78	88.82
20	80.64	79.33	78.10	76.88	76.25	75.46	74.99	74.85	75.20	.....	88.24	87.90
25	80.42	78.93	77.90	76.74	76.08	75.43	74.99	74.60	79.65	.....	89.48	87.17
EOM	80.05	78.62	77.76	76.67	75.97	75.17	74.72	74.66	82.02	.....	90.12	87.13

WTR YEAR 1978 MAX 74.12 JUN 10, 1978 MIN 90.12 AUG 31, 1978

H TAPE MEASUREMENT

CHERRY COUNTY

423205100321501. Local number 30N-28W-36AAA.

LOCATION.--Lat 42°32'05", long 100°32'15", NE1/4NE1/4NE1/4 sec.36, T.30 N., R.28 W., Hydrologic Unit 10150004, 8 mi (12.9 km) south of the intersection of U.S. Highway 83 and State Highway 483, south of Valentine. Owner: U.S. Geological Survey.

AQUIFER.--Sandhills deposits of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1.25 in (0.03 m), depth 12 ft (3.7 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,897.26 ft (883.08 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.

REMARKS.--Water levels affected by evapotranspiration.

PERIOD OF RECORD.--October 1961 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, +0.20 ft (+0.06 m) above land-surface datum, Jan. 11, 1936; lowest, 1.99 ft (0.61 m) below land-surface datum, Oct. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	0.45	JAN 10	0.10G						

G MEASUREMENT MADE BY ANOTHER AGENCY

CUSTER COUNTY

413910099285001. Local number 19N-19W-2BB.

LOCATION.--Lat 41°39'10", long 99°28'50", NW1/4NW1/4 sec.2, T.19 N., R.19 W., Hydrologic Unit 10210003, 1 mi (1.6 km) north and 5.8 mi (9.3 km) west of Sargent. Owner: Ralph Slagel.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 69 ft (21.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,361.95 ft (719.92 m). Measuring point: Hole in turbine base at land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.80 ft (2.68 m) below land-surface datum, Oct. 8, 1964; lowest, 19.41 ft (5.92 m) below land-surface datum, Sept. 1, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
WATER		WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 29	9.84G	JUN 15	11.20G								

G MEASUREMENT MADE BY ANOTHER AGENCY

DAWES COUNTY

424100103243501. Local number 31N-52W-3DC.

LOCATION.--Lat 42°41'00", long 103°24'35", SW1/4SE1/4 sec.3, T.31 N., R.52 W., Hydrologic Unit 10140201, behind house at 312 Annin Street in Crawford. Owner: T. P. Moody.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 39 ft (11.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,685 ft (1,123 m). Measuring point: Edge of iron plate 1.07 ft (0.33 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.87 ft (4.84 m) below land-surface datum, May 30, 1948; lowest, 22.28 ft (6.79 m) below land-surface datum, Oct. 31, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
WATER		WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 25	19.28	DEC 20	19.25	FEB 21	19.03	APR 20	18.72	JUN 20	18.55	SEP 20	20.03
NOV 21	18.99	JAN 20	19.01	MAR 20	19.06	MAY 22	18.52	AUG 21	20.45		

DAWSON COUNTY

405250099445501. Local number 10N-21W-18DDD.

LOCATION.--Lat 40°52'50", long 99°44'55", SE1/4SE1/4 sec.18, T.10 N., R.21 W., Hydrologic Unit 10200101, 3.5 mi (5.6 km) north of the intersection of Route 21 and U.S. Highway 30 in Lexington. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 120 ft (36.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,420.58 ft (737.79 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumpage from nearby irrigation wells and by seepage from irrigation canals. Water-quality records for the 1978 water year are published elsewhere in this report.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.74 ft (2.97 m) below land-surface datum, Oct. 24, 1965; lowest, 17.90 ft (5.46 m) below land-surface datum, Aug. 20, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	14.37	14.47	14.66	14.71	13.85	13.86	.....	.....	13.21	13.45
10	14.37	14.51	14.63	14.72	13.90	13.86	.....	.....	13.56	13.58
15	14.20	14.34	14.51	14.66	14.23	13.94	.....	.....	.....	13.91	13.81
20	14.20	14.42	14.55	14.68	13.75	13.93	.....	.....	.....	12.96	13.95
25	14.29	14.39	14.56	14.73	13.79	13.90	.....	13.03	13.46	13.30	14.04
EOH	14.27	14.50	14.60	14.73	13.81	13.85	.....	.....	13.82	13.65	14.14

WTR YEAR 1978 MAX 13.03 JUN 25, 1978 MIN 14.77 MAR 7, 1978

GROUND-WATER LEVELS

DAWSON COUNTY

404850099503501. Local number 10N-22W-29AA.

LOCATION.--Lat 40°48'50", long 99°50'35", NE1/4NE1/4 sec.29, T.10 N., R.22 W., Hydrologic Unit 10200101, 2 mi (3.2 km) east of Dorr. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 12 ft (3.7 m), screened 10 to 12 ft (3.0 to 3.7 m).

DATUM.--Altitude of land-surface datum is 2,435.14 ft (742.23 m). Measuring point: Top of casing 1.80 ft (0.55 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.--October 1931 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.1 ft (1.55 m) below land-surface datum, Oct. 13, 1965; lowest, 17.69 ft (5.39 m) below land-surface datum, Feb. 8, 1946.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
WATER		WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 20	7.12										

DUNDY COUNTY

400155101521302. Local number 1N-40W-29BB2.

LOCATION.--Lat 40°01'55", long 101°52'13", NW1/4NW1/4 sec.29, T.1 N., R.40 W., Hydrologic Unit 10250002, 3.5 mi (5.6 km) east of Haigler on U.S. Highway 34 and 0.5 mi (0.8 km) north. Well is within 0.5 mi (0.8 km) of Republican River. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 48.8 ft (14.87 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,205 ft (977 m). Measuring point: South side of casing 1.6 ft (0.49 m) above land-surface datum.

REMARKS.--Replacement for well 400155101521301, local number 1N-40W-29BB1 with period of record from May 1946 to June 1975. Water levels in well are affected by pumping from nearby irrigation wells, evapotranspiration, and changes in stage of Republican River.

PERIOD OF RECORD.--October 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.45 ft (5.01 m) below land-surface datum, June 25, 1975; lowest, 20.97 ft (6.39 m) below land-surface datum, Sept. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	19.95	19.41	18.71	18.27	17.90	17.61	17.41	17.23	17.81	18.50	18.92	19.49
10	20.30	19.27	18.64	18.21	17.84	17.57	17.38	17.21	17.61	18.73	18.79	19.66
15	19.87	19.13	18.54	18.14	17.79	17.56	17.35	17.18	17.97	18.88	19.01	19.63
20	19.89	19.01	18.48	18.09	17.75	17.51	17.33	17.37	18.21	18.99	19.38	19.45
25	19.88	18.91	18.42	18.02	17.69	17.48	17.31	17.41	17.97	18.92	19.45	19.24
EOM	19.58	18.80	18.34	17.96	17.66	17.43	17.27	17.67	18.22	19.22	19.23	.....

WTR YEAR 1978 MAX 17.17 MAY 16, 1978 MIN 20.30 OCT 10, 1977

FILLMORE COUNTY

402504097432201. Local number 5N-4W-12BDC.

LOCATION.--Lat 40°25'04", long 97°43'22", SW1/4SE1/4NW1/4 sec.12, T.5 N., R.4 W., Hydrologic Unit 10270206, one-half block south of fire station on principal north-south street in Shickley. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 260.0 ft (79.25 m), perforated 100 to 260 ft (30.5 to 79.25 m).

DATUM.--Altitude of land-surface datum is 1651 ft (503 m). Measuring point: Top of casing 1.5 ft (0.46 m) above land-surface datum.

REMARKS.--Replacement for 40245009743401, local number 5N-4W-12BC, period of record October 1956 to September 1977. Water levels in well affected by pumping from nearby municipal and irrigation wells. Water-quality records for the 1978 water year are published elsewhere in this report.

PERIOD OF RECORD.--June 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 90.92 ft (27.71 m) below land-surface datum, Apr. 17, 1978; lowest, 95.10 ft (28.99 m) below land-surface datum, Sept. 10, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	92.46	92.05	91.61	91.36	.....	.....	.....	94.15	94.98
10	92.34	91.81	91.47	91.48	.....	.....	.....	94.30	95.10
15	92.45	92.06	91.91	91.84	91.30	.....	.....	92.88	94.37	94.96
20	92.59	92.07	92.00	91.48	91.41	.....	.....	93.37	94.34	94.95
25	92.61	92.01	91.89	91.56	91.40	.....	.....	93.34	94.80	94.84
EOM	92.55	92.02	91.87	91.38	91.14	.....	.....	93.89	94.89	94.91

WTR YEAR 1978 MAX 90.92 APR 17, 1978 MIN 95.10 SEP 10, 1978

FILLMORE COUNTY

403800097300701. Local number 8N-2W-26AD.

LOCATION.--Lat 40°38'00", long 97°30'07", SE1/4NE1/4 sec.26, T.8 N., R.2 W., Hydrologic Unit 10270203, 2.5 mi (4.0 km) west on Route 6 from the principal street of Exeter, then 0.4 mi (0.6 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Loess of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 40 ft (12.2 m), perforated 25 to 40 ft (7.6 to 12.2 m).

DATUM.--Altitude of land-surface datum is 1,610 ft (491 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Perched aquifer, water levels affected by infiltration and deep percolation of applied irrigation water pumped from deeper aquifer.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.46 ft (1.66 m) below land-surface datum, Feb. 20, 1974; lowest, 24.16 ft (7.36 m) below land-surface datum, July 10, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	10.90	10.39	9.07H	.....	10.19	10.35	9.50	7.32	6.59	6.42	7.31	8.90
10	10.42H	9.66H	.....	.....	10.10	10.40	9.44	6.29	6.66	6.48H	7.54	9.17
15	10.46	.....	.....	9.80	10.21	9.70	9.09	6.45	6.69	.....	7.75	9.46
20	10.25	.....	.....	9.80	10.38	8.41	7.17	6.73	6.90	.....	7.74	9.67
25	10.33	.....	.....	9.82	10.40	9.00	7.29	6.56	6.85	.....	8.20	9.74
EOM	10.32	.....	.....	10.00	10.44	9.23	7.24	6.55H	7.05	.....	8.63	9.89

WTR YEAR 1978 MAX 6.04 MAY 8, 1978 MIN 10.96 OCT 2, 1977

H TAPE MEASUREMENT

GROUND-WATER LEVELS

FURNAS COUNTY

401718099491001. Local number 4N-22W-29AD.

LOCATION.--Lat 40°17'18"N, long 99°49'10"W, SE1/4NE1/4 sec.29, T.4 N., R.22 W., Hydrologic Unit 10250009, 2 mi (3.2 km) west and 0.5 mi (0.8 km) north of Edison. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 23 ft (7.0 m), screened 21 to 23 ft (6.4 to 7.0 m).

DATUM.--Altitude of land-surface datum is 2,134 ft (650 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.60 ft (1.40 m) below land surface datum, Aug. 22, 1978; lowest, 17.69 ft (5.39 m) below land-surface datum, Feb. 8, 1946.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978																	
DATE		WATER LEVEL	DATE		WATER LEVEL	DATE		WATER LEVEL	DATE		WATER LEVEL						
OCT	24	9.30G	MAY	2	11.20G	JUL	7	8.40G	AUG	7	6.90G	AUG	22	4.60G	SEP	15	4.90G
DEC	5	10.20G	JUN	7	11.60G												

G MEASUREMENT MADE BY ANOTHER AGENCY

GARDEN COUNTY

414413102244501. Local number 20N-44W-5DB.

LOCATION.--Lat 41°44'13", long 102°24'45", NW1/4SE1/4 sec.5, T.20 N., R.44 W., Hydrologic Unit 10180009, 2.6 mi (4.2 km) southeast of Nupper. Owner: Crescent Lake Migratory Bird Refuge.

AQUIFER.--Sandhills deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.50 in (0.04 m), depth 20 ft (6.1 m), screened 18 to 20 ft (5.5 to 6.1 m).

DATUM.--Altitude of land-surface datum is 3,798.19 ft (1,157.69 m). Measuring point: Top of casing 2.50 ft (0.76 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.54 ft (1.38 m) below land-surface datum, Oct. 14, 1934; lowest, 8.70 ft (2.65 m) below land-surface datum, Apr. 11, 1941.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
JAN 5	7.55G	MAR 27	7.55	JUN 29	6.97				

G MEASUREMENT MADE BY ANOTHER AGENCY

GARFIELD COUNTY

4 14718099083201. Local number 21N-16W-14CB.

LOCATION.--Lat 41°47'18", long 99°08'32", NW1/4SW1/4 sec.14, T.21 N., R.16 W., Hydrologic Unit 10210007, 5 mi (8.0 km) east and 1 mi (1.6 km) north of Burwell. Owner: Frank Smolik.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 154 ft (46.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,174 ft (663 m). Measuring point: Hole in turbine base 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.62 ft (6.59 m) below land-surface datum, Oct. 16, 1973; lowest, 24.92 ft (7.60 m) below land-surface datum, Oct. 28, 1959.

[illegible]

GOSPER COUNTY

403626099451401. Local number 7N-21W-68C.

LOCATION.--Lat 40°36'26", long 99°45'14", SW1/4NW1/4 sec.2, T.7 N., R.21 W., Hydrologic Unit 10200101, 1 mi (1.6 km) west and 2 mi (3.2 km) north of Smithfield. Owner: Andy Larson Estate.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 132 ft (40.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,466.95 ft (751.93 m). Measuring point: Top of casing 0.40 ft (0.12 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping from nearby irrigation wells and by infiltration and deep percolation from nearby irrigation canal.

PERIOD OF RECORD.--September 1934 to July 1940; January 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.70 ft (17.28 m) below land-surface datum, Oct. 17, 1975; lowest, 117.80 ft (39.91 m) below land-surface datum, Sept. 26, 1935.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
WATER		WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 12	57.80										

HALL COUNTY

405315098304302. Local number 11N-11W-25CC2.

LOCATION.--Lat 40°53'15", long 98°30'43", SW1/4SW1/4 sec.25, T.11 N., R.11 W., Hydrologic Unit 10200103, 1.0 mi (1.6 km) north and 2.0 mi (3.2 km) west of Alda. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 65 ft (19.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,924.0 ft (586.4 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Replacement for 405315098304301, local number 11N-11W-25CC, period of record October 1946 to November 1977. Water levels in wells affected by pumping from nearby wells during irrigation season. Water-quality records for the 1978 water year are published elsewhere in this report.

PERIOD OF RECORD.-- April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.66 ft (6.60 m) below land-surface datum, June 25, 1978; lowest, 24.25 ft (7.39 m) below land-surface datum, Sept. 15, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978												
LOWEST WATER LEVEL FOR THE DAY												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	22.95	.....	22.57	22.45	22.34	22.25	21.94	21.84	21.73	21.89	23.28	24.16
10	22.92	.....	22.56	22.44	22.33	22.23	21.92	21.83	21.71	22.10	23.49	24.20
15	22.87	.....	22.53	22.42	22.30	22.21	21.93	21.83	21.71	22.34	23.72	24.25
20	22.83	22.63	22.50	22.40	22.29	21.95	21.91	21.81	21.69	22.61	23.84	24.25
25	22.80	22.61	22.49	22.37	22.26	21.88	21.88	21.77	21.66	22.84	24.00	24.25
EOM	.....	22.59	22.47	22.36	22.26	21.90	21.85	21.75	21.69	23.07	24.11	24.21

WTR YEAR 1978 MAX 21.66 JUN 25, 1978 MIN 24.25 SEP 15, 1978

GROUND-WATER LEVELS

HAMILTON COUNTY

404825097583301. Local number 10N-6W-26BC.

LOCATION.--Lat 40°48'25", long 97°58'33", SW1/4NW1/4 sec.26, T.10 N., R.6 W., Hydrologic Unit 10270203, 4 mi (6.4 km) south of Junction of Route 14 and U.S. Highway 34 in Aurora, then 1.0 mi (1.6 km) east and 0.3 mi (0.48 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 131 ft (39.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,790.5 ft (545.7 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.

REMARKS.--Water levels affected by pumping at nearby irrigation wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.90 ft (25.88 m) below land-surface datum, June 20, 1956; lowest, 106.97 ft (32.60 m) below land-surface datum, Sept. 8, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	103.31	102.64	102.10	101.58	101.20	100.86	100.55	100.25	100.02	101.35	104.55	106.82
10	103.17	102.53	102.05	101.55	101.13	100.81	100.43	100.20	99.96	101.80	105.38	106.90
15	103.08	102.44	101.96	101.45	101.06	100.76	100.37	100.16	99.93	101.96	105.90	106.85
20	102.95	102.34	101.85	101.40	101.00	100.73	100.27	100.12	99.86	102.70	106.17	106.58
25	102.85	102.28	101.75	101.32	100.96	100.67	100.28	100.10	99.87	103.15	106.55	106.36
EOH	102.70	102.20	101.65	101.27	100.91	100.60	100.27	100.06	100.02	103.79	106.82	106.13

WTR YEAR 1978 MAX 99.86 JUN 20, 1978 MIN 106.90 SEP 10, 1978

HAMILTON COUNTY

405514097573901. Local number 11N-6W-13CB.

LOCATION.--Lat 40°55'14"N, long 97°57'39"W, NW1/4SW1/4 sec.13, T.11 N., R.6 W., Hydrologic Unit 10270201, 2 mi (3.2 km) east and 3.5 mi (5.6 km) north of Aurora. Owner: O. S. Swedberg.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (0.61 m), depth 194 ft (59.1 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,812.2 ft (552.4 m). Measuring point: Hole in south side turbine base at land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 90.04 ft (27.44 m) below land-surface datum, Sept. 29, 1934; lowest, 117.18 ft (35.72 m) below land-surface datum, Nov. 15, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
NOV 15	111.85	MAY 2	105.66						

HARLAN COUNTY

400920099215501. Local number 2N-18W-9BCC.

LOCATION.--Lat 40°09'20", long 99°21'55", SW1/4SW1/4NW1/4 sec.9, T.2 N., R.18 W., Hydrologic Unit 10250009, 3.5 mi (5.6 km) north of the junction of Route 3 and U.S. Highway 183 in Alma. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5.50 in (0.14 m), depth 170 ft (51.8 m), perforated from 140 to 170 ft (42.7 to 51.8 m).

DATUM.--Altitude of land-surface datum is 2,120 ft (646 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels affected by pumping from nearby wells during irrigation season.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.39 ft (25.72 m) below land-surface datum, May 11, 1966; lowest, 109.96 ft (33.52 m) below land-surface datum, Sept. 15, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	91.07	90.60	90.48	89.89	89.77	89.39	89.80	.....	88.95	103.24	93.37	99.44
10	91.01	90.63	90.40	89.91	89.59	89.35	89.38	89.13	90.88	.....	97.39	97.01
15	90.98	90.42	90.14	89.75	89.59	89.51	89.29	89.11	91.24	103.96	103.45	96.93
20	90.74	90.61	90.30	89.77	89.65	89.37	89.29	89.16	89.50	103.15	103.57	94.27
25	90.71	90.42	90.26	89.72	89.62	89.36	89.29	89.04	89.10	101.05	104.43	93.16
ROM	90.63	90.28	90.21	89.71	89.57	89.23	89.42	89.05	99.99	104.56	101.65	92.95

WTR YEAR 1978 MAX 88.89 JUN 6, 1978 MIN 104.76 JUL 29, 1978

HARLAN COUNTY

400620099274001. Local number 2N-19W-28DD.

LOCATION.--Lat 40°06'20", long 99°27'40", SE1/4SE1/4 sec.28, T.2 N., R.19 W., Hydrologic Unit 10250009, 1.8 mi (2.9 km) south of Orleans. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 22 ft (6.7 m), screened 20 to 22 ft (6.1 to 6.7 m).

DATUM.--Altitude of land-surface datum is 1,960 ft (597 m). Measuring point: Top of casing 1.20 ft (0.37 m) above land-surface datum.

PERIOD OF RECORD.--May 1940 to October 1941; March 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.9 ft (1.80 m) below land-surface datum, Feb. 15, 1966; lowest, 12.14 ft (3.70 m) below land-surface datum, Sept. 13, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 6	9.70G	AUG 1	10.10G								

G MEASUREMENT MADE BY ANOTHER AGENCY

HITCHCOCK COUNTY

401458100542201. Local number 3N-32W-11BB.

LOCATION.--Lat 40°14'58", long 100°54'22", NW1/4NW1/4 sec.11, T.3 N., R.32 W., Hydrologic Unit 10250005, 3 mi (4.8 km) west and 1 mi (1.6 km) north of Culbertson. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 18 ft (5.5 m), screened 16 to 18 ft (4.9 to 5.5 m).

DATUM.--Altitude of land-surface datum is 2,615 ft (797 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby irrigation wells and seepage from irrigation canals.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.65 ft (3.86 m) below land-surface datum, Feb. 8, 1949; lowest, 17.30 ft (5.27 m) below land-surface datum, Aug. 10, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	15.40	OCT 28	15.20G	MAR 15	16.00G	AUG 10	17.30G				

G MEASUREMENT MADE BY ANOTHER AGENCY

GROUND-WATER LEVELS

HOLT COUNTY

421605098203001. Local number 27N-9W-34DA.

LOCATION.--Lat 42°16'05", long 98°20'30", NE1/4SE1/4 sec.34, T.27 N., R.9 W., Hydrologic Unit 10220001, 0.5 mi (0.8 km) north of Ewing. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 17 ft (5.2 m), screened 15 to 17 ft (4.6 to 5.2 m).

DATUM.--Altitude of land-surface datum is 1,841 ft (561 m). Measuring point: Top of casing 1.10 ft (0.34 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.67 ft (0.81 m) below land-surface datum, Apr. 5, 1960; lowest, 9.90 ft (3.02 m) below land-surface datum, Sept. 1, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	7.97	DEC 14	7.48	FEB 15	6.99	MAR 29	5.68	JUN 2	6.12	AUG 3	7.35
NOV 4	7.93	JAN 5	7.37	MAR 8	6.83	APR 19	5.66	JUN 22	7.12	AUG 24	7.77
NOV 22	7.56	JAN 25	7.18	MAR 20	5.98	MAY 11	5.79	JUL 13	7.51	SEP 14	8.04

HOLT COUNTY

422845098370701. Local number 29N-11W-21BBB.

LOCATION.--Lat 42°28'45", long 98°37'07", NW1/4NW1/4 sec.21, T.29 N., R.11 W., Hydrologic Unit 10150007, 1 mi (1.6 km) east and 1 mi (1.6 km) north of O'Neill. Owner: Murphy.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 5 in (0.13 m), depth 55 ft (16.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,001.06 ft (609.92 m). Measuring point: Top of casing 1.20 ft (0.37 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.87 ft (5.14 m) below land-surface datum, Jan. 14, 1948; lowest, 34.64 ft (10.56 m) below land-surface datum, Oct. 14, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	34.64	MAY 3	29.26								

HOLT COUNTY

423148098300601. Local number 30N-10W-32DAA.

LOCATION.--Lat 42°31'48", long 98°30'06", NE1/4NE1/4 sec.32, T.30 N., R.10 W., Hydrologic Unit 10150007, 2 mi (3.2 km) east on paved road from O'Neill, then 2 mi (3.2 km) north, 4 mi (6.4 km) east, 2 mi (3.2 km) north, 2 mi (3.2 km) east, and 0.5 mi (0.8 km) north. Owner: William J. Murphy.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 85 ft (25.9 m), perforated 25.5 to 85 ft (7.8 to 25.9 m).

DATUM.--Altitude of land-surface datum is 1,952 ft (595 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in this well affected by withdrawals by nearby irrigation wells completed in this aquifer and withdrawals from a deeper aquifer which has resulted in water movement from the upper aquifer to the deeper aquifer. Water-quality records for the 1978 water year are published elsewhere in this report.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.41 ft (10.79 m) below land-surface datum, Oct. 21, 1966; lowest, 50.66 ft (15.44 m) below land-surface datum, Sept. 26, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	49.88	49.91	49.92	49.91	49.87	49.83	49.70	49.49	49.38	49.56	50.05	50.48
10	49.89	49.92	49.93	49.91	49.86	49.83	49.64	49.48	49.36	.....	50.13	50.54
15	49.89	49.93	49.93	49.89	49.85	49.82	49.59	49.46	49.34	49.72	50.22	50.60
20	49.90	49.92	49.92	49.88	49.85	49.81	49.56	49.43	49.32	49.83	50.26	50.63
25	49.90	49.92	49.91	49.88	49.84	49.80	49.54	49.41	49.36	49.92	50.31	50.65
BOH	49.91	49.92	49.91	49.87	.....	49.75	49.51	49.40	49.43	49.98	50.40	50.65

WTR YEAR 1978 MAX 49.32 JUN 20, 1978 MIN 50.66 SEP 26, 1978

BOLT COUNTY

423730098560001. Local number 31N-14W-27DDD.

LOCATION.--Lat 42°37'30", long 98°56'00", SE1/4SE1/4SE1/4 sec.27, T.31 N., R.14 W., Hydrologic Unit 10150007, 6 mi (9.7 km) north from Atkinson on Route 11, then 2 mi (3.2 km) east. Owner: Elmer Goldfuss.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 72 ft (21.9 m), perforated 32 to 72 ft (9.8 to 21.9 m).

DATUM.--Altitude of land-surface datum is 2,080 ft (634 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season. Water-quality records for the 1978 water year are published elsewhere in this report.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.91 ft (9.42 m) below land-surface datum, July 7, 1966; lowest, 43.30 ft (13.20 m) below land-surface datum, Sept. 10, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	40.97	.....	40.12	39.82	39.61	39.41	38.86	38.68	38.53	38.61	38.69	39.03
10	40.87	.....	40.08	39.80	39.55	39.40	38.84	38.66	38.45	38.65	38.78	39.12
15	40.80	.....	39.98	39.73	39.51	39.40	38.84	38.62	38.47	38.70	38.90	39.31
20	40.70	.....	39.97	39.70	39.48	39.29	38.81	38.70	38.52	38.79	38.78	39.28
25	.....	40.24H	39.92	39.64	39.44	38.86	38.76	38.65	38.46	38.65	38.74	39.18
DOM	.....	40.17	39.87	39.62	39.42	38.87	38.72	38.60	38.39	38.61	38.91	39.06

WTR YEAR 1978 MAX 38.39 JUL 30, 1978 MIN 40.97 OCT 5, 1977

H TAPE MEASUREMENT

KEARNEY COUNTY

403053098581501. Local number 6N-15W-1CB.

LOCATION.--Lat 40°30'53", long 98°58'15", NW1/4SW1/4 sec.1, T.6 N., R.15 W., Hydrologic Unit 10270206, 1 mi (1.6 km) west and 1 mi (1.6 km) north of intersection of U.S. Highway 6 and State Highway 10 in Minden. Owner: Roy Youngson.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 176 ft (53.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,171.80 ft (661.96 m). Measuring point: Hole in turbine base 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--No well reading made in 1978 water year.

PERIOD OF RECORD.--June 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.50 ft (13.87 m) below land-surface datum, Oct. 21, 1975; lowest, 71.36 ft (21.75 m) below land-surface datum, June 29, 1948.

KEARNEY COUNTY

402625098594501. Local number 6N-15W-34DC.

LOCATION.--Lat 40°26'25", long 98°59'45", SW1/4SE1/4 sec.34, T.6 N., R.15 W., Hydrologic Unit 10270206, 4.5 mi (7.2 km) south and 2.5 mi (4.0 km) west of the junction of Route 10 and U.S. Highway 34 near Minden. Owner: Conservation and Survey Division, University of Nebraska-Lincoln.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 210 ft (64.0 m), cased with steel, perforated 190 to 210 ft (57.9 to 64.0 m).

DATUM.--Altitude of land-surface datum is 2,210 ft (674 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--replacement for 402615099000001, local 5N-15W-3BA1, period of record August 1947 to September 1967. Water levels in well affected by seepage losses from nearby canals and by pumping of nearby wells during irrigation season. Water-quality records for the 1978 water year are published elsewhere in this report.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 79.29 ft (24.17 m) below land-surface datum, May 29, 1976; lowest, 117.82 ft (35.91 m) below land-surface datum, July 28, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	.....	84.14	83.60	.....	82.68	82.31	81.77	81.26	81.01	110.24	106.84	105.87
10	.....	84.05	83.74	.....	82.27	81.86	81.59	81.31	81.43	116.04	114.53	96.74
15	84.75	83.55	83.01	.....	82.26	82.14	81.66	81.20	81.51	111.54	96.51	89.94
20	84.27	83.83	.....	.....	82.27	81.90	81.65	81.36	83.08	115.39	94.74	88.86
25	84.22	83.69	.....	.....	82.24	81.92	81.72	81.07	100.67	102.43	116.56	88.21
DOM	83.97	83.52	.....	.....	82.21	81.57	81.24	81.10	.....	116.05	113.32	87.63

WTR YEAR 1978 MAX 81.01 JUN 5, 1978 MIN 117.82 JUL 28, 1978

411416103361101. Local number 15N-55W-26CC.

AQUIFER.--Ogallala Formation of Pliocene age.

DATUM.--Altitude of land-surface datum is 4,652.3 ft (1,418.0 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Replacement for 411600103393501, local number 15N-55W-17CC1, period of record January 1935 to November 1942; June 1950 to October 1975.

PERIOD OF RECORD.--January, 1936 to October 1937; January 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.82 ft (12.14 m) below land-surface datum, Jan. 2, 1936; lowest, 54.07 ft (16.48 m) below land-surface datum, Oct. 18, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 18	54.07	MAR 24	50.60						

403643096433001. Local number 8N-6E-34DD.

LOCATION.--Lat 40°36'43", long 96°43'30", SE1/4SE1/4 sec.34, T.8 N., R.6 E., Hydrologic Unit 10200203, 1 mi (1.6 km) east and 1 mi (1.6 km) south of Sprague. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 53 ft (16.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,285 ft (392 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.41 ft (1.04 m) below land-surface datum, Apr. 5, 1960; lowest, 8.90 ft (2.71 m) below land-surface datum, July 31, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	8.07								

403929096401001. Local number 8N-7E-18DDB.

LOCATION.--Lat 40°39'29", long 96°40'10", NW1/4SE1/4SE1/4 sec.18, T.8 N., R.7 E., Hydrologic Unit 10200203, 0.6 mi (0.97 km) west of Roca. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water-table well, diameter 8 in (0.20 m), depth 41 ft (12.5 m), perforated 36 to 41 ft (11.0 to 12.5 m).

DATUM.--Altitude of land-surface datum is 1,215 ft (370 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.63 ft (0.50 m) below land-surface datum, Aug. 25, 1954; lowest, 12.55 ft (3.83 m) below land-surface datum, June 20, 1956.

[illegible]

LANCASTER COUNTY

403833096385501. Local number 8N-7E-20DDA. Lat 40°38'33", long 96°38'55", NE1/4SE1/4 sec.20, T.8 N., R.7 E., Hydrologic Unit 10200203, 0.5 mi (0.8 km) east and 1.1 mi (1.8 km) south of Roca. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 33 ft (10.1 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,243 ft (379 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.16 ft (0.05 m) below land-surface datum, Mar. 27, 1960; lowest, 11.55 ft (3.52 m) below land-surface datum, Mar. 20, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978	
DATE	WATER LEVEL
OCT 21	6.67

LANCASTER COUNTY

404730096440401. Local number 10N-6E-34CA.

LOCATION.--Lat 40°47'30", long 96°44'04", NE1/4SW1/4 sec.34, T.10 N., R.6 E., Hydrologic Unit 10200203, 0.3 mi (0.5 km) west of intersection of Folsom and South Streets in Lincoln. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 36 ft (11.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,149 ft (350 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.20 ft (2.80 m) below land-surface datum, Oct. 15, 1973; lowest, 18.53 ft (5.65 m) below land-surface datum, Feb. 20, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978	
DATE	WATER LEVEL
OCT 18	14.92

LANCASTER COUNTY

404706096413001. Local number 10N-6E-36CDD.

LOCATION.--Lat 40°47'06", long 96°41'30", SE1/4SE1/4SW1/4 sec.36, T.10 N., R.6 E., Hydrologic Unit 10200203, in Irvingdale Park on the north side of Van Dorn Street between 19th and 20th Streets in Lincoln. Owner: City of Lincoln.

AQUIFER.--Dakota Formation of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth 170 ft (51.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,200 ft (366 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well have had a rising trend for the period of record due partly to recovery from long-term withdrawals from the aquifer for the Lincoln water supply prior to 1950 and partly to recharge from precipitation.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.18 ft (15.90 m) below land-surface datum, Sept. 17, 1978; lowest 71.19 ft (21.70 m) below land-surface datum, Sept. 5, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	53.55	53.36	.....	.....	53.43	53.29	53.07	53.07	52.83	52.74	52.76	52.52
10	53.48	.....	.....	53.42	53.19	52.94	53.05	52.94	52.72	52.93	52.66	52.47
15	53.60	.....	.....	53.16	53.19	53.23	53.20	52.90	52.77	52.77	52.70	52.58
20	53.29	.....	.....	53.25	53.30	53.05	53.18	53.10	52.97	52.80	52.83	52.71
25	53.38	.....	.....	53.05	53.29	53.17	53.27	52.87	52.67	52.65	52.64	52.67
BOB	53.30	.....	.....	53.35	53.29	52.96	52.95	52.92	52.76	52.71	52.66	52.61

WTR YEAR 1978 MAX 52.18 SEP 17, 1978 MIN 53.60 OCT 15, 1978

GROUND-WATER LEVELS

LANCASTER COUNTY

405405096455501. Local number 11N-6E-20DC.

LOCATION.--Lat 40°54'05", long 96°45'55", SW1/4SE1/4 sec.20, T.11 N., R.6 E., Hydrologic Unit 10200203, 1 mi (1.6 km) north and 1.6 (2.6 km) east of junction of State Highways 2 and 71 northwest of Lincoln. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 30 ft (9.1 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,189 ft (362 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.

REMARKS.--Well destroyed prior to Oct. 18, 1977, no measurements in 1978 water year.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.69 ft (3.56 m) below land-surface datum, Oct. 8, 1963; lowest, 17.53 ft (5.34 m) below land-surface datum, Jan. 5, 1957.

MERRICK COUNTY

410143098090301. Local number 12N-7W-7AA. Lat 41°01'43", long 98°09'03", NE1/4NE1/4 sec.7, T.12 N., R.7 W., Hydrologic Unit 10200103, 0.5 mi (0.8 km) north and 0.5 mi (0.8 km) west of Chapman. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 13 ft (4.0 m), screened 11 to 13 ft (3.4 to 4.0 m).

DATUM.--Altitude of land-surface datum is 1,762.16 ft (537.11 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season and by evapotranspiration.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.84 ft (1.17 m) below land-surface datum, Feb. 14, 1974; lowest, 10.75 ft (3.28 m) below land-surface datum, Dec. 3, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978	
DATE	WATER LEVEL
OCT 9	8.72
JUN 19	5.97

MERRICK COUNTY

405755098111301. Local number 12N-8W-36BC.

LOCATION.--Lat 40°57'55", long 98°11'13", SW1/4NW1/4 sec.36, T.12 N., R.8 W., Hydrologic Unit 10200103, 2 mi (3.2 km) southwest of the intersection of the main street in Chapman and U.S. Highway 30, then 2.6 mi (4.2 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Jetted observation water-table well, diameter 6 in (0.15 m), depth 7.75 ft (2.36 m), perforated 5 to 8 ft (1.5 to 2.4 m).

DATUM.--Altitude of land-surface datum is 1,785.38 ft (544.18 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by evapotranspiration.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.02 ft (0.31 m) below land-surface datum, June 13, 1967; lowest, 6.21 ft (1.89 m) below land-surface datum, Aug. 31, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	4.06	4.00	3.97	4.41	4.16	3.88	3.39	3.45	4.46	.....	.....	5.67
10	3.56	3.44	4.21	4.52	4.06	3.88	.....	3.42	4.74	.....	.....	5.77
15	3.83	3.46	4.03	4.54	3.90	3.77	.....	3.77	5.01	5.21	.....	5.73
20	4.07	3.72	3.96	4.51	3.89	3.34	2.95	4.05	5.18	5.36	.....	5.73
25	4.03	3.91	4.20	4.30	3.89	2.91	3.13	4.22	.....	5.23	5.89	5.71
EOH	3.83	3.90	4.38	4.24	3.88	3.39	3.29	4.41	.....	.....	5.77	5.68

WTR YEAR 1978 MAX 2.91 MAR 25, 1978 MIN 5.89 AUG 25, 1978

414107103054501. Local number 20N-50W-28BB.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

DATUM.--Altitude of land-surface datum is 3,675 ft (1,120 m). Measuring point: Top of casing 2.80 ft (0.85 m) above land-surface datum.

PERIOD OF RECORD.--September 1934 to November 1942; November 1944 to current year.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	13.68								

400240098111301. Local number 1N-8W-23AB.

AQUIFER.--Loess of Pleistocene age.

DATUM.--Altitude of land-surface datum is 1,598.15 ft (487.12 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.

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

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 11	4.75	MAY 8	4.65						

403123099261501. Local number 6N-19W-2AA.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

DATUM.--Altitude of land-surface datum is 2,360.81 ft (719.57 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by seepage losses from nearby irrigation canal.

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

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978																	
DATE		WATER LEVEL	DATE		WATER LEVEL	DATE		WATER LEVEL	DATE		WATER LEVEL						
OCT	18	49.85	JAN	10	50.78	MAR	27	51.25	MAY	4	51.04	JUL	10	60.47	AUG	30	63.90
NOV	15	49.70															

GROUND-WATER LEVELS

PLATTE COUNTY

412955097192001. Local number 18N-1E-28CD.

LOCATION.--Lat 41°29'55", long 97°19'20", SE1/4SW1/4 sec.28, T.18 N., R.1 E., Hydrologic Unit 10200201, 3 mi (4.8 km) south and 8.5 mi (13.7 km) east of Platte Center. Owner: Loup River Public Power District.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in (0.05 m), depth 99 ft (30.2 m), screened 97 to 99 ft (29.6 to 30.2 m).

DATUM.--Altitude of land-surface datum is 1,511.8 ft (460.8 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--November 1935 to August 1940; March 1942 to November 1953; November 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.30 ft (18.38 m) below land-surface datum, Mar. 27, 1940; lowest, 72.81 ft (22.19 m) below land-surface datum, Oct. 9, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
WATER		WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 13	68.81										

RED WILLOW COUNTY

401015100353701. Local number 2N-29W-4AD.

LOCATION.--Lat 40°10'15", long 100°35'37", SE1/4NE1/4 sec.4, T.2 N., R.29 W., Hydrologic Unit 10250004, 2 mi (3.2 km) south and 1.5 mi (2.4 km) east of intersection of U.S. Highway 6 and 83 in east part of McCook. Owner: Rex S. Haberman.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 26 in (0.66 m), depth 40 ft (12.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,481 ft (756 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.6 ft (7.50 m) below land-surface datum, Oct. 9, 1965; lowest, 37.10 ft (11.31 m) below land-surface datum, July 11, 1953.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
WATER		WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 7	27.25										

SALINE COUNTY

403855097072501. Local number 8N-3E-19ADA.

LOCATION.--Lat 40°38'55", long 97°07'25", NE1/4SE1/4NE1/4 sec.19, T.8 N., R.3 E., Hydrologic Unit 10270202, west edge of Dorchester, on west side of Route 15 between U.S. Highway and Route 33. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 151 ft (46.0 m), perforated 142 to 151 ft (43.3 to 46.0 m).

DATUM.--Altitude of land-surface datum is 1,496 ft (456 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 96.56 ft (29.43 m) below land-surface datum, Mar. 16, 1963; lowest, 107.15 ft (32.66 m) below land-surface datum, Aug. 25, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	105.62	105.14	104.83H	104.15	104.34	103.40	103.56	103.30	102.95	103.44	104.72	105.51
10	105.53	105.26	105.00	104.43	103.66	103.27	103.36	103.25	102.84	103.62	105.05	105.34
15	105.59	104.59	104.51	104.11	103.85	103.90	103.52	103.09	102.75	103.30	105.05	105.42
20	105.08	105.20	103.29	104.10	103.94	103.44	103.56	103.34	103.05	103.85	105.17	105.47
25	105.16	104.91	103.55	104.50	104.25	103.61	103.65	103.07	102.58	103.51	105.34	105.13
EOH	105.00	104.57	103.85	104.07	103.77	103.15	103.15	103.15	102.80	104.27	105.83	105.05

WTR YEAR 1978 MAX 102.44 JUN 25, 1978 MIN 105.95 AUG 29, 1978

H TAPE MEASUREMENT

SAUNDERS COUNTY

410426096220401. Local number 13N-9E-24CC.

LOCATION.--Lat. 41°04'26", long 96°22'04", SW1/4SW1/4 sec.24, T.13 N., R.9 E., Hydrologic Unit 10200202, 2 mi (3.2 km) north of Ashland. Owner: City of Lincoln.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 12 ft (3.7 m), screened 10 to 12 ft (3.0 to 3.7 m).

DATUM.--Altitude of land-surface datum is 1,065.22 ft (324.68 m). Measuring point: Top of casing 4.50 ft (1.37 m) above land-surface datum.

REMARKS.--Water levels affected by pumping of nearby wells in City of Lincoln well field.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.48 ft (0.15 m) below land-surface datum, July 31, 1948; lowest, 9.65 ft (2.94 m) below land-surface datum, Oct. 18, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	6.89	DEC 25	5.95	FEB 25	5.58	APR 25	1.84	JUN 25	3.28	AUG 25	5.85
OCT 25	6.79	JAN 25	5.80	MAR 25	4.35	MAY 25	2.70	JUL 25	3.95	SEP 25	6.65
NOV 25	5.97										

SAUNDERS COUNTY

411005096281502. Local number 14N-8E-24ACD2.

LOCATION.--Lat 41°10'05", long 96°28'15", SE1/4SW1/4NE1/4 sec.24, T.14 N., R.8 E., Hydrologic Unit 10200203, 4 mi (6.4 km) south from the intersection of Routes 92 and 692 near Head, then 0.65 mi (1.04 km) east and 0.4 mi (0.64 km) south to the south end of load line 2 of the Head Field Station. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 80 ft (24.4 m), screened 60 to 80 ft (18.3 to 24.4 m).

DATUM.--Altitude of land-surface datum is 1,171 ft (357 m). Measuring point: Top of casing 0.5 ft (0.15 m) above land-surface datum.

REMARKS.--Replacement for well 411005096281501, local number 14N-8E-24ACD1, with period of record July 1964 to November 1970. Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--April 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.47 ft (12.94 m) below land-surface datum, May 5, 1974; lowest, 45.41 ft (13.84 m) below land-surface datum, Sept. 30, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978												
LOWEST WATER LEVEL FOR THE DAY												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	45.44	45.44	45.38	45.25	.....	45.10	45.06	45.02	44.96	45.04	45.14	.....
10	45.46	45.44	45.30	.....	45.12	45.06	45.07	45.00	44.95	45.11	45.15	.....
15	45.45	45.38	45.34	.....	45.10	45.10	45.05	44.99	44.96	45.12	45.18	45.36
20	45.41	45.41	45.35	.....	.....	45.08	45.03	44.99	45.05	45.16	45.30	45.38
25	45.42	45.41	.....	.....	.....	45.08	44.99	44.98	45.05	45.14	.....	45.37
EOM	45.42	45.36	.....	.....	.....	45.04	44.94	45.01	45.05	45.12	.....	45.34

WTR YEAR 1978 MAX 44.94 APR 31, 1978 MIN 45.38 SEP 20, 1978

GROUND-WATER LEVELS

SCOTTS BLUFF COUNTY

415325103392801. Local number 22N-55W-11DDC.

LOCATION.--Lat 41°53'25", long 103°39'28", SW1/4NE1/4NE1/4 sec.11, T.22 N., R.55 W., Hydrologic Unit 10180009, 0.5 mi (0.8 km) north of the west intersection of Routes 71 and 26 in Scottsbluff, then 0.8 mi (1.3 km) east. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 32 ft (9.8 m), casing perforated below water table.

DATA.--Altitude of land-surface datum is 3,953 ft (1,205 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Water levels in well affected by deep percolation of applied irrigation water and seepage losses of nearby irrigation canal and laterals.

PERIOD OF RECORD.--August 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.05 ft (7.03 m) below land-surface datum, Sept. 25, 1974; lowest, 26.55 ft (8.09 m) below land-surface datum, May 30, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	25.19	25.32	25.46	25.65	25.80	25.78	26.19	26.25	26.39	25.77	25.71	25.66
10	25.15	25.35	25.49	25.68	25.75	25.88	26.21	26.28	26.40	25.75	24.98	25.73
15	25.18	25.37	25.52	25.70	25.72	25.95	26.22	26.30	26.46	25.31	23.77	25.75
20	25.20	25.39	25.55	25.73	25.67	26.04	26.22	26.33	26.48	25.54	24.82	25.75
25	25.23	25.42	25.57	25.74	25.64	26.16	26.22	26.36	26.50	25.68	25.31	25.77
ROM	25.26	25.45	25.61	25.77	25.69	26.18	26.23	26.37	26.50	25.80	25.56	25.75

WTR YEAR 1978 MAX 23.40 AUG 14, 1978 MIN 26.50 JUN 25, 1978

SCOTTS BLUFF COUNTY

420000103511501. Local number 23N-56W-6AA.

LOCATION.--Lat 42°00'00", long 103°51'15", NE1/4NE1/4 sec.6, T.23 N., R.56 W., Hydrologic Unit 10180009, 4 mi (6.4 km) north and 2 mi (3.2 km) west of intersection of U.S. Highway 26 and State Highway 29 in Mitchell.
Owner: Carl Gompert.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 6 in (0.15 m), depth 118 ft (36.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 4,087.7 ft (1,245.9 m). Measuring point: Hole in pump base 0.7 ft (0.21 m) above land-surface datum.

REMARKS.--Water levels affected by withdrawals during irrigation season.

PERIOD OF RECORD.--November 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.24 ft (8.91 m) below land-surface datum, Oct. 26, 1949; lowest, 41.04 ft (12.51 m) below land-surface datum, Oct. 6, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

[illegible]

SEWARD COUNTY

405406097115001. Local number 11N-2E-21DD.

LOCATION.--Lat 40°54'06", long 97°11'50", SE1/4SE1/4 sec.21, T.11 N., R.2 E., Hydrologic Unit 10270201, 4.5 mi (7.2 km) west of Seward. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 123 ft (37.5 m), perforated 112 to 123 ft (34.1 to 37.5 m).

DATUM.--Altitude of land-surface datum is 1,550 ft (472 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Water levels in well affected by withdrawals from nearby irrigation wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.37 ft (23.28 m) below land-surface datum, Dec. 20, 1965; lowest, 89.77 ft (27.36 m) below land-surface datum, Aug. 29, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	88.71	88.16	88.03	87.33	.....	.....	86.65	86.33	86.12	86.05	88.10	88.45
10	88.47	88.21	.....	87.65	86.87	86.44	86.38	86.34	85.95	86.84	88.38	88.40
15	88.65	87.62	.....	87.15	.....	.....	86.15	86.10	85.88	87.20	88.31	88.49
20	88.11	88.20	87.78	.....	.....	.....	86.14	86.10	86.17	87.72	.....	88.57
25	88.15	87.99	87.77	.....	.....	.....	86.77	86.15	85.25	87.42	88.30	88.40
EOM	87.98	87.53	87.69	.....	.....	86.47	86.30	86.22	85.95	87.73	88.57	88.18

WTR YEAR 1978 MAX 85.60 JUN 25, 1978 MIN 88.71 OCT 5, 1977

SHERIDAN COUNTY

420341102171701. Local number 24N-43W-15AC.

LOCATION.--Lat 42°03'41", long 102°17'17", SW1/4NE1/4 sec.15, T.24 N., R.43 W., Hydrologic Unit 10150003, near intersection of State Highways 2 and 27 in Ellsworth. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 0.75 in (0.02 m), depth 16.8 ft (5.1 m), perforated 16.0 to 16.8 ft (4.9 to 5.1 m).

DATUM.--Altitude of land-surface datum is 3,912 ft (1,192 m). Measuring point: Top of pipe 3.00 ft (0.91 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.15 ft (2.48 m) below land-surface datum, Sept. 4, 1958; lowest, 10.85 ft (3.31 m) below land-surface datum, Oct. 20, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978											
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	10.22										

SHERIDAN COUNTY

423034102415001. Local number 29N-46W-10AA.

LOCATION.--Lat 42°30'34", long 102°41'50", NE1/4NE1/4 sec.10, T.29 N., R.46 W., Hydrologic Unit 10150003, at Mirage Flats project headquarters, 11.5 mi (18.5 km) south of Hay Springs. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 100 ft (30.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,794.5 ft (1,156.6 m). Measuring point: Top of casing 1.5 ft (0.46 m) above land-surface datum.

REMARKS.--Water levels affected by seepage losses from nearby irrigation canal and laterals and by withdrawals from nearby irrigation wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.47 ft (9.90 m) below land-surface datum, Aug. 25, 1969; lowest, 38.95 ft (11.87 m) below land-surface datum, May 29, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	35.62	35.77	35.85	35.93	36.03	35.98	35.94	36.10	36.14	36.58	36.19	36.76
10	35.64	35.87	35.85	35.91	35.93	35.82	36.01	36.11	36.17	36.69	36.35	36.49
15	35.68	35.84	35.90	35.95	35.97	35.63	36.06	36.09	36.23	36.84	36.74	36.28
20	35.61	35.87	35.90	35.95	35.92	35.65	36.08	36.21	36.31	36.75	36.79	36.18
25	35.64	35.84	35.90	35.97	35.96	35.76	36.11	36.15	36.37	36.32	36.43	36.10
EOM	35.71	35.79	35.93	36.00	35.96	35.86	36.08	36.17	36.41	36.68	36.44	36.03

WTR YEAR 1978 MAX 35.63 MAR 15, 1978 MIN 36.84 JUL 15, 1978

415845100334001. Local number 23N-28W-9DA.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

DATUM.--Altitude of land-surface datum is 2,842 ft (866 m). Measuring point: Top of pipe 2.3 ft (0.7 m) above land-surface datum.

PERIOD OF RECORD.--December 1934 to November 1942; August 1944 to current year.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	10.23								

VALLEY COUNTY

AQUIFER.--Sand and gravel deposits of Pleistocene age.

DATUM.--Altitude of land-surface datum is 2,217.61 ft (675.93 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels in well affected by evapotranspiration.

PERIOD OF RECORD.--August 1949 to June 1956; June 1958 to current year.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 18	3.18	MAY 5	2.34G	JUN 21	3.20	AUG 3	2.84G	AUG 21	2.64G
MAR 9	4.29G	JUN 13	2.99G	JUL 6	3.46G			SEP 15	3.15G

G MEASUREMENT MADE BY ANOTHER AGENCY

WEBSTER COUNTY

AQUIFER.--Sand and gravel deposits of Pleistocene age.

DATUM.--Altitude of land-surface datum is 1,686 ft (514 m). Measuring point: Top of casing 1.1 ft (0.3 m) above land-surface datum.

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

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978									
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	6.58	MAY 8	6.05						

YORK COUNTY

404620097482501. Local number 9N-4W-6DD.

LOCATION.--Lat 40°46'20", long 97°48'25", SE1/4SE1/4 sec.6, T.9 N., R.4 W., Hydrologic Unit 10270203, 0.5 mi (0.8 km) south of Henderson. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 18 in (0.46 m), depth 171 ft (52.1 m), casing perforated 83 to 171 ft (25.3 to 52.1 m).

DATUM.--Altitude of land-surface datum is 1,718 ft (524 m). Measuring point: Top of casing 0.0 ft (0.0 m) above land-surface datum.

REMARKS.--Water levels affected by withdrawals from nearby wells during irrigation season.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 79.44 ft (24.21 m) below land-surface datum, June 20, 1959; lowest, 95.48 ft (29.10 m) below land-surface datum, Sept. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	92.69	91.90	91.55	90.81	.....	89.80	89.37	89.07	88.60	90.05	93.90	94.36
10	92.62	91.96	91.05	90.72	90.05	89.71	89.39	88.90	88.46	90.05	94.39H	94.28
15	92.54	91.65	91.08	90.58	90.11	89.83	89.35	88.83	88.43	90.91	94.65	94.15
20	92.20	91.95	91.14	90.46	90.19	89.64	89.31	88.90	88.57	91.83	94.14	94.10
25	92.15	91.67	91.07	90.36	90.09	89.58	89.27	88.80	88.42	92.32	94.18	93.90
BOM	92.10	91.34	90.88	.....	89.99	89.54	89.09	88.80	88.97	93.30	94.57	93.84

WTR YEAR 1978 MAX 88.25 JUN 19, 1978 MAX 94.80 AUG 14, 1978

H TAPE MEASUREMENT

YORK COUNTY

405305097351503. Local number 11N-2W-31BA3.

LOCATION.--Lat 40°53'05", long 97°35'15", NE1/4NW1/4 sec.31, T.11 N., R.2 W., Hydrologic Unit 10270203, south edge of York County Fairgrounds on the north side of York. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 165 ft (50.3 m), perforated below water table.

DATUM.--Altitude of land-surface datum is 1,659 ft (506 m). Measuring point: Top of casing 1.6 ft (0.5 m) above land-surface datum.

REMARKS.--Replacement for well 405305097351501, local number 11N-2W-31BA1, with period of record October 1957 to January 1969. Water levels in well affected by withdrawals from nearby municipal well and by withdrawals from nearby irrigation wells.

PERIOD OF RECORD.--May 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 88.65 ft (27.02 m) below land-surface datum, Apr. 20, 1970; lowest, 120.81 ft (36.82 m) below land-surface datum, July 15, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	.....	.....	97.93H	98.15	98.00	97.18	97.15	96.80	96.80	107.90	111.00	102.39
10	98.60	98.27H	98.04	97.95	98.08	97.30	96.75	97.09	97.35	105.35	110.77	101.83
15	98.48	.....	98.18	98.13	97.44	97.29	97.32	96.85	98.88	109.60	105.67	100.39
20	98.52	.....	98.53	97.70	97.95	97.45	97.20	97.19	98.26	112.04	103.00	99.99
25	.....	.....	98.06	97.89	98.07	97.92	97.00	97.13	97.90	110.35	105.48	99.75
BOM	.....	.....	98.00	97.65	97.43	97.10	96.65	96.19	103.15	115.65	105.14	99.86

WTR YEAR 1978 MAX 96.12 JUN 1, 1978 MIN 116.40 JUL 29, 1978

H TAPE MEASUREMENT

YORK COUNTY

405305097361001. Local number 11N-3W-36AB.

LOCATION.--Lat 40°53'05", long 97°36'10", NW1/4NE1/4 sec.36, T.11 N., R.3 W., Hydrologic Unit 10270203, 1 mi (1.6 km) south and 0.25 mi (0.4 km) west of intersection of U.S. Highways 34 and 81 north of York. Owner: Mother Jewels Home.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 175 ft (53.3 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,648 ft (502 m). Measuring point: Hole in pump base 0.0 ft (0.0 m) above land-surface datum.

REMARKS.--Well destroyed prior to Oct. 24, 1977, no measurements in 1978 water year.

PERIOD OF RECORD.--June 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.82 ft (20.06 m) below land-surface datum, Sept. 11, 1952; lowest, 85.22 ft (25.98 m) below land-surface datum, Oct. 25, 1976.

(Local identifier: indicates location by township, range, and section. Geologic unit: 112 SDGV, Pleistocene sand and gravel deposits)

LOCAL IDENT- I- FIER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
ADAMS COUNTY										
7N 9W11DC 1	40 35 03	098 18 13	01	112SDGV	78-03-14	--	200	540	7.1	12.0
				112SDGV	78-09-01	--	200	575	7.2	13.0
7N 10W23AB 1	40 34 03	098 24 40	01	112SDGV	78-08-24	--	155	457	6.9	--
8N 12W34BC 3	40 37 10	098 39 51	03	112SDGV	78-03-14	--	200	270	7.0	11.5
				112SDGV	78-09-01	--	200	278	7.2	14.0
ANTELOPE COUNTY										
23N 6W28DC 1	41 55 59	098 00 52	01	112SDGV	78-07-06	--	225	277	6.9	10.0
27N 5W17AAA 1	42 19 15	097 54 44	01	112SDGV	78-07-17	--	195	260	7.5	10.5
ARTHUR COUNTY										
17N 36W18B0 1	41 27 00	101 31 03	01	1210GLL	78-08-30	--	300	150	7.3	14.0
17N 38W23BC 1	41 26 02	101 40 18	01	1210GLL	78-08-30	--	--	165	7.6	14.0
19N 36W27BB 1	41 35 44	101 27 41	01	1210GLC	78-08-23	--	360	180	7.1	15.0
19N 38W 9CA 1	41 38 00	101 42 27	01	1210GLL	78-08-30	--	300	135	7.3	14.0
BOONE COUNTY										
19N 7W 2BBC 1	41 39 01	098 05 57	01	1210GLL	78-07-06	--	260	465	7.3	10.0
BROWN COUNTY										
26N 24W25DB 1	42 11 35	100 03 30	01	1210GLL	78-08-30	--	130	181	6.8	13.5
27N 22W23BC 1	42 16 15	099 54 50	01	1210GLL	78-08-31	--	137	105	7.0	12.0
28N 22W34B0 1	42 21 35	099 52 20	01	1210GLL	78-08-30	--	240	108	7.1	14.0
29N 20W 6BAC 1	42 31 07	099 42 35	01	112SDGV	78-06-07	--	--	109	6.9	13.0
				112SDGV	78-08-08	1650	--	110	6.5	13.5
				112SDGV	78-09-27	0850	--	105	7.0	12.5
30N 21W 3DDB 1	42 35 48	099 45 35	01	1210GLL	78-08-08	1600	400	130	6.8	15.0
30N 21W19CC 1	42 33 07	099 49 45	01	112SDGV	78-07-18	--	52	202	6.9	10.0
30N 22W23DDB 1	42 33 08	099 51 20	01	1210GLL	78-06-07	--	--	310	7.0	13.0
				1210GLL	78-08-09	1105	--	330	6.3	12.0
				1210GLL	78-09-26	1350	--	308	6.8	13.5
30N 22W26BDA 1	42 32 42	099 51 43	01	1210GLL	78-06-07	--	--	182	7.2	13.0
				1210GLL	78-08-09	1055	--	182	6.2	13.0
				1210GLL	78-09-26	1345	--	177	6.9	16.0
30N 22W26CB 1	42 32 30	099 52 10	01	1210GLL	78-08-30	--	62	245	7.0	11.0
30N 23W18ACC 1	42 34 15	100 03 24	01	112SDGV	78-06-07	--	--	121	6.7	13.0
				112SDGV	78-08-08	0900	--	124	6.7	--
				112SDGV	78-09-25	1635	--	111	6.5	14.0
30N 23W29A 1	42 32 40	100 02 05	01	1210GLL	78-08-30	--	138	136	7.1	13.0
31N 21W18AAC 1	42 39 44	099 49 09	01	1210GLL	78-08-08	1440	330	189	7.5	14.0
31N 22W33CCA 1	42 36 41	099 54 23	01	1210GLL	78-08-09	0945	400	144	6.8	13.5
BUFFALO COUNTY										
9N 14W 1DC 1	40 46 18	098 50 44	01	112SDGV	78-06-22	--	38	1720	7.5	12.0
10N 16W 5DC 1	40 51 37	099 08 52	01	1210GLL	78-06-26	--	240	305	7.2	10.0
CEDAR COUNTY										
29N 2E 3CCCC1	42 30 42	097 11 27	01	112SDGV	78-07-26	--	195	755	7.2	13.5
30N 1E 7CCD 1	42 35 07	097 21 48	01	211NBRR	78-08-01	--	147	701	7.4	16.0
30N 1E14BCB 1	42 34 47	097 17 13	01	211NBRR	78-08-02	--	105	644	7.3	13.0
30N 2E 38BD 1	42 36 37	097 11 12	01	112SDGV	78-08-22	--	150	589	7.3	13.0
30N 2E 8CCCD1	42 35 03	097 13 44	01	112SDGV	78-08-01	--	117	659	7.2	13.0

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

449

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CaCO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
ADAMS COUNTY										
7N 9W11DC 1	78-03-14	1	210	17	66	9.9	31	.9	7.2	230
	78-09-01	--	220	--	71	9.8	33	1.0	6.8	--
7N 10W23AB 1	78-08-24	2	170	13	54	8.1	19	.6	6.9	190
8N 12W34BC 3	78-03-14	1	120	3	37	6.1	9.1	.4	5.5	140
	78-09-01	--	110	--	36	5.9	8.5	.3	5.2	--
ANTELOPE COUNTY										
23N 6W28DC 1	78-07-06	64	130	0	42	7.0	7.7	.3	5.4	170
27N 5W17AAA 1	78-07-17	7	140	4	40	8.4	8.0	.3	5.9	160
ARTHUR COUNTY										
17N 36W18BO 1	78-08-30	--	54	--	17	2.8	8.7	.5	5.4	--
17N 38W23BC 1	78-08-30	--	63	--	20	3.1	8.1	.4	5.9	--
19N 36W27BB 1	78-08-23	--	69	--	21	4.0	8.5	.4	4.4	--
19N 38W 9CA 1	78-08-30	--	45	--	14	2.5	7.3	.5	4.9	--
BOONE COUNTY										
19N 7W 28BC 1	78-07-06	1	220	0	72	10	9.8	.3	7.0	270
BROWN COUNTY										
26N 24W25DB 1	78-08-30	--	59	--	18	3.3	8.6	.5	17	--
27N 22W32BC 1	78-08-31	--	39	--	13	1.6	6.8	.5	3.7	--
28N 22W34BO 1	78-08-30	--	40	--	13	1.8	7.7	.5	3.8	--
29N 20W 6BAC 1	78-06-07	--	38	0	13	1.3	4.8	.3	--	53
	78-08-08	--	42	0	14	1.7	4.8	.3	3.5	56
	78-09-27	--	44	--	15	1.7	5.7	.4	3.4	--
30N 21W 3DDB 1	78-08-08	--	53	0	17	2.5	4.9	.3	4.5	68
30N 21W19CC 1	78-07-18	7	98	32	30	5.4	10	.4	6.7	80
30N 22W23DDB 1	78-06-07	--	120	22	36	7.1	12	.5	--	120
	78-08-09	--	130	28	40	7.3	12	.5	7.6	124
	78-09-26	--	130	--	41	6.8	13	.5	7.6	--
30N 22W26BDA 1	78-06-07	--	72	0	22	4.1	7.8	.4	--	90
	78-08-09	--	74	1	23	3.9	7.9	.4	5.4	88
	78-09-26	--	80	--	26	3.6	8.6	.4	4.6	--
30N 22W26CB 1	78-08-30	--	96	--	31	4.6	10	.4	6.5	--
30N 23W18ACC 1	78-06-07	--	40	2	13	1.9	4.9	.3	--	47
	78-08-08	--	43	3	14	1.9	--	--	2.5	49
	78-09-25	--	58	--	20	2.0	5.1	.3	2.4	--
30N 23W29A 1	78-08-30	--	57	--	19	2.2	7.5	.4	3.9	--
31N 21W18AAC 1	78-08-08	--	87	0	29	3.5	6.0	.3	5.6	108
31N 22W33CCA 1	78-08-09	--	58	37	19	2.6	5.7	.3	4.6	26
BUFFALO COUNTY										
9N 14W 1DC 1	78-06-22	7	720	310	220	42	170	2.8	23	510
10N 16W 5DC 1	78-06-26	5	140	0	47	6.1	4.4	.2	3.1	180
CEDAR COUNTY										
29N 2E 3CCCC1	78-07-26	--	380	92	110	26	18	.4	6.0	351
30N 1E 7CCD 1	78-08-01	--	350	63	95	27	16	.4	15	350
30N 1E14BCB 1	78-08-02	--	330	20	93	23	18	.4	8.3	378
30N 2E 38BD 1	78-08-22	--	280	66	81	18	15	.4	6.0	261
30N 2E 8CCCD1	78-08-01	--	340	77	96	25	19	.4	5.6	320

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- IFIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO ₃) (00445)	ALKA- LITY (MG/L AS CaCO ₃) (00410)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	IODIDE, DIS- SOLVED (MG/L AS I) (71865)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
ADAMS COUNTY										
7N 9W11DC 1	78-03-14	0	190	41	19	.5	--	--	24	--
	78-09-01	--	170	48	37	.4	--	--	27	--
7N 10W23AB 1	78-08-24	0	160	24	12	.3	--	--	27	274
8N 12W34BC 3	78-03-14	0	110	16	2.6	.3	--	--	31	--
	78-09-01	--	110	15	3.2	.3	--	--	32	--
ANTELOPE COUNTY										
23N 6W28DC 1	78-07-06	0	140	5.5	2.2	.4	--	--	31	164
27N 5W17AAA 1	78-07-17	0	130	4.8	.8	.3	--	--	34	191
ARTHUR COUNTY										
17N 36W18BO 1	78-08-30	--	72	4.7	1.0	.5	--	--	41	115
17N 38W23BC 1	78-08-30	--	79	4.3	.9	.4	--	--	39	118
19N 36W27BB 1	78-08-23	--	84	2.7	1.1	.4	--	--	53	141
19N 38W 9CA 1	78-08-30	--	58	3.2	1.0	.4	--	--	41	109
BOONE COUNTY										
19N 7W 28BC 1	78-07-06	0	220	7.0	2.0	.3	--	--	41	285
BROWN COUNTY										
26N 24W25DB 1	78-08-30	--	66	7.0	9.6	.2	--	--	57	168
27N 22W32BC 1	78-08-31	--	50	1.7	.6	.1	--	--	56	113
28N 22W34BO 1	78-08-30	0	49	2.4	.9	.0	--	--	57	107
29N 20W 6BAC 1	78-06-07	--	43	4.6	.8	--	--	--	--	--
	78-08-08	0	46	3.5	.7	--	--	--	--	--
	78-09-27	--	--	5.3	.9	--	--	--	--	--
30N 21W 3DDB 1	78-08-08	0	56	1.6	1.2	--	--	--	--	--
30N 21W19CC 1	78-07-18	0	66	12	3.9	.3	--	--	44	201
30N 22W23DDB 1	78-06-07	0	98	15	6.3	--	--	--	--	--
	78-08-09	0	102	16	7.5	--	--	--	--	--
	78-09-26	--	--	18	8.2	--	--	--	--	--
30N 22W26BDA 1	78-06-07	--	74	5.7	1.8	--	--	--	--	--
	78-08-09	0	72	5.9	2.2	--	--	--	--	--
	78-09-26	--	--	6.5	2.3	--	--	--	--	--
30N 22W26CB 1	78-08-30	--	91	5.6	1.3	.2	--	--	53	194
30N 23W18ACC 1	78-06-07	--	39	11	2.2	--	--	--	--	--
	78-08-08	0	40	11	2.2	--	--	--	--	--
	78-09-25	--	--	15	2.6	--	--	--	--	--
30N 23W29A 1	78-08-30	--	66	4.4	1.3	.2	--	--	50	126
31N 21W18AAC 1	78-08-08	0	89	5.2	1.2	--	--	--	--	--
31N 22W33CCA 1	78-08-09	0	21	2.2	1.3	--	--	--	--	--
BUFFALO COUNTY										
9N 14W 10C 1	78-06-22	0	420	600	39	.2	--	--	35	1350
10N 16W 50C 1	78-06-26	0	150	3.3	16	.3	--	--	23	187
CEDAR COUNTY										
29N 2E 3CCCC1	78-07-26	--	288	110	4.8	--	--	--	--	486
30N 1E 7CCD 1	78-08-01	--	287	100	3.8	--	--	--	--	430
30N 1E14BCB 1	78-08-02	--	310	57	4.5	--	--	--	--	359
30N 2E 38RD 1	78-08-22	--	214	75	2.4	--	--	--	--	393
30N 2E 8CCCD1	78-08-01	--	262	110	2.8	--	--	--	--	445

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
ADAMS COUNTY										
7N 9W11DC 1	78-03-14	332	.45	--	--	--	4.6	--	--	--
	78-09-01	--	--	--	--	--	5.5	--	--	--
7N 10W23AB 1	78-08-24	265	.37	4.3	.02	4.5	4.3	.01	.28	.29
8N 12W34BC 3	78-03-14	182	.25	--	--	--	1.3	--	--	--
	78-09-01	--	--	--	--	--	1.3	--	--	--
ANTELOPE COUNTY										
23N 6W28DC 1	78-07-06	194	.22	.48	.01	.46	.46	.10	.12	.22
27N 5W17AAA 1	78-07-17	183	.26	.21	.01	.18	.18	.00	.17	.17
ARTHUR COUNTY										
17N 36W18BD 1	78-08-30	--	.16	--	--	--	.01	--	--	--
17N 38W23BC 1	78-08-30	--	.16	--	--	--	.03	--	--	--
19N 36W27BB 1	78-08-23	--	.19	--	--	--	.01	--	--	--
19N 38W 9CA 1	78-08-30	--	.15	--	--	--	.17	--	--	--
BOONE COUNTY										
19N 7W 2BBC 1	78-07-06	290	.39	1.6	.01	1.5	1.5	.00	.21	.21
BROWN COUNTY										
26N 24W25DB 1	78-08-30	--	.23	--	--	--	1.5	--	--	--
27N 22W32BC 1	78-08-31	--	.15	--	--	--	.76	--	--	--
28N 22W34BD 1	78-08-30	--	.15	--	--	--	1.2	--	--	--
29N 20W 6BAC 1	78-06-07	--	--	--	--	--	1.4	--	--	--
	78-08-08	--	--	--	--	--	1.4	--	--	--
	78-09-27	--	--	--	--	--	1.5	--	--	--
30N 21W 3DDB 1	78-08-08	--	--	--	--	--	1.1	--	--	--
30N 21W19CC 1	78-07-18	189	.27	8.2	.01	8.0	8.0	.03	1.3	1.3
30N 22W230DB 1	78-06-07	--	--	--	--	--	8.3	--	--	--
	78-08-09	--	--	--	--	--	8.9	--	--	--
	78-09-26	--	--	--	--	--	7.6	--	--	--
30N 22W26BDA 1	78-06-07	--	--	--	--	--	2.7	--	--	--
	78-08-09	--	--	--	--	--	2.6	--	--	--
	78-09-26	--	--	--	--	--	3.3	--	--	--
30N 22W26CB 1	78-08-30	--	.26	--	--	--	6.6	--	--	--
30N 23W18ACC 1	78-06-07	--	--	--	--	--	1.9	--	--	--
	78-08-08	--	--	--	--	--	1.8	--	--	--
	78-09-25	--	--	--	--	--	1.9	--	--	--
30N 23W29A 1	78-08-30	--	.17	--	--	--	1.1	--	--	--
31N 21W18AAC 1	78-08-08	--	--	--	--	--	1.1	--	--	--
31N 22W33CCA 1	78-08-09	--	--	--	--	--	.87	--	--	--
BUFFALO COUNTY										
9N 14W 1DC 1	78-06-22	1390	1.84	.01	.01	.02	.02	1.2	2.9	4.1
10N 16W 5DC 1	78-06-26	195	.25	.42	.01	--	.43	.03	.13	.16
CEDAR COUNTY										
29N 2E 3CCCC1	78-07-26	--	.66	--	--	--	5.4	--	--	--
30N 1E 7CCD 1	78-08-01	--	.58	--	--	--	1.6	--	--	--
30N 1E14RCB 1	78-08-02	--	.49	--	--	--	.29	--	--	--
30N 2E 38BD 1	78-08-22	--	.53	--	--	--	5.9	--	--	--
30N 2E 8CCCD1	78-08-01	--	.61	--	--	--	2.9	--	--	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

[illegible]

453

[illegible]

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- IFIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
ADAMS COUNTY							
7N 9W11DC 1	78-03-14	--	--	--	--	--	10
	78-09-01	--	--	--	--	--	--
7N 10W23AB 1	78-08-24	0	0	0	290	2.4	10
8N 12W34BC 3	78-03-14	--	--	--	--	--	10
	78-09-01	--	--	--	--	--	--
ANTELOPE COUNTY							
23N 6W28DC 1	78-07-06	0	3	0	230	8.0	40
27N 5W17AAA 1	78-07-17	3	0	0	290	.3	0
ARTHUR COUNTY							
17N 36W18BO 1	78-08-30	--	0	--	--	--	0
17N 38W23BC 1	78-08-30	--	0	--	--	--	0
19N 36W27BB 1	78-08-23	--	0	--	--	--	3
19N 38W 9CA 1	78-08-30	--	0	--	--	--	0
BOONE COUNTY							
19N 7W 28BC 1	78-07-06	1	2	0	410	9.5	50
BROWN COUNTY							
26N 24W25DB 1	78-08-30	--	0	--	--	--	150
27N 22W32BC 1	78-08-31	--	0	--	--	--	10
28N 22W34BO 1	78-08-30	--	0	--	--	--	10
29N 20W 6BAC 1	78-06-07	--	--	--	--	--	--
	78-08-08	--	--	--	--	--	--
	78-09-27	--	--	--	--	--	--
30N 21W 30DB 1	78-08-08	--	--	--	--	--	--
30N 21W19CC 1	78-07-18	0	0	0	180	2.7	760
30N 22W23DDB 1	78-06-07	--	--	--	--	--	--
	78-08-09	--	--	--	--	--	--
	78-09-26	--	--	--	--	--	--
30N 22W26BDA 1	78-06-07	--	--	--	--	--	--
	78-08-09	--	--	--	--	--	--
	78-09-26	--	--	--	--	--	--
30N 22W26CB 1	78-08-30	--	1	--	--	--	10
30N 23W18ACC 1	78-06-07	--	--	--	--	--	--
	78-08-08	--	--	--	--	--	--
	78-09-25	--	--	--	--	--	--
30N 23W29A 1	78-08-30	--	1	--	--	--	10
31N 21W18AAC 1	78-08-08	--	--	--	--	--	--
31N 22W33CCA 1	78-08-09	--	--	--	--	--	--
BUFFALO COUNTY							
9N 14W 1DC 1	78-06-22	3	0	0	1100	4.1	90
10N 16W 5DC 1	78-06-26	0	0	0	250	4.5	10
CEDAR COUNTY							
29N 2E 3CCCC1	78-07-26	--	--	--	--	--	--
30N 1E 7CCD 1	78-08-01	--	--	--	--	--	--
30N 1E14BCB 1	78-08-02	--	--	--	--	--	--
30N 2E 38BD 1	78-08-22	--	--	--	--	--	--
30N 2E 8CCCD1	78-08-01	--	--	--	--	--	--

LOCAL IDENT- IFIER	LAT- ITUDE	LONG- ITUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
CEDAR COUNTY										
30N 2E12ACC 1	42 35 27	097 08 31	01	112SDGV	78-08-03	--	147	863	7.2	12.0
30N 2E27AAA 1	42 33 11	097 10 21	01	112SDGV	78-07-26	--	188	622	7.1	12.5
30N 3E31ADD 1	42 31 59	097 06 51	01	112SDGV	78-08-07	--	169	979	7.3	13.5
31N 1E 40DB 1	42 41 20	097 18 47	01	211NBRR	78-08-08	--	104	1650	6.7	14.0
31N 1E130DB 1	42 39 35	097 15 14	01	211DKOT	78-08-09	--	820	1760	7.3	20.0
31N 1E21CAA 1	42 38 56	097 19 06	01	211NBRR	78-08-02	--	100	619	7.3	12.5
31N 1E25ACB 1	42 38 18	097 16 07	01	211NBRR	78-08-01	--	100	637	7.2	12.5
31N 1E36BB 1	42 37 32	097 15 56	01	211NBRR	78-07-26	--	84	739	7.5	13.5
31N 1W 4ABAD 1	42 41 54	097 25 55	01	211NBRR	78-07-26	--	98	695	6.9	14.0
31N 1W130DD 1	42 39 23	097 22 11	01	211NBRR	78-07-26	--	80	667	7.8	14.0
31N 2E 1CCC 1	42 41 07	097 09 04	01	112SDGV	78-08-22	--	60	1390	7.1	12.0
31N 2E 20DC 1	42 41 09	097 09 15	01	112SDGV	78-08-22	--	35	1165	7.2	15.0
31N 2E22BCDD 1	42 39 06	097 11 11	01	211NBRR	78-08-02	--	87	879	7.0	13.0
31N 2E30ADB 1	42 38 12	097 13 57	01	112SDGV	78-08-03	--	77	740	7.2	12.0
32N 1E 18BD 1	42 47 00	097 15 52	01	211NBRR	78-08-08	--	100	1970	6.9	12.0
32N 1E 8CCD 1	42 45 29	097 20 37	01	112SDGV	78-08-08	--	100	509	7.3	14.0
32N 1E14BAB 1	42 45 23	097 16 57	01	112SDGV	78-08-22	--	23	1070	7.2	13.0
32N 1E220CCC 1	42 43 44	097 17 50	01	211NBRR	78-07-27	--	100	2040	6.6	13.0
32N 1E32CCD 1	42 42 03	097 20 36	01	211NBRR	78-08-07	--	105	1310	7.0	13.0
32N 1W 4BCC 1	42 46 51	097 26 40	01	112SDGV	78-08-23	--	35	1470	6.7	14.0
32N 1W20ACBB 1	42 44 22	097 27 20	01	112SDGV	78-07-26	--	22	894	7.4	12.0
32N 2E12CBC 1	42 45 40	097 09 12	01	211DKOT	78-08-22	--	520	1610	7.3	16.0
32N 2E24BC 1	42 44 16	097 09 08	01	211DKOT	78-07-27	--	288	1510	7.5	15.5
32N 2E29BDB 1	42 43 26	097 13 28	01	112SDGV	78-08-08	--	55	1650	6.8	12.0
32N 2E32DAC 1	42 42 16	097 12 50	01	--	78-08-01	--	65	1910	6.7	14.0
32N 2E32DAC 2	42 42 16	097 12 50	02	--	78-08-01	--	100	2620	6.7	14.0
33N 1E11DCA 1	42 50 51	097 16 22	01	112SDGV	78-08-08	--	73	1358	7.4	12.0
33N 1E17BBD 1	42 50 29	097 21 25	01	112SDGV	78-07-27	--	55	1170	7.3	13.0
33N 1E30DDD 1	42 48 07	097 20 53	01	211NBRR	78-08-09	--	85	1840	6.8	13.0
33N 1W10CCR 1	42 50 54	097 25 32	01	112SDGV	78-08-09	--	54	1146	7.1	12.0
33N 2E30BD 2	42 48 36	097 14 26	02	211DKOT	78-07-27	--	515	1560	7.3	12.5
33N 2E34CBC 1	42 47 26	097 11 23	01	112SDGV	78-08-08	--	65	1220	7.3	13.0
CLAY COUNTY										
6N 8W 8CB 3	40 30 01	098 15 29	03	112SDGV	78-03-14	--	192	335	7.0	10.0
				112SDGV	78-09-01	--	192	370	7.6	13.0
7N 5W 2AA 1	40 36 34	097 50 43	01	112SDGV	78-03-13	--	215	445	7.1	12.5
				112SDGV	78-09-01	--	215	482	7.2	15.0
8N 7W23BB 1	40 39 10	098 05 14	01	112SDGV	78-08-23	--	206	635	6.9	14.0
8N 7W27DC 1	40 37 39	098 05 48	01	112SDGV	78-03-13	--	204	680	7.0	--
				112SDGV	78-09-01	--	204	438	7.1	14.0
COLFAX COUNTY										
17N 3E29AA 2	41 25 10	097 06 03	02	112SDGV	78-06-21	--	55	440	7.2	--
CUSTER COUNTY										
13N 18W 8DC 1	41 06 18	099 24 09	01	112SDGV	78-09-06	1345	220	535	7.1	16.0
14N 25W35DD 1	41 08 20	100 08 46	01	112SDGV	78-09-06	1650	257	243	7.3	15.0
16N 18W 1DC 1	41 22 55	099 19 24	01	1210GLL	78-09-06	1025	500	477	7.3	14.0
16N 24W12AB 1	41 22 12	100 00 32	01	112SDGV	78-09-05	1715	270	279	7.4	14.5
17N 21W30AB 1	41 25 18	099 46 39	01	112SDGV	78-09-05	1605	232	372	7.3	14.0
18N 19W 4BB 1	41 33 59	099 31 09	01	112SDGV	78-09-05	1430	318	449	7.2	14.0
18N 22W24CCCC 1	41 30 38	099 48 27	01	112SDGV	78-06-29	--	179	320	7.7	--
DAWSON COUNTY										
10N 21W18DDD 1	40 52 50	099 44 55	01	112SDGV	78-06-26	--	120	738	7.6	10.0
FILLMORE COUNTY										
5N 3W11BB 1	40 40 50	097 37 48	01	112SDGV	78-07-20	--	236	420	7.3	14.5
5N 4W12BB 2	40 25 00	097 43 14	02	112SDGV	78-08-21	--	202	429	7.1	55.0
5N 4W12BD 1	40 25 00	097 43 14	01	112SDGV	78-03-13	--	131	435	7.1	10.0
				112SDGV	78-09-01	--	131	418	7.6	14.0
7N 3W36DB 1	40 31 45	097 36 09	01	112SDGV	78-03-13	--	196	515	7.1	12.5
				112SDGV	78-09-01	--	196	550	7.2	14.5
8N 1W20DB 2	40 38 43	097 27 06	02	112SDGV	78-03-13	--	306	785	7.1	13.5
				112SDGV	78-09-01	--	306	642	7.3	14.5
8N 2W30ACB 1	40 38 12	097 35 10	01	112SDGV	78-07-20	--	240	1140	7.0	14.5

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- IFIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SURP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
CEDAR COUNTY										
30N 2E12ACC 1	78-08-03	--	350	170	100	25	19	.4	4.8	221
30N 2E27AAA 1	78-07-26	--	300	41	84	21	19	.5	4.9	316
30N 3E31ADD 1	78-08-07	--	340	160	96	24	26	.6	4.8	220
31N 1E 4DD8 1	78-08-08	--	1000	590	380	19	18	.2	4.9	502
31N 1E13DD8 1	78-08-09	--	770	550	240	41	130	2.0	24	266
31N 1E21CAA 1	78-08-02	--	310	28	90	21	14	.3	7.5	344
31N 1E25RCB 1	78-08-01	--	320	39	94	21	18	.4	5.4	343
31N 1E36BB 1	78-07-26	--	350	67	100	25	21	.5	7.5	345
31N 1W 4ABAD 1	78-07-26	--	330	89	95	23	21	.5	10	294
31N 1W13DDD 1	78-07-26	--	320	35	92	22	20	.5	5.4	347
31N 2E 1CCC 1	78-08-22	--	680	340	210	38	18	.3	17	421
31N 2E 2DDC 1	78-08-22	--	630	220	200	32	22	.4	17	497
31N 2E22CDD 1	78-08-02	--	480	91	160	19	19	.4	6.0	474
31N 2E30ADA 1	78-08-03	--	390	88	140	10	6.3	.1	4.5	368
32N 1E 18BD 1	78-08-08	--	1300	990	420	49	29	.4	12	376
32N 1E 8CCD 1	78-08-08	--	250	35	78	13	12	.3	2.1	262
32N 1E14BAB 1	78-08-22	--	580	320	200	20	17	.3	7.8	314
32N 1E22DCCC 1	78-07-27	--	1300	770	480	26	28	.3	10	642
32N 1E32CCD 1	78-08-07	--	590	230	190	29	22	.4	9.5	445
32N 1W 4BCC 1	78-08-23	--	800	430	290	18	17	.3	9.8	456
32N 1W20ACBB 1	78-07-26	--	400	200	120	25	23	.5	4.6	244
32N 2E12CBC 1	78-08-22	--	770	700	240	42	51	.8	18	83
32N 2E24BC 1	78-07-27	--	770	620	240	42	42	.7	19	180
32N 2E29BDB 1	78-08-08	--	1000	660	360	27	24	.3	8.1	421
32N 2E32DAC 1	78-08-01	--	1200	620	380	67	26	.3	33	704
32N 2E32DAC 2	78-08-01	--	1700	1200	560	70	37	.4	17	627
33N 1E11DCA 1	78-08-08	--	630	190	170	49	83	1.4	12	532
33N 1E178BD 1	78-07-27	--	610	230	180	39	23	.4	8.3	465
33N 1E30DDD 1	78-08-09	--	1100	670	370	42	29	.4	12	520
33N 1W10CCB 1	78-08-09	--	630	270	200	32	27	.5	9.0	444
33N 2E30BD 2	78-07-27	--	830	670	260	44	44	.7	17	196
33N 2E34CBC 1	78-08-08	--	660	240	170	56	72	1.2	9.4	508
CLAY COUNTY										
6N 8W 8CB 3	78-03-14	1	140	3	46	6.7	13	.5	5.7	170
	78-09-01	--	160	--	52	7.0	16	.6	6.1	--
7N 5W 2AA 1	78-03-13	1	210	16	64	11	19	.6	5.8	230
	78-09-01	--	210	--	68	10	19	.6	5.8	--
8N 7W23BB 1	78-08-23	1	280	110	87	15	21	.5	6.9	210
8N 7W27DC 1	78-03-13	1	310	130	97	17	26	.6	7.1	220
	78-09-01	--	180	--	58	9.0	19	.6	6.2	--
COLFAX COUNTY										
17N 3E29AA 2	78-06-21	2	190	76	58	11	11	.3	5.5	140
CUSTER COUNTY										
13N 18W 8DC 1	78-09-06	--	270	--	91	11	7.0	.2	8.0	--
14N 25W35DD 1	78-09-06	--	110	--	35	5.0	6.8	.3	5.6	--
16N 18W 1DC 1	78-09-06	--	230	--	72	11	10	.3	8.6	--
16N 24W12AB 1	78-09-05	--	130	--	41	5.8	8.2	.3	6.8	--
17N 21W30AB 1	78-09-05	--	180	--	58	7.6	7.2	.2	11	--
18N 19W 4BB 1	78-09-05	--	230	--	74	11	10	.3	8.6	--
18N 22W24CCCC 1	78-06-29	1	120	0	39	6.0	8.3	.3	7.6	160
DAWSON COUNTY										
10N 21W18DDD 1	78-06-26	1	360	75	110	21	19	.4	14	350
FILLMORE COUNTY										
5N 3W11BB 1	78-07-20	--	180	--	57	8.4	25	.8	4.8	--
5N 4W12BB 2	78-08-21	1	160	17	53	7.6	23	.8	5.8	180
5N 4W12BD 1	78-03-13	1	170	15	55	8.2	24	.8	6.7	190
	78-09-01	--	160	--	52	7.4	23	.8	4.8	--
7N 3W36DB 1	78-03-13	1	220	43	68	11	26	.8	4.5	210
	78-09-01	--	220	--	70	11	34	1.0	5.1	--
8N 1W20DB 2	78-03-13	1	360	130	110	20	35	.8	5.3	280
	78-09-01	--	290	--	89	16	26	.7	4.8	--
8N 2W30ACB 1	78-07-20	--	480	--	150	26	46	.9	6.4	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

457

LOCAL IDENT- IFIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	IODIDE, DIS- SOLVED (MG/L AS I) (71865)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISE- SOLVED (MG/L) (70300)
CEDAR COUNTY										
30N 2E12ACC 1	78-08-03	--	181	110	3.0	--	--	--	--	512
30N 2E27AAA 1	78-07-26	--	259	66	2.5	--	--	--	--	386
30N 3E31ADD 1	78-08-07	--	180	41	2.2	--	--	--	--	529
31N 1E 4DD8 1	78-08-08	--	412	630	2.7	--	--	--	--	1100
31N 1E13DD8 1	78-08-09	--	218	750	58	--	--	--	--	1330
31N 1E21CAA 1	78-08-02	--	282	61	2.8	--	--	--	--	347
31N 1E25BCB 1	78-08-01	--	281	75	5.3	--	--	--	--	307
31N 1E36BB 1	78-07-26	--	283	92	20	--	--	--	--	470
31N 1W 4ABAD 1	78-07-26	--	241	140	2.1	--	--	--	--	452
31N 1W13DDD 1	78-07-26	--	285	59	6.3	--	--	--	--	435
31N 2E 1CCC 1	78-08-22	--	345	370	7.1	--	--	--	--	979
31N 2E 2DDC 1	78-08-22	--	408	270	4.3	--	--	--	--	722
31N 2E22BCDD 1	78-08-02	--	389	120	8.7	--	--	--	--	592
31N 2E30ADA 1	78-08-03	--	302	100	2.8	--	--	--	--	447
32N 1E 18BD 1	78-08-08	--	308	970	5.2	--	--	--	--	1710
32N 1E 8CCD 1	78-08-08	--	215	24	2.7	--	--	--	--	314
32N 1E14BAB 1	78-08-22	--	258	310	14	--	--	--	--	792
32N 1E22DCCC 1	78-07-27	--	527	810	6.2	--	--	--	--	1760
32N 1E32CCD 1	78-08-07	--	365	270	5.0	--	--	--	--	640
32N 1W 4BCC 1	78-08-23	--	374	450	3.1	--	--	--	--	986
32N 1W20ACBB 1	78-07-26	--	200	41	26	--	--	--	--	705
32N 2E12CBC 1	78-08-22	--	68	730	55	--	--	--	--	1320
32N 2E24BC 1	78-07-27	--	148	650	43	--	--	--	--	1210
32N 2E29BDB 1	78-08-08	--	345	670	15	--	--	--	--	1230
32N 2E32DAC 1	78-08-01	--	577	710	4.3	--	--	--	--	1440
32N 2E32DAC 2	78-08-01	--	514	1100	67	--	--	--	--	2370
33N 1E11DCA 1	78-08-08	--	436	340	12	--	--	--	--	901
33N 1E17BBD 1	78-07-27	--	381	270	5.6	--	--	--	--	782
33N 1E30DDD 1	78-08-09	--	427	680	26	--	--	--	--	1270
33N 1W10CCB 1	78-08-09	--	364	310	4.0	--	--	--	--	720
33N 2E30BD 2	78-07-27	--	161	690	48	--	--	--	--	1250
33N 2E34CBC 1	78-08-08	--	417	370	10	--	--	--	--	777
CLAY COUNTY										
6N 8W 8CB 3	78-03-14	0	140	13	5.3	.4	--	--	27	--
	78-09-01	--	150	16	9.9	.3	--	--	28	--
7N 5W 2AA 1	78-03-13	0	190	34	17	.3	--	--	29	--
	78-09-01	--	190	34	15	.3	--	--	31	--
8N 7W23BB 1	78-08-23	0	170	130	19	.3	--	--	29	2920
8N 7W27DC 1	78-03-13	0	180	150	16	.3	--	--	33	--
	78-09-01	--	140	65	13	.2	--	--	31	--
COLFAX COUNTY										
17N 3E29AA 2	78-06-21	0	110	32	5.7	.3	--	--	28	286
CUSTER COUNTY										
13N 18W 8DC 1	78-09-06	--	260	14	9.0	.2	--	--	51	354
14N 25W35DD 1	78-09-06	--	98	10	2.2	.2	--	--	48	180
16N 18W 1DC 1	78-09-06	--	180	26	2.3	.2	--	--	60	277
16N 24W12AB 1	78-09-05	--	130	11	1.7	.2	--	--	55	209
17N 21W30AB 1	78-09-05	--	170	11	2.3	.2	--	--	47	254
18N 19W 4BB 1	78-09-05	--	220	16	4.4	.2	--	--	52	325
18N 22W24CCCC 1	78-06-29	0	130	3.9	1.2	.3	--	--	50	199
DAWSON COUNTY										
10N 21W18DDD 1	78-06-26	0	290	85	20	.3	--	--	53	486
FILLMORE COUNTY										
5N 3W11BB 1	78-07-20	--	180	33	9.8	.3	--	--	32	274
5N 4W12BB 2	78-08-21	0	150	33	17	.3	--	--	29	264
5N 4W12BD 1	78-03-13	0	160	32	15	.4	--	--	34	--
	78-09-01	--	160	35	16	.4	--	--	28	--
7N 3W36DB 1	78-03-13	0	170	61	15	.4	--	--	26	--
	78-09-01	--	200	59	20	.3	--	--	28	--
8N 1W20DB 2	78-03-13	0	230	150	15	.3	--	--	21	--
	78-09-01	--	220	100	11	.3	--	--	31	--
8N 2W30ACB 1	78-07-20	--	240	240	40	.3	--	--	32	769

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L) AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L) AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)
CEDAR COUNTY										
30N 2E12ACC 1	78-08-03	--	.70	--	--	--	28	--	--	--
30N 2E27AAA 1	78-07-26	--	.53	--	--	--	3.5	--	--	--
30N 3E31ADD 1	78-08-07	--	.72	--	--	--	49	--	--	--
31N 1E 4DD8 1	78-08-08	--	1.50	--	--	--	.27	--	--	--
31N 1E13DD8 1	78-08-09	--	1.81	--	--	--	.06	--	--	--
31N 1E21CAA 1	78-08-02	--	.47	--	--	--	.42	--	--	--
31N 1E25BCB 1	78-08-01	--	.42	--	--	--	.06	--	--	--
31N 1E36BB 1	78-07-26	--	.64	--	--	--	.20	--	--	--
31N 1W 4ABAD 1	78-07-26	--	.61	--	--	--	.06	--	--	--
31N 1W13DDD 1	78-07-26	--	.59	--	--	--	4.4	--	--	--
31N 2E 1CCC 1	78-08-22	--	1.33	--	--	--	.17	--	--	--
31N 2E 2DDC 1	78-08-22	--	.98	--	--	--	1.5	--	--	--
31N 2E22ACDD 1	78-08-02	--	.81	--	--	--	.17	--	--	--
31N 2E30ADA 1	78-08-03	--	.61	--	--	--	.15	--	--	--
32N 1E 18BD 1	78-08-08	--	2.33	--	--	--	.70	--	--	--
32N 1E 8CCD 1	78-08-08	--	.43	--	--	--	9.3	--	--	--
32N 1E14BAB 1	78-08-22	--	1.08	--	--	--	7.9	--	--	--
32N 1E22DCCC 1	78-07-27	--	2.39	--	--	--	.11	--	--	--
32N 1E32CCD 1	78-08-07	--	.87	--	--	--	.25	--	--	--
32N 1W 4BCC 1	78-08-23	--	1.34	--	--	--	.08	--	--	--
32N 1W20ACBB 1	78-07-26	--	.96	--	--	--	50	--	--	--
32N 2E12CBC 1	78-08-22	--	1.80	--	--	--	.01	--	--	--
32N 2E24BC 1	78-07-27	--	1.65	--	--	--	.57	--	--	--
32N 2E29BDB 1	78-08-08	--	1.67	--	--	--	2.3	--	--	--
32N 2E32DAC 1	78-08-01	--	1.96	--	--	--	.13	--	--	--
32N 2E32DAC 2	78-08-01	--	3.22	--	--	--	9.4	--	--	--
33N 1E11DCA 1	78-08-08	--	1.23	--	--	--	4.1	--	--	--
33N 1E178BD 1	78-07-27	--	1.06	--	--	--	.09	--	--	--
33N 1E30DDD 1	78-08-09	--	1.73	--	--	--	.85	--	--	--
33N 1W10CCB 1	78-08-09	--	.98	--	--	--	2.5	--	--	--
33N 2E30BD 2	78-07-27	--	1.70	--	--	--	.13	--	--	--
33N 2E34CBC 1	78-08-08	--	1.06	--	--	--	2.1	--	--	--
CLAY COUNTY										
6N 8W 8CB 3	78-03-14	212	.29	--	--	--	2.5	--	--	--
	78-09-01	--	--	--	--	--	5.6	--	--	--
7N 5W 2AA 1	78-03-13	296	.40	--	--	--	.51	--	--	--
	78-09-01	--	--	--	--	--	.84	--	--	--
8N 7W23BB 1	78-08-23	418	3.97	.01	.00	.05	.01	.05	.16	.21
8N 7W27DC 1	78-03-13	458	.62	--	--	--	.78	--	--	--
	78-09-01	--	--	--	--	--	.71	--	--	--
COLFAX COUNTY										
17N 3E29AA 2	78-06-21	288	.39	15	.01	15	15	.00	1.0	1.0
CUSTER COUNTY										
13N 18W 8DC 1	78-09-06	--	.48	--	--	--	1.5	--	--	--
14N 25W35DD 1	78-09-06	--	.24	--	--	--	2.6	--	--	--
16N 18W 1DC 1	78-09-06	--	.38	--	--	--	1.4	--	--	--
16N 24W12AB 1	78-09-05	--	.28	--	--	--	.78	--	--	--
17N 21W30AB 1	78-09-05	--	.35	--	--	--	2.7	--	--	--
18N 19W 48B 1	78-09-05	--	.44	--	--	--	2.7	--	--	--
18N 22W24CCCC 1	78-06-29	200	.27	.99	.01	1.1	1.0	.00	.18	.18
DAWSON COUNTY										
10N 21W18DDD 1	78-06-26	497	.66	.15	.01	.25	.16	.20	.18	.38
FILLMORE COUNTY										
5N 3W11BB 1	78-07-20	--	.37	--	--	--	.06	--	--	--
5N 4W12BB 2	78-08-21	264	.36	1.4	.00	1.4	1.4	.00	.07	.07
5N 4W12BD 1	78-03-13	281	.38	--	--	--	2.6	--	--	--
	78-09-01	--	--	--	--	--	.73	--	--	--
7N 3W36DB 1	78-03-13	325	.44	--	--	--	2.0	--	--	--
	78-09-01	--	--	--	--	--	3.2	--	--	--
8N 1W20DB 2	78-03-13	515	.70	--	--	--	4.5	--	--	--
	78-09-01	--	--	--	--	--	1.7	--	--	--
8N 2W30ACB 1	78-07-20	--	1.05	--	--	--	1.8	--	--	--

LOCAL IDENT- IFIER	DATE OF SAMPLE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
CEDAR COUNTY										
30N 2E12ACC 1	78-08-03	--	--	--	--	--	--	--	60	--
30N 2E27AAA 1	78-07-26	--	--	--	--	--	--	--	60	--
30N 3E31ADD 1	78-08-07	--	--	--	--	--	--	--	80	--
31N 1E 4DD8 1	78-08-08	--	--	--	--	--	--	--	80	--
31N 1E13DD8 1	78-08-09	--	--	--	--	--	--	--	410	--
31N 1E21CAA 1	78-08-02	--	--	--	--	--	--	--	70	--
31N 1E25BC8 1	78-08-01	--	--	--	--	--	--	--	80	--
31N 1E3688 1	78-07-26	--	--	--	--	--	--	--	60	--
31N 1W 4ABAD1	78-07-26	--	--	--	--	--	--	--	120	--
31N 1W13DDD 1	78-07-26	--	--	--	--	--	--	--	40	--
31N 2E 1CCC 1	78-08-22	--	--	--	--	--	--	--	140	--
31N 2E 2DDC 1	78-08-22	--	--	--	--	--	--	--	140	--
31N 2E22BCDD1	78-08-02	--	--	--	--	--	--	--	100	--
31N 2E30ADA 1	78-08-03	--	--	--	--	--	--	--	50	--
32N 1E 18B0 1	78-08-08	--	--	--	--	--	--	--	260	--
32N 1E 8CCD 1	78-08-08	--	--	--	--	--	--	--	20	--
32N 1E14BA8 1	78-08-22	--	--	--	--	--	--	--	60	--
32N 1E22DCC1	78-07-27	--	--	--	--	--	--	--	190	--
32N 1E32CCD 1	78-08-07	--	--	--	--	--	--	--	120	--
32N 1W 4BCC 1	78-08-23	--	--	--	--	--	--	--	190	--
32N 1W20ACBB1	78-07-26	--	--	--	--	--	--	--	30	--
32N 2E12CBC 1	78-08-22	--	--	--	--	--	--	--	110	--
32N 2E24BC 1	78-07-27	--	--	--	--	--	--	--	160	--
32N 2E29RDB 1	78-08-08	--	--	--	--	--	--	--	130	--
32N 2E32DAC 1	78-08-01	--	--	--	--	--	--	--	680	--
32N 2E32DAC 2	78-08-01	--	--	--	--	--	--	--	300	--
33N 1E110CA 1	78-08-08	--	--	--	--	--	--	--	190	--
33N 1E178BD 1	78-07-27	--	--	--	--	--	--	--	120	--
33N 1E30DDD 1	78-08-09	--	--	--	--	--	--	--	180	--
33N 1W10CC8 1	78-08-09	--	--	--	--	--	--	--	110	--
33N 2E30BD 2	78-07-27	--	--	--	--	--	--	--	140	--
33N 2E34CBC 1	78-08-08	--	--	--	--	--	--	--	170	--
CLAY COUNTY										
6N 8W 8CB 3	78-03-14	--	--	.24	--	--	--	--	20	--
	78-09-01	--	--	.23	--	--	--	--	20	--
7N 5W 2AA 1	78-03-13	--	--	.18	--	--	--	--	40	--
	78-09-01	--	--	.16	--	--	--	--	30	--
8N 7W23BB 1	78-08-23	.26	.16	.02	20	4	200	0	40	0
8N 7W27DC 1	78-03-13	--	--	.21	--	--	--	--	40	--
	78-09-01	--	--	.15	--	--	--	--	20	--
COLFAX COUNTY										
17N 3E29AA 2	78-06-21	16	.05	.05	0	2	400	0	30	0
CUSTER COUNTY										
13N 18W 8DC 1	78-09-06	--	--	--	--	4	--	--	40	0
14N 25W35DD 1	78-09-06	--	--	--	--	6	--	--	50	1
16N 18W 1DC 1	78-09-06	--	--	--	--	6	--	--	40	0
16N 24W12AR 1	78-09-05	--	--	--	--	7	--	--	20	0
17N 21W30AB 1	78-09-05	--	--	--	--	7	--	--	50	0
18N 19W 48B 1	78-09-05	--	--	--	--	5	--	--	40	0
18N 22W24CCCC1	78-06-29	1.3	.11	.10	10	12	300	0	20	1
DAWSON COUNTY										
10N 21W18DDD 1	78-06-26	.63	.10	.10	0	0	300	0	60	1
FILLMORE COUNTY										
5N 3W118B 1	78-07-20	--	--	--	--	6	--	--	50	--
5N 4W12BB 2	78-08-21	1.5	.13	.13	20	3	300	0	30	0
5N 4W12BD 1	78-03-13	--	--	.24	--	--	--	--	40	--
	78-09-01	--	--	.12	--	--	--	--	30	--
7N 3W36DB 1	78-03-13	--	--	.15	--	--	--	--	40	--
	78-09-01	--	--	.20	--	--	--	--	30	--
8N 1W20DB 2	78-03-13	--	--	.23	--	--	--	--	50	--
	78-09-01	--	--	.23	--	--	--	--	40	--
8N 2W30ACB 1	78-07-20	--	--	--	--	4	--	--	60	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- IFIER	DATE OF SAMPLE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
CEDAR COUNTY										
30N 2E12ACC 1	78-08-03	--	--	--	--	--	--	--	--	--
30N 2E27AAA 1	78-07-26	--	--	--	--	--	--	--	--	--
30N 3E31ADD 1	78-08-07	--	--	--	--	--	--	--	--	--
31N 1E 40DB 1	78-08-08	--	--	--	--	--	--	--	--	--
31N 1E130DB 1	78-08-09	--	--	--	--	--	--	--	--	--
31N 1E21CAA 1	78-08-02	--	--	--	--	--	--	--	--	--
31N 1E258CB 1	78-08-01	--	--	--	--	--	--	--	--	--
31N 1E36BB 1	78-07-26	--	--	--	--	--	--	--	--	--
31N 1W 4ABAD1	78-07-26	--	--	--	--	--	--	--	--	--
31N 1W130DD 1	78-07-26	--	--	--	--	--	--	--	--	--
31N 2E 1CCC 1	78-08-22	--	--	--	--	--	--	--	--	--
31N 2E 2DDC 1	78-08-22	--	--	--	--	--	--	--	--	--
31N 2E22BCDD1	78-08-02	--	--	--	--	--	--	--	--	--
31N 2E30ADA 1	78-08-03	--	--	--	--	--	--	--	--	--
32N 1E 18BD 1	78-08-08	--	--	--	--	--	--	--	--	--
32N 1E 8CCD 1	78-08-08	--	--	--	--	--	--	--	--	--
32N 1E148AB 1	78-08-22	--	--	--	--	--	--	--	--	--
32N 1E220CCC1	78-07-27	--	--	--	--	--	--	--	--	--
32N 1E32CCD 1	78-08-07	--	--	--	--	--	--	--	--	--
32N 1W 4BCC 1	78-08-23	--	--	--	--	--	--	--	--	--
32N 1W20ACBB1	78-07-26	--	--	--	--	--	--	--	--	--
32N 2E12C8C 1	78-08-22	--	--	--	--	--	--	--	--	--
32N 2E248C 1	78-07-27	--	--	--	--	--	--	--	--	--
32N 2E298DB 1	78-08-08	--	--	--	--	--	--	--	--	--
32N 2E32DAC 1	78-08-01	--	--	--	--	--	--	--	--	--
32N 2E32DAC 2	78-08-01	--	--	--	--	--	--	--	--	--
33N 1E11DCA 1	78-08-08	--	--	--	--	--	--	--	--	--
33N 1E178BD 1	78-07-27	--	--	--	--	--	--	--	--	--
33N 1E30DD 1	78-08-09	--	--	--	--	--	--	--	--	--
33N 1W10CCB 1	78-08-09	--	--	--	--	--	--	--	--	--
33N 2E308D 2	78-07-27	--	--	--	--	--	--	--	--	--
33N 2E348C 1	78-08-08	--	--	--	--	--	--	--	--	--
CLAY COUNTY										
6N 8W 8CB 3	78-03-14	--	--	3	20	--	--	0	--	--
	78-09-01	--	--	--	60	--	--	0	--	--
7N 5W 2AA 1	78-03-13	--	--	3	10	--	--	0	--	--
	78-09-01	--	--	--	20	--	--	60	--	--
8N 7W23BB 1	78-08-23	0	0	1	4800	2	20	130	.0	4
8N 7W27DC 1	78-03-13	--	--	5	20	--	--	0	--	--
	78-09-01	--	--	--	20	--	--	0	--	--
COLFAX COUNTY										
17N 3E29AA 2	78-06-21	10	0	0	40	6	20	10	.1	1
CUSTER COUNTY										
13N 18W 8DC 1	78-09-06	0	--	4	20	3	--	10	.0	--
14N 25W35DD 1	78-09-06	10	--	1	20	11	--	0	.0	--
16N 18W 1DC 1	78-09-06	0	--	2	30	1	--	70	.0	--
16N 24W12AB 1	78-09-05	10	--	4	40	1	--	0	.0	--
17N 21W30AB 1	78-09-05	0	--	2	40	6	--	10	.0	--
18N 19W 4BB 1	78-09-05	0	--	3	130	1	--	10	.0	--
18N 22W24CCCC1	78-06-29	10	0	1	40	9	20	10	.2	3
DAWSON COUNTY										
10N 21W18DD 1	78-06-26	0	1	0	60	16	30	690	.0	3
FILLMORE COUNTY										
5N 3W11BB 1	78-07-20	10	--	2	20	--	--	160	.0	--
5N 4W12BB 2	78-08-21	10	0	1	30	1	10	20	.0	1
5N 4W12BD 1	78-03-13	--	--	6	40	--	--	10	--	--
	78-09-01	--	--	--	230	--	--	20	--	--
7N 3W36DB 1	78-03-13	--	--	1	110	--	--	60	--	--
	78-09-01	--	--	--	20	--	--	20	--	--
8N 1W20DB 2	78-03-13	--	--	4	0	--	--	20	--	--
	78-09-01	--	--	--	20	--	--	110	--	--
8N 2W30ACB 1	78-07-20	10	--	29	50	--	--	10	.1	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED AS NI) (01065)	SELE- NIUM, DIS- SOLVED AS SE) (01145)	SILVER, DIS- SOLVED AS AG) (01075)	STRON- TIUM, DIS- SOLVED AS SR) (01080)	VANA- DIUM, DIS- SOLVED AS V) (01085)	ZINC, DIS- SOLVED AS ZN) (01090)
CEDAR COUNTY							
30N 2E12ACC 1	78-08-03	--	--	--	--	--	--
30N 2E27AAA 1	78-07-26	--	--	--	--	--	--
30N 3E31ADD 1	78-08-07	--	--	--	--	--	--
31N 1E 40DB 1	78-08-08	--	--	--	--	--	--
31N 1E130DB 1	78-08-09	--	--	--	--	--	--
31N 1E21CAA 1	78-08-02	--	--	--	--	--	--
31N 1E25BCB 1	78-08-01	--	--	--	--	--	--
31N 1E36RR 1	78-07-26	--	--	--	--	--	--
31N 1W 4ABAD1	78-07-26	--	--	--	--	--	--
31N 1W130DD 1	78-07-26	--	--	--	--	--	--
31N 2E 1CCC 1	78-08-22	--	--	--	--	--	--
31N 2E 2DDC 1	78-08-22	--	--	--	--	--	--
31N 2E228CDD1	78-08-02	--	--	--	--	--	--
31N 2E30ADA 1	78-08-03	--	--	--	--	--	--
32N 1E 18BD 1	78-08-08	--	--	--	--	--	--
32N 1E 8CCD 1	78-08-08	--	--	--	--	--	--
32N 1E14BAB 1	78-08-22	--	--	--	--	--	--
32N 1E22DCCC1	78-07-27	--	--	--	--	--	--
32N 1E32CCD 1	78-08-07	--	--	--	--	--	--
32N 1W 4BCC 1	78-08-23	--	--	--	--	--	--
32N 1W20ACBB1	78-07-26	--	--	--	--	--	--
32N 2E12CBC 1	78-08-22	--	--	--	--	--	--
32N 2E24BC 1	78-07-27	--	--	--	--	--	--
32N 2E29BDB 1	78-08-08	--	--	--	--	--	--
32N 2E32DAC 1	78-08-01	--	--	--	--	--	--
32N 2E32DAC 2	78-08-01	--	--	--	--	--	--
33N 1E11DCA 1	78-08-08	--	--	--	--	--	--
33N 1E17BBD 1	78-07-27	--	--	--	--	--	--
33N 1E30DDD 1	78-08-09	--	--	--	--	--	--
33N 1W10CCR 1	78-08-09	--	--	--	--	--	--
33N 2E30BD 2	78-07-27	--	--	--	--	--	--
33N 2E34CBC 1	78-08-08	--	--	--	--	--	--
CLAY COUNTY							
6N 8W 8CB 3	78-03-14	--	--	--	--	--	0
	78-09-01	--	--	--	--	--	--
7N 5W 2AA 1	78-03-13	--	--	--	--	--	10
	78-09-01	--	--	--	--	--	--
8N 7W23BB 1	78-08-23	0	0	0	500	8.0	20
8N 7W27DC 1	78-03-13	--	--	--	--	--	0
	78-09-01	--	--	--	--	--	--
COLFAX COUNTY							
17N 3E29AA 2	78-06-21	3	0	0	310	.0	10
CUSTER COUNTY							
13N 18W 8DC 1	78-09-06	--	4	--	--	--	100
14N 25W35DD 1	78-09-06	--	6	--	--	--	10
16N 18W 1DC 1	78-09-06	--	2	--	--	--	20
16N 24W12AB .1	78-09-05	--	1	--	--	--	20
17N 21W30AB 1	78-09-05	--	5	--	--	--	10
18N 19W 4BB 1	78-09-05	--	6	--	--	--	20
18N 22W24CCCC1	78-06-29	3	0	0	190	9.7	0
DAWSON COUNTY							
10N 21W18DDD 1	78-06-26	3	0	0	700	9.5	0
FILLMORE COUNTY							
5N 3W11BB 1	78-07-20	--	0	--	--	--	10
5N 4W12BB 2	78-08-21	1	1	0	260	1.1	10
5N 4W12BD 1	78-03-13	--	--	--	--	--	20
	78-09-01	--	--	--	--	--	--
7N 3W36DB 1	78-03-13	--	--	--	--	--	10
	78-09-01	--	--	--	--	--	--
8N 1W20DB 2	78-03-13	--	--	--	--	--	10
	78-09-01	--	--	--	--	--	--
8N 2W30ACB 1	78-07-20	--	15	--	--	--	50

LOCAL IDENT- IFIER	LAT- ITUDE	LONG- ITUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
FRONTIER COUNTY										
6N 24W23BCB 1	40 28 38	100 01 06	01	1210GLL	77-10-26	--	300	580	7.1	14.0
6N 27W34DCC 1	40 26 23	100 22 20	01	1210GLL	77-10-26	--	269	510	7.4	16.0
6N 29W32CCC 1	40 26 14	100 37 30	01	1210GLL	77-11-02	--	323	687	6.8	16.0
8N 27W34CCB 1	40 36 58	100 22 53	01	1210GLL	77-11-02	--	385	450	7.4	14.0
8N 29W12BBR 1	40 41 29	100 34 09	01	1210GLL	78-01-24	--	405	402	7.8	--
FURNAS COUNTY										
2N 22W18CD 1	40 07 58	099 50 45	01	112SDGV	78-08-03	--	44	740	7.5	13.0
2N 25W26D8BB1	40 06 36	100 06 27	01	112SDGV	78-08-01	--	57	810	7.4	14.0
4N 25W35CA 1	40 16 04	100 06 46	01	112SDGV	78-08-01	--	45	1250	7.4	13.5
GARDEN COUNTY										
15N 43W13AB 1	41 16 22	102 11 37	01	1210GLL	78-08-31	--	420	380	7.8	15.0
17N 43W 5BA 1	41 28 55	102 18 07	01	1210GLL	78-08-31	--	220	350	7.6	15.0
18N 44W13BA 1	41 32 07	102 20 04	01	1210GLL	78-08-31	--	450	195	7.4	16.0
18N 46W 2AC 1	41 33 33	102 35 06	01	1210GLL	78-08-31	--	394	200	7.7	15.0
GARFIELD COUNTY										
21N 16W 8AC 1	41 48 33	099 11 23	01	1210GLL	78-09-06	--	326	330	7.3	14.0
22N 13W 5AC 1	41 54 34	098 50 36	01	1210GLL	78-09-06	--	260	120	7.2	13.0
24N 14W14CA 1	42 02 05	098 54 30	01	1210GLL	78-09-06	--	244	120	7.1	13.0
GREELEY COUNTY										
17N 12W 4BDCD1	41 28 13	098 42 05	01	1210GLL	78-04-05	--	159	682	7.1	12.0
				1210GLL	78-08-17	--	159	690	7.1	13.6
17N 12W26BBA1	41 25 21	098 40 19	01	1210GLL	78-04-05	--	110	660	7.1	11.5
				1210GLL	78-08-17	--	110	652	7.2	13.8
HALL COUNTY (See pesticide data, page 504)										
9N 9W14AAB 1	40 45 13	098 18 12	01	112SDGV	77-10-25	--	150	960	7.2	10.0
9N 10W 68BBB1	40 47 10	098 29 33	01	112SDGV	78-08-18	--	13	848	7.4	10.0
10N 9W 1BCD 1	40 51 59	098 17 53	01	112SDGV	78-06-01	--	134	840	7.4	14.0
10N 9W 1CAC 1	40 51 43	098 17 41	01	112SDGV	78-06-01	--	134	850	7.4	13.0
				112SDGV	78-08-18	1150	134	860	--	--
10N 9W 2CDD 1	40 51 28	098 18 38	01	112SDGV	78-06-01	--	134	825	7.5	13.0
				112SDGV	78-08-22	1100	134	815	7.3	--
10N 9W 2DDC 1	40 51 29	098 18 22	01	112SDGV	78-06-01	--	131	868	7.4	13.0
				112SDGV	78-08-18	1140	131	845	7.2	--
10N 9W 9ACC 1	40 51 10	098 20 50	01	112SDGV	78-08-22	1600	82	--	--	--
10N 9W11BD 1	40 51 03	098 18 42	01	112SDGV	78-06-01	--	151	620	--	13.0
				112SDGV	78-08-18	1130	151	700	7.3	--
11N 9W 9AAC 1	40 56 35	098 20 37	01	112SDGV	78-05-31	--	101	469	6.9	13.5
				112SDGV	78-08-18	1500	101	454	--	--
11N 9W27BBB 1	40 54 37	098 20 22	01	112SDGV	78-05-31	--	113	605	7.2	13.5
				112SDGV	78-08-18	1345	113	585	7.8	--
11N 9W29ABA 1	40 54 02	098 21 17	01	112SDGV	78-05-31	--	80	382	--	13.0
				112SDGV	78-08-18	1430	80	395	7.0	--
11N 9W32BAA 1	40 53 12	098 22 07	01	112SDGV	78-05-31	--	83	677	7.4	13.0
				112SDGV	78-08-18	--	83	673	7.2	--
11N 10W13CAC 1	40 55 14	098 23 32	01	112SDGV	78-06-01	--	104	462	7.2	13.0
				112SDGV	78-08-22	1445	104	465	6.9	--
11N 12W12BCB 1	40 56 32	098 37 35	01	1210GLL	78-09-01	--	124	1490	7.2	13.5
11N 11W25CC 2	40 53 15	098 30 43	02	112SDGV	77-10-25	--	65	717	7.4	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

463

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
FRONTIER COUNTY										
6N 24W23BCB 1	77-10-26	4	280	15	75	22	14	.4	11	320
6N 27W34DCC 1	77-10-26	3	220	15	55	20	13	.4	13	250
6N 29W32CCC 1	77-11-02	13	350	0	97	26	15	.4	14	430
8N 27W34CCB 1	77-11-02	2	200	0	54	15	9.2	.3	11	250
8N 29W12BBB 1	78-01-24	1	190	15	57	11	9.5	.3	11	210
FURNAS COUNTY										
2N 22W18CD 1	78-08-03	--	370	--	110	22	21	.5	15	--
2N 25W26DBBB 1	78-08-01	--	390	--	110	29	21	.5	13	--
4N 25W35CA 1	78-08-01	--	570	--	170	36	70	1.3	31	--
GARDEN COUNTY										
15N 43W13AB 1	78-08-31	--	130	--	40	8.4	23	.9	9.6	--
17N 43W 5BA 1	78-08-31	--	140	--	48	6.0	9.5	.3	7.2	--
18N 44W13BA 1	78-08-31	--	74	--	24	3.3	9.6	.5	5.8	--
18N 46W 2AC 1	78-08-31	--	74	--	23	4.1	10	.5	6.1	--
GARFIELD COUNTY										
21N 16W 8AC 1	78-09-06	--	150	--	46	7.3	10	.4	8.3	--
22N 13W 5AC 1	78-09-06	--	46	--	15	2.0	4.9	.3	3.3	--
24N 14W14CA 1	78-09-06	--	45	--	14	2.4	6.8	.4	3.3	--
GREELEY COUNTY										
17N 12W 40BCD1	78-04-05	2	340	29	110	16	14	.3	8.2	380
	78-08-17	1	340	41	110	17	15	.4	8.6	370
17N 12W26BBAA1	78-04-05	2	320	0	100	16	17	.4	9.6	400
	78-08-17	1	330	4	110	14	16	.4	9.6	400
HALL COUNTY (See pesticide data, page 504)										
9N 9W14AAB 1	77-10-25	2	440	150	140	21	44	.9	8.4	350
9N 10W 68BBB1	78-08-18	4	330	140	100	20	54	1.3	8.2	230
10N 9W 18CD 1	78-06-01	--	270	89	78	18	82	2.2	9.0	220
10N 9W 1CAC 1	78-06-01	--	280	120	84	18	75	1.9	7.3	204
	78-08-18	--	--	--	--	--	--	--	--	--
10N 9W 2CDD 1	78-06-01	--	270	98	79	18	85	2.2	7.6	212
	78-08-22	--	--	--	--	--	--	--	--	--
10N 9W 2DDC 1	78-06-01	--	300	120	90	18	69	1.7	6.8	216
	78-08-18	--	--	--	--	--	--	--	--	--
10N 9W 9ACC 1	78-08-22	--	400	--	120	24	49	1.1	6.8	--
10N 9W11BD 1	78-06-01	--	230	18	71	13	58	1.7	5.3	260
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W 9AAC 1	78-05-31	--	190	60	61	9.8	16	.5	7.6	162
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W27BBB 1	78-05-31	--	230	40	64	17	21	.6	9.4	232
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W29ABA 1	78-05-31	--	150	19	48	7.6	14	.5	7.7	162
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W32BAA 1	78-05-31	--	290	94	91	16	25	.6	9.4	244
	78-08-18	--	--	--	--	--	--	--	--	--
11N 10W13CAC 1	78-06-01	--	190	55	60	9.8	14	.4	10	166
	78-08-22	--	--	--	--	--	--	--	--	--
11N 12W12BCB 1	78-09-01	4	740	410	230	39	48	.8	29	400
11N 11W25CC 2	77-10-25	3	290	11	91	15	40	1.0	15	340

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	IODIDE, DIS- SOLVED (MG/L AS I) (71865)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
FRONTIER COUNTY										
6N 24W23BCB 1	77-10-26	0	260	19	3.1	.6	--	--	58	--
6N 27W34DCC 1	77-10-26	0	210	17	5.8	1.1	--	--	68	--
6N 29W32CCC 1	77-11-02	0	350	17	6.1	.8	--	--	66	--
8N 27W34CCB 1	77-11-02	0	210	15	2.3	.6	--	--	69	--
8N 29W12BBB 1	78-01-24	0	170	15	3.0	.5	--	--	64	--
FURNAS COUNTY										
2N 22W18CD 1	78-08-03	--	290	79	23	.6	--	--	38	486
2N 25W26DBBB1	78-08-01	--	270	87	26	.6	--	--	50	560
4N 25W35CA 1	78-08-01	--	420	210	51	.5	--	--	44	912
GARDEN COUNTY										
15N 43W13AB 1	78-08-31	--	150	25	6.3	.7	--	--	67	264
17N 43W 5BA 1	78-08-31	--	110	20	15	.4	--	--	50	238
18N 44W13BA 1	78-08-31	--	78	8.2	2.0	.4	--	--	54	150
18N 46W 2AC 1	78-08-31	--	78	7.6	1.7	.2	--	--	55	157
GARFIELD COUNTY										
21N 16W 8AC 1	78-09-06	--	150	6.3	1.4	.3	--	--	59	242
22N 13W 5AC 1	78-09-06	--	45	4.2	1.0	.1	--	--	47	116
24N 14W14CA 1	78-09-06	--	54	1.9	.5	.2	--	--	55	117
GREELEY COUNTY										
17N 12W 40BCD1	78-04-05	0	310	45	5.2	.2	--	--	60	--
	78-08-17	0	300	59	7.0	.1	--	--	31	--
17N 12W26BBAA1	78-04-05	0	330	22	3.3	.2	--	--	56	--
	78-08-17	0	330	22	3.2	.1	--	--	35	--
HALL COUNTY (See pesticide data, page 504)										
9N 9W14AAB 1	77-10-25	0	290	210	21	.3	--	--	24	648
9N 10W 6RBBB1	78-08-18	0	190	170	23	.8	--	--	22	570
10N 9W 18CD 1	78-06-01	0	180	220	29	.6	--	--	21	--
10N 9W 1CAC 1	78-06-01	0	167	230	29	.5	--	--	18	--
	78-08-18	--	--	--	--	--	--	--	--	--
10N 9W 2CDD 1	78-06-01	0	174	210	28	.7	--	--	19	--
	78-08-22	--	--	--	--	--	--	--	--	--
10N 9W 2DDC 1	78-06-01	0	177	240	25	.5	--	--	19	--
	78-08-18	--	--	--	--	--	--	--	--	--
10N 9W 9ACC 1	78-08-22	--	--	220	29	.5	--	--	21	--
10N 9W11BD 1	78-06-01	0	213	120	19	.5	--	--	17	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W 9AAC 1	78-05-31	0	133	65	12	.2	--	--	36	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W27BBB 1	78-05-31	0	190	75	15	.5	--	--	23	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W29ABA 1	78-05-31	--	133	36	6.7	.3	--	--	25	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W32BAA 1	78-05-31	0	200	110	22	.3	--	--	25	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 10W13CAC 1	78-06-01	0	136	34	14	.3	--	--	27	--
	78-08-22	--	--	--	--	--	--	--	--	--
11N 12W12BCB 1	78-09-01	0	330	480	12	.3	--	--	50	1200
11N 11W25CC 2	77-10-25	0	280	55	9.3	.4	--	--	26	459

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L) AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L) AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)
FRONTIER COUNTY										
6N 24W23BCB 1	77-10-26	364	.50	--	--	--	.81	--	--	--
6N 27W34DCC 1	77-10-26	329	.45	--	--	--	2.8	--	--	--
6N 29W32CCC 1	77-11-02	455	.62	--	--	--	.12	--	--	--
8N 27W34CCB 1	77-11-02	311	.42	--	--	--	2.6	--	--	--
8N 29W12BBB 1	78-01-24	293	.40	--	--	--	4.1	--	--	--
FURNAS COUNTY										
2N 22W18CD 1	78-08-03	--	.66	--	--	--	2.2	--	--	--
2N 25W26DBBB 1	78-08-01	--	.76	--	--	--	12	--	--	--
4N 25W35CA 1	78-08-01	--	1.24	--	--	--	18	--	--	--
GARDEN COUNTY										
15N 43W13AB 1	78-08-31	--	.36	--	--	--	2.6	--	--	--
17N 43W 58A 1	78-08-31	--	.32	--	--	--	3.6	--	--	--
18N 44W138A 1	78-08-31	--	.20	--	--	--	2.6	--	--	--
18N 46W 2AC 1	78-08-31	--	.21	--	--	--	2.8	--	--	--
GARFIELD COUNTY										
21N 16W 8AC 1	78-09-06	--	.33	--	--	--	2.4	--	--	--
22N 13W 5AC 1	78-09-06	--	.16	--	--	--	1.9	--	--	--
24N 14W14CA 1	78-09-06	--	.16	--	--	--	.65	--	--	--
GREELEY COUNTY										
17N 12W 4DBCD1	78-04-05	468	.64	--	--	--	5.0	--	--	--
	78-08-17	437	.59	--	--	--	1.5	--	--	--
17N 12W26BBAA1	78-04-05	440	.60	--	--	--	4.1	--	--	--
	78-08-17	417	.57	--	--	--	2.2	--	--	--
HALL COUNTY (See pesticide data, page 504)										
9N 9W14AAB 1	77-10-25	643	.88	.06	.01	.22	.07	.39	.09	.48
9N 10W 68BBB1	78-08-18	526	.78	3.0	.00	3.0	3.0	.00	.54	.54
10N 9W 18CD 1	78-06-01	567	.77	--	--	.37	--	.00	.36	.36
10N 9W 1CAC 1	78-06-01	563	.77	--	--	.27	--	.00	.65	.65
	78-08-18	--	--	--	--	--	--	--	--	--
10N 9W 2CDD 1	78-06-01	553	.75	--	--	.20	--	.00	.28	.28
	78-08-22	--	--	--	--	--	--	--	--	--
10N 9W 2DDC 1	78-06-01	576	.78	--	--	.05	--	.00	.38	.38
	78-08-18	--	--	--	--	--	--	--	--	--
10N 9W 9ACC 1	78-08-22	--	--	--	--	12	--	.00	.58	.58
10N 9W11BD 1	78-06-01	433	.59	--	--	.08	--	.00	.27	.27
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W 9AAC 1	78-05-31	288	.39	--	--	6.6	--	.01	3.2	3.2
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W27BBB 1	78-05-31	340	.46	--	--	2.7	--	.01	.47	.48
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W29ABA 1	78-05-31	226	.31	--	--	4.3	--	.01	.48	.49
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W32BAA 1	78-05-31	420	.57	--	--	4.1	--	.00	.84	.84
	78-08-18	--	--	--	--	--	--	--	--	--
11N 10W13CAC 1	78-06-01	252	.34	--	--	10	--	.10	.59	.69
	78-08-22	--	--	--	--	--	--	--	--	--
11N 12W12BCB 1	78-09-01	1160	1.63	16	.01	--	16	.01	.74	.75
11N 11W25CC 2	77-10-25	482	.62	14	.03	14	14	.01	1.1	1.1

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
FRONTIER COUNTY										
6N 24W23BCB 1	77-10-26	--	--	.01	--	--	--	--	80	--
6N 27W34DCC 1	77-10-26	--	--	.02	--	--	--	--	80	--
6N 29W32CCC 1	77-11-02	--	--	.06	--	--	--	--	350	--
8N 27W34CCB 1	77-11-02	--	--	.01	--	--	--	--	60	--
8N 29W128BB 1	78-01-24	--	--	.13	--	--	--	--	60	--
FURNAS COUNTY										
2N 22W18CD 1	78-08-03	--	--	--	--	9	--	--	70	0
2N 25W26DBBB1	78-08-01	--	--	--	--	8	--	--	90	1
4N 25W35CA 1	78-08-01	--	--	--	--	14	--	--	210	0
GARDEN COUNTY										
15N 43W13AB 1	78-08-31	--	--	--	--	8	--	--	70	0
17N 43W 5BA 1	78-08-31	--	--	--	--	4	--	--	20	0
18N 44W13BA 1	78-08-31	--	--	--	--	8	--	--	20	0
18N 46W 2AC 1	78-08-31	--	--	--	--	8	--	--	20	1
GARFIELD COUNTY										
21N 16W 8AC 1	78-09-06	--	--	--	--	10	--	--	30	0
22N 13W 5AC 1	78-09-06	--	--	--	--	3	--	--	9	0
24N 14W14CA 1	78-09-06	--	--	--	--	5	--	--	10	0
GREELEY COUNTY										
17N 12W 40BCD1	78-04-05	--	--	.06	--	--	--	--	50	--
	78-08-17	--	--	.08	--	--	--	--	70	--
17N 12W268BAA1	78-04-05	--	--	.09	--	--	--	--	60	--
	78-08-17	--	--	.08	--	--	--	--	70	--
HALL COUNTY (See pesticide data, page 504)										
9N 9W14AAB 1	77-10-25	.70	.05	.05	20	1	400	0	0	2
9N 10W 68BBB1	78-08-18	3.5	.02	.02	60	2	200	0	50	0
10N 9W 18CD 1	78-06-01	.73	--	.06	--	2	200	--	130	6
10N 9W 1CAC 1	78-06-01	.92	--	.07	--	2	200	--	110	6
10N 9W 2CDD 1	78-08-18	--	--	--	--	--	--	--	--	10
	78-06-01	.48	--	.06	--	2	300	--	120	--
	78-08-22	--	--	--	--	--	--	--	--	1
10N 9W 2DDC 1	78-06-01	.43	--	.03	--	2	300	--	70	--
	78-08-18	--	--	--	--	--	--	--	--	--
10N 9W 9ACC 1	78-08-22	13	--	.03	--	1	200	--	40	9
10N 9W11BD 1	78-06-01	.35	--	.05	--	2	200	--	60	7
	78-08-18	--	--	--	--	--	--	--	--	8
11N 9W 9AAC 1	78-05-31	9.8	--	.13	--	3	300	--	50	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W278BB 1	78-05-31	3.2	--	.08	--	3	200	--	60	--
	78-08-18	--	--	--	--	--	--	--	--	10
11N 9W29ABA 1	78-05-31	4.8	--	.15	--	3	200	--	90	9
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W32BAA 1	78-05-31	4.9	--	.02	--	2	200	--	50	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 10W13CAC 1	78-06-01	11	--	.09	--	1	500	--	30	8
	78-08-22	--	--	--	--	--	--	--	--	3
11N 12W12BCB 1	78-09-01	--	.23	.21	5	8	100	0	180	0
11N 11W25CC 2	77-10-25	15	.14	.14	30	5	400	0	80	4

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

467

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
FRONTIER COUNTY										
6N 24W238CB 1	77-10-26	--	--	--	--	--	--	--	--	--
6N 27W34DCC 1	77-10-26	--	--	--	--	--	--	--	--	--
6N 29W32CCC 1	77-11-02	--	--	--	--	--	--	--	--	--
8N 27W34CCR 1	77-11-02	--	--	--	--	--	--	--	--	--
8N 29W128BB 1	78-01-24	--	--	--	--	--	--	--	--	--
FURNAS COUNTY										
2N 22W18CD 1	78-08-03	0	--	2	20	2	--	100	.0	--
2N 25W26DBBB 1	78-08-01	0	--	5	10	0	--	10	.0	--
4N 25W35CA 1	78-08-01	10	--	3	30	3	--	10	.1	--
GARDEN COUNTY										
15N 43W13AB 1	78-08-31	10	--	0	10	0	--	0	.0	--
17N 43W 5BA 1	78-08-31	0	--	0	20	0	--	0	.0	--
18N 44W13BA 1	78-08-31	0	--	0	10	0	--	0	.0	--
18N 46W 2AC 1	78-08-31	0	--	0	10	0	--	0	.0	--
GARFIELD COUNTY										
21N 16W 8AC 1	78-09-06	0	--	0	20	0	--	0	.0	--
22N 13W 5AC 1	78-09-06	0	--	0	10	0	--	0	.0	--
24N 14W14CA 1	78-09-06	0	--	0	20	0	--	0	.0	--
GREELEY COUNTY										
17N 12W 4DBC01	78-04-05	--	--	4	0	--	--	10	--	--
	78-08-17	--	--	6	130	--	--	0	--	--
17N 12W268BAA1	78-04-05	--	--	2	0	--	--	0	--	--
	78-08-17	--	--	17	370	--	--	0	--	--
HALL COUNTY (See pesticide data, page 504)										
9N 9W14AAB 1	77-10-25	4	0	0	460	6	20	200	.0	1
9N 10W 688BB1	78-08-18	10	0	12	50	0	30	10	.0	3
10N 9W 18CD 1	78-06-01	0	--	3	10	38	--	0	.0	--
10N 9W 1CAC 1	78-06-01	0	--	3	10	--	--	0	.0	--
	78-08-18	--	--	--	--	--	--	--	--	--
10N 9W 2CDD 1	78-06-01	0	--	5	0	--	--	0	.0	--
	78-08-22	--	--	--	--	15	--	--	--	--
10N 9W 2DDC 1	78-06-01	0	--	2	10	--	--	80	.0	--
	78-08-18	--	--	--	--	--	--	--	--	--
10N 9W 9ACC 1	78-08-22	10	--	2	20	--	--	30	.0	--
10N 9W11BD 1	78-06-01	0	--	2	30	--	--	20	.0	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W 9AAC 1	78-05-31	10	--	3	10	--	--	40	.0	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W278BB 1	78-05-31	0	--	4	0	--	--	0	.0	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 9W29ABA 1	78-05-31	0	--	4	0	--	--	0	.0	--
	78-08-18	--	--	--	--	50	--	--	--	--
11N 9W32BAA 1	78-05-31	5	--	4	10	--	--	60	.0	--
	78-08-18	--	--	--	--	--	--	--	--	--
11N 10W13CAC 1	78-06-01	10	--	3	20	--	--	10	.0	--
	78-08-22	--	--	--	--	24	--	--	--	--
11N 12W12BCB 1	78-09-01	10	0	4	10	1	70	10	.0	11
11N 11W25CC 2	77-10-25	4	0	10	40	16	20	8	.0	3

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
FRONTIER COUNTY							
6N 24W23BCB 1	77-10-26	--	--	--	--	--	--
6N 27W34DCC 1	77-10-26	--	--	--	--	--	--
6N 29W32CCC 1	77-11-02	--	--	--	--	--	--
8N 27W34CCB 1	77-11-02	--	--	--	--	--	--
8N 29W12BBB 1	78-01-24	--	--	--	--	--	--
FURNAS COUNTY							
2N 22W18CD 1	78-08-03	--	9	--	--	--	10
2N 25W26DBBB1	78-08-01	--	13	--	--	--	10
4N 25W35CA 1	78-08-01	--	11	--	--	--	10
GARDEN COUNTY							
15N 43W13AB 1	78-08-31	--	2	--	--	--	10
17N 43W 5BA 1	78-08-31	--	5	--	--	--	10
18N 44W13BA 1	78-08-31	--	1	--	--	--	10
18N 46W 2AC 1	78-08-31	--	1	--	--	--	10
GARFIELD COUNTY							
21N 16W 8AC 1	78-09-06	--	2	--	--	--	10
22N 13W 5AC 1	78-09-06	--	0	--	--	--	0
24N 14W14CA 1	78-09-06	--	0	--	--	--	0
GREELEY COUNTY							
17N 12W 40BCD1	78-04-05	--	--	--	--	--	10
	78-08-17	--	--	--	--	--	10
17N 12W268BAA1	78-04-05	--	--	--	--	--	50
	78-08-17	--	--	--	--	--	30
HALL COUNTY (See pesticide data, page 504)							
9N 9W14AAB 1	77-10-25	1	0	0	750	.8	30
9N 10W 68BBB1	78-08-18	0	0	0	590	1.4	20
10N 9W 18CD 1	78-06-01	--	2	0	600	3.0	10
10N 9W 1CAC 1	78-06-01	--	2	0	630	2.0	10
	78-08-18	--	--	--	--	--	--
10N 9W 2CDD 1	78-06-01	--	1	0	590	4.0	20
	78-08-22	--	--	--	--	--	--
10N 9W 2DDC 1	78-06-01	--	1	0	610	3.0	20
	78-08-18	--	--	--	--	--	--
10N 9W 9ACC 1	78-08-22	--	2	0	790	1.9	20
10N 9W11BD 1	78-06-01	--	1	0	490	2.0	20
	78-08-18	--	--	--	--	--	--
11N 9W 9AAC 1	78-05-31	--	6	0	350	--	20
	78-08-18	--	--	--	--	--	--
11N 9W27BBB 1	78-05-31	--	5	0	520	6.0	10
	78-08-18	--	--	--	--	--	--
11N 9W29ABA 1	78-05-31	--	6	0	280	--	20
	78-08-18	--	--	--	--	--	--
11N 9W32BAA 1	78-05-31	--	6	0	630	5.0	20
	78-08-18	--	--	--	--	--	--
11N 10W13CAC 1	78-06-01	--	6	0	350	2.0	10
	78-08-22	--	--	--	--	--	--
11N 12W128CB 1	78-09-01	0	1	0	880	6.0	20
11N 11W25CC 2	77-10-25	3	17	0	500	4.6	30

LOCAL IDENT- I- FIER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
HAMILTON COUNTY										
9N 7W 6DAD 2	40 46 33	098 09 12	02	112SDGV	78-03-14	--	190	645	7.1	12.0
				112SDGV	78-09-01	--	190	623	7.2	13.0
10N 6W 4CB 1	40 51 47	098 00 45	01	112SDGV	78-03-14	--	248	430	7.0	11.5
				112SDGV	78-09-01	--	248	465	7.4	13.0
11N 7W 3BBB 1	40 57 31	098 06 44	01	112SDGV	77-12-16	1140	180	690	--	--
				112SDGV	78-02-21	1530	180	830	--	--
				112SDGV	78-02-21	1630	180	730	--	--
				112SDGV	78-04-21	1505	180	2060	--	--
				112SDGV	78-04-21	1520	180	1510	--	--
11N 7W 3CC 1	40 56 45	098 06 42	01	112SDGV	78-04-18	1330	180	840	--	--
11N 7W 3CC 10	40 56 45	098 06 42	10	112SDGV	78-01-05	1700	180	870	--	--
				112SDGV	78-04-20	1100	180	840	--	--
11N 7W 3CC 11	40 56 45	098 06 42	11	112SDGV	77-10-17	--	155	825	--	--
				112SDGV	77-11-28	1700	155	850	--	--
				112SDGV	78-01-05	1515	155	845	--	--
				112SDGV	78-04-20	1140	155	840	--	--
11N 7W 3CC 12	40 56 45	098 06 42	12	112SDGV	77-11-04	1412	110	870	--	--
				112SDGV	78-01-05	1545	110	860	--	--
				112SDGV	78-04-20	1230	110	860	--	--
11N 7W 3CC 6	40 56 45	098 06 42	06	112SDGV	77-10-27	--	22	3680	--	--
11N 7W 3CC 6	40 56 45	098 06 42	06	112SDGV	77-11-04	--	22	1800	--	--
				112SDGV	77-11-14	--	22	1540	--	--
11N 7W 3CC 7	40 56 45	098 06 42	07	112SDGV	77-10-06	--	37	2700	--	--
				112SDGV	77-10-06	--	37	2700	--	--
				112SDGV	77-11-10	--	37	3200	--	--
				112SDGV	77-11-21	--	37	3570	--	--
11N 7W 3CC 8	40 56 45	098 06 42	08	112SDGV	77-10-24	--	53	3000	--	--
				112SDGV	77-11-10	--	53	2930	--	--
11N 7W 3CC 9	40 56 45	098 06 42	09	112SDGV	78-01-04	1315	38	2080	--	--
11N 7W 3CCA 1	40 56 53	098 06 34	01	112SDGV	78-04-18	1600	190	780	--	--
				112SDGV	78-07-14	1510	190	1290	--	--
11N 7W 3CCB 1	40 56 48	098 06 42	01	112SDGV	77-11-10	1640	180	870	--	--
				112SDGV	77-11-10	1700	180	1035	--	--
				112SDGV	77-11-22	1550	180	945	--	--
				112SDGV	78-04-21	1315	180	870	--	--
11N 7W 3CCC 1	40 56 42	098 06 39	01	112SDGV	77-10-27	--	180	1000	--	--
				112SDGV	78-01-04	1310	180	1250	--	--
				112SDGV	78-04-18	1535	180	854	--	--
11N 7W 3CCC 2	40 56 45	098 06 42	02	112SDGV	77-11-03	1504	180	870	--	--
11N 7W 3CCC 3	40 56 45	098 06 42	03	112SDGV	77-11-22	1300	180	860	--	--
				112SDGV	78-01-04	1430	180	860	--	--
				112SDGV	78-04-20	1400	180	840	--	--
11N 7W 3CCD 1	40 56 43	098 06 28	01	112SDGV	78-01-05	1350	180	1010	--	--
				112SDGV	78-04-25	1330	180	1380	--	--
11N 7W 4DD 1	40 56 47	098 06 48	01	112SDGV	78-01-04	1245	--	3030	--	--
				112SDGV	78-02-14	1618	--	--	--	--
				112SDGV	78-04-07	1515	--	2190	--	--
				112SDGV	78-04-20	1545	--	1030	--	--
				112SDGV	78-05-03	0830	--	1440	--	--
				112SDGV	78-05-09	1600	--	1870	--	--
11N 7W 4DDD 1	40 56 48	098 06 46	01	112SDGV	77-11-10	1435	172	806	--	--
				112SDGV	78-01-05	1615	172	810	--	--
				112SDGV	78-04-20	1525	172	840	--	--
11N 7W 4DDD 2	40 56 48	098 06 46	02	112SDGV	77-10-17	--	150	3090	--	--
				112SDGV	77-11-10	1415	150	2460	--	--
				112SDGV	77-11-22	1420	150	1900	--	--
				112SDGV	78-01-05	1550	150	950	--	--
				112SDGV	78-04-21	1050	150	920	--	--
11N 7W 4DDD 3	40 56 48	098 06 46	03	112SDGV	77-11-10	1225	109	845	--	--
				112SDGV	78-01-05	1615	109	850	--	--

LOCAL IDENT- IFIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
HAMILTON COUNTY										
9N 7W 6DAD 2	78-03-14	1	280	95	89	15	28	.7	6.3	230
	78-09-01	--	260	--	82	14	29	.8	5.5	--
10N 6W 4CB 1	78-03-14	1	180	22	56	9.3	21	.7	5.0	190
	78-09-01	--	200	--	62	9.8	22	.7	5.2	--
11N 7W 388B 1	77-12-16	1	290	100	89	17	29	.7	6.1	230
	78-02-21	1	420	210	130	23	39	.8	7.6	260
	78-02-21	1	320	140	100	18	30	.7	6.4	230
	78-04-21	1	1000	690	330	47	94	1.3	22	400
	78-04-21	1	760	490	240	38	65	1.0	16	330
11N 7W 3CC 1	78-04-18	1	290	86	87	18	75	1.9	6.2	250
11N 7W 3CC 10	78-01-05	1	300	120	91	17	73	1.8	5.8	220
	78-04-20	1	290	98	90	17	74	1.9	6.4	240
11N 7W 3CC 11	77-10-17	1	300	120	92	17	73	1.8	9.8	220
	77-11-28	2	300	100	92	17	74	1.9	7.5	240
	78-01-05	2	290	79	89	17	74	1.9	6.4	260
11N 7W 3CC 12	78-04-20	1	290	85	88	17	74	1.9	8.9	250
	77-11-04	1	290	100	88	17	74	1.9	6.9	230
	78-01-05	1	300	100	90	18	77	1.9	5.8	240
11N 7W 3CC 6	78-04-20	1	290	92	86	18	74	1.9	6.3	240
	77-10-27	4	1800	1400	520	120	350	3.6	88	470
11N 7W 3CC 6	77-11-04	5	610	290	170	44	200	3.5	51	380
	77-11-14	5	460	220	130	33	170	3.4	49	290
11N 7W 3CC 7	77-10-06	4	--	--	--	--	--	--	68	530
	77-10-06	4	1600	1200	480	100	120	1.3	68	530
	77-11-10	4	1900	1400	550	120	130	1.3	74	590
11N 7W 3CC 8	77-11-21	4	2000	1700	600	130	150	1.4	76	460
	77-10-24	4	1700	1100	480	110	140	1.5	59	720
	77-11-10	2	1600	1200	450	110	130	1.4	56	470
11N 7W 3CC 9	78-01-04	--	1000	930	300	65	110	1.5	66	100
11N 7W 3CCA 1	78-04-18	1	360	160	110	21	33	.8	7.9	240
11N 7W 3CCB 1	78-07-14	1	610	390	190	32	49	.9	12	260
	77-11-10	1	310	130	98	17	67	1.6	12	230
	77-11-10	2	420	220	130	23	67	1.4	14	240
	77-11-22	1	350	160	110	19	73	1.7	12	230
	78-04-21	1	350	140	110	18	73	1.7	11	260
11N 7W 3CCC 1	77-10-27	2	490	270	150	27	36	.7	7.9	260
	78-01-04	1	590	380	180	34	43	.8	8.8	250
	78-04-18	1	320	130	96	19	62	1.5	8.1	230
11N 7W 3CCC 2	77-11-03	1	300	110	90	19	80	2.0	5.4	240
11N 7W 3CCC 3	77-11-22	1	300	100	90	18	75	1.9	6.2	240
	78-01-04	1	300	120	89	18	75	1.9	6.7	220
	78-04-20	1	300	100	89	18	74	1.9	6.4	240
11N 7W 3CCD 1	78-01-05	1	470	260	140	28	37	.7	9.0	250
	78-04-25	1	680	430	210	38	32	.5	17	300
11N 7W 4DD 1	78-01-04	2	1700	1500	550	86	97	1.0	21	290
	78-02-14	--	1800	1500	--	--	--	1.0	--	--
	78-04-07	1	1000	800	330	49	75	1.0	17	270
	78-04-20	1	440	250	140	21	59	1.2	12	230
	78-05-03	1	660	460	210	32	65	1.1	14	240
	78-05-09	1	930	720	300	45	71	1.0	16	260
11N 7W 4DDD 1	77-11-10	2	330	150	100	20	49	1.2	6.3	220
	78-01-05	2	280	94	87	16	68	1.8	6.2	230
	78-04-20	2	310	110	97	16	77	1.9	8.1	240
11N 7W 4DDD 2	77-10-17	2	1600	1400	500	87	75	.8	18	270
	77-11-10	2	1200	1000	380	65	73	.9	16	270
	77-11-22	3	1100	830	340	49	69	.9	14	270
	78-01-05	6	390	200	120	21	66	1.5	8.8	230
	78-04-21	1	350	160	110	18	72	1.7	9.9	230
11N 7W 4DDD 3	77-11-10	2	290	110	90	15	70	1.8	9.4	220
	78-01-05	5	290	100	91	15	74	1.9	9.1	230

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

471

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CaCO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	IODIDE, DIS- SOLVED (MG/L AS I) (71865)	SILICA, DIS- SOLVED (MG/L SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
HAMILTON COUNTY										
9N 7W 6DAD 2	78-03-14	0	190	120	18	.4	--	--	32	--
	78-09-01	--	200	110	13	.3	--	--	30	--
10N 6W 4CB 1	78-03-14	0	160	39	9.5	.5	--	--	26	--
	78-09-01	--	170	45	11	.4	--	--	27	--
11N 7W 38BB 1	77-12-16	--	190	150	10	.5	.1	--	21	--
	78-02-21	--	210	260	13	.6	.2	--	22	--
	78-02-21	--	190	170	13	.6	.2	--	22	--
	78-04-21	--	330	770	25	.4	2.0	--	24	--
	78-04-21	--	270	510	20	.4	1.6	--	22	--
11N 7W 3CC 1	78-04-18	--	210	200	25	.5	.2	.01	18	--
11N 7W 3CC 10	78-01-05	--	180	210	29	.5	.3	--	20	--
	78-04-20	--	200	200	26	.5	.3	--	19	--
11N 7W 3CC 11	77-10-17	--	180	230	27	.7	.1	--	20	--
	77-11-28	--	200	220	27	.5	.2	--	20	--
	78-01-05	--	210	180	31	.6	.2	--	19	--
	78-04-20	--	210	200	26	.5	.2	--	18	--
11N 7W 3CC 12	77-11-04	--	190	210	25	.7	.2	--	19	--
	78-01-05	--	200	220	27	.5	.5	--	20	--
	78-04-20	--	200	200	26	.5	.2	--	18	--
11N 7W 3CC 6	77-10-27	--	390	2300	11	.2	--	--	42	--
11N 7W 3CC 6	77-11-04	--	310	620	11	.3	--	--	41	--
	77-11-14	--	240	550	11	.4	--	--	40	--
11N 7W 3CC 7	77-10-06	--	430	1400	7.0	.6	.0	--	29	--
	77-10-06	--	430	1400	7.0	.6	.0	--	29	--
	77-11-10	--	480	1600	16	.6	.1	--	29	--
	77-11-21	--	380	1800	46	.5	.3	--	28	--
11N 7W 3CC 8	77-10-24	--	590	1300	8.8	.5	--	--	29	--
	77-11-10	--	390	1300	7.5	.5	--	--	26	--
11N 7W 3CC 9	78-01-04	--	82	1200	22	1.0	.4	--	7.3	--
11N 7W 3CCA 1	78-04-18	--	200	150	9.1	.5	.1	--	21	--
	78-07-14	--	210	300	18	.5	--	--	24	--
11N 7W 3CCB 1	77-11-10	--	190	210	24	.8	.2	--	23	--
	77-11-10	--	200	240	21	.6	.2	--	20	--
	77-11-22	--	190	230	26	.8	.3	--	21	--
	78-04-21	--	210	270	25	.6	.2	--	19	--
11N 7W 3CCC 1	77-10-27	--	210	220	10	.5	.1	--	26	--
	78-01-04	--	210	320	24	.5	.8	--	25	--
	78-04-18	--	190	210	26	.5	.3	--	21	--
11N 7W 3CCC 2	77-11-03	--	200	230	24	.4	.2	--	19	--
11N 7W 3CCC 3	77-11-22	--	200	210	25	.5	.3	--	19	--
	78-01-04	--	180	220	27	.5	.3	--	20	--
	78-04-20	--	200	200	26	.5	.2	--	18	--
11N 7W 3CCD 1	78-01-05	--	210	220	9.3	.5	.0	--	26	--
	78-04-25	--	250	300	15	.4	1.0	--	30	--
11N 7W 4DD 1	78-01-04	--	240	760	44	.4	.5	--	24	--
	78-02-14	--	250	--	--	.3	--	--	--	--
	78-04-07	--	220	500	33	.4	.5	.01	22	--
	78-04-20	--	190	270	27	.5	.3	--	23	--
	78-05-03	--	200	370	38	.5	.5	--	23	--
	78-05-09	--	210	430	30	.4	.5	--	22	--
11N 7W 4DDD 1	77-11-10	--	180	200	20	.5	.2	--	26	--
	78-01-05	--	190	200	26	.6	.6	--	21	--
	78-04-20	--	200	240	25	.5	.3	--	18	--
11N 7W 4DDD 2	77-10-17	--	220	500	33	.3	.5	--	21	--
	77-11-10	--	220	480	34	.4	.6	--	21	--
	77-11-22	--	220	440	30	.4	.3	--	21	--
	78-01-05	--	190	250	30	.6	.5	--	20	--
	78-04-21	--	190	220	26	.6	.2	--	17	--
11N 7W 4DDD 3	77-11-10	--	180	220	24	.7	.2	--	22	--
	78-01-05	--	190	230	29	.7	.6	--	20	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
HAMILTON COUNTY										
9N 7W 6DAD 2	78-03-14	442	.60	--	--	--	4.3	--	--	--
	78-09-01	--	--	--	--	--	1.7	--	--	--
10N 6W 4CB 1	78-03-14	268	.36	--	--	--	1.8	--	--	--
	78-09-01	--	--	--	--	--	2.7	--	--	--
11N 7W 3BBB 1	77-12-16	443	.60	--	--	--	1.6	--	--	--
	78-02-21	648	.88	--	--	--	5.6	--	--	--
	78-02-21	482	.66	--	--	--	2.0	--	--	--
	78-04-21	1600	2.18	--	--	--	20	--	--	--
	78-04-21	1130	1.54	--	--	--	13	--	--	--
11N 7W 3CC 1	78-04-18	560	.76	--	--	--	1.5	--	--	--
11N 7W 3CC 10	78-01-05	562	.76	--	--	--	1.5	--	--	--
	78-04-20	558	.76	--	--	--	1.5	--	--	--
11N 7W 3CC 11	77-10-17	586	.80	--	--	--	1.8	--	--	--
	77-11-28	582	.79	--	--	--	1.2	--	--	--
	78-01-05	546	.74	--	--	--	4.0	--	--	--
	78-04-20	560	.76	--	--	--	.99	--	--	--
11N 7W 3CC 12	77-11-04	561	.76	--	--	--	1.4	--	--	--
	78-01-05	583	.79	--	--	--	1.2	--	--	--
	78-04-20	554	.75	--	--	--	1.4	--	--	--
11N 7W 3CC 6	77-10-27	3700	5.03	--	--	--	7.9	--	--	--
11N 7W 3CC 6	77-11-04	1430	1.94	--	--	--	23	--	--	--
	77-11-14	1260	1.71	--	--	--	30	--	--	--
11N 7W 3CC 7	77-10-06	2480	3.37	--	--	--	--	--	--	--
	77-10-06	2480	3.37	--	--	--	3.5	--	--	--
	77-11-10	2840	3.86	--	--	--	6.3	--	--	--
	77-11-21	3140	4.27	--	--	--	18	--	--	--
11N 7W 3CC 8	77-10-24	2500	3.40	--	--	--	4.9	--	--	--
	77-11-10	2222	3.17	--	--	--	4.4	--	--	--
11N 7W 3CC 9	78-01-04	1830	2.49	--	--	--	2.2	--	--	--
11N 7W 3CCA 1	78-04-18	542	.74	--	--	--	16	--	--	--
	78-07-14	957	1.30	--	--	--	46	--	--	--
11N 7W 3CCB 1	77-11-10	586	.80	--	--	--	4.6	--	--	--
	77-11-10	771	1.05	--	--	--	31	--	--	--
	77-11-22	654	.89	--	--	--	11	--	--	--
	78-04-21	663	.90	--	--	--	1.8	--	--	--
11N 7W 3CCC 1	77-10-27	730	.99	--	--	--	28	--	--	--
	78-01-04	923	1.26	--	--	--	37	--	--	--
	78-04-18	557	.76	--	--	--	.05	--	--	--
11N 7W 3CCC 2	77-11-03	590	.80	--	--	--	.82	--	--	--
11N 7W 3CCC 3	77-11-22	571	.78	--	--	--	1.9	--	--	--
	78-01-04	572	.78	--	--	--	1.5	--	--	--
	78-04-20	557	.76	--	--	--	1.5	--	--	--
11N 7W 3CCD 1	78-01-05	713	.97	--	--	--	27	--	--	--
	78-04-25	991	1.35	--	--	--	45	--	--	--
11N 7W 4DD 1	78-01-04	2570	3.50	--	--	--	190	--	--	--
	78-02-14	2900	3.94	--	--	--	260	--	--	--
	78-04-07	1180	1.60	--	--	--	--	--	--	--
	78-04-20	742	1.01	--	--	--	17	--	--	--
	78-05-03	964	1.31	--	--	--	21	--	--	--
	78-05-09	1050	1.43	--	--	--	--	--	--	--
11N 7W 4DDD 1	77-11-10	566	.77	--	--	--	8.1	--	--	--
	78-01-05	545	.74	--	--	--	1.4	--	--	--
	78-04-20	607	.83	--	--	--	1.4	--	--	--
11N 7W 4DDD 2	77-10-17	2610	3.55	--	--	--	280	--	--	--
	77-11-10	2000	2.72	--	--	--	180	--	--	--
	77-11-22	1670	2.27	--	--	--	130	--	--	--
	78-01-05	697	.95	--	--	--	15	--	--	--
	78-04-21	645	.88	--	--	--	13	--	--	--
11N 7W 4DDD 3	77-11-10	568	.77	--	--	--	1.8	--	--	--
	78-01-05	589	.80	--	--	--	1.4	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
HAMILTON COUNTY										
9N 7W 6DAD 2	78-03-14	--	--	.42	--	--	--	--	40	--
	78-09-01	--	--	.21	--	--	--	--	30	--
10N 6W 4CB 1	78-03-14	--	--	.23	--	--	--	--	30	--
	78-09-01	--	--	.20	--	--	--	--	30	--
11N 7W 3BBB 1	77-12-16	--	--	.02	--	--	--	--	40	--
	78-02-21	--	--	.04	--	--	--	--	40	--
	78-02-21	--	--	.02	--	--	--	--	30	--
	78-04-21	--	--	.10	--	--	--	--	80	--
	78-04-21	--	--	.07	--	--	--	--	60	--
11N 7W 3CC 1	78-04-18	--	--	.05	--	--	--	--	100	--
11N 7W 3CC 10	78-01-05	--	--	.07	--	--	--	--	100	--
	78-04-20	--	--	.04	--	--	--	--	110	--
11N 7W 3CC 11	77-10-17	--	--	.10	--	--	--	--	100	--
	77-11-28	--	--	.11	--	--	--	--	100	--
	78-01-05	--	--	.01	--	--	--	--	120	--
	78-04-20	--	--	.06	--	--	--	--	110	--
11N 7W 3CC 12	77-11-04	--	--	.20	--	--	--	--	120	--
	78-01-05	--	--	.14	--	--	--	--	120	--
	78-04-20	--	--	.04	--	--	--	--	110	--
11N 7W 3CC 6	77-10-27	--	--	.33	--	--	--	--	210	--
11N 7W 3CC 6	77-11-04	--	--	.39	--	--	--	--	200	--
	77-11-14	--	--	.45	--	--	--	--	170	--
11N 7W 3CC 7	77-10-06	--	--	--	--	--	--	--	30	--
	77-10-06	--	--	.52	--	--	--	--	80	--
	77-11-10	--	--	.65	--	--	--	--	80	--
	77-11-21	--	--	.61	--	--	--	--	80	--
11N 7W 3CC 8	77-10-24	--	--	.16	--	--	--	--	90	--
	77-11-10	--	--	.04	--	--	--	--	90	--
11N 7W 3CC 9	78-01-04	--	--	.04	--	--	--	--	90	--
11N 7W 3CCA 1	78-04-18	--	--	.05	--	--	--	--	30	--
	78-07-14	--	--	.08	--	--	--	--	40	--
11N 7W 3CCB 1	77-11-10	--	--	.19	--	--	--	--	100	--
	77-11-10	--	--	.14	--	--	--	--	90	--
	77-11-22	--	--	.16	--	--	--	--	100	--
	78-04-21	--	--	.18	--	--	--	--	100	--
11N 7W 3CCC 1	77-10-27	--	--	.06	--	--	--	--	50	--
	78-01-04	--	--	.07	--	--	--	--	50	--
	78-04-18	--	--	.05	--	--	--	--	70	--
11N 7W 3CCC 2	77-11-03	--	--	.04	--	--	--	--	120	--
11N 7W 3CCC 3	77-11-22	--	--	.16	--	--	--	--	110	--
	78-01-04	--	--	.23	--	--	--	--	100	--
	78-04-20	--	--	.06	--	--	--	--	110	--
11N 7W 3CCD 1	78-01-05	--	--	.10	--	--	--	--	40	--
	78-04-25	--	--	.14	--	--	--	--	60	--
11N 7W 4DD 1	78-01-04	--	--	.07	--	--	--	--	80	--
	78-02-14	--	--	--	--	--	--	--	--	--
	78-04-07	--	--	.05	--	--	--	--	70	--
	78-04-20	--	--	.08	--	--	--	--	70	--
	78-05-03	--	--	.08	--	--	--	--	70	--
	78-05-09	--	--	.07	--	--	--	--	70	--
11N 7W 4DDD 1	77-11-10	--	--	.09	--	--	--	--	80	--
	78-01-05	--	--	.08	--	--	--	--	110	--
	78-04-20	--	--	.04	--	--	--	--	110	--
11N 7W 4DDD 2	77-10-17	--	--	.06	--	--	--	--	60	--
	77-11-10	--	--	.07	--	--	--	--	80	--
	77-11-22	--	--	.07	--	--	--	--	80	--
	78-01-05	--	--	.09	--	--	--	--	100	--
	78-04-21	--	--	.05	--	--	--	--	90	--
11N 7W 4DDD 3	77-11-10	--	--	.17	--	--	--	--	110	--
	78-01-05	--	--	.24	--	--	--	--	100	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
HAMILTON COUNTY										
9N 7W 6DAD 2	78-03-14	--	--	6	40	--	--	610	--	--
	78-09-01	--	--	--	30	--	--	860	--	--
10N 6W 4CB 1	78-03-14	--	--	3	10	--	--	10	--	--
	78-09-01	--	--	--	30	--	--	0	--	--
11N 7W 3BBB 1	77-12-16	--	--	--	10	--	--	0	--	--
	78-02-21	--	--	--	0	--	--	0	--	--
	78-02-21	--	--	--	0	--	--	0	--	--
	78-04-21	--	--	--	20	--	--	10	--	--
	78-04-21	--	--	--	10	--	--	10	--	--
11N 7W 3CC 1	78-04-18	--	--	--	30	--	--	0	--	--
11N 7W 3CC 10	78-01-05	--	--	--	10	--	--	0	--	--
	78-04-20	--	--	--	10	--	--	10	--	--
11N 7W 3CC 11	77-10-17	--	--	--	20	--	--	8	--	--
	77-11-28	--	--	--	20	--	--	4	--	--
	78-01-05	--	--	--	40	--	--	20	--	--
	78-04-20	--	--	--	0	--	--	20	--	--
11N 7W 3CC 12	77-11-04	--	--	--	10	--	--	20	--	--
	78-01-05	--	--	--	20	--	--	20	--	--
	78-04-20	--	--	--	30	--	--	0	--	--
11N 7W 3CC 6	77-10-27	--	--	--	10	--	--	20	--	--
11N 7W 3CC 6	77-11-04	--	--	--	10	--	--	4	--	--
	77-11-14	--	--	--	10	--	--	20	--	--
11N 7W 3CC 7	77-10-06	--	--	--	10	--	--	40	--	--
	77-10-06	--	--	--	10	--	--	40	--	--
	77-11-10	--	--	--	20	--	--	20	--	--
	77-11-21	--	--	--	0	--	--	20	--	--
11N 7W 3CC 8	77-10-24	--	--	--	0	--	--	20	--	--
	77-11-10	--	--	--	10	--	--	20	--	--
11N 7W 3CC 9	78-01-04	--	--	--	30	--	--	300	--	--
11N 7W 3CCA 1	78-04-18	--	--	--	40	--	--	10	--	--
	78-07-14	--	--	--	20	--	--	10	--	--
11N 7W 3CCB 1	77-11-10	--	--	--	10	--	--	20	--	--
	77-11-10	--	--	--	10	--	--	20	--	--
	77-11-22	--	--	--	10	--	--	20	--	--
	78-04-21	--	--	--	30	--	--	10	--	--
11N 7W 3CCC 1	77-10-27	--	--	--	0	--	--	20	--	--
	78-01-04	--	--	--	20	--	--	0	--	--
	78-04-18	--	--	--	100	--	--	0	--	--
11N 7W 3CCC 2	77-11-03	--	--	--	10	--	--	4	--	--
11N 7W 3CCC 3	77-11-22	--	--	--	10	--	--	8	--	--
	78-01-04	--	--	--	10	--	--	10	--	--
	78-04-20	--	--	--	30	--	--	10	--	--
11N 7W 3CCD 1	78-01-05	--	--	--	10	--	--	10	--	--
	78-04-25	--	--	--	20	--	--	10	--	--
11N 7W 4DD 1	78-01-04	--	--	--	30	--	--	40	--	--
	78-02-14	--	--	--	--	--	--	--	--	--
	78-04-07	--	--	--	370	--	--	40	--	--
	78-04-20	--	--	--	20	--	--	10	--	--
	78-05-03	--	--	--	20	--	--	20	--	--
	78-05-09	--	--	--	80	--	--	10	--	--
11N 7W 4DDD 1	77-11-10	--	--	--	10	--	--	8	--	--
	78-01-05	--	--	--	20	--	--	10	--	--
	78-04-20	--	--	--	10	--	--	0	--	--
11N 7W 4DDD 2	77-10-17	--	--	--	10	--	--	70	--	--
	77-11-10	--	--	--	30	--	--	60	--	--
	77-11-22	--	--	--	10	--	--	40	--	--
	78-01-05	--	--	--	10	--	--	10	--	--
	78-04-21	--	--	--	10	--	--	10	--	--
11N 7W 4DDD 3	77-11-10	--	--	--	0	--	--	4	--	--
	78-01-05	--	--	--	30	--	--	0	--	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

475

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
HAMILTON COUNTY							
9N 7W 6DAD 2	78-03-14	--	--	--	--	--	10
	78-09-01	--	--	--	--	--	--
10N 6W 4CB 1	78-03-14	--	--	--	--	--	40
	78-09-01	--	--	--	--	--	--
11N 7W 3BBB 1	77-12-16	--	--	--	--	--	--
	78-02-21	--	--	--	--	--	--
	78-02-21	--	--	--	--	--	--
	78-04-21	--	--	--	--	--	--
	78-04-21	--	--	--	--	--	--
11N 7W 3CC 1	78-04-18	--	--	--	--	--	--
11N 7W 3CC 10	78-01-05	--	--	--	--	--	--
	78-04-20	--	--	--	--	--	--
11N 7W 3CC 11	77-10-17	--	--	--	--	--	--
	77-11-28	--	--	--	--	--	--
	78-01-05	--	--	--	--	--	--
	78-04-20	--	--	--	--	--	--
11N 7W 3CC 12	77-11-04	--	--	--	--	--	--
	78-01-05	--	--	--	--	--	--
	78-04-20	--	--	--	--	--	--
11N 7W 3CC 6	77-10-27	--	--	--	--	--	--
11N 7W 3CC 6	77-11-04	--	--	--	--	--	--
	77-11-14	--	--	--	--	--	--
11N 7W 3CC 7	77-10-06	--	--	--	--	--	--
	77-10-06	--	--	--	--	--	--
	77-11-10	--	--	--	--	--	--
	77-11-21	--	--	--	--	--	--
11N 7W 3CC 8	77-10-24	--	--	--	--	--	--
	77-11-10	--	--	--	--	--	--
11N 7W 3CC 9	78-01-04	--	--	--	--	--	--
11N 7W 3CCA 1	78-04-18	--	--	--	--	--	--
	78-07-14	--	--	--	--	--	--
11N 7W 3CCB 1	77-11-10	--	--	--	--	--	--
	77-11-10	--	--	--	--	--	--
	77-11-22	--	--	--	--	--	--
	78-04-21	--	--	--	--	--	--
11N 7W 3CCC 1	77-10-27	--	--	--	--	--	--
	78-01-04	--	--	--	--	--	--
	78-04-18	--	--	--	--	--	--
11N 7W 3CCC 2	77-11-03	--	--	--	--	--	--
11N 7W 3CCC 3	77-11-22	--	--	--	--	--	--
	78-01-04	--	--	--	--	--	--
	78-04-20	--	--	--	--	--	--
11N 7W 3CCD 1	78-01-05	--	--	--	--	--	--
	78-04-25	--	--	--	--	--	--
11N 7W 4DD 1	78-01-04	--	--	--	--	--	--
	78-02-14	--	--	--	--	--	--
	78-04-07	--	--	--	--	--	--
	78-04-20	--	--	--	--	--	--
	78-05-03	--	--	--	--	--	--
	78-05-09	--	--	--	--	--	--
11N 7W 4DDD 1	77-11-10	--	--	--	--	--	--
	78-01-05	--	--	--	--	--	--
	78-04-20	--	--	--	--	--	--
11N 7W 4DDD 2	77-10-17	--	--	--	--	--	--
	77-11-10	--	--	--	--	--	--
	77-11-22	--	--	--	--	--	--
	78-01-05	--	--	--	--	--	--
	78-04-21	--	--	--	--	--	--
11N 7W 4DDD 3	77-11-10	--	--	--	--	--	--
	78-01-05	--	--	--	--	--	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- IFIER	LAT- ITUDE	LONG- ITUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG.C) (00010)
HAMILTON COUNTY										
11N 7W 4DDD 3	40 56 48	098 06 46	03	112SDGV	78-04-21	1110	109	860	--	--
11N 7W 6CC 1	40 56 43	098 09 58	01	112SDGV	77-11-08	1145	213	860	--	--
				112SDGV	78-02-21	1650	213	880	--	--
11N 7W 9ADD 1	40 56 15	098 06 45	01	112SDGV	78-01-04	1640	--	880	--	--
11N 7W108AA 1	40 56 40	098 06 12	01	112SDGV	78-07-14	1410	--	1430	--	--
HAYES COUNTY										
6N 31W 18BB 1	40 31 27	100 42 59	01	1210GLL	78-01-24	--	450	594	7.7	--
7N 33W35DDD 1	40 31 27	100 01 27	01	1210GLL	78-01-24	--	410	418	7.7	--
7N 34W 68BB 1	40 36 38	101 13 44	01	1210GLL	78-01-24	--	445	391	8.0	--
HITCHCOCK COUNTY										
1N 32W12BC 1	40 04 00	100 53 15	01	112SDGV	78-08-02	--	53	800	7.3	13.0
2N 34W24BD 1	40 07 47	101 13 31	01	112SDGV	78-08-02	--	44	1400	7.2	13.0
3N 32W26AC 1	40 11 56	100 53 55	01	112SDGV	78-08-03	--	45	990	7.5	13.0
4N 32W 68BC 1	40 20 51	100 59 23	01	1210GLL	77-11-03	--	320	438	7.5	15.0
4N 34W34DDD 1	40 15 48	101 08 05	01	1210GLL	77-11-03	--	275	411	7.6	15.0
HOLT COUNTY										
26N 12W26AAA 1	42 12 10	098 40 20	01	112SDGV	78-07-07	--	140	198	7.3	--
30N 10W32DAA 1	42 31 48	098 30 06	01	112SDGV	78-07-07	--	85	135	6.9	--
31N 14W27DDD 1	42 37 30	098 56 00	01	112SDGV	78-07-18	--	72	189	6.7	--
HOWARD COUNTY										
13N 11W11BA 1	41 07 11	098 33 07	01	1210GLL	78-05-24	--	144	575	7.3	--
				1210GLL	78-08-18	--	144	557	7.7	14.0
13N 12W20DC 1	41 04 43	098 42 55	01	1210GLL	78-05-24	--	268	477	7.5	--
				1210GLL	78-08-18	--	268	412	7.6	14.0
14N 11W 68AC 1	41 13 03	098 37 39	01	1210GLL	78-05-24	--	150	531	7.4	--
				1210GLL	78-08-18	--	150	478	7.6	13.5
14N 11W22DD 1	41 09 51	098 33 18	01	1210GLL	78-06-29	--	260	385	7.6	10.0
15N 9W 4DCD 1	41 17 33	098 21 00	01	1210GLL	78-09-08	--	--	558	7.3	18.0
15N 9W 9BDCB1	41 17 11	098 21 32	01	1210GLL	78-04-04	--	165	550	7.3	11.5
				1210GLL	78-08-16	--	165	551	7.4	14.5
15N 10W16DAAA1	41 16 16	098 27 33	01	1210GLL	78-04-04	--	110	549	7.2	11.5
				1210GLL	78-08-16	--	110	538	7.2	14.5
15N 11W10CBA 1	41 17 05	098 34 17	01	1210GLL	78-04-05	--	150	625	7.3	--
				1210GLL	78-05-24	--	150	598	7.4	--
				1210GLL	78-08-16	--	150	590	7.3	16.0
				1210GLL	78-08-17	--	150	589	7.4	13.5
16N 9W27D8D 1	41 19 33	098 19 54	01	1210GLL	78-09-08	--	250	462	7.3	14.0
16N 11W 6CDDD1	41 22 49	098 37 13	01	110SDGV	78-04-05	--	80	688	7.2	11.5
				110SDGV	78-08-17	--	80	692	7.3	13.8
16N 11W30DADA1	41 19 35	098 36 48	01	1210GLL	78-04-06	--	120	671	7.2	11.0
				1210GLL	78-08-17	--	120	871	7.1	17.5
16N 11W34ACAD1	41 19 05	098 33 34	01	110SDGV	78-04-05	--	40	768	7.2	--
				110SDGV	78-08-16	--	40	681	7.3	14.8
KEARNEY COUNTY										
6N 15W34DC 1	40 26 25	098 59 45	01	112SDGV	78-06-27	--	210	1030	7.5	10.0

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

477

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
HAMILTON COUNTY										
11N 7W 4DDD 3	78-04-21	2	290	96	91	16	75	1.9	7.8	240
11N 7W 6CC 1	77-11-08	1	300	110	92	18	66	1.6	5.6	240
	78-02-21	1	310	110	93	18	75	1.9	5.5	240
11N 7W 9ADD 1	78-01-04	1	410	140	130	20	35	.8	10	320
11N 7W10BAA 1	78-07-14	1	730	480	230	37	48	.8	16	300
HAYES COUNTY										
6N 31W 18BB 1	78-01-24	1	220	48	60	17	18	.5	13	210
7N 33W35DDD 1	78-01-24	1	200	9	51	17	11	.3	14	230
7N 34W 68BB 1	78-01-24	1	130	0	34	12	32	1.2	12	210
HITCHCOCK COUNTY										
1N 32W12BC 1	78-08-02	--	340	--	100	21	46	1.1	19	--
2N 34W24BD 1	78-08-02	--	520	--	130	47	130	2.5	23	--
3N 32W26AC 1	78-08-03	--	340	--	94	26	110	2.6	19	--
4N 32W 68BC 1	77-11-03	2	190	0	43	19	11	.4	12	230
4N 34W34DDD 1	77-11-03	1	160	0	40	15	16	.5	11	220
HOLT COUNTY										
26N 12W26AAA 1	78-07-07	1	76	0	25	3.1	6.0	.3	4.0	99
30N 10W32DAA 1	78-07-07	13	46	16	14	2.5	6.7	.4	2.3	36
31N 14W27DDD 1	78-07-18	15	96	50	29	5.7	8.1	.4	4.1	57
HOWARD COUNTY										
13N 11W11BA 1	78-05-24	--	290	0	87	18	17	.4	--	360
	78-08-18	--	280	24	85	16	15	.4	7.5	310
13N 12W20DC 1	78-05-24	--	240	10	78	11	10	.3	--	280
	78-08-18	--	220	43	73	10	11	.3	6.0	220
14N 11W 6BAC 1	78-05-24	--	280	1	89	14	9.1	.2	--	340
	78-08-18	--	270	31	88	12	8.6	.2	6.6	290
14N 11W22DD 1	78-06-29	5	160	0	38	15	16	.6	7.1	220
15N 9W 4DCD 1	78-09-08	--	280	--	93	11	11	.3	6.8	--
15N 9W 9BDCB1	78-04-04	1	250	0	80	13	11	.3	6.8	330
	78-08-16	1	280	11	93	12	11	.3	7.1	330
15N 10W16DAAA1	78-04-04	1	270	0	86	13	9.0	.2	5.6	340
	78-08-16	1	260	0	86	12	8.3	.2	5.8	330
15N 11W10CBA 1	78-04-05	1	310	16	100	15	13	.3	7.1	360
	78-05-24	--	310	10	96	16	14	.3	--	360
	78-08-16	1	310	28	98	15	13	.3	7.4	340
	78-08-17	--	290	17	92	14	12	.3	7.1	330
16N 9W27DBD 1	78-09-08	--	250	--	80	11	6.4	.2	6.1	--
16N 11W 6CDDD1	78-04-05	1	360	50	120	15	9.8	.2	6.3	380
	78-08-17	1	360	62	120	14	11	.3	6.6	360
16N 11W30DADA1	78-04-06	1	340	25	110	15	13	.3	6.8	380
	78-08-17	1	450	120	150	18	16	.3	7.4	400
16N 11W34ACAD1	78-04-05	2	350	0	110	18	24	.6	10	430
	78-08-16	1	340	0	110	16	22	.5	9.3	420
KEARNEY COUNTY										
6N 15W34DC 1	78-06-27	1	540	230	180	21	26	.5	20	370

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	IODIDE, DIS- SOLVED (MG/L AS I) (71865)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
HAMILTON COUNTY										
11N 7W 4DDD 3	78-04-21	--	200	200	26	.6	.3	--	18	--
11N 7W 6CC 1	77-11-08	--	200	220	24	.5	.2	--	20	--
	78-02-21	--	200	220	26	.5	.3	--	21	--
11N 7W 9ADD 1	78-01-04	--	260	170	17	.4	.1	--	26	--
11N 7W10BAA 1	78-07-14	--	250	430	14	.5	--	--	28	--
HAYES COUNTY										
6N 31W 18BB 1	78-01-24	0	170	17	25	.7	--	--	57	--
7N 33W35DDD 1	78-01-24	0	190	15	3.0	.9	--	--	60	--
7N 34W 6BBB 1	78-01-24	0	170	15	5.0	.8	--	--	60	--
HITCHCOCK COUNTY										
1N 32W12BC 1	78-08-02	--	330	81	15	.8	--	--	40	522
2N 34W24BD 1	78-08-02	--	390	300	46	1.3	--	--	43	1020
3N 32W26AC 1	78-08-03	--	320	160	38	1.3	--	--	40	690
4N 32W 6BBC 1	77-11-03	0	190	19	4.1	1.1	--	--	69	--
4N 34W34DDD 1	77-11-03	0	180	19	3.1	1.2	--	--	68	--
HOLT COUNTY										
26N 12W26AAA 1	78-07-07	0	81	3.0	.7	.3	--	--	56	152
30N 10W32DAA 1	78-07-07	0	30	7.2	2.3	.1	--	--	24	96
31N 14W27DDD 1	78-07-18	0	47	12	8.2	.2	--	--	35	208
HOWARD COUNTY										
13N 11W11BA 1	78-05-24	--	295	19	16	--	--	--	--	--
	78-08-18	0	254	24	15	--	--	--	--	--
13N 12W20DC 1	78-05-24	--	230	21	5.8	--	--	--	--	--
	78-08-18	0	180	20	4.6	--	--	--	--	--
14N 11W 6BAC 1	78-05-24	--	279	15	2.3	--	--	--	--	--
	78-08-18	0	238	18	1.8	--	--	--	--	--
14N 11W22DD 1	78-06-29	0	180	2.6	5.8	.2	--	--	14	197
15N 9W 4DCD 1	78-09-08	--	250	14	4.5	.2	--	--	57	292
15N 9W 98DCB1	78-04-04	0	270	9.3	4.3	.1	--	--	37	--
	78-08-16	0	270	11	5.4	.2	--	--	54	--
15N 10W16DAAA1	78-04-04	0	280	11	5.1	.2	--	--	59	--
	78-08-16	0	270	12	5.4	.2	--	--	60	--
15N 11W10CBA 1	78-04-05	0	300	31	5.1	.2	--	--	58	--
	78-05-24	--	295	32	5.4	.2	--	--	--	--
	78-08-16	0	280	28	6.1	.2	--	--	56	--
	78-08-17	0	271	26	5.8	--	--	--	--	--
16N 9W27DBD 1	78-09-08	--	230	9.6	7.6	.2	--	--	55	304
16N 11W 6CDDD1	78-04-05	0	310	34	4.6	.2	--	--	58	--
	78-08-17	0	300	43	4.9	.2	--	--	58	--
16N 11W30DADA1	78-04-06	0	310	18	6.8	.2	--	--	57	--
	78-08-17	0	330	36	21	.2	--	--	56	--
16N 11W34ACAD1	78-04-05	0	350	59	9.7	.2	--	--	54	--
	78-08-16	0	340	31	3.2	.2	--	--	52	--
KEARNEY COUNTY										
6N 15W34DC 1	78-06-27	0	300	200	20	.3	--	--	27	755

LOCAL IDENT- IFIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
HAMILTON COUNTY										
11N 7W 40DD 3	78-04-21	561	.76	--	--	--	1.7	--	--	--
11N 7W 6CC 1	77-11-08	572	.78	--	--	--	1.6	--	--	--
	78-02-21	585	.80	--	--	--	1.6	--	--	--
11N 7W 9ADD 1	78-01-04	628	.85	--	--	--	14	--	--	--
11N 7W10BAA 1	78-07-14	1100	1.50	--	--	--	33	--	--	--
HAYES COUNTY										
6N 31W 18BB 1	78-01-24	360	.49	--	--	--	11	--	--	--
7N 33W35DD 1	78-01-24	308	.42	--	--	--	5.0	--	--	--
7N 34W 6BB 1	78-01-24	282	.38	--	--	--	1.8	--	--	--
HITCHCOCK COUNTY										
1N 32W12BC 1	78-08-02	--	.71	--	--	--	1.5	--	--	--
2N 34W24BD 1	78-08-02	--	1.39	--	--	--	22	--	--	--
3N 32W26AC 1	78-08-03	--	.94	--	--	--	14	--	--	--
4N 32W 6BBC 1	77-11-03	305	.41	--	--	--	3.1	--	--	--
4N 34W34DD 1	77-11-03	291	.40	--	--	--	2.0	--	--	--
HOLT COUNTY										
26N 12W26AAA 1	78-07-07	151	.21	.86	.01	.86	.86	.00	.14	.14
30N 10W32DAA 1	78-07-07	98	.13	4.4	.01	4.5	4.4	.28	.54	.82
31N 14W27DD 1	78-07-18	187	.28	12	.01	--	12	.09	1.8	1.9
HOWARD COUNTY										
13N 11W11BA 1	78-05-24	--	--	--	--	--	.32	--	--	--
	78-08-18	--	--	--	--	--	.32	--	--	--
13N 12W20DC 1	78-05-24	--	--	--	--	--	2.5	--	--	--
	78-08-18	--	--	--	--	--	1.1	--	--	--
14N 11W 6BAC 1	78-05-24	--	--	--	--	--	.38	--	--	--
	78-08-18	--	--	--	--	--	.37	--	--	--
14N 11W22DD 1	78-06-29	211	.27	.05	.01	.07	.06	.10	.00	.10
15N 9W 4DCD 1	78-09-08	--	.40	--	--	--	1.8	--	--	--
15N 9W 9BDCB 1	78-04-04	337	.46	--	--	--	2.8	--	--	--
	78-08-16	379	.52	--	--	--	4.8	--	--	--
15N 10W16DAAA 1	78-04-04	365	.50	--	--	--	1.9	--	--	--
	78-08-16	361	.49	--	--	--	1.9	--	--	--
15N 11W10CBA 1	78-04-05	417	.57	--	--	--	2.3	--	--	--
	78-05-24	--	--	--	--	--	2.0	--	--	--
	78-08-16	404	.55	--	--	--	2.7	--	--	--
	78-08-17	--	--	--	--	--	2.2	--	--	--
16N 9W27DBD 1	78-09-08	--	.41	--	--	--	1.1	--	--	--
16N 11W 6CDD 1	78-04-05	462	.63	--	--	--	6.0	--	--	--
	78-08-17	467	.64	--	--	--	7.1	--	--	--
16N 11W30DADA 1	78-04-06	450	.61	--	--	--	8.0	--	--	--
	78-08-17	608	.83	--	--	--	24	--	--	--
16N 11W34ACAD 1	78-04-05	502	.68	--	--	--	.95	--	--	--
	78-08-16	460	.63	--	--	--	2.0	--	--	--
KEARNEY COUNTY										
6N 15W34DC 1	78-06-27	731	1.03	12	.01	11	11	.07	.42	.49

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- IFIER	DATE OF SAMPLE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
HAMILTON COUNTY										
11N 7W 40DD 3	78-04-21	--	--	.14	--	--	--	--	100	--
11N 7W 6CC 1	77-11-08	--	--	.06	--	--	--	--	110	--
	78-02-21	--	--	.08	--	--	--	--	100	--
11N 7W 9ADD 1	78-01-04	--	--	.16	--	--	--	--	50	--
11N 7W10BAA 1	78-07-14	--	--	.22	--	--	--	--	60	--
HAYES COUNTY										
6N 31W 18BB 1	78-01-24	--	--	.13	--	--	--	--	80	--
7N 33W35DD 1	78-01-24	--	--	.14	--	--	--	--	70	--
7N 34W 6BBB 1	78-01-24	--	--	.15	--	--	--	--	90	--
HITCHCOCK COUNTY										
1N 32W12BC 1	78-08-02	--	--	--	--	14	--	--	120	1
2N 34W24BD 1	78-08-02	--	--	--	--	11	--	--	260	0
3N 32W26AC 1	78-08-03	--	--	--	--	12	--	--	330	0
4N 32W 6BBC 1	77-11-03	--	--	.01	--	--	--	--	80	--
4N 34W34DD 1	77-11-03	--	--	.02	--	--	--	--	90	--
HOLT COUNTY										
26N 12W26AAA 1	78-07-07	1.0	.06	.06	0	5	300	0	20	1
30N 10W32DAA 1	78-07-07	5.3	.10	.03	60	0	300	10	20	2
31N 14W27DD 1	78-07-18	--	1.5	.00	50	1	300	0	20	0
HOWARD COUNTY										
13N 11W11BA 1	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-18	--	--	--	--	--	--	--	--	--
13N 12W20DC 1	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-18	--	--	--	--	--	--	--	--	--
14N 11W 6BAC 1	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-18	--	--	--	--	--	--	--	--	--
14N 11W22DD 1	78-06-29	.17	.00	.00	0	1	300	0	60	1
15N 9W 4DCD 1	78-09-08	--	--	--	--	5	--	--	60	0
15N 9W 9BDCB1	78-04-04	--	--	.05	--	--	--	--	30	--
	78-08-16	--	--	.05	--	--	--	--	50	--
15N 10W16DAAA1	78-04-04	--	--	.02	--	--	--	--	30	--
	78-08-16	--	--	.03	--	--	--	--	50	--
15N 11W10CBA 1	78-04-05	--	--	.08	--	--	--	--	30	--
	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-16	--	--	.06	--	--	--	--	50	--
	78-08-17	--	--	--	--	--	--	--	--	--
16N 9W27DBD 1	78-09-08	--	--	--	--	10	--	--	40	0
16N 11W 6CDDD1	78-04-05	--	--	.04	--	--	--	--	30	--
	78-08-17	--	--	.03	--	--	--	--	60	--
16N 11W30DADA1	78-04-06	--	--	.09	--	--	--	--	20	--
	78-08-17	--	--	.05	--	--	--	--	50	--
16N 11W34ACAD1	78-04-05	--	--	.12	--	--	--	--	60	--
	78-08-16	--	--	.10	--	--	--	--	80	--
KEARNEY COUNTY										
6N 15W34DC 1	78-06-27	11	.17	.13	40	3	300	0	40	2

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

481

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CHRD- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
HAMILTON COUNTY										
11N 7W 4DDD 3	78-04-21	--	--	--	10	--	--	0	--	--
11N 7W 6CC 1	77-11-08	--	--	--	0	--	--	20	--	--
	78-02-21	--	--	--	0	--	--	20	--	--
11N 7W 9ADD 1	78-01-04	--	--	--	20	--	--	10	--	--
11N 7W10BAA 1	78-07-14	--	--	--	20	--	--	0	--	--
HAYES COUNTY										
6N 31W 18BB 1	78-01-24	--	--	--	--	--	--	--	--	--
7N 33W35DDD 1	78-01-24	--	--	--	--	--	--	--	--	--
7N 34W 6BBB 1	78-01-24	--	--	--	--	--	--	--	--	--
HITCHCOCK COUNTY										
1N 32W12BC 1	78-08-02	0	--	1	0	0	--	370	.0	--
2N 34W24BD 1	78-08-02	10	--	2	10	0	--	780	.0	--
3N 32W26AC 1	78-08-03	0	--	1	40	0	--	220	.0	--
4N 32W 68BC 1	77-11-03	--	--	--	--	--	--	--	--	--
4N 34W34DDD 1	77-11-03	--	--	--	--	--	--	--	--	--
HOLT COUNTY										
26N 12W26AAA 1	78-07-07	0	1	0	30	7	10	0	.0	1
30N 10W32DAA 1	78-07-07	10	1	6	560	6	0	120	.1	0
31N 14W27DDD 1	78-07-18	0	0	1	670	0	10	460	.0	1
HOWARD COUNTY										
13N 11W11BA 1	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-18	--	--	--	--	--	--	--	--	--
13N 12W20DC 1	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-18	--	--	--	--	--	--	--	--	--
14N 11W 6BAC 1	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-18	--	--	--	--	--	--	--	--	--
14N 11W22DD 1	78-06-29	0	0	0	3100	23	30	30	.0	5
15N 9W 4DCD 1	78-09-08	0	--	2	30	0	--	10	.0	--
15N 9W 9BDCB1	78-04-04	--	--	2	0	--	--	0	--	--
	78-08-16	--	--	3	920	--	--	20	--	--
15N 10W16DAAA1	78-04-04	--	--	11	20	--	--	0	--	--
	78-08-16	--	--	15	10	--	--	<1	--	--
15N 11W10CBA 1	78-04-05	--	--	12	10	--	--	0	--	--
	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-16	--	--	22	50	--	--	0	--	--
	78-08-17	--	--	--	--	--	--	--	--	--
16N 9W27DBD 1	78-09-08	0	--	7	50	0	--	10	.0	--
16N 11W 6CDDD1	78-04-05	--	--	2	10	--	--	0	--	--
	78-08-17	--	--	4	80	--	--	0	--	--
16N 11W30DADA1	78-04-06	--	--	11	10	--	--	0	--	--
	78-08-17	--	--	75	40	--	--	0	--	--
16N 11W34ACAD1	78-04-05	--	--	8	20	--	--	0	--	--
	78-08-16	--	--	13	80	--	--	0	--	--
KEARNEY COUNTY										
6N 15W34DC 1	78-06-27	10	0	1	60	32	50	30	.1	6

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
HAMILTON COUNTY							
11N 7W 40DD 3	78-04-21	--	--	--	--	--	--
11N 7W 6CC 1	77-11-08	--	--	--	--	--	--
	78-02-21	--	--	--	--	--	--
11N 7W 9ADD 1	78-01-04	--	--	--	--	--	--
11N 7W10BAA 1	78-07-14	--	--	--	--	--	--
HAYES COUNTY							
6N 31W 18BB 1	78-01-24	--	--	--	--	--	--
7N 33W35DDD 1	78-01-24	--	--	--	--	--	--
7N 34W 6BBB 1	78-01-24	--	--	--	--	--	--
HITCHCOCK COUNTY							
1N 32W12BC 1	78-08-02	--	7	--	--	--	10
2N 34W24BD 1	78-08-02	--	26	--	--	--	10
3N 32W26AC 1	78-08-03	--	17	--	--	--	10
4N 32W 6BBC 1	77-11-03	--	--	--	--	--	--
4N 34W34DDD 1	77-11-03	--	--	--	--	--	--
HOLT COUNTY							
26N 12W26AAA 1	78-07-07	3	0	0	140	9.5	0
30N 10W32DAA 1	78-07-07	2	0	0	80	.0	10
31N 14W27DDD 1	78-07-18	5	0	0	200	.0	1600
HOWARD COUNTY							
13N 11W11BA 1	78-05-24	--	--	--	--	--	--
	78-08-18	--	--	--	--	--	--
13N 12W20DC 1	78-05-24	--	--	--	--	--	--
	78-08-18	--	--	--	--	--	--
14N 11W 6BAC 1	78-05-24	--	--	--	--	--	--
	78-08-18	--	--	--	--	--	--
14N 11W22DD 1	78-06-29	2	0	0	430	2.7	10
15N 9W 40CD 1	78-09-08	--	2	--	--	--	20
15N 9W 98DCB1	78-04-04	--	--	--	--	--	30
	78-08-16	--	--	--	--	--	70
15N 10W16DAAA1	78-04-04	--	--	--	--	--	150
	78-08-16	--	--	--	--	--	100
15N 11W10CBA 1	78-04-05	--	--	--	--	--	70
	78-05-24	--	--	--	--	--	--
	78-08-16	--	--	--	--	--	110
	78-08-17	--	--	--	--	--	--
16N 9W27DBD 1	78-09-08	--	2	--	--	--	130
16N 11W 6CDDD1	78-04-05	--	--	--	--	--	20
	78-08-17	--	--	--	--	--	20
16N 11W30DADA1	78-04-06	--	--	--	--	--	60
	78-08-17	--	--	--	--	--	160
16N 11W34ACAD1	78-04-05	--	--	--	--	--	610
	78-08-16	--	--	--	--	--	250
KEARNEY COUNTY							
6N 15W34DC 1	78-06-27	3	0	0	750	4.3	20

LOCAL IDENT- IFIER	LAT- ITUDE	LONG- ITUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
KEITH COUNTY										
14N 37W11DA 1	41 11 59	101 31 24	01	1210GLL	78-08-17	--	100	1300	7.3	--
14N 41W10DD 1	41 11 46	102 00 10	01	1210GLL	78-08-17	--	420	390	7.3	14.0
16N 36W 1ABB 1	41 23 42	101 23 32	01	1210GLL	78-08-16	--	330	130	7.2	14.0
16N 39W10DD 1	41 22 12	101 46 20	01	1210GLL	78-08-17	--	248	175	7.4	14.0
KEYA PAHA COUNTY										
33N 20W19DCDD1	42 48 37	099 42 52	01	1210GLL	78-07-17	--	240	590	7.3	--
KNOX COUNTY										
31N 2W13BCB 1	42 40 01	097 30 16	01	112SDGV	78-08-09	--	120	1190	7.0	12.0
32N 2W15DC 1	42 44 43	097 31 51	01	211DKOT	78-08-09	--	746	1560	7.4	18.0
32N 2W18ACA 1	42 45 06	097 35 20	01	112SDGV	78-08-09	--	65	970	7.1	13.0
33N 2W27DAC 1	42 48 21	097 31 37	01	211DKOT	78-08-09	--	900	1420	7.3	18.0
LINCOLN COUNTY										
9N 26W36ADDA1	40 42 33	100 13 23	01	1210GLL	78-01-23	--	500	508	7.5	--
9N 28W 6DAD 1	40 46 34	100 32 50	01	1210GLL	78-03-16	--	500	365	7.8	--
9N 33W32DCD 1	40 41 57	101 06 00	01	1210GLL	78-01-27	--	430	413	7.6	--
10N 30W20DDD 1	40 48 54	100 45 14	01	1210GLL	78-01-27	--	450	362	7.6	--
10N 33W36ADD 1	40 47 42	100 01 08	01	1210GLL	78-03-16	--	450	390	7.6	--
11N 31W 58BB 1	40 57 32	100 53 12	01	1210GLL	78-03-20	--	430	308	7.6	--
11N 34W 1CCC 1	40 56 44	101 09 02	01	1210GLL	78-03-20	--	400	388	7.5	--
12N 29W31CCB 1	40 57 44	100 40 37	01	1210GLL	78-03-20	--	400	387	7.5	--
12N 32W 6BAB 1	41 02 50	101 00 42	01	1210GLL	77-11-03	--	339	430	7.2	13.0
14N 28W21CC 1	41 09 49	100 32 26	01	1210GLL	78-08-15	--	460	230	7.0	15.0
15N 28W 1DB 1	41 17 57	100 28 18	01	1210GLL	78-08-15	--	266	143	7.2	14.0
15N 33W25AO 1	41 14 54	101 02 33	01	1210GLL	78-08-16	--	295	180	7.8	14.0
16N 27W 2DD 1	41 22 51	100 22 30	01	1210GLL	78-08-15	--	392	235	7.3	14.0
16N 29W28CO 1	41 19 32	100 39 07	01	1210GLL	78-08-14	--	360	180	6.8	15.0
LOGAN COUNTY										
17N 26W21DA 1	41 26 05	100 18 43	01	1210GLL	78-08-24	--	306	310	7.3	14.0
20N 29W31BO 1	41 35 50	100 42 25	01	1210GLL	78-08-24	--	206	145	7.4	14.0
MCIPHERSON COUNTY										
17N 34W22DB 1	41 25 38	101 13 13	01	1210GLL	78-08-23	--	290	175	6.8	14.0
19N 31W 2B 2	41 38 50	100 51 44	02	1210GLL	78-09-23	1645	335	140	--	--
19N 31W 2B 3	41 38 50	100 51 44	03	110WDBS	78-08-23	--	7.0	347	--	--
19N 31W 2B 4	41 38 50	100 51 44	04	110WDBS	78-09-12	--	41	570	--	--
				110WDBS	78-09-27	--	41	525	--	--
19N 31W 2B 5	41 38 50	100 51 44	05	110WDBS	78-08-23	--	41	1000	--	--
				110WDBS	78-09-26	--	41	400	--	--
19N 31W 2B 6	41 38 50	100 51 44	06	110WDBS	78-09-12	--	67	1100	--	--
20N 30W 9DD 1	41 42 53	100 46 22	01	1210GLC	78-08-24	--	455	135	7.2	14.0
20N 34W33AB 1	41 40 01	101 14 11	01	1210GLL	78-08-23	--	360	160	7.3	14.0
20N 35W 8AC 1	41 43 28	101 22 28	01	1210GLL	78-08-23	--	299	280	7.2	14.5
MERRICK COUNTY										
12N 8W36BC 1	40 57 55	098 11 13	01	110SDGV	78-06-23	--	8.0	809	7.5	12.0
15N 8W20CDD 1	41 15 04	098 16 01	01	1210GLL	78-09-08	--	118	407	7.4	14.0
NANCE COUNTY										
15N 8W10BBAA1	41 17 32	098 13 40	01	1210GLL	78-04-04	--	140	545	7.2	12.0
16N 6W14ABAC1	41 21 52	097 58 10	01	1210GLL	78-04-04	--	70	713	7.4	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- IFIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
KEITH COUNTY										
14N 37W11DA 1	78-08-17	--	550	--	170	30	97	1.8	7.9	--
14N 41W10DD 1	78-08-17	--	160	--	47	9.3	17	.6	9.5	--
16N 36W 1AB8 1	78-08-16	--	61	--	19	3.3	7.2	.4	4.9	--
16N 39W10DD 1	78-08-17	--	66	--	22	2.6	6.3	.3	7.7	--
KEYA PAHA COUNTY										
33N 20W19DCDD1	78-07-17	1	260	120	91	7.2	8.4	.2	9.7	170
KNOX COUNTY										
31N 2W13BCB 1	78-08-09	--	610	270	170	46	38	.7	10	419
32N 2W15DC 1	78-08-09	--	820	650	260	41	59	.9	17	211
32N 2W18ACA 1	78-08-09	--	520	160	89	72	38	.7	9.8	437
33N 2W27DAC 1	78-08-09	--	780	600	240	44	60	.9	21	220
LINCOLN COUNTY										
9N 26W36ADDA1	78-01-23	2	250	3	70	18	8.9	.2	12	300
9N 28W 6DAD 1	78-03-16	1	170	2	50	10	9.2	.3	11	200
9N 33W32DCD 1	78-01-27	1	190	0	51	15	9.6	.3	13	240
10N 30W20DDD 1	78-01-27	1	130	0	39	6.8	7.9	.3	8.2	210
10N 33W36ADD 1	78-03-16	2	170	0	51	11	14	.5	11	210
11N 31W 58RB 1	78-03-20	3	120	0	39	5.7	9.3	.4	8.7	170
11N 34W 1CCC 1	78-03-20	1	170	0	54	8.8	8.2	.3	12	210
12N 29W31CCB 1	78-03-20	7	170	6	50	11	9.9	.3	11	200
12N 32W 68AB 1	77-11-03	2	160	0	49	9.3	10	.3	9.4	210
14N 28W21CC 1	78-08-15	--	110	--	36	4.5	8.2	.3	6.6	--
15N 28W 1DB 1	78-08-15	--	50	--	16	2.5	6.4	.4	4.4	--
15N 33W25AO 1	78-08-16	--	71	--	24	2.8	5.7	.3	4.8	--
16N 27W 2DO 1	78-08-15	--	100	--	35	4.0	8.3	.4	6.0	--
16N 29W28CO 1	78-08-14	--	66	--	22	2.6	6.1	.3	5.4	--
LOGAN COUNTY										
17N 26W21DA 1	78-08-24	--	130	--	43	5.5	9.4	.4	6.5	--
20N 29W31BO 1	78-08-24	--	58	--	19	2.6	4.0	.2	4.6	--
MCPHERSON COUNTY										
17N 34W22DB 1	78-08-23	--	66	--	20	3.9	3.6	.2	5.0	--
19N 31W 2B 2	78-09-23	2	56	0	18	2.6	6.3	.4	3.1	76
19N 31W 2B 3	78-08-23	--	89	2	29	4.1	32	1.5	4.4	--
19N 31W 2B 4	78-09-12	--	--	--	--	--	--	--	--	--
	78-09-27	--	150	120	46	8.4	32	1.1	8.4	--
19N 31W 2B 5	78-08-23	--	--	--	--	--	--	--	--	--
	78-09-26	--	160	67	53	6.2	23	.8	6.3	--
19N 31W 2B 6	78-09-12	--	390	300	120	21	30	.7	15	--
20N 30W 9DO 1	78-08-24	--	48	--	15	2.5	6.3	.4	4.4	--
20N 34W33AB 1	78-08-23	--	61	--	18	3.8	6.8	.4	2.8	--
20N 35W 8AC 1	78-08-23	--	120	--	38	6.4	8.2	.3	6.3	--
MERRICK COUNTY										
12N 8W36BC 1	78-06-23	5	330	100	96	22	30	.7	11	280
15N 8W20CDD 1	78-09-08	--	190	--	58	10	13	.4	7.7	--
NANCE COUNTY										
15N 8W108BAA1	78-04-04	2	290	7	98	12	8.4	.2	5.9	350
16N 6W14ABAC1	78-04-04	1	350	54	110	18	11	.3	6.8	360

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLB- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	IODIDE, DIS- SOLVED (MG/L AS I) (71865)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
KEITH COUNTY										
14N 37W11DA 1	78-08-17	--	310	400	14	.2	--	--	28	892
14N 41W10DD 1	78-08-17	--	170	18	4.1	.6	--	--	50	259
16N 36W 1ABB 1	78-08-16	--	74	4.8	.8	.4	--	--	48	126
16N 39W10DD 1	78-08-17	--	75	4.6	.9	.3	--	--	43	129
KEYA PAHA COUNTY										
33N 20W19DCDD1	78-07-17	0	140	17	23	.1	--	--	54	463
KNOX COUNTY										
31N 2W13BCB 1	78-08-09	--	344	330	7.3	--	--	--	--	880
32N 2W15DC 1	78-08-09	--	173	690	54	--	--	--	--	1230
32N 2W18ACA 1	78-08-09	--	358	120	34	--	--	--	--	645
33N 2W27DAC 1	78-08-09	--	180	630	61	--	--	--	--	1140
LINCOLN COUNTY										
9N 26W36ADDA1	78-01-23	0	250	16	2.3	.5	--	--	39	--
9N 28W 6DAD 1	78-03-16	0	160	11	1.8	.5	--	--	64	--
9N 33W320CD 1	78-01-27	0	200	12	3.9	.7	--	--	60	--
10N 30W20DDD 1	78-01-27	0	170	7.4	1.9	.5	--	--	60	--
10N 33W36ADD 1	78-03-16	0	170	17	3.2	.5	--	--	60	--
11N 31W 58BB 1	78-03-20	0	140	4.1	1.3	.6	--	--	53	--
11N 34W 1CCC 1	78-03-20	0	170	8.4	3.0	.4	--	--	54	--
12N 29W31CCB 1	78-03-20	0	160	15	2.9	.6	--	--	59	--
12N 32W 6BAB 1	77-11-03	0	170	14	2.9	.4	--	--	56	--
14N 28W21CC 1	78-08-15	--	110	11	1.0	.3	--	--	54	184
15N 28W 1DB 1	78-08-15	--	63	2.9	.9	.3	--	--	45	121
15N 33W25AO 1	78-08-16	--	77	5.2	1.5	.4	--	--	50	141
16N 27W 2DD 1	78-08-15	--	100	5.3	7.7	.3	--	--	46	173
16N 29W28CO 1	78-08-14	--	70	3.7	.9	.3	--	--	48	129
LOGAN COUNTY										
17N 26W21DA 1	78-08-24	--	140	5.3	2.1	.3	--	--	49	212
20N 29W31BO 1	78-08-24	--	66	2.5	.7	.3	--	--	50	115
MCPHERSON COUNTY										
17N 34W22DB 1	78-08-23	--	67	5.4	1.0	.4	--	--	47	133
19N 31W 2B 2	78-09-23	--	62	3.0	1.0	.4	--	--	55	--
19N 31W 2B 3	78-08-23	--	87	38	9.9	.3	--	--	33	--
19N 31W 2B 4	78-09-12	--	32	28	40	.1	--	--	49	--
	78-09-27	--	26	27	24	.1	--	--	52	--
19N 31W 2B 5	78-08-23	--	--	110	56	--	--	--	--	--
	78-09-26	--	91	23	8.8	.1	--	--	56	--
19N 31W 2B 6	78-09-12	--	84	43	84	.1	--	--	42	--
20N 30W 9DD 1	78-08-24	--	59	2.0	.8	.3	--	--	55	114
20N 34W33AB 1	78-08-23	--	80	3.9	.8	.4	--	--	53	118
20N 35W 8AC 1	78-08-23	--	140	5.3	1.4	.3	--	--	57	196
MERRICK COUNTY										
12N 8W36BC 1	78-06-23	0	230	91	20	1.1	--	--	25	496
15N 8W20CDD 1	78-09-08	--	200	8.2	1.8	.5	--	--	56	272
NANCE COUNTY										
15N 8W10BBAA1	78-04-04	0	290	9.4	3.2	.2	--	--	53	--
16N 6W14ABAC1	78-04-04	0	300	84	5.2	.2	--	--	50	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L) AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L) AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)
KEITH COUNTY										
14N 37W11DA 1	78-08-17	--	1.21	--	--	--	1.2	--	--	--
14N 41W10DD 1	78-08-17	--	.35	--	--	--	2.4	--	--	--
16N 36W 1ABB 1	78-08-16	--	.17	--	--	--	.01	--	--	--
16N 39W10DD 1	78-08-17	--	.18	--	--	--	.65	--	--	--
KEYA PAHA COUNTY										
33N 20W19DCDD1	78-07-17	401	.63	24	.01	24	24	.00	1.1	1.1
KNOX COUNTY										
31N 2W13BCB 1	78-08-09	--	1.20	--	--	--	3.2	--	--	--
32N 2W15DC 1	78-08-09	--	1.67	--	--	--	.01	--	--	--
32N 2W18ACA 1	78-08-09	--	.88	--	--	--	23	--	--	--
33N 2W27DAC 1	78-08-09	--	1.55	--	--	--	.36	--	--	--
LINCOLN COUNTY										
9N 26W36ADDA1	78-01-23	323	.44	--	--	--	1.9	--	--	--
9N 28W 6DAD 1	78-03-16	269	.37	--	--	--	2.9	--	--	--
9N 33W32DCD 1	78-01-27	287	.39	--	--	--	.88	--	--	--
10N 30W20DDD 1	78-01-27	248	.34	--	--	--	2.9	--	--	--
10N 33W36ADD 1	78-03-16	282	.38	--	--	--	2.5	--	--	--
11N 31W 58BB 1	78-03-20	215	.29	--	--	--	2.2	--	--	--
11N 34W 1CCC 1	78-03-20	261	.36	--	--	--	1.9	--	--	--
12N 29W31CCB 1	78-03-20	272	.37	--	--	--	3.1	--	--	--
12N 32W 6BAB 1	77-11-03	267	.36	--	--	--	2.9	--	--	--
14N 28W21CC 1	78-08-15	--	.25	--	--	--	1.4	--	--	--
15N 28W 1DB 1	78-08-15	--	.16	--	--	--	1.3	--	--	--
15N 33W25AO 1	78-08-16	--	.19	--	--	--	1.2	--	--	--
16N 27W 2DD 1	78-08-15	--	.24	--	--	--	2.2	--	--	--
16N 29W28CO 1	78-08-14	--	.18	--	--	--	1.4	--	--	--
LOGAN COUNTY										
17N 26W21DA 1	78-08-24	--	.29	--	--	--	2.3	--	--	--
20N 29W31BO 1	78-08-24	--	.16	--	--	--	.36	--	--	--
MCPHERSON COUNTY										
17N 34W22DB 1	78-08-23	--	.18	--	--	--	.00	--	--	--
19N 31W 2B 2	78-09-23	130	.18	--	--	--	.62	--	--	--
19N 31W 2B 3	78-08-23	235	.32	--	--	--	7.2	--	--	--
19N 31W 2B 4	78-09-12	--	--	--	--	--	36	--	--	--
	78-09-27	386	.53	--	--	--	39	--	--	--
19N 31W 2B 5	78-08-23	--	--	--	--	--	31	--	--	--
	78-09-26	338	.46	--	--	--	24	--	--	--
19N 31W 2B 6	78-09-12	689	.94	--	--	--	64	--	--	--
20N 30W 9DD 1	78-08-24	--	.16	--	--	--	.77	--	--	--
20N 34W33AB 1	78-08-23	--	.16	--	--	--	.00	--	--	--
20N 35W 8AC 1	78-08-23	--	.27	--	--	--	.12	--	--	--
MERRICK COUNTY										
12N 8W36BC 1	78-06-23	502	.67	15	.01	14	14	.03	1.6	1.6
15N 8W20CDD 1	78-09-08	--	.37	--	--	--	.51	--	--	--
NANCE COUNTY										
15N 8W10BBAA1	78-04-04	367	.50	--	--	--	.92	--	--	--
16N 6W14ABAC1	78-04-04	473	.64	--	--	--	2.2	--	--	--

LOCAL IDENT- IFIER	DATE OF SAMPLE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
KEITH COUNTY										
14N 37W11DA 1	78-08-17	--	--	--	--	2	--	--	110	0
14N 41W10DD 1	78-08-17	--	--	--	--	5	--	--	70	0
16N 36W 1AB8 1	78-08-16	--	--	--	--	9	--	--	30	8
16N 39W10DD 1	78-08-17	--	--	--	--	12	--	--	20	0
KEYA PAHA COUNTY										
33N 20W19DCDD1	78-07-17	25	.24	.05	50	2	400	0	30	0
KNOX COUNTY										
31N 2W138CB 1	78-08-09	--	--	--	--	--	--	--	90	--
32N 2W15DC 1	78-08-09	--	--	--	--	--	--	--	140	--
32N 2W18ACA 1	78-08-09	--	--	--	--	--	--	--	110	--
33N 2W27DAC 1	78-08-09	--	--	--	--	--	--	--	360	--
LINCOLN COUNTY										
9N 26W36ADDA1	78-01-23	--	--	.13	--	--	--	--	60	--
9N 28W 6DAD 1	78-03-16	--	--	.13	--	--	--	--	60	--
9N 33W32DCD 1	78-01-27	--	--	.13	--	--	--	--	60	--
10N 30W20DDD 1	78-01-27	--	--	.14	--	--	--	--	40	--
10N 33W36ADD 1	78-03-16	--	--	.13	--	--	--	--	60	--
11N 31W 58BB 1	78-03-20	--	--	.13	--	--	--	--	40	--
11N 34W 1CCC 1	78-03-20	--	--	.13	--	--	--	--	50	--
12N 29W31CCB 1	78-03-20	--	--	.13	--	--	--	--	90	--
12N 32W 6BAB 1	77-11-03	--	--	.01	--	--	--	--	50	--
14N 28W21CC 1	78-08-15	--	--	--	--	5	--	--	30	0
15N 28W 1DB 1	78-08-15	--	--	--	--	8	--	--	20	0
15N 33W25AO 1	78-08-16	--	--	--	--	6	--	--	20	0
16N 27W 2DD 1	78-08-15	--	--	--	--	5	--	--	30	0
16N 29W28CO 1	78-08-14	--	--	--	--	9	--	--	20	0
LOGAN COUNTY										
17N 26W21DA 1	78-08-24	--	--	--	--	5	--	--	30	<1
20N 29W31BO 1	78-08-24	--	--	--	--	10	--	--	20	0
MCPHERSON COUNTY										
17N 34W22DB 1	78-08-23	--	--	--	--	13	--	--	30	0
19N 31W 2B 2	78-09-23	--	--	.10	--	--	--	--	30	--
19N 31W 2B 3	78-08-23	--	--	--	--	--	--	--	40	--
19N 31W 2B 4	78-09-12	--	--	--	--	--	--	--	--	--
	78-09-27	--	--	--	--	--	--	--	6	--
19N 31W 2B 5	78-08-23	--	--	--	--	--	--	--	--	--
	78-09-26	--	--	--	--	--	--	--	60	--
19N 31W 2B 6	78-09-12	--	--	--	--	--	--	--	40	--
20N 30W 9DD 1	78-08-24	--	--	--	--	8	--	--	20	<1
20N 34W33AB 1	78-08-23	--	--	--	--	3	--	--	20	1
20N 35W 8AC 1	78-08-23	--	--	--	--	3	--	--	40	1
MERRICK COUNTY										
12N 8W36BC 1	78-06-23	16	.02	.01	30	1	200	0	70	2
15N 8W20CDD 1	78-09-08	--	--	--	--	12	--	--	50	0
NANCE COUNTY										
15N 8W10BBAA1	78-04-04	--	--	.04	--	--	--	--	20	--
16N 6W14ABAC1	78-04-04	--	--	.18	--	--	--	--	20	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
KEITH COUNTY										
14N 37W11DA 1	78-08-17	0	--	4	20	0	--	100	.0	--
14N 41W10DO 1	78-08-17	0	--	50	30	8	--	10	.0	--
16N 36W 1ABB 1	78-08-16	0	--	1	30	--	--	140	.0	--
16N 39W10DD 1	78-08-17	0	--	1	20	0	--	0	.1	--
KEYA PAHA COUNTY										
33N 20W19DCDD1	78-07-17	0	0	1	20	0	8	0	.1	0
KNOX COUNTY										
31N 2W13BCB 1	78-08-09	--	--	--	--	--	--	--	--	--
32N 2W15DC 1	78-08-09	--	--	--	--	--	--	--	--	--
32N 2W18ACA 1	78-08-09	--	--	--	--	--	--	--	--	--
33N 2W27DAC 1	78-08-09	--	--	--	--	--	--	--	--	--
LINCOLN COUNTY										
9N 26W36ADDA1	78-01-23	--	--	--	--	--	--	--	--	--
9N 28W 6DAD 1	78-03-16	--	--	--	--	--	--	--	--	--
9N 33W32DCD 1	78-01-27	--	--	--	--	--	--	--	--	--
10N 30W20DDO 1	78-01-27	--	--	--	--	--	--	--	--	--
10N 33W36ADD 1	78-03-16	--	--	--	--	--	--	--	--	--
11N 31W 58BB 1	78-03-20	--	--	--	--	--	--	--	--	--
11N 34W 1CCC 1	78-03-20	--	--	--	--	--	--	--	--	--
12N 29W31CCB 1	78-03-20	--	--	--	--	--	--	--	--	--
12N 32W 6BAB 1	77-11-03	--	--	--	--	--	--	--	--	--
14N 28W21CC 1	78-08-15	0	--	6	10	3	--	0	.2	--
15N 28W 1DB 1	78-08-15	0	--	0	10	0	--	0	.0	--
15N 33W25AO 1	78-08-16	10	--	0	0	0	--	10	.0	--
16N 27W 2DO 1	78-08-15	10	--	0	30	0	--	0	.4	--
16N 29W28CO 1	78-08-14	0	--	2	10	2	--	0	.0	--
LOGAN COUNTY										
17N 26W21DA 1	78-08-24	10	--	1	<10	5	--	<1	.0	--
20N 29W31BO 1	78-08-24	0	--	0	20	3	--	0	.0	--
MCIPHERSON COUNTY										
17N 34W22DB 1	78-08-23	0	--	0	170	3	--	180	.0	--
19N 31W 2B 2	78-09-23	--	--	--	<0	--	--	<1	--	--
19N 31W 2B 3	78-08-23	--	--	--	40	--	--	10	--	--
19N 31W 2B 4	78-09-12	--	--	--	--	--	--	--	--	--
	78-09-27	--	--	--	10	--	--	20	--	--
19N 31W 2B 5	78-08-23	--	--	--	--	--	--	--	--	--
	78-09-26	--	--	--	340	--	--	20	--	--
19N 31W 2B 6	78-09-12	--	--	--	60	--	--	20	--	--
20N 30W 9DO 1	78-08-24	0	--	1	<10	5	--	10	.0	--
20N 34W33AB 1	78-08-23	0	--	0	260	4	--	90	2.3	--
20N 35W 8AC 1	78-08-23	10	--	2	170	4	--	270	.0	--
MERRICK COUNTY										
12N 8W36BC 1	78-06-23	10	1	6	330	23	30	60	.0	3
15N 8W20CDD 1	78-09-08	0	--	2	50	0	--	330	.0	--
NANCE COUNTY										
15N 8W10BBAA1	78-04-04	--	--	5	250	--	--	10	--	--
16N 6W14ABAC1	78-04-04	--	--	9	60	--	--	0	--	--

LOCAL IDENT- IFIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
KEITH COUNTY							
14N 37W11DA 1	78-08-17	--	0	--	--	--	50
14N 41W10DD 1	78-08-17	--	1	--	--	--	3000
16N 36W 1A8B 1	78-08-16	--	0	--	--	--	10
16N 39W10DD 1	78-08-17	--	1	--	--	--	20
KEYA PAHA COUNTY							
33N 20W19DCDD1	78-07-17	0	0	0	290	.0	10
KNOX COUNTY							
31N 2W13BCB 1	78-08-09	--	--	--	--	--	--
32N 2W15DC 1	78-08-09	--	--	--	--	--	--
32N 2W18ACA 1	78-08-09	--	--	--	--	--	--
33N 2W27DAC 1	78-08-09	--	--	--	--	--	--
LINCOLN COUNTY							
9N 26W36ADDA1	78-01-23	--	--	--	--	--	--
9N 28W 6DAD 1	78-03-16	--	--	--	--	--	--
9N 33W32DCD 1	78-01-27	--	--	--	--	--	--
10N 30W20DDD 1	78-01-27	--	--	--	--	--	--
10N 33W36ADD 1	78-03-16	--	--	--	--	--	--
11N 31W 58BB 1	78-03-20	--	--	--	--	--	--
11N 34W 1CCC 1	78-03-20	--	--	--	--	--	--
12N 29W31CCB 1	78-03-20	--	--	--	--	--	--
12N 32W 68AB 1	77-11-03	--	--	--	--	--	--
14N 28W21CC 1	78-08-15	--	1	--	--	--	10
15N 28W 1DB 1	78-08-15	--	1	--	--	--	0
15N 33W25AO 1	78-08-16	--	0	--	--	--	20
16N 27W 2DO 1	78-08-15	--	2	--	--	--	10
16N 29W28CO 1	78-08-14	--	1	--	--	--	10
LOGAN COUNTY							
17N 26W21DA 1	78-08-24	--	0	--	--	--	<3
20N 29W3180 1	78-08-24	--	0	--	--	--	10
MCIPHERSON COUNTY							
17N 34W22DB 1	78-08-23	--	0	--	--	--	10
19N 31W 2B 2	78-09-23	--	--	--	--	--	--
19N 31W 2B 3	78-08-23	--	--	--	--	--	--
19N 31W 2B 4	78-09-12	--	--	--	--	--	--
	78-09-27	--	--	--	--	--	--
19N 31W 2B 5	78-08-23	--	--	--	--	--	--
	78-09-26	--	--	--	--	--	--
19N 31W 2B 6	78-09-12	--	--	--	--	--	--
20N 30W 9DO 1	78-08-24	--	0	--	--	--	50
20N 34W33AB 1	78-08-23	--	1	--	--	--	10
20N 35W 8AC 1	78-08-23	--	0	--	--	--	10
MERRICK COUNTY							
12N 8W36BC 1	78-06-23	6	0	0	610	.0	40
15N 8W20CDD 1	78-09-08	--	0	--	--	--	20
NANCE COUNTY							
15N 8W108BAA1	78-04-04	--	--	--	--	--	270
16N 6W14ABAC1	78-04-04	--	--	--	--	--	60

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
NANCE COUNTY										
16N 6W14ABAC1	41 21 52	097 58 10	01	1210GLL	78-08-16	--	70	661	7.1	18.2
16N 7W27DCD 1	41 19 23	098 06 10	01	1210GLL	78-08-16	--	80	589	7.2	15.5
16N 7W31DBBD1	41 18 50	098 09 47	01	1210GLL	78-04-04	--	210	530	7.2	--
				1210GLL	78-08-16	--	210	512	7.3	14.7
NUCKOLLS COUNTY										
2N 5W158BD81	40 08 43	097 52 26	01	112SDGV	78-07-26	--	180	590	7.5	16.0
PHELPS COUNTY										
7N 18W31AA 1	40 32 17	099 23 58	01	112SDGV	78-06-27	--	150	468	7.3	13.5
PIERCE COUNTY										
28N 3W33BA 1	42 21 50	097 40 24	01	112SDGV	78-07-17	--	121	1030	7.1	10.0
POLK COUNTY										
13N 4W21CCD 2	41 04 34	097 47 11	02	112SDGV	78-03-15	--	150	605	7.1	10.0
				112SDGV	78-09-01	--	150	630	7.2	12.7
14N 1W 9DAC 1	41 11 45	097 25 46	01	112SDGV	78-03-15	--	270	460	6.9	12.0
				112SDGV	78-09-01	--	270	470	7.0	12.5
RED WILLOW COUNTY										
1N 26W17BC 1	40 03 08	100 16 37	01	112SDGV	78-08-01	--	41	890	7.5	15.5
2N 26W29CD 1	40 06 12	100 16 47	01	1210GLL	78-08-01	--	260	1380	7.5	14.0
3N 26W31BD 1	40 11 08	100 17 34	01	1210GLL	78-08-01	--	200	420	7.7	14.0
3N 29W25AC 1	40 12 03	100 32 39	01	112SDGV	78-08-03	--	65	1380	7.6	13.5
ROCK COUNTY										
25N 18W26BD 1	42 07 05	099 23 00	01	1210GLL	78-08-31	--	174	113	7.2	12.0
26N 19W 9AD 1	42 14 40	099 31 55	01	1210GLL	78-08-30	--	310	169	7.3	13.0
26N 19W13DO 1	42 13 25	099 28 20	01	1210GLL	78-08-30	--	348	124	7.2	13.0
27N 20W12BD 1	42 19 55	099 36 00	01	1210GLL	78-08-30	--	218	131	7.2	13.0
29N 19W32BD 1	42 26 45	099 34 25	01	1210GLL	78-08-30	--	200	107	7.1	13.0
30N 19W33BD 1	42 32 00	099 33 15	01	1210GLL	78-08-28	--	403	129	7.1	13.0
30N 20W33DO 1	42 31 30	099 39 50	01	1210GLL	78-08-30	--	440	144	7.6	13.5
SALINE COUNTY										
8N 3E20BAD 1	40 39 02	097 06 49	01	112SDGV	78-03-13	--	190	525	7.2	13.0
				112SDGV	78-09-01	--	190	516	7.5	14.0
SEWARD COUNTY										
11N 1E29BC 1	40 53 30	097 20 48	01	112SDGV	78-03-15	--	254	595	7.1	12.0
				112SDGV	78-09-05	--	254	598	6.9	12.5
11N 2E26AD 6	40 53 43	097 09 39	06	112SDGV	78-03-15	--	117	610	7.0	12.0
				112SDGV	78-09-05	--	117	655	6.9	11.9
SHERMAN COUNTY										
15N 13W27AB 2	41 14 52	098 47 21	02	1210GLL	78-05-24	--	200	610	7.4	--
				1210GLL	78-08-16	--	200	618	7.4	14.5
15N 14W 7CA 1	41 17 06	098 58 10	01	1210GLL	78-05-24	--	150	498	7.4	--
				1210GLL	78-08-16	--	150	451	7.8	14.5
THAYER COUNTY										
2N 4W 48BCD1	40 10 22	097 40 06	01	112SDGV	78-07-19	--	160	285	7.0	13.0
2N 4W13BCAA1	40 08 34	097 43 21	01	112SDGV	78-07-26	--	145	308	6.7	16.0
VALLEY COUNTY										
17N 13W 4ABAA1	41 28 49	098 48 48	01	1210GLL	78-04-05	--	300	702	7.2	12.5

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

491

LOCAL IDENT- IFIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
NANCE COUNTY										
16N 6W14ABAC1	78-08-16	1	370	70	120	18	18	.4	8.2	370
16N 7W27DCD 1	78-08-16	1	310	5	97	16	11	.3	8.4	370
16N 7W31DBBD1	78-04-04	1	250	0	82	12	8.2	.2	4.8	330
	78-08-16	1	270	9	89	12	8.0	.2	4.8	320
NUCKOLLS COUNTY										
2N 5W15BBDB1	78-07-26	--	280	--	91	12	22	.6	3.9	--
PHELPS COUNTY										
7N 18W31AA 1	78-06-27	8	78	39	13	11	45	2.2	15	48
PIERCE COUNTY										
28N 3W33BA 1	78-07-17	1	470	210	140	28	51	1.0	8.0	310
POLK COUNTY										
13N 4W21ECD 2	78-03-15	1	280	8	87	15	26	.7	7.0	330
	78-09-01	--	280	--	88	14	29	.8	6.9	--
14N 1W 9DAC 1	78-03-15	1	200	7	65	10	18	.6	7.1	240
	78-09-01	--	210	--	66	10	19	.6	6.9	--
RED WILLOW COUNTY										
1N 26W17BC 1	78-08-01	--	380	--	110	25	53	1.2	16	--
2N 26W29CD 1	78-08-01	--	630	--	150	62	31	.5	16	--
3N 26W31BD 1	78-08-01	--	200	--	56	15	9.8	.3	9.1	--
3N 29W25AC 1	78-08-03	--	630	--	170	49	98	1.7	23	--
ROCK COUNTY										
25N 18W26BO 1	78-08-31	--	44	--	14	2.3	4.3	.3	3.8	--
26N 19W 9AO 1	78-08-30	--	61	--	20	2.8	5.7	.3	10	--
26N 19W13DO 1	78-08-30	--	52	--	17	2.4	6.9	.4	3.8	--
27N 20W12BO 1	78-08-30	--	55	--	18	2.5	5.1	.3	4.1	--
29N 19W32BO 1	78-08-30	--	43	--	14	2.0	6.8	.5	3.3	--
30N 19W33BO 1	78-08-28	--	51	--	16	2.6	8.0	.5	3.7	--
30N 20W33DO 1	78-08-30	--	61	--	20	2.7	3.4	.2	4.1	--
SALINE COUNTY										
8N 3E20BAD 1	78-03-13	1	230	6	73	11	24	.7	4.6	270
	78-09-01	--	220	--	72	10	26	.8	4.4	--
SEWARD COUNTY										
11N 1E29BC 1	78-03-15	1	250	24	77	13	31	.9	5.4	270
	78-09-05	--	240	--	76	12	32	.9	5.4	--
11N 2E26AD 6	78-03-15	1	250	41	77	13	38	1.1	7.0	250
	78-09-05	--	240	--	77	12	41	1.1	6.8	--
SHERMAN COUNTY										
15N 13W27AB 2	78-05-24	--	310	12	95	17	16	.4	--	360
	78-08-16	--	300	31	96	15	14	.4	8.6	330
15N 14W 7CA 1	78-05-24	--	270	17	89	12	11	.3	--	310
	78-08-16	--	270	65	90	11	11	.3	6.5	250
THAYER COUNTY										
2N 4W 4B8CD1	78-07-19	--	110	--	34	5.4	15	.6	5.5	--
2N 4W138CAA1	78-07-26	--	110	--	33	6.8	18	.7	6.7	--
VALLEY COUNTY										
17N 13W 4ABAA1	78-04-05	1	330	0	100	19	18	.4	10	400

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	IODIDE, DIS- SOLVED (MG/L AS I) (71865)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
NANCE COUNTY										
16N 6W14A8AC1	78-08-16	0	300	63	6.0	.2	--	--	20	--
16N 7W27DCD 1	78-08-16	0	300	18	3.7	.2	--	--	55	--
16N 7W31DBBD1	78-04-04	0	270	10	3.6	.2	--	--	55	--
	78-08-16	0	260	10	3.9	.2	--	--	53	--
NUCKOLLS COUNTY										
2N 5W15B8D81	78-07-26	--	220	23	35	.2	--	--	48	392
PHELPS COUNTY										
7N 18W31AA 1	78-06-27	0	39	89	51	.1	--	--	.7	237
PIERCE COUNTY										
28N 3W33BA 1	78-07-17	0	250	170	28	.3	--	--	24	723
POLK COUNTY										
13N 4W21CCD 2	78-03-15	0	270	28	8.7	.3	--	--	36	--
	78-09-01	--	280	28	9.1	.3	--	--	36	--
14N 1W 9DAC 1	78-03-15	0	200	21	7.6	.4	--	--	14	--
	78-09-01	--	200	22	8.0	.2	--	--	41	--
RED WILLOW COUNTY										
1N 26W17BC 1	78-08-01	--	350	99	27	1.0	--	--	41	440
2N 26W29CD 1	78-08-01	--	190	16	340	.8	--	--	56	1040
3N 26W31BD 1	78-08-01	--	200	13	3.9	.8	--	--	58	236
3N 29W25AC 1	78-08-03	--	430	340	54	.9	--	--	45	1020
ROCK COUNTY										
25N 18W26BO 1	78-08-31	--	54	2.0	.6	.2	--	--	57	120
26N 19W 9AO 1	78-08-30	--	80	3.0	2.0	.2	--	--	46	140
26N 19W13DO 1	78-08-30	--	60	.9	.5	.2	--	--	55	122
27N 20W12BO 1	78-08-30	--	66	.9	.5	.2	--	--	53	134
29N 19W32BO 1	78-08-30	--	53	6.9	.4	.1	--	--	53	109
30N 19W33BO 1	78-08-28	--	55	6.3	.9	.2	--	--	50	121
30N 20W33DO 1	78-08-30	--	66	2.3	.8	.2	--	--	57	138
SALINE COUNTY										
8N 3E20BAD 1	78-03-13	0	220	42	9.6	.4	--	--	17	--
	78-09-01	--	220	45	10	.3	--	--	25	--
SEWARD COUNTY										
11N 1E29BC 1	78-03-15	0	220	29	14	1.4	--	--	37	--
	78-09-05	--	230	31	13	.3	--	--	37	--
11N 2E26AD 6	78-03-15	0	210	82	5.0	.3	--	--	32	--
	78-09-05	--	200	93	5.8	.2	--	--	34	--
SHERMAN COUNTY										
15N 13W27AB 2	78-05-24	--	295	20	24	--	--	--	--	--
	78-08-16	0	271	21	19	--	--	--	--	--
15N 14W 7CA 1	78-05-24	--	254	15	4.3	--	--	--	--	--
	78-08-16	0	205	17	4.0	--	--	--	--	--
THAYER COUNTY										
2N 4W 4B8CD1	78-07-19	--	110	11	4.5	.2	--	--	31	179
2N 4W13BCAA1	78-07-26	--	110	19	17	.1	--	--	31	204
VALLEY COUNTY										
17N 13W 4ABAA1	78-04-05	0	330	48	3.6	.2	--	--	78	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

493

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
NANCE COUNTY										
16N 6W14ABAC1	78-08-16	441	.60	--	--	--	1.1	--	--	--
16N 7W27DCD 1	78-08-16	401	.55	--	--	--	2.0	--	--	--
16N 7W31DBBD1	78-04-04	345	.47	--	--	--	1.4	--	--	--
	78-08-16	346	.47	--	--	--	1.5	--	--	--
NUCKOLLS COUNTY										
2N 5W15BBD1	78-07-26	--	.53	--	--	--	2.7	--	--	--
PHELPS COUNTY										
7N 18W31AA 1	78-06-27	249	.32	.00	.01	.00	.01	3.0	.50	3.5
PIERCE COUNTY										
28N 3W33BA 1	78-07-17	675	.98	16	.15	15	15	.07	3.1	3.2
POLK COUNTY										
13N 4W21CCD 2	78-03-15	390	.53	--	--	--	4.3	--	--	--
	78-09-01	--	--	--	--	--	4.9	--	--	--
14N 1W 9DAC 1	78-03-15	273	.37	--	--	--	2.6	--	--	--
	78-09-01	--	--	--	--	--	4.7	--	--	--
RED WILLOW COUNTY										
1N 26W17BC 1	78-08-01	--	.60	--	--	--	.04	--	--	--
2N 26W29CD 1	78-08-01	--	1.41	--	--	--	1.9	--	--	--
3N 26W31BD 1	78-08-01	--	.32	--	--	--	1.8	--	--	--
3N 29W25AC 1	78-08-03	--	1.39	--	--	--	1.5	--	--	--
ROCK COUNTY										
25N 18W26BD 1	78-08-31	--	.16	--	--	--	.53	--	--	--
26N 19W 9AD 1	78-08-30	--	.19	--	--	--	.63	--	--	--
26N 19W13DD 1	78-08-30	--	.17	--	--	--	.67	--	--	--
27N 20W12BD 1	78-08-30	--	.18	--	--	--	.58	--	--	--
29N 19W32BD 1	78-08-30	--	.15	--	--	--	.43	--	--	--
30N 19W33BD 1	78-08-28	--	.16	--	--	--	2.1	--	--	--
30N 20W33DD 1	78-08-30	--	.19	--	--	--	1.7	--	--	--
SALINE COUNTY										
8N 3E20BAD 1	78-03-13	330	.45	--	--	--	3.5	--	--	--
	78-09-01	--	--	--	--	--	.05	--	--	--
SEWARD COUNTY										
11N 1E29BC 1	78-03-15	385	.52	--	--	--	10	--	--	--
	78-09-05	--	--	--	--	--	9.4	--	--	--
11N 2E26AD 6	78-03-15	408	.55	--	--	--	6.9	--	--	--
	78-09-05	--	--	--	--	--	8.3	--	--	--
SHERMAN COUNTY										
15N 13W27AB 2	78-05-24	--	--	--	--	--	2.0	--	--	--
	78-08-16	--	--	--	--	--	1.6	--	--	--
15N 14W 7CA 1	78-05-24	--	--	--	--	--	1.9	--	--	--
	78-08-16	--	--	--	--	--	1.9	--	--	--
THAYER COUNTY										
2N 4W 4BBCD1	78-07-19	--	.24	--	--	--	3.4	--	--	--
2N 4W13BCAA1	78-07-26	--	.28	--	--	--	.55	--	--	--
VALLEY COUNTY										
17N 13W 4ABAA1	78-04-05	482	.66	--	--	--	1.7	--	--	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
NANCE COUNTY										
16N 6W14ABAC1	78-08-16	--	--	.28	--	--	--	--	70	--
16N 7W27DCD 1	78-08-16	--	--	.04	--	--	--	--	60	--
16N 7W31D8BD1	78-04-04	--	--	.07	--	--	--	--	20	--
	78-08-16	--	--	.05	--	--	--	--	40	--
NUCKOLLS COUNTY										
2N 5W15B8DB1	78-07-26	--	--	--	--	4	--	--	50	1
PHELPS COUNTY										
7N 18W31AA 1	78-06-27	3.5	.17	.00	0	1	300	0	50	5
PIERCE COUNTY										
28N 3W33BA 1	78-07-17	18	.78	.00	30	3	100	0	90	5
POLK COUNTY										
13N 4W21CCD 2	78-03-15	--	--	.41	--	--	--	--	40	--
	78-09-01	--	--	.39	--	--	--	--	30	--
14N 1W 9DAC 1	78-03-15	--	--	.41	--	--	--	--	40	--
	78-09-01	--	--	.37	--	--	--	--	30	--
RED WILLOW COUNTY										
1N 26W17BC 1	78-08-01	--	--	--	--	13	--	--	130	1
2N 26W29CD 1	78-08-01	--	--	--	--	5	--	--	70	0
3N 26W31BD 1	78-08-01	--	--	--	--	5	--	--	60	1
3N 29W25AC 1	78-08-03	--	--	--	--	7	--	--	270	1
ROCK COUNTY										
25N 18W26BD 1	78-08-31	--	--	--	--	5	--	--	110	0
26N 19W 9AD 1	78-08-30	--	--	--	--	9	--	--	110	0
26N 19W13DD 1	78-08-30	--	--	--	--	9	--	--	110	0
27N 20W12BD 1	78-08-30	--	--	--	--	12	--	--	110	0
29N 19W32BD 1	78-08-30	--	--	--	--	4	--	--	110	0
30N 19W33BD 1	78-08-28	--	--	--	--	3	--	--	110	0
30N 20W33DD 1	78-08-30	--	--	--	--	5	--	--	110	0
SALINE COUNTY										
8N 3E20BAD 1	78-03-13	--	--	.15	--	--	--	--	50	--
	78-09-01	--	--	.00	--	--	--	--	30	--
SEWARD COUNTY										
11N 1E29BC 1	78-03-15	--	--	.31	--	--	--	--	40	--
	78-09-05	--	--	.28	--	--	--	--	30	--
11N 2E26AD 6	78-03-15	--	--	.28	--	--	--	--	50	--
	78-09-05	--	--	.26	--	--	--	--	40	--
SHERMAN COUNTY										
15N 13W27AB 2	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-16	--	--	--	--	--	--	--	--	--
15N 14W 7CA 1	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-16	--	--	--	--	--	--	--	--	--
THAYER COUNTY										
2N 4W 4BBD1	78-07-19	--	--	--	--	3	--	--	30	--
2N 4W13BCAA1	78-07-26	--	--	--	--	4	--	--	30	1
VALLEY COUNTY										
17N 13W 4ABAA1	78-04-05	--	--	.02	--	--	--	--	40	--

LOCAL IDENT- IFIER	DATE OF SAMPLE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
NANCE COUNTY										
16N 6W14ABAC1	78-08-16	--	--	7	90	--	--	10	--	--
16N 7W27DCD 1	78-08-16	--	--	8	80	--	--	350	--	--
16N 7W31DBBD1	78-04-04	--	--	9	20	--	--	10	--	--
	78-08-16	--	--	6	40	--	--	0	--	--
NUCKOLLS COUNTY										
2N 5W15BBDB1	78-07-26	0	--	10	30	3	--	0	.0	--
PHELPS COUNTY										
7N 18W31AA 1	78-06-27	10	2	0	110	46	40	10	.0	4
PIERCE COUNTY										
28N 3W33BA 1	78-07-17	0	0	3	490	2	40	650	.0	8
POLK COUNTY										
13N 4W21CCD 2	78-03-15	--	--	16	10	--	--	10	--	--
	78-09-01	--	--	--	20	--	--	10	--	--
14N 1W 9DAC 1	78-03-15	--	--	8	10	--	--	0	--	--
	78-09-01	--	--	--	30	--	--	0	--	--
RED WILLOW COUNTY										
1N 26W17BC 1	78-08-01	0	--	0	3200	3	--	800	.0	--
2N 26W29CD 1	78-08-01	0	--	0	10	2	--	10	.0	--
3N 26W31BD 1	78-08-01	10	--	2	40	4	--	0	.0	--
3N 29W25AC 1	78-08-03	0	--	2	20	1	--	800	.0	--
ROCK COUNTY										
25N 18W26BD 1	78-08-31	0	--	2	20	0	--	0	.0	--
26N 19W 9AO 1	78-08-30	0	--	1	200	0	--	1000	.0	--
26N 19W13DD 1	78-08-30	0	--	0	20	0	--	30	.0	--
27N 20W12BD 1	78-08-30	0	--	3	20	3	--	0	.0	--
29N 19W32BD 1	78-08-30	0	--	1	40	0	--	10	.0	--
30N 19W33BD 1	78-08-28	0	--	5	20	0	--	30	.0	--
30N 20W33DD 1	78-08-30	0	--	0	10	0	--	0	.0	--
SALINE COUNTY										
8N 3E20BAD 1	78-03-13	--	--	2	10	--	--	200	--	--
	78-09-01	--	--	--	300	--	--	240	--	--
SEWARD COUNTY										
11N 1E29BC 1	78-03-15	--	--	42	10	--	--	20	--	--
	78-09-05	--	--	--	40	--	--	10	--	--
11N 2E26AD 6	78-03-15	--	--	18	10	--	--	0	--	--
	78-09-05	--	--	--	70	--	--	0	--	--
SHERMAN COUNTY										
15N 13W27AB 2	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-16	--	--	--	--	--	--	--	--	--
15N 14W 7CA 1	78-05-24	--	--	--	--	--	--	--	--	--
	78-08-16	--	--	--	--	--	--	--	--	--
THAYER COUNTY										
2N 4W 4BBCD1	78-07-19	0	--	3	20	--	--	0	.0	--
2N 4W13BCAA1	78-07-26	10	--	19	20	12	--	0	.2	--
VALLEY COUNTY										
17N 13W 4ABAA1	78-04-05	--	--	5	0	--	--	200	--	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- IFIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NANCE COUNTY							
16N 6W14ABAC1	78-08-16	--	--	--	--	--	50
16N 7W27DCD 1	78-08-16	--	--	--	--	--	160
16N 7W31DBBD1	78-04-04	--	--	--	--	--	660
	78-08-16	--	--	--	--	--	560
NUCKOLLS COUNTY							
2N 5W15BBD81	78-07-26	--	6	--	--	--	10
PHELPS COUNTY							
7N 18W31AA 1	78-06-27	3	0	0	360	.0	0
PIERCE COUNTY							
28N 3W33BA 1	78-07-17	22	2	0	720	.0	20
POLK COUNTY							
13N 4W21CCD 2	78-03-15	--	--	--	--	--	20
	78-09-01	--	--	--	--	--	--
14N 1W 9DAC 1	78-03-15	--	--	--	--	--	10
	78-09-01	--	--	--	--	--	--
RED WILLOW COUNTY							
1N 26W17BC 1	78-08-01	--	0	--	--	--	20
2N 26W29CD 1	78-08-01	--	1	--	--	--	10
3N 26W31BD 1	78-08-01	--	1	--	--	--	10
3N 29W25AC 1	78-08-03	--	5	--	--	--	10
ROCK COUNTY							
25N 18W26BD 1	78-08-31	--	0	--	--	--	0
26N 19W 9AD 1	78-08-30	--	0	--	--	--	10
26N 19W13DD 1	78-08-30	--	0	--	--	--	10
27N 20W12BD 1	78-08-30	--	0	--	--	--	30
29N 19W32BD 1	78-08-30	--	0	--	--	--	10
30N 19W33BD 1	78-08-28	--	0	--	--	--	10
30N 20W33DD 1	78-08-30	--	0	--	--	--	10
SALINE COUNTY							
8N 3E20BAD 1	78-03-13	--	--	--	--	--	10
	78-09-01	--	--	--	--	--	--
SEWARD COUNTY							
11N 1E29BC 1	78-03-15	--	--	--	--	--	20
	78-09-05	--	--	--	--	--	--
11N 2E26AD 6	78-03-15	--	--	--	--	--	10
	78-09-05	--	--	--	--	--	--
SHERMAN COUNTY							
15N 13W27AB 2	78-05-24	--	--	--	--	--	--
	78-08-16	--	--	--	--	--	--
15N 14W 7CA 1	78-05-24	--	--	--	--	--	--
	78-08-16	--	--	--	--	--	--
THAYER COUNTY							
2N 4W 48BCD1	78-07-19	--	1	--	--	--	10
2N 4W13BCAA1	78-07-26	--	1	--	--	--	80
VALLEY COUNTY							
17N 13W 4ABAA1	78-04-05	--	--	--	--	--	30

LOCAL IDENT- I- FIER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
VALLEY COUNTY										
17N 13W 4ABAA1	41 28 49	098 48 48	01	1210GLL	78-08-17	--	300	681	7.1	15.9
17N 13W 8DD 1	41 27 20	098 49 49	01	1210GLL	78-08-17	--	287	565	7.3	13.5
17N 14W 6BCA1	41 28 05	098 58 42	01	--	78-08-18	--	--	472	7.3	14.0
18N 13W12ACDA1	41 32 52	098 45 24	01	1210GLL	78-04-05	--	150	438	7.4	13.5
				1210GLL	78-08-17	--	150	430	7.5	15.5
18N 14W22DADD1	41 30 53	098 54 17	01	1210GLL	78-04-05	--	195	601	7.1	12.5
				1210GLL	78-08-17	--	195	591	7.2	13.0
18N 15W 8AABC1	41 33 05	099 03 42	01	1210GLL	78-04-06	--	235	662	7.3	--
				1210GLL	78-08-17	--	235	922	7.4	18.0
18N 15W13ACD 1	41 31 56	098 59 12	01	1210GLL	78-06-29	--	340	787	7.3	--
18N 15W13ADDC1	41 31 55	098 59 00	01	1210GLL	78-04-05	--	248	679	7.2	--
				1210GLL	78-08-17	--	248	665	7.2	16.5
19N 15W19BDB1	41 36 32	099 05 35	01	1210GLL	78-04-06	--	225	688	7.1	11.5
				1210GLL	78-08-17	--	225	673	7.2	13.0
19N 16W16DADC1	41 36 54	099 09 20	01	1210GLL	78-04-06	--	215	599	7.1	12.5
				1210GLL	78-08-17	--	215	582	7.2	13.9
19N 16W35ABAA1	41 34 52	099 07 13	01	1210GLL	78-04-06	--	160	691	7.1	13.5
				1210GLL	78-08-17	--	160	764	7.2	14.4
WHEELER COUNTY										
21N 11W11AA 1	41 48 45	098 32 55	01	112SDGV	78-09-07	--	173	205	7.0	13.0
21N 11W22C 1	41 46 22	098 34 51	01	1210GLL	78-09-07	--	245	355	7.0	13.0
22N 12W29CC 1	41 50 42	098 44 17	01	112SDGV	78-09-07	--	165	145	7.2	13.0
YORK COUNTY										
9N 4W 6AC 1	40 46 46	097 48 51	01	112SDGV	78-03-14	--	171	525	7.1	10.5
				112SDGV	78-09-01	--	171	530	7.2	12.5
11N 2W31CA 2	40 52 42	097 35 24	02	112SDGV	78-03-14	--	348	515	7.4	12.5
12N 1W11BC 2	41 01 37	097 24 13	02	112SDGV	78-03-15	--	156	615	7.1	--
				112SDGV	78-09-01	--	156	579	7.1	13.2

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
VALLEY COUNTY										
17N 13W 4ABAA1	78-08-17	1	340	25	110	17	17	.4	11	390
17N 13W 8DD 1	78-08-17	1	290	11	98	11	11	.3	7.7	340
17N 14W 6C8CA1	78-08-18	1	240	7	82	9.7	5.7	.2	8.0	290
18N 13W12ACDA1	78-04-05	1	200	0	64	8.9	9.3	.3	6.6	260
	78-08-17	1	210	0	70	9.3	9.6	.3	7.0	260
18N 14W22DADD1	78-04-05	1	300	12	95	15	8.9	.2	7.6	350
	78-08-17	1	310	28	100	14	9.1	.2	7.9	340
18N 15W 8AABC1	78-04-06	2	310	33	100	15	10	.2	9.4	340
	78-08-17	1	490	200	160	21	16	.3	15	350
18N 15W13ACD 1	78-06-29	1	370	55	120	18	14	.3	14	390
18N 15W13ADDC1	78-04-05	1	310	12	100	14	18	.4	15	360
	78-08-17	1	310	12	100	14	18	.4	16	360
19N 15W198BDB1	78-04-06	1	350	45	110	18	9.8	.2	7.6	370
	78-08-17	1	340	49	110	17	10	.2	7.9	360
19N 16W16DADC1	78-04-06	1	290	18	91	15	8.6	.2	7.1	330
	78-08-17	1	270	12	85	13	7.0	.2	7.4	310
19N 16W35ABAA1	78-04-06	1	340	58	110	15	14	.3	9.6	340
	78-08-17	1	370	83	120	17	18	.4	12	350
WHEELER COUNTY										
21N 11W11AA 1	78-09-07	--	85	--	26	4.8	7.1	.3	5.3	--
21N 11W22C 1	78-09-07	--	170	--	53	8.9	5.1	.2	10	--
22N 12W29CC 1	78-09-07	--	67	--	20	4.2	5.4	.3	3.8	--
YORK COUNTY										
9N 4W 6AC 1	78-03-14	1	230	32	72	12	23	.7	5.8	240
	78-09-01	--	230	--	72	11	24	.7	5.5	--
11N 2W31CA 2	78-03-14	1	230	18	73	12	21	.6	5.0	260
12N 1W11BC 2	78-03-15	1	290	9	92	14	23	.6	5.6	340
	78-09-01	--	250	--	82	12	28	.8	5.4	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

499

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	IODIDE, DIS- SOLVED (MG/L AS I) (71865)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
VALLEY COUNTY										
17N 13W 48AA1	78-08-17	0	320	48	3.9	.2	--	--	67	--
17N 13W 8DD 1	78-08-17	0	280	20	4.9	.2	--	--	44	--
17N 14W 6C8CA1	78-08-18	0	240	12	3.3	.1	--	--	40	--
18N 13W12ACDA1	78-04-05	0	210	13	2.4	.1	--	--	59	--
	78-08-17	0	210	12	2.1	.2	--	--	60	--
18N 14W22DADD1	78-04-05	0	290	35	3.9	.2	--	--	72	--
	78-08-17	0	280	34	3.9	.1	--	--	44	--
18N 15W 8AABC1	78-04-06	0	280	60	6.0	.1	--	--	57	--
	78-08-17	0	290	200	15	.2	--	--	46	--
18N 15W13ACD 1	78-06-29	0	320	34	7.3	.2	--	--	53	525
18N 15W13ADDC1	78-04-05	0	300	37	11	.2	--	--	50	--
	78-08-17	0	300	42	8.8	.2	--	--	50	--
19N 15W19B8DB1	78-04-06	0	300	72	2.7	.1	--	--	56	--
	78-08-17	0	300	72	2.9	.1	--	--	55	--
19N 16W16DADC1	78-04-06	0	270	21	8.5	.2	--	--	56	--
	78-08-17	0	250	11	6.7	.2	--	--	57	--
19N 16W35ABAA1	78-04-06	0	280	70	6.6	.1	--	--	58	--
	78-08-17	0	290	100	5.6	.1	--	--	23	--
WHEELER COUNTY										
21N 11W11AA 1	78-09-07	--	89	3.7	1.4	.2	--	--	44	153
21N 11W22C 1	78-09-07	--	170	8.6	1.5	.3	--	--	43	239
22N 12W29CC 1	78-09-07	--	73	2.8	.6	.1	--	--	45	130
YORK COUNTY										
9N 4W 6AC 1	78-03-14	0	200	38	17	.4	--	--	29	--
	78-09-01	--	200	33	21	.4	--	--	32	--
11N 2W31CA 2	78-03-14	0	210	38	13	.4	--	--	34	--
12N 1W11BC 2	78-03-15	0	280	26	11	.4	--	--	36	--
	78-09-01	--	270	18	8.8	.2	--	--	40	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC=FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
VALLEY COUNTY										
17N 13W 4BAA1	78-08-17	474	.64	--	--	--	1.6	--	--	--
17N 13W 8DD 1	78-08-17	369	.50	--	--	--	.97	--	--	--
17N 14W 6BCA1	78-08-18	309	.42	--	--	--	1.1	--	--	--
18N 13W12ACDA1	78-04-05	300	.41	--	--	--	1.9	--	--	--
	78-08-17	307	.42	--	--	--	2.0	--	--	--
18N 14W22DADD1	78-04-05	417	.57	--	--	--	1.6	--	--	--
	78-08-17	387	.53	--	--	--	1.4	--	--	--
18N 15W 8AABC1	78-04-06	439	.60	--	--	--	3.0	--	--	--
	78-08-17	667	.91	--	--	--	4.7	--	--	--
18N 15W13ACD 1	78-06-29	516	.71	14	.01	14	14	.00	1.1	1.1
18N 15W13ADDC1	78-04-05	444	.60	--	--	--	4.7	--	--	--
	78-08-17	447	.61	--	--	--	4.6	--	--	--
19N 15W19BBD1	78-04-06	460	.63	--	--	--	.16	--	--	--
	78-08-17	454	.62	--	--	--	.29	--	--	--
19N 16W16DADC1	78-04-06	398	.54	--	--	--	6.2	--	--	--
	78-08-17	362	.49	--	--	--	4.8	--	--	--
19N 16W35ABAA1	78-04-06	472	.64	--	--	--	4.8	--	--	--
	78-08-17	481	.65	--	--	--	2.7	--	--	--
WHEELER COUNTY										
21N 11W11AA 1	78-09-07	--	.21	--	--	--	1.2	--	--	--
21N 11W22C 1	78-09-07	--	.33	--	--	--	1.5	--	--	--
22N 12W29CC 1	78-09-07	--	.18	--	--	--	1.1	--	--	--
YORK COUNTY										
9N 4W 6AC 1	78-03-14	330	.45	--	--	--	3.2	--	--	--
	78-09-01	--	--	--	--	--	4.2	--	--	--
11N 2W31CA 2	78-03-14	325	.44	--	--	--	.10	--	--	--
12N 1W118C 2	78-03-15	387	.53	--	--	--	2.5	--	--	--
	78-09-01	--	--	--	--	--	4.3	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
VALLEY COUNTY										
17N 13W 4ABAA1	78-08-17	--	--	.02	--	--	--	--	60	--
17N 13W 8DD 1	78-08-17	--	--	.05	--	--	--	--	50	--
17N 14W 6CBCA1	78-08-18	--	--	.04	--	--	--	--	50	--
18N 13W12ACDA1	78-04-05	--	--	.04	--	--	--	--	20	--
	78-08-17	--	--	.04	--	--	--	--	40	--
18N 14W22DADD1	78-04-05	--	--	.01	--	--	--	--	40	--
	78-08-17	--	--	.02	--	--	--	--	60	--
18N 15W 8AABC1	78-04-06	--	--	.07	--	--	--	--	30	--
	78-08-17	--	--	.06	--	--	--	--	50	--
18N 15W13ACD 1	78-06-29	15	.07	.08	0	6	300	0	60	1
18N 15W13ADDC1	78-04-05	--	--	.08	--	--	--	--	40	--
	78-08-17	--	--	.07	--	--	--	--	60	--
19N 15W19BDB1	78-04-06	--	--	.03	--	--	--	--	40	--
	78-08-17	--	--	.04	--	--	--	--	60	--
19N 16W16DADC1	78-04-06	--	--	.04	--	--	--	--	20	--
	78-08-17	--	--	.03	--	--	--	--	40	--
19N 16W35ABAA1	78-04-06	--	--	.03	--	--	--	--	60	--
	78-08-17	--	--	.07	--	--	--	--	90	--
WHEELER COUNTY										
21N 11W11AA 1	78-09-07	--	--	--	--	11	--	--	10	0
21N 11W22C 1	78-09-07	--	--	--	--	11	--	--	20	0
22N 12W29CC 1	78-09-07	--	--	--	--	6	--	--	7	0
YORK COUNTY										
9N 4W 6AC 1	78-03-14	--	--	.25	--	--	--	--	30	--
	78-09-01	--	--	.21	--	--	--	--	20	--
11N 2W31CA 2	78-03-14	--	--	.11	--	--	--	--	50	--
12N 1W11BC 2	78-03-15	--	--	.25	--	--	--	--	40	--
	78-09-01	--	--	.23	--	--	--	--	30	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- IFIER	DATE OF SAMPLE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
VALLEY COUNTY										
17N 13W 48AA1	78-08-17	--	--	4	190	--	--	180	--	--
17N 13W 8DD 1	78-08-17	--	--	2	20	--	--	0	--	--
17N 14W 6C8CA1	78-08-18	--	--	4	660	--	--	0	--	--
18N 13W12ACDA1	78-04-05	--	--	1	0	--	--	0	--	--
	78-08-17	--	--	2	50	--	--	0	--	--
18N 14W22DADD1	78-04-05	--	--	2	10	--	--	60	--	--
	78-08-17	--	--	3	50	--	--	50	--	--
18N 15W 8AABC1	78-04-06	--	--	2	0	--	--	10	--	--
	78-08-17	--	--	2	220	--	--	0	--	--
18N 15W13ACD 1	78-06-29	10	1	3	140	12	40	20	.0	3
18N 15W13ADDC1	78-04-05	--	--	2	10	--	--	10	--	--
	78-08-17	--	--	4	280	--	--	0	--	--
19N 15W198BDB1	78-04-06	--	--	1	120	--	--	520	--	--
	78-08-17	--	--	1	90	--	--	490	--	--
19N 16W16DADC1	78-04-06	--	--	2	0	--	--	0	--	--
	78-08-17	--	--	1	<10	--	--	<1	--	--
19N 16W35ABAA1	78-04-06	--	--	2	0	--	--	20	--	--
	78-08-17	--	--	3	420	--	--	10	--	--
WHEELER COUNTY										
21N 11W11AA 1	78-09-07	0	--	1	20	1	--	10	.0	--
21N 11W22C 1	78-09-07	10	--	2	10	0	--	0	.0	--
22N 12W29CC 1	78-09-07	0	--	0	440	0	--	0	.0	--
YORK COUNTY										
9N 4W 6AC 1	78-03-14	--	--	3	20	--	--	0	--	--
	78-09-01	--	--	--	40	--	--	0	--	--
11N 2W31CA 2	78-03-14	--	--	1	30	--	--	170	--	--
12N 1W11BC 2	78-03-15	--	--	12	20	--	--	0	--	--
	78-09-01	--	--	--	80	--	--	0	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
VALLEY COUNTY							
17N 13W 4BAA1	78-08-17	--	--	--	--	--	30
17N 13W RDD 1	78-08-17	--	--	--	--	--	10
17N 14W 6CBCA1	78-08-18	--	--	--	--	--	90
18N 13W12ACDA1	78-04-05	--	--	--	--	--	20
	78-08-17	--	--	--	--	--	30
18N 14W22DADD1	78-04-05	--	--	--	--	--	0
	78-08-17	--	--	--	--	--	10
18N 15W 8AABC1	78-04-06	--	--	--	--	--	170
	78-08-17	--	--	--	--	--	160
18N 15W13ACD 1	78-06-29	3	8	0	540	9.7	10
18N 15W13ADDC1	78-04-05	--	--	--	--	--	150
	78-08-17	--	--	--	--	--	40
19N 15W19BBDB1	78-04-06	--	--	--	--	--	70
	78-08-17	--	--	--	--	--	60
19N 16W16DADC1	78-04-06	--	--	--	--	--	180
	78-08-17	--	--	--	--	--	130
19N 16W35ABAA1	78-04-06	--	--	--	--	--	50
	78-08-17	--	--	--	--	--	90
WHEELER COUNTY							
21N 11W11AA 1	78-09-07	--	0	--	--	--	10
21N 11W22C 1	78-09-07	--	2	--	--	--	10
22N 12W29CC 1	78-09-07	--	0	--	--	--	10
YORK COUNTY							
9N 4W 6AC 1	78-03-14	--	--	--	--	--	40
	78-09-01	--	--	--	--	--	--
11N 2W31CA 2	78-03-14	--	--	--	--	--	10
12N 1W11BC 2	78-03-15	--	--	--	--	--	30
	78-09-01	--	--	--	--	--	--

LOCAL IDENT- I- FIER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	PCB, TOTAL (UG/L) (39516)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	ALDRIN, TOTAL (UG/L) (39330)
HALL COUNTY										
10N 9W 1BCD 1	40 51 59	098 17 53	01	112SDGV	78-06-01	--	.0	.00	--	.00
10N 9W 1CAC 1	40 51 43	098 17 41	01	112SDGV	78-06-01	--	.0	.00	--	.00
10N 9W 2DDC 1	40 51 29	098 18 22	01	112SDGV	78-06-01	--	.0	.00	--	.00
10N 9W 9ACC 1	40 51 10	098 20 50	01	112SDGV	78-08-23	1000	.0	.00	.00	.00
10N 9W11BD 1	40 51 03	098 18 42	01	112SDGV	78-06-01	--	.0	.00	--	.00
11N 9W 9AAC 1	40 56 35	098 20 37	01	112SDGV	78-05-31	--	.0	.00	--	.00
11N 9W2788B 1	40 54 37	098 20 22	01	112SDGV	78-05-31	--	.0	.00	--	.00
11N 9W29ABA 1	40 54 02	098 21 17	01	112SDGV	78-05-31	--	.0	.00	--	.00
11N 9W32BAA 1	40 53 12	098 22 07	01	112SDGV	78-05-31	--	.0	.00	--	.00
11N 10W13CAC 1	40 55 14	098 23 32	01	112SDGV	78-06-01	--	.0	.00	--	.00

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)
10N 9W 1BCD 1	78-06-01	.0	.00	.00	.00	.00	.00	.00	.00	.00
10N 9W 1CAC 1	78-06-01	.0	.00	.00	.00	.00	.00	.00	.00	.00
10N 9W 2DDC 1	78-06-01	.0	.00	.00	.00	.00	.00	.00	.00	.00
10N 9W 9ACC 1	78-08-23	.0	.00	.00	.00	.00	.00	.00	.00	.00
10N 9W11BD 1	78-06-01	.0	.00	.00	.00	.00	.00	.00	.00	.00
11N 9W 9AAC 1	78-05-31	.0	.00	.00	.00	.00	.00	.00	.00	.00
11N 9W2788B 1	78-05-31	.0	.00	.00	.00	.00	.00	.00	.00	.00
11N 9W29ABA 1	78-05-31	.0	.00	.00	.00	.00	.00	.00	.00	.00
11N 9W32BAA 1	78-05-31	.0	.00	.00	.00	.00	.00	.00	.00	.00
11N 10W13CAC 1	78-06-01	.0	.00	.00	.00	.00	.00	.00	.00	.00

LOCAL IDENT- I- FIER	DATE OF SAMPLE	METH- OXY- CHLOR, TOTAL (UG/L) (39340)	TOX- APHENE, TOTAL (UG/L) (39400)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
10N 9W 1BCD 1	78-06-01	.00	.00	.00	.00	.00	.00
10N 9W 1CAC 1	78-06-01	.00	.00	.00	.00	.00	.00
10N 9W 2DDC 1	78-06-01	.00	.00	.00	.00	.00	.00
10N 9W 9ACC 1	78-08-23	.00	.00	.00	.00	.00	.00
10N 9W11BD 1	78-06-01	.00	.00	.00	.00	.00	.00
11N 9W 9AAC 1	78-05-31	.00	.00	.00	.00	.00	.00
11N 9W2788B 1	78-05-31	.00	.00	.00	.00	.00	.00
11N 9W29ABA 1	78-05-31	.00	.00	.00	.00	.00	.00
11N 9W32BAA 1	78-05-31	.00	.00	.00	.00	.00	.00
11N 10W13CAC 1	78-06-01	.00	.00	.00	.00	.00	.00

PARAM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
00623	NITROGEN, AMMONIA PLUS ORGANIC, DISSOLVED (MG/L AS N)
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)
00624	NITROGEN, AMMONIA PLUS ORGANIC, SUSPENDED TOTAL (MG/L AS N)
00624	NITROGEN, KJELDAHL, SUSPENDED (MG/L AS N)
00625	NITROGEN, AMMONIA PLUS ORGANIC, TOTAL (MG/L AS N)
00625	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)
00626	NITROGEN, AMMONIA PLUS ORGANIC, TOTAL IN BOTTOM MATERIAL, DRY WT (MG/KG AS N)
00626	NITROGEN, KJELDAHL, TOTAL IN BOTTOM MATERIAL, DRY WT (MG/KG AS N)
00683	CARBON, ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00683	CARBON, ORGANIC, SUSPENDED (MG/L AS C)
00688	CARBON, INORGANIC, SUSPENDED TOTAL (MG/L AS C)
00688	CARBON, INORGANIC, SUSPENDED (MG/L AS C)
00689	CARBON, ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00689	CARBON, ORGANIC, SUSPENDED (MG/L AS C)
00694	CARBON, INORGANIC PLUS ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00694	CARBON, INORGANIC PLUS ORGANIC, SUSPENDED (MG/L AS C)
00916	CALCIUM, TOTAL RECOVERABLE (MG/L AS CA)
00916	CALCIUM, TOTAL (MG/L AS CA)
00926	MAGNESIUM, SUSPENDED RECOVERABLE (MG/L AS MG)
00926	MAGNESIUM, SUSPENDED (MG/L AS MG)
00927	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)
00927	MAGNESIUM, TOTAL (MG/L AS MG)
01001	ARSENIC, SUSPENDED TOTAL (UG/L AS AS)
01001	ARSENIC, SUSPENDED (UG/L AS AS)
01006	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)
01006	BARIUM, SUSPENDED (UG/L AS BA)
01007	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)
01007	BARIUM, TOTAL (UG/L AS BA)
01008	BARIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS BA)
01008	BARIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS BA)
01011	BERYLLIUM, SUSPENDED RECOVERABLE (UG/L AS BE)
01011	BERYLLIUM, SUSPENDED (UG/L AS BE)
01012	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
01012	BERYLLIUM, TOTAL (UG/L AS BE)
01013	BERYLLIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS BE)
01013	BERYLLIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS BE)
01016	BISMUTH, SUSPENDED TOTAL (UG/L AS BI)
01016	BISMUTH, SUSPENDED (UG/L AS BI)
01021	BORON, SUSPENDED RECOVERABLE (UG/L AS B)
01021	BORON, SUSPENDED (UG/L AS B)
01022	BORON, TOTAL RECOVERABLE (UG/L AS B)
01022	BORON, TOTAL (UG/L AS B)
01023	BORON, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS B)
01023	BORON, TOTAL IN BOTTOM MATERIAL (UG/G AS B)
01026	CADMIUM, SUSPENDED RECOVERABLE (UG/L AS CD)
01026	CADMIUM, SUSPENDED (UG/L AS CD)
01027	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD)
01027	CADMIUM, TOTAL (UG/L AS CD)
01028	CADMIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CD)
01028	CADMIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS CD)
01029	CHROMIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CR)
01029	CHROMIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS CR)
01031	CHROMIUM, SUSPENDED RECOVERABLE (UG/L AS CR)
01031	CHROMIUM, SUSPENDED (UG/L AS CR)
01034	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
01034	CHROMIUM, TOTAL (UG/L AS CR)
01036	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)
01036	COBALT, SUSPENDED (UG/L AS CO)
01037	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
01037	COBALT, TOTAL (UG/L AS CO)

PARAM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
01038	CORALT, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CO)
01038	CORALT, TOTAL IN BOTTOM MATERIAL (UG/G AS CO)
01041	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
01041	COPPER, SUSPENDED (UG/L AS CU)
01042	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
01042	COPPER, TOTAL (UG/L AS CU)
01043	COPPER, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CU)
01043	COPPER, TOTAL IN BOTTOM MATERIAL (UG/G AS CU)
01044	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
01044	IRON, SUSPENDED (UG/L AS FE)
01045	IRON, TOTAL RECOVERABLE (UG/L AS FE)
01045	IRON, TOTAL (UG/L AS FE)
01050	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)
01050	LEAD, SUSPENDED (UG/L AS PB)
01051	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
01051	LEAD, TOTAL (UG/L AS PB)
01052	LEAD, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS PB)
01052	LEAD, TOTAL IN BOTTOM MATERIAL (UG/G AS PB)
01053	MANGANESE, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS MN)
01053	MANGANESE, TOTAL IN BOTTOM MATERIAL (UG/G AS MN)
01054	MANGANESE, SUSPENDED RECOVERABLE (UG/L AS MN)
01054	MANGANESE, SUSPENDED (UG/L AS MN)
01055	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
01055	MANGANESE, TOTAL (UG/L AS MN)
01061	MOLYBDENUM, SUSPENDED RECOVERABLE (UG/L AS MO)
01061	MOLYBDENUM, SUSPENDED (UG/L AS MO)
01062	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
01062	MOLYBDENUM, TOTAL (UG/L AS MO)
01063	MOLYBDENUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS MO)
01063	MOLYBDENUM, TOTAL IN BOTTOM MATERIAL (UG/G AS MO)
01066	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)
01066	NICKEL, SUSPENDED (UG/L AS NI)
01067	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)
01067	NICKEL, TOTAL (UG/L AS NI)
01068	NICKEL, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS NI)
01068	NICKEL, TOTAL IN BOTTOM MATERIAL (UG/G AS NI)
01076	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)
01076	SILVER, SUSPENDED (UG/L AS AG)
01077	SILVER, TOTAL RECOVERABLE (UG/L AS AG)
01077	SILVER, TOTAL (UG/L AS AG)
01078	SILVER, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS AG)
01078	SILVER, TOTAL IN BOTTOM MATERIAL (UG/G AS AG)
01081	STRONTIUM, SUSPENDED RECOVERABLE (UG/L AS SR)
01081	STRONTIUM, SUSPENDED (UG/L AS SR)
01082	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)
01082	STRONTIUM, TOTAL (UG/L AS SR)
01083	STRONTIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS SR)
01083	STRONTIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS SR)
01086	VANADIUM, SUSPENDED TOTAL (UG/L AS V)
01086	VANADIUM, SUSPENDED (UG/L AS V)
01091	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)
01091	ZINC, SUSPENDED (UG/L AS ZN)
01092	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
01092	ZINC, TOTAL (UG/L AS ZN)
01093	ZINC, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS ZN)
01093	ZINC, TOTAL IN BOTTOM MATERIAL (UG/G AS ZN)
01096	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)
01096	ANTIMONY, SUSPENDED (UG/L AS SB)
01101	TIN, SUSPENDED RECOVERABLE (UG/L AS SN)
01101	TIN, SUSPENDED (UG/L AS SN)
01102	TIN, TOTAL RECOVERABLE (UG/L AS SN)
01102	TIN, TOTAL (UG/L AS SN)

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
01105	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
01105	ALUMINUM, TOTAL (UG/L AS AL)
01107	ALUMINUM, SUSPENDED RECOVERABLE (UG/L AS AL)
01107	ALUMINUM, SUSPENDED (UG/L AS AL)
01108	ALUMINUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS AL)
01108	ALUMINUM, TOTAL IN BOTTOM MATERIAL (UG/G AS AL)
01116	CESIUM, SUSPENDED TOTAL (UG/L AS CS)
01116	CESIUM, SUSPENDED (UG/L AS CS)
01121	GALLIUM, SUSPENDED TOTAL (UG/L AS GA)
01121	GALLIUM, SUSPENDED (UG/L AS GA)
01126	GERMANIUM, SUSPENDED TOTAL (UG/L AS GE)
01126	GERMANIUM, SUSPENDED (UG/L AS GE)
01131	LITHIUM, SUSPENDED RECOVERABLE (UG/L AS LI)
01131	LITHIUM, SUSPENDED (UG/L AS LI)
01132	LITHIUM, TOTAL RECOVERABLE (UG/L AS LI)
01132	LITHIUM, TOTAL (UG/L AS LI)
01136	RUBIDIUM, SUSPENDED TOTAL (UG/L AS RB)
01136	RUBIDIUM, SUSPENDED (UG/L AS RB)
01146	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)
01146	SELENIUM, SUSPENDED (UG/L AS SE)
01151	TITANIUM, SUSPENDED TOTAL (UG/L AS TI)
01151	TITANIUM, SUSPENDED (UG/L AS TI)
01161	ZIRCONIUM, SUSPENDED TOTAL (UG/L AS ZR)
01161	ZIRCONIUM, SUSPENDED (UG/L AS ZR)
01170	IRON, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS FE)
01170	IRON, TOTAL IN BOTTOM MATERIAL (UG/G AS FE)
01505	ALPHA, SUSPENDED TOTAL (PCI/L)
01505	ALPHA, SUSPENDED (PCI/L)
01506	ALPHA, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
01506	ALPHA, SUSPENDED, COUNTING ERROR (PCI/L)
01516	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS U NATURAL)
01516	GROSS ALPHA RADIOACTIVITY, SUSPENDED (PCI/L AS U NATURAL)
01517	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS U NATURAL)
01517	GROSS ALPHA RADIOACTIVITY, SUSPENDED (PCI/G AS U NATURAL)
01518	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (UG/G AS U NATURAL)
01518	GROSS ALPHA RADIOACTIVITY, SUSPENDED (UG/G AS U NATURAL)
03505	BETA, SUSPENDED TOTAL (PCI/L)
03505	BETA, SUSPENDED (PCI/L)
03506	BETA, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
03506	BETA, SUSPENDED, COUNTING ERROR (PCI/L)
03516	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS CS-137)
03516	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/L AS CS-137)
03517	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS SR/YT-90)
03517	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/G AS SR/YT-90)
03518	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS CS-137)
03518	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/G AS CS-137)
07010	TRITIUM, SUSPENDED TOTAL (PCI/L)
07010	TRITIUM, SUSPENDED (PCI/L)
07011	TRITIUM, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07011	TRITIUM, SUSPENDED, COUNTING ERROR (PCI/L)
07014	TRITIUM, SUSPENDED TOTAL, COUNTING ERROR (TRITIUM UNITS)
07014	TRITIUM, SUSPENDED, COUNTING ERROR (TRITIUM UNITS)
07016	TRITIUM, SUSPENDED TOTAL (TRITIUM UNITS)
07016	TRITIUM, SUSPENDED (TRITIUM UNITS)

PARAM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
07052	CALCIUM 45, SUSPENDED TOTAL (PCI/L)
07052	CALCIUM 45, SUSPENDED (PCI/L)
07053	CALCIUM 45, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07053	CALCIUM 45, SUSPENDED, COUNTING ERROR (PCI/L)
07062	IRON 59, SUSPENDED TOTAL (PCI/L)
07062	IRON 59, SUSPENDED (PCI/L)
07063	IRON 59, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07063	IRON 59, SUSPENDED, COUNTING ERROR (PCI/L)
07082	RHODAMINE WT, SUSPENDED TOTAL (UG/L)
07082	RHODAMINE WT, SUSPENDED (UG/L)
07102	SELENIUM 75, SUSPENDED TOTAL (PCI/L)
07102	SELENIUM 75, SUSPENDED (PCI/L)
07103	SELENIUM 75, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07103	SELENIUM 75, SUSPENDED, COUNTING ERROR (PCI/L)
07122	SILVER 110, SUSPENDED TOTAL (PCI/L)
07122	SILVER 110, SUSPENDED (PCI/L)
07123	SILVER 110, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07123	SILVER 110, SUSPENDED, COUNTING ERROR (PCI/L)
07142	SULFUR 35, SUSPENDED TOTAL (PCI/L)
07142	SULFUR 35, SUSPENDED (PCI/L)
07143	SULFUR 35, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07143	SULFUR 35, SUSPENDED, COUNTING ERROR (PCI/L)
09505	RADIUM 226, SUSPENDED TOTAL (PCI/L)
09505	RADIUM 226, SUSPENDED (PCI/L)
13505	STRONTIUM 90, SUSPENDED TOTAL (PCI/L)
13505	STRONTIUM 90, SUSPENDED (PCI/L)
13506	STRONTIUM 90, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
13506	STRONTIUM 90, SUSPENDED, COUNTING ERROR (PCI/L)
22705	URANIUM, NATURAL, SUSPENDED TOTAL (UG/L AS U NATURAL)
22705	URANIUM, NATURAL, SUSPENDED (UG/L AS U NATURAL)
28404	CESIUM 137, SUSPENDED TOTAL (PCI/L)
28404	CESIUM 137, SUSPENDED (PCI/L)
28405	CESIUM 137, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
28405	CESIUM 137, SUSPENDED, COUNTING ERROR (PCI/L)
28412	CESIUM 134, SUSPENDED TOTAL (PCI/L)
28412	CESIUM 134, SUSPENDED (PCI/L)
28413	CESIUM 134, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
28413	CESIUM 134, SUSPENDED, COUNTING ERROR (PCI/L)
29633	SCANDIUM 46, SUSPENDED TOTAL (PCI/L)
29633	SCANDIUM 46, SUSPENDED (PCI/L)
29634	SCANDIUM 46, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
29634	SCANDIUM 46, SUSPENDED, COUNTING ERROR (PCI/L)
39332	ALDRIN, SUSPENDED TOTAL (UG/L)
39332	ALDRIN, SUSPENDED (UG/L)
39342	LINDANE, SUSPENDED TOTAL (UG/L)
39342	LINDANE, SUSPENDED (UG/L)
39353	CHLORDANE, SUSPENDED TOTAL (UG/L)
39353	CHLORDANE, SUSPENDED (UG/L)
39362	DDD, SUSPENDED TOTAL (UG/L)
39362	DDD, SUSPENDED (UG/L)
39367	DDE, SUSPENDED TOTAL (UG/L)
39367	DDE, SUSPENDED (UG/L)
39372	DDT, SUSPENDED TOTAL (UG/L)
39372	DDT, SUSPENDED (UG/L)
39382	DIELDRIN, SUSPENDED TOTAL (UG/L)
39382	DIELDRIN, SUSPENDED (UG/L)
39392	ENDRIN, SUSPENDED TOTAL (UG/L)
39392	ENDRIN, SUSPENDED (UG/L)
39402	TOXAPHENE, SUSPENDED TOTAL (UG/L)
39402	TOXAPHENE, SUSPENDED (UG/L)
39412	HEPTACHLOR, SUSPENDED TOTAL (UG/L)
39412	HEPTACHLOR, SUSPENDED (UG/L)

PARAM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
39422	HEPTACHLOR EPOXIDE, SUSPENDED TOTAL (UG/L)
39422	HEPTACHLOR EPOXIDE, SUSPENDED (UG/L)
39432	ISODRIN, SUSPENDED TOTAL (UG/L)
39432	ISODRIN, SUSPENDED (UG/L)
39502	AROCLOR, SUSPENDED TOTAL, 1248 PCB SERIES (UG/L)
39502	AROCLOR, SUSPENDED, 1248 PCB SERIES (UG/L)
39506	AROCLOR, SUSPENDED TOTAL, 1254 PCB SERIES (UG/L)
39506	AROCLOR, SUSPENDED, 1254 PCB SERIES (UG/L)
39510	AROCLOR, SUSPENDED TOTAL, 1260 PCB SERIES (UG/L)
39510	AROCLOR, SUSPENDED, 1260 PCB SERIES (UG/L)
39518	PCB, SUSPENDED TOTAL (UG/L)
39518	PCB, SUSPENDED (UG/L)
39533	MALATHION, SUSPENDED TOTAL (UG/L)
39533	MALATHION, SUSPENDED (UG/L)
39543	PARATHION, SUSPENDED TOTAL (UG/L)
39543	PARATHION, SUSPENDED (UG/L)
39573	DIAZINON, SUSPENDED TOTAL (UG/L)
39573	DIAZINON, SUSPENDED (UG/L)
39603	METHYL PARATHION, SUSPENDED TOTAL (UG/L)
39603	METHYL PARATHION, SUSPENDED (UG/L)
39733	2,4-D, SUSPENDED TOTAL (UG/L)
39733	2,4-D, SUSPENDED (UG/L)
39743	2,4,5-T, SUSPENDED TOTAL (UG/L)
39743	2,4,5-T, SUSPENDED (UG/L)
39757	MIREX, SUSPENDED TOTAL (UG/L)
39757	MIREX, SUSPENDED (UG/L)
39763	SILVEX, SUSPENDED TOTAL (UG/L)
39763	SILVEX, SUSPENDED (UG/L)
70299	SOLIDS, RESIDUE AT 110 DEG. C, SUSPENDED TOTAL (MG/L)
70299	SOLIDS, RESIDUE AT 110 DEG. C, SUSPENDED (MG/L)
71895	MERCURY, SUSPENDED RECOVERABLE (UG/L AS HG)
71895	MERCURY, SUSPENDED (UG/L AS HG)
71900	MERCURY, TOTAL RECOVERABLE (UG/L AS HG)
71900	MERCURY, TOTAL (UG/L AS HG)
71921	MERCURY, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS HG)
71921	MERCURY, TOTAL IN BOTTOM MATERIAL (UG/G AS HG)
80040	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (UG/L AS U NATURAL)
80040	GROSS ALPHA RADIOACTIVITY, SUSPENDED (UG/L AS U NATURAL)
80060	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS SR/YT-90)
80060	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/L AS SR/YT-90)

	PAGE		PAGE
Accuracy of field data and computed results.....	11	Deer Creek near Boelus.....	410
Acknowledgment.....	2	Definition of terms.....	2-8
Acre-foot, definition of.....	2	Diatoms, definition of.....	5
Ainsworth Canal nr Johnstown.....	405	Discharge, definition of.....	4
Algae, definition of.....	2	Discharge, at crest-stage partial-record stations.....	365-374
Aowa Creek basin, discharge measurements at miscellaneous sites in.....	390	at miscellaneous sites.....	375-388
Appendix A.....	505-509	at miscellaneous sites for drought study.....	389-399
Aquifer, definition of.....	2	Dismal River, at Dunning.....	155
Arikaree River at Haigler.....	279	near Thedford.....	152-154
Artificial substrate, definition of.....	7	Dissolved, definition of.....	4
Ash mass, definition of.....	3	Downstream order and station number.....	8
Auger Creek at Elba.....	414	Drainage area, definition of.....	4
Bacteria, definition of.....	3	Drainage basin, definition of.....	4
Bayard Sugar Factory drain near Bayard.....	89	Driftwood Creek near McCook.....	299
Bazile Creek near Niobrara.....	68	Dry Creek near Dannebrog.....	411
Bazile Creek basin, discharge measurements at miscellaneous sites in.....	380, 390	Dry mass, definition of.....	3
gaging-station records in.....	68	Dry Spottedtail Creek at Mitchell.....	79
Beaver Creek (tributary to Loup River), at Genoa.....	200	Eagle Creek, near Midway.....	408-409
near Albion.....	198-199	East Branch near Midway.....	408-409
Beaver Creek (tributary to Sappa Creek), at Cedar Bluffs, KS.....	315	Elkhorn River, at Ewing.....	207-208
near Beaver City.....	316	at Neligh.....	211-212
Bed material, definition of.....	3	at Waterloo.....	225-234
Big Blue River, at Barneston.....	354	at Westpoint.....	217
at Beatrice.....	351	near Norfolk.....	213-214
at Seward.....	334	North Fork, near Pierce.....	216
at Surprise.....	329-330	South Fork, at Ewing.....	209
below Beatrice.....	352-353	Elm Creek at Amboy.....	323
below Seward.....	335-336	Enders Reservoir near Enders.....	291
near Crete.....	342-347	Explanation of ground-water level records.....	13
West Fork, below Hastings.....	337-338	Explanation of stage and water-discharge records.....	9-12
near Dorchester.....	339-341	Explanation of water-quality records.....	12-13
Big Bordeaux Creek near Chadron.....	22	Farwell Canal at Hwy 58 above Sherman Reservoir.....	410
Big Nemaha River, at Falls City.....	276-278	Fecal coliform bacteria, definition of.....	3
North Fork, at Humboldt.....	275	Fecal streptococcal bacteria, definition of.....	3
Big Nemaha River basin, crest-stage partial- record stations in.....	371	Fourmile Creek near Plattsmouth.....	417-419
gaging-station records in.....	274-278	Frenchman Creek, at Culbertson.....	296-297
water-quality records in.....	277-278	at Palisade.....	293-294
Biochemical oxygen demand.....	3	near Enders.....	292
Biomass, definition of.....	3	near Imperial.....	290
Birdwood Creek near Hershey.....	109	Gage height, definition of.....	4
Blackbird Creek, near Meek.....	408-409	Gaging station, definition of.....	4
Blackbird Creek basin, discharge measurements at miscellaneous sites in.....	390	Gering drain near Gering.....	84
Blackwood Creek near Culbertson.....	298	Green algae, definition of.....	5
Blue Creek near Lewellen.....	103	Ground-water analyses.....	448-504
Blue-green algae, definition of.....	5	Ground-water records, by counties	
Bone Creek, at Ainsworth.....	406	Adams.....	424, 448-454
near Long Pine.....	407	Antelope.....	448-454
Bow Creek basin, crest-stage partial-record stations in.....	366	Arthur.....	448-454
discharge measurements at miscellaneous sites in.....	380, 390	Blaine.....	424
Box Butte Reservoir near Hemingford.....	32	Boone.....	424, 448-454
Buffalo Creek near Haigler.....	281	Box Butte.....	425
Calamus River near Burwell.....	174-176	Brown.....	425, 448-454
near Harrop.....	173	Buffalo.....	426, 448-454
Cedar Creek near Louisville.....	417-419	Butler.....	426
Cedar River, near Fullerton.....	183-186	Cedar.....	448-461
near Spalding.....	182	Chase.....	427
Center Creek at Franklin.....	321	Cherry.....	427
Cfs-day, definition of.....	3	Cheyenne.....	428
Chemical oxygen demand, definition of.....	3	Clay.....	428, 455-461
Cheyenne River basin, crest-stage partial- record stations in.....	365	Colfax.....	428, 455-461
discharge measurements at miscellaneous sites in.....	389	Custer.....	429, 455-461
Chlorophyll, definition of.....	3	Dawes.....	429
Clearwater Creek near Clearwater.....	210	Dawson.....	429-430, 455-461
Collection and computation of surface-water data.....	9-11	Dundy.....	430
Collection and explanation of water-quality data.....	12	Fillmore.....	431, 455-461
Collection of ground-water level data.....	13	Frontier.....	462-468
Computations, accuracy of results of.....	11	Furnas.....	432, 462-468
Contents, definition of.....	3	Garden.....	432, 462-468
Control, definition of.....	3	Garfield.....	432, 462-468
Conversion table of chemical constituents.....	14	Gosper.....	433
Conversion table of degrees Celsius to degrees Fahrenheit.....	15	Greeley.....	462-468
Conversion table of sediment concentration.....	14	Hall.....	433, 462-468, 504
Cooperation.....	1	Hamilton.....	434, 469-482
Courtland Canal at Nebraska-Kansas State line.....	324	Harlan.....	435
Cubic foot per second, definition of.....	4	Hayes.....	476-482
Dane Creek at Ord.....	413	Hitchcock.....	435, 476-482
		Holt.....	436-437, 476-482
		Howard.....	476-482
		Kearney.....	437, 476-482
		Keith.....	483-489
		Keya Paha.....	483-489
		Kimball.....	438
		Knox.....	483-489
		Lancaster.....	438-440

	PAGE
Ground-water records, by county, continued	
Lincoln.....	483-489
Logan.....	483-489
McPherson.....	483-489
Merrick.....	440,483-489
Morrill.....	441
Nance.....	483-496
Nuckolls.....	441,490-496
Phelps.....	441,490-496
Pierce.....	490-496
Platte.....	442
Polk.....	490-496
Red Willow.....	442,490-496
Rock.....	490-496
Saline.....	442,490-496
Saunders.....	443
Scotts Bluff.....	444
Seward.....	445,490-496
Sheridan.....	445
Sherman.....	490-496
Thayer.....	490-496
Thomas.....	446
Valley.....	446,490-503
Webster.....	446
Wheeler.....	497-503
York.....	447,497-503
Hardness of water, definition of.....	4
Harlan County Lake near Republican City.....	319
Harry Strunk Lake near Cambridge.....	307
Honey Creek basin, crest-stage partial- record stations in.....	371
Horse Creek near Lyman.....	77
Hugh Butler Lake near McCook.....	303
Hydrologic bench-mark station, definition of.....	9
Hydrologic conditions.....	2
Hydrologic unit.....	4
Instantaneous discharge, definition of.....	4
Introduction.....	1
Kansas River basin, crest-stage partial- record stations in.....	371-374
discharge measurements at miscellaneous sites in.....	386-388,395-399
gaging-station records in.....	279-364
water-quality records in.....	289-364
Keya Paha River, at Wewela, SD.....	53
near Naper.....	54
Lake McConaughy near Keystone.....	105
Lakes and reservoirs:	
Box Butte Reservoir near Hemingford.....	32
Enders Reservoir near Enders.....	291
Harlan County Lake near Republican City.....	319
Harry Strunk Lake near Cambridge.....	307
Hugh Butler Lake near McCook.....	303
Lewis and Clark Lake near Yankton, SD.....	69
McConaughy, Lake, near Keystone.....	105
Merritt Reservoir near Burge.....	38
Sherman Reservoir near Loup City.....	165-166
Swanson Lake near Trenton.....	287
Lewis and Clark Lake near Yankton, SD.....	69
Lincoln County drain No. 1 near North Platte.....	110
Lincoln Creek near Seward.....	331-333
Little Blue River, at Hollenberg, KS.....	359-364
near Alexandria.....	357
near Deweese.....	355-356
near Fairbury.....	358
Little Nemaha River at Auburn.....	270-272
Little Nemaha River basin, crest-stage partial-record stations in.....	371
discharge measurements at miscellaneous sites in.....	395
gaging-station records in.....	270-272
water-quality records in.....	271-272
Little Salt Creek near Lincoln.....	243
Lodgepole Creek, at Bushnell.....	112
at Kimball.....	113-114
at Ralton.....	115
Logan Creek, at Pender.....	218-221
near Uehling.....	222-223
Long Pine Creek at Long Pine.....	406
Long Pine Creek near Riverview.....	50-52
Loup River, at Columbus.....	201
near Genoa.....	194-197
Loup River power canal at diversion near Genoa.....	187-192
near Genoa.....	193

	PAGE
Maple Creek near Nickerson.....	224
Map showing locations of complete-record stations.....	17
Map showing locations of observation wells.....	20
Map showing locations of partial-record stations.....	18
Map showing locations of surface water- quality stations.....	19
Mean concentration, definition of.....	6
Mean discharge, definition of.....	4
Medicine Creek, above Harry Strunk Lake.....	306
below Harry Strunk Lake.....	308
Merritt Reservoir near Burge.....	38
Methylene blue active substance, definition of.....	4
Micrograms per kilogram, definition of.....	4
Micrograms per liter, definition of.....	4
Middle Loup River, at Arcadia.....	158-159
at Dunning.....	150-151
at St. Paul.....	167-168
near Comstock.....	157
near Milburn.....	156
Mill Creek at Louisville.....	417-419
Milligrams per liter, definition of.....	4
Minnehaduzza Creek at Valentine.....	40
Mira Creek at North Loup.....	413
Missouri River, at Nebraska City.....	269
at Omaha.....	74
at Rulo.....	273
at Sioux City, IA.....	71
Missouri River at Yankton, SD.....	70
Mud Creek, near Broken Bow.....	160-161
near Sweetwater.....	162
Muddy Creek at Arapahoe.....	310
Muddy Creek at Stratton.....	285
National Geodetic Vertical Datum of 1929.....	4
National stream-quality accounting network.....	9
Natural substrate, definition of.....	6
New York Creek basin, crest-stage partial- record stations in.....	366
discharge measurements at miscellaneous sites in.....	390
Ninemile drain near McGrew.....	86
Niobrara River, above Box Butte Reservoir.....	29-31
at Agate.....	28
at Wyoming-Nebraska State line.....	27
below Box Butte Reservoir.....	33
near Gordon.....	34
near Norden.....	43-46
near Sparks.....	41-42
near Spencer.....	55-56
near Verdel.....	57-67
Niobrara River basin, crest-stage partial-record stations in.....	365-366
discharge measurements at miscellaneous sites in.....	375-380,389
gaging-station records in.....	27-67
water-quality records in.....	30-67,405-409
North Loup River, at Ord.....	177
at Taylor.....	169-172
near St. Paul.....	178-181
North Platte River, at Bridgeport.....	91-92
at Lewellen.....	104
at Lisco.....	94-102
at McGrew.....	87-88
at Mitchell.....	80-81
at North Platte.....	111
at Wyoming-Nebraska State line.....	75-76
near Keystone.....	106-107
near Minatare.....	85
near Sutherland.....	108
Notice.....	2
Numbering system for wells and miscellaneous sites.....	8
Oak Creek at 14th Street, at Lincoln.....	415-416
Oak Creek, near Dannebrog.....	410
near Farwell.....	410
Omaha Creek at Homer.....	72
Omaha Creek basin, crest-stage partial-record stations in.....	366
discharge measurements at miscellaneous sites in.....	390
gaging station records in.....	72
Order, downstream and station numbers.....	8
Organic mass, definition of.....	3
Organism, definition of.....	4
Organism count/area, definition of.....	4
Organism count/volume, definition of.....	5
Other data available.....	11

	PAGE
Papillion Creek basin, crest-stage partial-record stations in.....	367
discharge measurements at miscellaneous sites in.....	390
Parameter codes.....	13
Partial-record station, analyses of samples.....	405-423
definition of.....	5
Particle size, definition of.....	5
Particle-size classification, definition of.....	5
percent composition.....	5
Periphyton, definition of.....	5
Pesticide analyses of ground water in Hall County.....	504
Pesticide program, definition of.....	9
Pesticides, definition of.....	5
Phytoplankton, definition of.....	5
Picocurie, definition of.....	5
Plankton, definition of.....	5
Platte River, at Brady.....	120
at Louisville.....	257-267
at North Bend.....	203-206
near Cozad.....	121
near Duncan.....	142-149
near Grand Island.....	132-135
near Kearney (north channel).....	130-131
near Odessa.....	129
near Overton.....	122-126
Platte River basin, crest-stage partial-record stations in.....	367-370
discharge measurements at miscellaneous sites in.....	380-386, 391-395
gaging-station records in.....	75-267
Seepage investigations in.....	400-404
water-quality records in.....	76-267, 410-419
Plum Creek at Johnstown.....	405
at Meadville.....	47-49
near Johnstown.....	405
Polychlorinated biphenyls, definition of.....	6
Ponce Creek, at Anoka.....	23
at Verdel.....	24-26
Ponce Creek basin, discharge measurements at miscellaneous sites in.....	375
gaging-station records in.....	23-26
water-quality records in.....	25-26
Prairie Dog Creek near Woodruff, KS.....	318
Publications on Techniques of Water Resources Investigations.....	15-16
Pumpkin Creek near Bridgeport.....	93
Radiochemical program, definition of.....	9
Records, explanation of.....	9-13
Ground-water, collection.....	13
Surface-water, collection.....	9-12
accuracy.....	11
computation.....	9-11
other agencies.....	12
other data.....	11
Water-quality, collection.....	12
examination.....	12
parameter codes.....	13
sediment.....	13
temperature.....	12
Records of discharge collected by other agencies.....	12
Recoverable from bottom material, definition of.....	408-409
Redbird Creek, near Meek.....	408-409
Red Willow Creek (Kansas River basin), above Hugh Butler Lake.....	302
near McCook.....	304
near Red Willow.....	305
Red Willow Creek (Platte River basin) near Bayard.....	90
References, selected.....	15-16
Republican River, at Benkelman.....	283
at Cambridge.....	309
at McCook.....	300-301
at Stratton.....	286
at Trenton.....	288-289
below Harlan County Dam.....	320
near Guide Rock.....	325-327
near Hardy.....	328
near Orleans.....	312-314
North Fork, at Colorado-Nebraska State line.....	280
South Fork, near Benkelman.....	284
Reservoirs. See Lakes and reservoirs	
Rock Creek (Kansas River basin) at Parks.....	282
Rock Creek (Platte River basin), near Ceresco.....	248-249
Salt Creek, above Ashland.....	252-253

	PAGE
Salt Creek, above Beal Slough, at Lincoln.....	236-238
at Greenwood.....	250-251
at Lincoln.....	239-242
at 14th Street, at Lincoln.....	415-416
at Roca.....	235
below Stevens Creek, near Waverly.....	245-247
near Roca.....	415-416
Sand Draw, near Johnstown.....	406
near meadville.....	407
Sappa Creek near Stamford.....	317
Sediment.....	13
definition of.....	6
Seepage investigations.....	400-404
Selected references.....	15-16
Sheep Creek near Morrill.....	78
Shell Creek near Columbus.....	202
Sherman Reservoir near Loup City.....	165-166
Silver Creek near Wahoo.....	255-256
Snake River, above Merritt Reservoir.....	35-37
near Burge.....	39
Sodium-adsorption-ratio, definition of.....	6
Solute, definition of.....	6
South Loup River, at St. Michael.....	163-164
South Platte River, at Julesburg, CO.....	116
at North Platte.....	119
at Roscoe.....	117-118
Special networks and programs.....	9
Specific conductance, definition of.....	6
Spring Creek below Lexington.....	127-128
Stage-discharge relation, definition of.....	6
Station numbers, downstream order of.....	8
Stevens Creek, at Highway 6, near Lincoln.....	417-418
near Lincoln.....	244
Stinking Water Creek near Palisade.....	295
Streamflow, definition of.....	6
Substrate, definition of.....	6
Suspended, recoverable, definition of.....	7
Suspended sediment, definition of.....	6
Suspended, total, definition of.....	7
Suspended-sediment concentration, definition of.....	6
Suspended-sediment discharge, definition of.....	6
Suspended-sediment load, definition of.....	6
Swanson Lake near Trenton.....	287
Taxonomy, definition of.....	7
Tekamah Creek at Tekamah.....	73
Tekamah Creek basin, crest-stage partial-record stations in.....	366
discharge measurements at miscellaneous sites in.....	390
gaging-station records in.....	73
Terms and abbreviations, definition of.....	2-8
Thermograph, definition of.....	7
Thompson Creek at Riverton.....	322
Tons per acre-foot, definition of.....	7
Tons per day, definition of.....	7
Total, definition of.....	7
Total coliform bacteria, definition of.....	3
Total in bottom material, definition of.....	7
Total organism count, definition of.....	5
Total, recoverable, definition of.....	8
Total sediment discharge, definition of.....	6
Tub Springs near Scottsbluff.....	82
Turkey Creek (Big Nemaha River basin) near Seneca, KS.....	274
Turkey Creek (Kansas River basin) near Edison.....	311
near Wilber.....	348-350
Turkey Creek (Platte River basin), near Nyated.....	411
northeast of Dannebrog.....	411
Tributary near St. Paul.....	411
Unnamed Creek at St. Paul.....	412
Unnamed Creek south of Elba.....	414
Wahoo Creek at Ithaca.....	254
Water analyses.....	12
Water-quality records, explanation of.....	12-13
Water temperature.....	12
Water year, definition of.....	8
Weeping Water Creek, at Union.....	268
at Weeping Water.....	420-422
near Union.....	422-423
South Branch, near Union.....	420-422
Weeping Water Creek basin, crest-stage partial-record stations in.....	371
discharge measurements at miscellaneous sites in.....	386
gaging-station records in.....	268

	PAGE
Weeping Water Creek basin, water-quality records in.....	420-423
Weigand Creek basin, crest-stage partial-record stations in.....	366
Well numbers.....	8
Wet mass, definition of.....	3
White River at Crawford.....	21
White River basin, crest-stage partial-record stations in.....	365

	PAGE
White River basin, discharge measurements at miscellaneous sites in.....	375, 389
gaging-station records in.....	21-22
Willow Creek near Foster.....	215
Winters Creek near Scottsbluff.....	83
Wood River, near Alda.....	136-137
near Chapman.....	140-141
near Grand Island.....	138-139
WDR, definition of.....	8

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1 2.54×10^{-2}	millimeters (mm) meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3 4.047×10^{-1} 4.047×10^{-3}	square meters (m ²) square hectometers (hm ²) square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0 3.785×10^0 3.785×10^{-3}	liters (L) cubic decimeters (dm ³) cubic meters (m ³)
million gallons	3.785×10^3 3.785×10^{-3}	cubic meters (m ³) cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1 2.832×10^{-2}	cubic decimeters (dm ³) cubic meters (m ³)
cfs-days	2.447×10^3 2.447×10^{-3}	cubic meters (m ³) cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3 1.233×10^{-3} 1.233×10^{-6}	cubic meters (m ³) cubic hectometers (hm ³) cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1 2.832×10^1 2.832×10^{-2}	liters per second (L/s) cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2} 6.309×10^{-2} 6.309×10^{-5}	liters per second (L/s) cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1 4.381×10^{-2}	cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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