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WATER RESOURCES OF THE WEISER RIVER BASIN,  
WEST-CENTRAL IDAHO

UNIVERSITY OF UTAH  
RESEARCH INSTITUTE  
EARTH SCIENCE LAB.

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Prepared by the United States Geological Survey.  
in cooperation with  
the Idaho Department of Water Resources

May 1977

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Maps in Map Drawer

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5 WEST-CENTRAL IDAHO  
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FACTORS FOR CONVERTING ENGLISH UNITS TO INTERNATIONAL  
SYSTEM (SI) UNITS

The International System of Units is being adopted for use in reports prepared by the U.S. Geological Survey. To assist readers of this report in understanding and adapting to the new system, many of the measurements reported herein are given in both units. Chemical data for concentrations are given only in milligrams per liter (mg/L) or micrograms per liter ( $\mu\text{g/L}$ ) because these values are (within the range of values presented) numerically equal to equivalent values expressed in parts per million, or parts per billion, respectively.

Multiply English Units	By	To Obtain SI Units
<u>Length</u>		
inches (in)	25.40	millimeters (mm)
feet (ft)	0.3048	meters (m)
miles (mi)	1.609	kilometers (km)
<u>Area</u>		
acres	0.4047	hectares (ha)
square miles (mi <sup>2</sup> )	2.590	square kilometers (km <sup>2</sup> )
<u>Volume</u>		
acre-feet (acre-ft)	1233	cubic meters (m <sup>3</sup> )
gallons (gal)	3.785	liters (L)
tons per square mile (tons/mi <sup>2</sup> )	0.3503	tonnes per square kilometer (t/km <sup>2</sup> )
<u>Flow</u>		
cubic feet per second (ft <sup>3</sup> /s)	0.02832	cubic meters per second (m <sup>3</sup> /s)
acre-feet per year (acre-ft/yr)	1233	cubic meters per year (m <sup>3</sup> /yr)
gallons per minute (gal/min)	0.06309	liters per second (L/s)
<u>Mass</u>		
tons (short)	0.9072	tonnes (t)



The following table shows the relation between °C (degrees Celsius) and °F (degrees Fahrenheit).

TEMPERATURE-CONVERSION TABLE

°C	°F	°C	°F	°C	°F	°C	°F
-5	23.0	8	46.4	21	69.8	38	100
-4	24.8	9	48.2	22	71.6	40	104
-3	26.6	10	50.0	23	73.4	45	113
-2	28.4	11	51.8	24	75.2	50	122
-1	30.2	12	53.6	25	77.0	55	131
0	32.0	13	55.4	26	78.8	60	140
+1	33.8	14	57.2	27	80.6	65	149
2	35.6	15	59.0	28	82.4	70	158
3	37.4	16	60.8	29	84.2	75	167
4	39.2	17	62.6	30	86.0	80	176
5	41.0	18	64.4	32	89.6	85	185
6	42.8	19	66.2	34	93.2	90	194
7	44.6	20	68.0	36	96.8	95	203

WATER RESOURCES OF THE WEISER RIVER BASIN,  
WEST-CENTRAL IDAHO

By

H. W. Young, W. A. Harenberg,  
and Harold R. Seitz

ABSTRACT

The study area comprises about 1,600 square miles (4,100 square kilometers) in west-central Idaho and includes the entire Weiser River basin and small areas both west and south of Weiser outside the basin. The basin is sparsely populated and the economy is chiefly agricultural.

The principal use of water in the basin is for irrigation, and the largest source of readily available water is surface water.

The principal aquifers in the basin are in the basalt of the Columbia River Basalt Group and the overlying Tertiary and Quaternary sedimentary rocks. Ground water occurs under artesian and water-table conditions in both types of aquifers.

Reported well yields in the basin range from 1 to 1,83<sup>5</sup>/<sub>8</sub> gallons per minute (0.063 to 122 liters per second). Specific capacities range from less than 0.01 to 61.2 gallons per minute per foot of drawdown (.002 to 12.6 liters per second per meter of drawdown).

Mean annual surface-water discharge of the basin above the gaging station Weiser River near Weiser is 788,000 acre-feet ( $0.97 \times 10^9$  cubic meters). The 7-day, 2-year low flow for Weiser River near Weiser is 102 cubic feet per second (2.89 cubic meters per second), and the highest peak flow was 19,900 cubic feet per second (564 cubic meters per second) in December 1955. Flow past the station Weiser River near Weiser equals or exceeds 3,000 cubic feet per second (85 cubic meters per second) 10 percent of the time. Peak flows in the tributaries at lower altitudes normally occur during January and in the tributaries at higher altitudes during April and May.

Ground water in the basin is generally of good chemical quality, with dissolved-solids concentrations generally less than 200 milligrams per liter. However, the possible contamination of some rural wells by barnyard or septic-tank pollutants is suspected.

Surface waters of the basin are also generally of good chemical quality, with dissolved-solids concentrations less than 150 milligrams per liter, except during periods of low flow in late summer when water temperatures near 25°C, algal growths, and coliform bacteria were noted in several reaches of the Weiser River.

Suspended-sediment yields from streams in the study area range from 5 tons per square mile (2 tonnes per square kilometer) to over 500 tons per square mile (200 tonnes per square kilometer).

## INTRODUCTION

The study area comprises about 1,600 mi<sup>2</sup> (4,100 km<sup>2</sup>) and includes the entire Weiser River basin and small areas, both west and south of Weiser (fig. 1), which drain directly to the Snake River. The basin is sparsely populated. Populations of the four principal towns in 1970 were: Weiser, 4,071; Council, 884; Cambridge, 567; and Midvale, 172.

The economy of the basin is chiefly agricultural. The principal crops are small grains, hay, some fruit, sweet corn, sugar beets, and potatoes. Most of the crops are irrigated; however, some dryland farming is practiced. In addition, beef cattle, dairy cattle, and sheep are raised in the basin. Because the economy of the basin is based so largely on irrigated agriculture, the water resources of the basin are of vital concern to the inhabitants. An understanding of the basin's water resources would allow for their more efficient use.

Figure 1

## Objectives of Study

The U.S. Geological Survey undertook this study as part of a continuing cooperative program of water-resources investigations with the Idaho Department of Water Resources (IDWR). The study was designed to meet the needs of the IDWR in planning for water-resources development and in administering water rights and the needs of water users. Specific objectives of the report are to: (1) describe the general distribution and availability of the water resources; (2) describe the chemical quality of these waters; and (3) recommend a hydrologic network for the future monitoring of ground-water-level fluctuations, surface-water flow, and water-quality changes.

### Scope of Study

The major emphasis of the study was on the collection of data descriptive of the general hydrologic framework of the basin. Work accomplished during the 2-year investigation included: (1) an inventory of 370 wells; (2) the collection of streamflow data on 18 tributaries of the Weiser and Snake Rivers; (3) the reestablishment of a stream-gaging station on the Weiser River at Tamarack; (4) the collection of periodic water-level data from 24 wells; (5) study of the relation of surface and ground waters; (6) hydrologic mapping; (7) the appraisal of the quality of water resources; (8) the collection of suspended-sediment data for several tributary and Weiser River sites; and (9) an evaluation of the present use of water.

### Previous Studies

Several reports relating to various aspects of the water resources of the basin provided information useful to this overall assessment of the water resources. The most noteworthy reports include: (1) Walker and Sisco (1964), which evaluated the occurrence of ground water in the Midvale and Council areas; (2) Young and Mitchell (1973), and Young and Whitehead (1975), which evaluated the geothermal potential of parts of the basin; and (3) a feasibility study by the U.S. Bureau of Reclamation (1972), which dealt with the development potential of selected areas within the basin.

Three U.S. Geological Survey open-file reports are also available. Those reports--Johnson (1941), Helland (1949), and Colbert and Young (1964)--contain general information pertaining to the development of the water resources in the basin with regard to potential reservoir sites, and summaries of existing streamflow records.



### Acknowledgments

Many farmers and landowners in the Weiser River basin cooperated fully in this study by allowing access to their property, supplying information about their wells, and permitting water-level measurements to be made in their wells. Municipal officials and employees supplied information about their water systems. To all of the above, the authors are grateful.

## U.S. Geological Survey Numbering Systems

### Well- and Spring-Numbering System

The well- and spring-numbering system used by the U.S. Geological Survey in Idaho indicates the location of wells or springs within the official rectangular subdivision of the public lands, with reference to the Boise base line and meridian. The first two segments of the number designate the township and range. The third segment gives the section number, followed by three letters and a numeral, which indicate the quarter section, the 40-acre (16.2-ha) tract, the 10-acre (4.05-ha) tract, and the serial number of the well within the tract, respectively. Quarter sections are lettered A, B, C, and D in counterclockwise order from the northeast quarter of each section (fig. 2). Within the quarter sections, 40-acre (16.2-ha) and 10-acre (4.05-ha) tracts are lettered in the same manner. Well 14N-2W-6DCD1 is in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 14 N., R. 2 W., and was the first well inventoried in that tract. Springs are designated by the letter "S" following the last numeral; for example, 12N-4W-34ABB1S.

Figure 2

## Gaging-Station-Numbering System

Each gaging station and partial-record station has been assigned a number in downstream order in accordance with the permanent numbering system used by the U.S. Geological Survey. Numbers are assigned in a downstream direction along the main stream, and stations on tributaries between main-stream stations are numbered in the order that the tributaries enter the main stream. A similar order is followed on other ranks of tributaries. The complete 8-digit number, such as 13266000, which is used for the station "Weiser River near Weiser," includes the part number "13," indicating that the Weiser River is in the Snake River basin, plus a 6-digit station number.

## HYDROLOGIC FRAMEWORK

### Climate

The climate of the Weiser River basin ranges from semiarid in the lowlands to subhumid in the higher mountains. The variation in the climatic conditions of the basin is caused primarily by the topographic relief. In general, the weather of the basin is characterized by warm, dry summers and cool, wet winters.

Mean annual temperatures recorded by the National Weather Service are 10.7°C at Weiser (altitude 2,160 ft, or 646 m) and 9.0°C at Council (altitude 2,935 ft, or 895 m). Mean monthly temperatures (fig. 3) range from about -5°C in January at Cambridge (altitude 2,650 ft, or 808 m) to about 24°C in July at Weiser. The freeze-free growing season is about 150 days at Weiser and 120 days at Cambridge (Stevlingson and Everson, 1968).

Mean annual precipitation in the basin ranges from about 10 in (250 mm) near Weiser to more than 45 in (1,100 mm) on Council Mountain (see fig. 12). Highest mean monthly precipitation occurs in December and January, while the lowest occurs in July and August. The amount of precipitation during the freeze-free growing season in the Weiser River basin ranges from 2.40 in (61 mm) at Weiser (21 percent of the mean annual) to 5.45 in (138 mm) at Council (20 percent of the mean annual).

Figure 3

## Landforms and Drainage

The generally mountainous topography of the basin is bisected by a line of lowlands along the Weiser River. The lowlands are structural basins in the basalts that have been partly filled with sedimentary deposits (fig. 4). Between lowland segments, the Weiser River flows through canyons cut in the basalt. The altitudes of the valley floors range from 2,120 ft (646 m) at Weiser to 2,935 ft (895 m) at Council. Mountains on the east side of the basin rise to 8,126 ft (2,477 m) above mean sea level, and the mountains on the west side rise to 7,876 ft (2,401 m).

The Weiser River flows generally southward to the Snake River and drains an area of approximately 1,600 mi<sup>2</sup> (4,100 km<sup>2</sup>). The river is more than 110 mi (180 km) long and falls approximately 27 ft/mi (5.1 m/km) between Tamarack, altitude 4,690 ft (1,430 m), and the confluence with the Snake River at Weiser, altitude 2,100 ft (640 m).

Major east-side tributaries to the Weiser River include Crane Creek, Little Weiser River, Middle Fork Weiser River, and the East Fork Weiser River. The west side of the basin is drained primarily by Mann Creek, Keithly Creek, Pine Creek, Rush Creek, Hornet Creek, and the West Fork Weiser River.

Because the timing of the natural runoff peak in the basin does not coincide with that of the peak crop demands,

Figure 4



and because ground-water supplies are limited, several dams have been built to provide storage facilities for irrigation water. Table 1 lists the characteristics of the four major reservoirs in the basin. Although these reservoirs were designed primarily for irrigation purposes, they also are used for flood control and for recreation.

Table 1

## Geology

The geologic formations in the Weiser River basin have been divided into (1) pre-Tertiary rocks, undifferentiated; (2) Miocene and Pliocene igneous rocks and associated sedimentary materials of the Columbia River Basalt Group; and (3) Tertiary and Quaternary sedimentary rocks. All lava flows in the basin are part of the Columbia River Basalt Group, and all overlying sedimentary rocks are of Tertiary and Quaternary age (Newcomb, 1970). Sedimentary rocks interbedded with lava flows are included with the Columbia River Basalt Group. The areal distribution of these units is shown in figure 4.

Surface exposures of the pre-Tertiary rocks are restricted to a few places on the higher mountains that form the western and eastern drainage divides. These rocks consist of the Seven Devils Group of Permian and Triassic age, which include some sedimentary rocks, and granitic rocks of the Idaho batholith of Cretaceous age.

The Columbia River Basalt Group is the predominant rock type in the Weiser River basin. The group crops out in hill and mountain areas and is exposed in the canyons along the Weiser River. It also underlies the valleys and the broad, undulating plain in the Crane Creek area. The individual lava flows range in thickness from a few feet to about 50 ft (15 m) (Walker and Sisco, 1964).

The sedimentary rocks of Tertiary and Quaternary age are primarily of lacustrine origin and consist mainly of clay and silt. Some sand bodies are included in the sequence, but gravel is uncommon, except in the lowlands near Weiser. A few thin layers of sand and gravel are exposed in terraces along the Weiser River near Midvale and Cambridge. These deposits are generally less than 10 ft (3 m) thick and occur at very shallow depths. Their areal extent is unknown, but they are thought to be limited to the river flood plain.

## Water Use

The principal uses of water in the Weiser River basin, in order of quantities used, are irrigation, domestic, stock, and industrial.

The principal source of irrigation water for the approximately 55,000 acres (22,000 ha) of irrigated land is the Weiser River and its tributaries. Some supplemental irrigation water is supplied from wells, primarily in the southern part of the basin near Weiser.

Domestic and stock water supplies for the basin are derived chiefly from individual wells and springs. Municipal water supplies are obtained from both ground- and surface-water sources. The towns of Council, Cambridge, and Midvale receive water from seven wells open to basalt of the Columbia River Basalt Group. The city of Weiser obtains water from three wells open to the sedimentary-rock aquifers and also from the Snake and Weiser Rivers.

Industrial water use in the basin is limited to the lumbering industry in the central and northern parts of the basin. The primary use of the water by this industry is for mill ponds, which results in very little consumptive use. Most industrial water supplies are obtained from surface-water sources with some supplemental ground-water pumpage.

Water rights and applications for appropriation of water granted by the Idaho Department of Water Resources for surface water in the Weiser River basin as of April 1974 totaled slightly more than 1,000 ft<sup>3</sup>/s (28 m<sup>3</sup>/s). Table 2 shows the amount of allocated water (decrees, licenses, and permits) for the Weiser River and its major tributaries. These appropriations are primarily for surface water. Estimates of ground-water pumpage for irrigation and other uses were beyond the scope of this investigation.

Table 2

## GROUND WATER

### Occurrence

Ground water occurs in all the geologic units of the Weiser River basin. The areal distribution and water-bearing characteristics of these units are shown in figure 4.

The most important and productive aquifers in the basin are in the Columbia River Basalt Group. The group is exposed in the mountains and also underlies the valleys and lowlands throughout the basin. Ground water in the basalt occurs mainly in fractures, joints, and breccia zones of the individual lava flows and in sand and gravel beds that are interlayered with basalt flows. Ground water occurs under both water-table and artesian conditions. The water-table occurrence is limited mostly to the valleys and uplands of the northern part of the basin, whereas artesian conditions occur in the basalt underlying the valleys and lowlands of the central and southern parts of the basin.

Sedimentary rocks of Tertiary and Quaternary age and their aquifers are restricted to the valleys and lowlands. These aquifers are composed primarily of sand, silt, and clay. The main water-bearing zones are thin layers of sand and gravel. Ground water in the sedimentary-rock aquifers is generally confined or semiconfined in all parts of the basin, except for that in the lowlands adjacent to Weiser,



where water-table conditions exist. Water-table conditions also are found in the surficial sand and gravel deposits adjacent to the Weiser River near Cambridge and Midvale.

The occurrence of ground water in the pre-Tertiary rocks, which are exposed only in isolated places in the higher mountains, is limited to fractures and weathered zones. The fractures and weathered zones are the principal sources of water for springs in these areas.

### Source

Most of the ground water in the Weiser River basin is derived from precipitation falling within the drainage basin. An unknown but probably small quantity of recharge to the ground-water system probably results from infiltration of imported water introduced into the basin by the Lower Payette canal.

The basaltic rocks exposed in the catchment areas of the surrounding uplands and mountains also compose the principal aquifers underlying the valleys and lowlands. The principal source of recharge to the basalt aquifers is precipitation falling on the basalt in the mountains. This basalt accepts snowmelt through its fractures, joints, and other connected pores which also serve as conduits that transmit water to the aquifers underlying the valleys and lowlands. Recharge to the basalt aquifers occurs principally during periods of snowmelt.

Sedimentary-rock aquifers are recharged by infiltration of water from snowmelt runoff, streams, canals, ditches, and irrigated fields. It is also suspected that some recharge may result from vertical upward percolation of water from the underlying artesian basalt aquifers. The sedimentary-rock aquifers are recharged primarily during snowmelt runoff and the irrigation season.

## Water-Level Fluctuations

Ground-water levels in the Weiser River basin fluctuate in response to snowmelt runoff, application of irrigation water, and ground-water pumping. Generally, the magnitude of these fluctuations is greatest in the sedimentary-rock aquifers and least in the basalt aquifers.

Fluctuations of ground-water levels in selected wells in the Weiser River basin are shown on hydrographs (fig. 5), and the well locations are shown in figure 6.

Generally, water levels in wells in both the basalt and the sedimentary-rock aquifers in the Weiser River basin begin to rise in response to snowmelt runoff. The water levels continue to rise during the snowmelt-runoff period and then gradually decline.

Water levels in well 12N-5W-34ABC1 completed in the sedimentary-rock aquifer near Monroe Creek, and well 17N-1W-15AAC1 completed in the basalt aquifer near Fruitvale, show water-level fluctuations that correspond with snowmelt runoff. Water levels in both wells rise during snowmelt runoff and then gradually decline throughout the summer, fall, and winter. The natural hydrograph of well 17N-1W-15AAC1 has been slightly distorted because of pumping. Water-level fluctuations for several other wells in figure 5 also show the same seasonal trends.

Figure 5

Figure 6

In areas where excess irrigation water infiltrates to the underlying aquifer, water levels start to rise in conjunction with snowmelt runoff. However, the water levels continue to rise throughout the summer (growing season) in response to the infiltrating irrigation water and then gradually decline after the irrigation season ends.

Water levels in well 11N-6W-25CAC1 completed in the sedimentary-rock aquifer west of Weiser and well 12N-4W-31DBB1 completed in the sedimentary-rock aquifer near Mann Creek (fig. 5) show water levels affected by the infiltration of irrigation water. Water levels rise during the irrigation season and generally reach a maximum in September.

Water-levels in areas affected by ground-water pumping for irrigation show declines beginning in late spring or early summer. These declines continue until fall when water levels start to recover after the pumping season. The effects of ground-water pumping in different parts of the Weiser River basin are shown by the following hydrographs (fig. 5): well 10N-5W-16BBC1, completed in the sedimentary-rock aquifer east of Weiser; well 13N-1W-32ACD1, completed in the basalt(?) aquifer near Crane; wells 13N-4W-12CDC1, completed in the sedimentary-rock(?) aquifer and 13N-3W-10CDD1, completed in the basalt aquifer near Midvale; and well 16N-1W-3DDD2, completed in the sedimentary-rock aquifer near Council.

## Movement

The general direction of ground-water movement in parts of the Weiser River basin can be inferred from contours on the potentiometric surface based on 370 water levels measured or reported in the fall of 1975 (fig. 6). Data for all inventoried wells in the Weiser River basin are given in basic-data table A. The ground-water movement is perpendicular to the potentiometric-surface contours and down-gradient. The potentiometric surface (fig. 6) includes the surface of the saturated zone in the areas where the ground water is unconfined and the hydrostatic head in areas where the ground water is semiconfined or confined.

Ground water in the Weiser River basin in general moves from areas of higher altitude to areas of lower altitude. Potentiometric contours are shown only along the axis of the Weiser River and its major tributaries because well data are not available for other parts of the basin. Although there are no well data available in the mountainous areas, it is assumed that the ground water moves from these catchment areas to the lowlands and valleys through basalt of the Columbia River Basalt Group.

The potential for ground-water movement is shown on figure 6 in the greatest detail in the valley segments at Council, Cambridge, and Midvale, and in Indian Valley and Crane Creek valley. The potential gradient is rather flat

Basic - data Table A



in these valleys and ground water moves toward the Weiser River and other streams where it is discharged by evapotranspiration and inflow to the streams.

The direction of ground-water movement near Weiser and along Mann Creek Valley is controlled primarily by recharge resulting from infiltration losses of applied irrigation water. Ground water moves toward the Weiser and Snake Rivers from the irrigated areas adjacent to each river. In the Mann Creek valley, ground water moves from the irrigated areas along the eastern side of the valley southwestward to Mann Creek, which flows along the western edge of the valley.

In addition to the lateral ground-water movement implied in figure 6, ground water in the semiconfined and confined systems may also move vertically. Vertical movement is controlled by the hydrostatic head differences and the hydraulic conductivity of the materials in which the water is moving. In the Cambridge and Midvale areas, ground water moving upward from the basalt aquifers may be an important source of recharge to the sedimentary-rock aquifers.

## Discharge

Ground water is discharged in the Weiser River basin by springs, seepage to stream channels, evapotranspiration, pumping, and subsurface outflow.

Springs and seeps in the Weiser River can be divided into two groups; intermittent and perennial. Generally, the intermittent springs are in the lowlands and valleys. These springs usually head in small draws and drain local shallow, unconfined aquifers that respond directly to the infiltration of local precipitation. The perennial springs, for the most part, are found in the high mountains of the basin. The base flow of the Weiser River and most of the perennial streams is derived from these upland springs and seeps.

Evapotranspiration, which includes evaporation from land and water surfaces and transpiration from vegetation, occurs mainly in the lowlands and valleys where the potentiometric surface is near or above the land surface.

Ground-water pumping is a means of discharge in many parts of the Weiser River basin. Hydrographs for selected wells (fig. 5) located in the lowlands near Council, Indian Valley, Midvale, and Weiser show the effect of ground-water pumping.

Subsurface outflow from the Weiser River basin occurs near Weiser. The outflow is through the sand and gravel of the sedimentary-rock aquifer and is toward the Snake River

(fig. 6). An estimate of the amount of subsurface outflow to the Snake River was made using available data and the following equations:

$$T=0.1337 \times SC \times 2,000 \quad (1)$$

(Thomasson and others, 1960), and

$$Q=TIL \quad (2)$$

(Ferris and others, 1962), where

T = transmissivity, in feet squared per day,

SC = specific capacity, in gallons per minute per foot of drawdown,

Q = discharge, in cubic feet per day,

I = hydraulic gradient, in feet per mile, and

L = width, in miles, of the cross section through which the discharge occurs.

Assuming an average specific capacity (SC) of 10 (gal/min)/ft of drawdown (2.06 [L/s]/m of drawdown) as estimated from drillers' logs, a transmissivity (T) of 2,670 ft<sup>2</sup>/day (248 m<sup>2</sup>/day) is calculated using equation 1. Using a transmissivity (T) of 2,670 ft<sup>2</sup>/day (248 m<sup>2</sup>/day), a hydraulic gradient (I) of 13 ft/mi (6.4 m/km) as determined from wells near Weiser, and a cross-section width (L) of 17 mi (27 km), the subsurface outflow from the Weiser River basin is 590,000 ft<sup>3</sup>/day (16,700 m<sup>3</sup>/day), or less than 7 ft<sup>3</sup>/sec (0.20 m<sup>3</sup>/s) using equation 2.

## Thermal Water

Thermal ground water is present in several areas of the Weiser River basin. Preliminary chemical and physical data descriptive of thermal water from five springs and four wells in the Weiser River basin were collected by Young and Mitchell (1973). The temperatures of these waters ranged from about 25° to about 90°C, and the discharges ranged from less than 1 gal/min (0.063 L/s) to 431 gal/min (27.2 L/s). The thermal springs issue from basalt or from alluvium in proximity to basaltic outcrops, and all wells are thought to penetrate and receive water from basalt.

The southern part of the Weiser River basin probably has the greatest potential for geothermal exploration and development. Young and Whitehead (1975) studied the Weiser Hot Springs and the Crane Creek Hot Springs areas, located in the southern part of the basin approximately 5 mi (8 km) northwest and 12 mi (19 km) east of Weiser, respectively.

## Well Yields

Sufficient ground water for domestic and stock supplies can be obtained almost everywhere in the Weiser River basin. Adequate yields for irrigation and municipal supplies, with the exception of the sedimentary-rock aquifer near Weiser, are probably limited to the basalt aquifers. The sedimentary-rock aquifer near Weiser does yield adequate amounts of water for irrigation.

Yields and specific capacities of wells in the basalt are highly variable. Reported well yields from drillers' logs of wells penetrating the basalt aquifers range from 3 to 1,835 gal/min (0.2 to 122 L/s). Specific capacities determined from drillers' logs range from 0.06 to 52.4 (gal/min)/ft of drawdown (0.01 to 11.0 [L/s]/m of drawdown). However, a yield of 1 gal/min for each foot of penetration (0.21 L/s for each meter of penetration) (Newcomb, 1959) in the saturated basalt may be a reasonable approximation of the expected yields from these aquifers. Reported yields (basic-data table A) averaged slightly less than 2 gal/min for each foot of penetration (0.4 L/s for each meter of penetration). Several wells completed in basalt in Council, Indian Valley, Cambridge, Midvale, and the area near Crane Creek Reservoir yield adequate amounts of water for irrigation and municipal needs.

Reported yields from the sedimentary-rock aquifers range from 1 to 1,647 gal/min (0.063 to 104 L/s) (basic-data table A). Specific capacities of wells in these aquifers are highly variable and range from less than 0.01 (gal/min)/ft of drawdown (.002 [L/s]/m of drawdown) for wells penetrating finer grained materials to 61.2 (gal/min)/ft of drawdown (12.6 [L/s]/m of drawdown) for wells penetrating a sand and gravel aquifer near Weiser. The yields of wells in the sedimentary-rock aquifers are directly related to the thickness of saturated sand and gravel encountered in the wells; for example, the thicker the sand and gravel beds in the saturated material, the larger the well yields.

## Well Construction and Development

Proper well construction and development are essential to insure optimum well yields, prevent caving, and obtain maximum economic well life. In the basalt aquifers, the material surrounding the well, in most instances, is stable, and the water enters the well directly from fractures and joints. However, in the sedimentary-rock aquifers and interbedded sedimentary rocks or rubble zones of the basalt aquifers where water is derived from unconsolidated materials, a casing is necessary to support the well. The casing should be perforated or a well screen should be installed to admit water to the well. If perforations or screens are installed at all permeable water-bearing zones penetrated, yield will be maximized. Perforated casing or well screens should generally not be installed adjacent to silt, clay, or fine sand because only small quantities of muddy water would be produced.

The optimum size of the perforations or screen openings depends on the grain size of the aquifer materials. The perforations or screen openings should be sized to allow at least 50 percent of the fine-grained aquifer materials to pass through the openings. This will then remove the finer grained materials, leaving the coarse aquifer materials around the well to form a more permeable zone.

Another method of well construction involves the use of an artificial gravel envelope around the perforated or screened intervals of the well. The gravel pack increases the effective diameter of the well and prevents the fine-grained material from moving into the well. The size of the gravel used in packing a well is dependent upon the size of the aquifer materials. Generally, the size of gravel used is four times larger than the coarser 25 percent of the aquifer materials. The size of perforations or screen openings should be about three-fourths of the size of the gravel used to pack the well.

After installation of perforations, screens, or gravel pack, the well should be developed to remove the fine-grained aquifer materials from around the perforated or screened intervals. Two common methods of well development are pumping and surging.

Development by pumping is accomplished by initially pumping the well at a low discharge rate until the water becomes clear. The well is then pumped at a higher discharge until the water once again clears. This procedure is continued until the maximum discharge rate is reached. Pumping is then stopped and the water level in the well is allowed to recover. The above outlined pumping cycle is then repeated until concentrations of fine-grained materials in the water are reduced to an acceptable level.



Surging the well requires the use of a surge block or plunger. The block is operated above the perforated or screened interval and forces water in and out of the well through the perforations. This action pulls the finer grained aquifer material into the well where they can be removed by a bailer. This process should be continued until all fine-grained material is removed.

Careful well development increases the likelihood of obtaining maximum well yield with minimum drawdown. A properly developed well will usually have a longer life.

## Ground-Water Contribution to Surface-Water Flow

Base flow of streams is that part of streamflow which is derived from ground-water discharge. Ground-water discharges to streams in the Weiser River basin by means of springs, seeps, and seepage directly into the main stream channels--drainage directly from the rock formations or soil horizons. The effect of ground-water discharge to a stream is usually identifiable by the specific conductance of the stream water. As the specific conductance of the stream nears that of the ground-water body, the ground-water contribution to the stream approaches 100 percent of the streamflow.

Specific-conductance values and the corresponding discharges for the Middle Fork Weiser River and Scott Creek are shown in figure 7. Ground-water contribution to the Middle Fork Weiser River approaches 100 percent of the streamflow during the period of relatively constant specific-conductance values (mid-summer to early spring). The periods of lower specific conductance and higher discharges indicate periods of snowmelt runoff.

Scott Creek, although not a perennial stream, is also influenced by ground-water discharge. However, the ground-water system is not sufficient to maintain streamflow throughout the summer months.

Figure 7

## SURFACE WATER

The largest source of readily available water in the Weiser River basin is surface water. The collection of streamflow data to describe this resource began in 1890 with the establishment of the gaging station Weiser River near Weiser. Since then, 38 gages have been operated from time to time to record daily flows, and two crest-stage gages have been used to record peak flows. At present, the stream-gaging network in the basin consists of three continuous-recording gages and one crest-stage gage. These gages are West Branch Weiser River near Tamarack, Weiser River near Cambridge, Weiser River near Weiser, and Dixie Creek near Cambridge (basic-data table B and fig. 8).

During this study, April 1974 through December 1975, the gage Weiser River at Tamarack was reactivated to provide continuous flow record. In addition, monthly discharge measurements were made at 18 sites to aid in defining the distribution of flow throughout the basin. Streamflows were measured at 20 other sites during periods of high flow when sediment transport was also high. Some of these measurement sites were at discontinued gaging station locations. Gaging stations, measurement sites, basin characteristics, and periods of streamflow records are listed in basic-data table B. Locations of the stations and sites are shown in figure 8. Discharge measurements made during this study and

Basic data table B

*Figure 8*

concurrently collected water-quality data are listed in basic-data tables G and H. Discharge measurements made at other miscellaneous sites in the basin through 1967 were summarized by Decker and others (1970). Subsequent miscellaneous measurements in the basin have been published yearly in "Water Resources Data for Idaho, Part 1, Surface-Water Records."

### Annual Discharges

The gaging station Weiser River near Weiser measures most of the water flowing from the basin and has the longest record in the basin. Thirty-two complete water years of record have been collected intermittently at this gage, beginning with the 1896 water year and continuing through the 1975 water year. The mean annual discharge (long-term average discharge) for these 32 years is 1,170 ft<sup>3</sup>/s (33.2 m<sup>3</sup>/s), or about 850,000 acre-ft/yr (1.05x10<sup>9</sup>m<sup>3</sup>/yr).

The record for Weiser River near Weiser was extended using data from other stations to improve the evaluation of long-term trends in the streamflow of the basin. The stream-gaging stations Crane Creek at mouth near Weiser and Weiser River above Crane Creek near Weiser operated concurrently for 31 years when the station Weiser River near Weiser was not in operation. As the total drainage area of these two stations is 99.2 percent of that at Weiser River near Weiser gage, and as no significant inflow occurs between the two upper stations and the station Weiser River near Weiser, the combined flow of the two upper stations is virtually the same as at Weiser River near Weiser. The mean annual discharge for 63 years of the period 1896-1975 (32 years, Weiser River near Weiser; and 31 years, Weiser River above Crane Creek near Weiser, plus Crane Creek at mouth near Weiser) is 1,070 ft<sup>3</sup>/s (30.4 m<sup>3</sup>/s), or 778,000 acre-ft/yr



( $0.96 \times 10^9 \text{ m}^3/\text{yr}$ ). Three gaging-station records for areas near the basin were used to extend the record at Weiser River near Weiser by linear regression to cover the missing periods, water years 1905 through 1911 and 1915 through 1921. The mean annual discharge for the 77-year period is  $1,090 \text{ ft}^3/\text{s}$  ( $30.8 \text{ m}^3/\text{s}$ ), or  $788,000 \text{ acre-ft/yr}$  ( $0.97 \times 10^9 \text{ m}^3/\text{yr}$ ). The entire extended record is shown in figure 9 along with the mean annual discharges for the various periods of record.

Streamflow as measured at the gaging station Weiser River near Weiser is representative of the surface-water conditions elsewhere in the basin. Other gaging stations on the Weiser River showed variations in annual discharge that are similar. Some of the tributary subbasins exhibit different annual runoff patterns because streamflows are regulated by reservoir impoundments and releases that do not correspond with natural runoff characteristics.

Figure 9

## Monthly Discharges

Monthly flow records provide a convenient way of looking at the hydrologic characteristics of a stream, such as the seasonal flow distribution.

Hydrographs of mean monthly discharges (average of all discharges for the same month) for the six Weiser River gaging stations (fig. 10) show how flow is distributed in the Weiser River with respect to time. The monthly mean discharges (average of the daily discharges--average daily rate of flow--that occurred during that particular month) at Weiser River at Tamarack, near Cambridge, and near Weiser, operating during the project are also shown so the data collected during the project period can be compared with long-term means. The figure shows that monthly flows in the Weiser River were generally higher than average during this study, except for the period October 1974 through April 1975. The lower-than-normal flows during the period appear to be the result of lower-than-normal precipitation during the October 1974 through January 1975 segment and lower-than-normal temperatures during the February 1975 through April 1975 segment. National Weather Service Climatological Data Summaries for the period show that the February 1975 through April 1975 segment received above-average precipitation. This, combined with the low temperatures, resulted in the delayed and higher-than-normal runoff peaks in the

Figure 10

1975 water year (the 12-month period October 1, 1974, through September 30, 1975).

Mean monthly discharge for selected tributaries based on discontinued gaging-station records are shown in figure 11. Four of the tributaries, Middle Fork Weiser River, Pine Creek, Little Weiser River, and Mann Creek, are natural-flow streams and have hydrographs characteristic of such streams. In contrast, the hydrographs for Lost Creek and Crane Creek show influences of reservoir releases. The high flows of Lost Creek in April and May probably indicate a low storage capacity in relation to inflow for Lost Valley Reservoir during these months. If this is true, the high flows are the result of spillage over dam gates. The high summer flows are sustained by releases of water from storage in the reservoir. The Crane Creek stations 13264500 and 13265500 show the high summer flows from reservoir releases. The high-flow segments of the Crane Creek hydrographs in January, February, March, and April are the result of high-flow years when inflow exceeds the capacity of the reservoir and releases are required to prevent flows over the spillway.

The hydrograph for West Fork Weiser River shows some characteristics of both regulated and natural streams. The higher flows during the summer months are the result of

Figure 11

releases from Lost Valley Reservoir. During the remainder of the year, the stream appears to be only slightly affected by the operation of the reservoir. However, because the drainage area above the reservoir accounts for more than one-third of the area of the subbasin, the effects of storage may be important.

To establish a basis for estimating mean monthly discharge at other sites, the series of discharge measurements made on 18 streams in the Weiser River basin were used to estimate the monthly mean flow by the method proposed by Riggs (1969). This method is a statistical correlation technique utilizing the measured discharges of the ungaged streams concurrently with discharges at a nearby continuous-recording stream-gage site. Two recording stations were used for correlation of streams in the Weiser River basin. The monthly mean discharges for the higher altitude streams were estimated using the reactivated gaging station Weiser River at Tamarack. Estimates for the lower altitude streams were made using the gage on Big Willow Creek near Emmett (not shown in fig. 8--located about 5 mi (8 km) south of study area). Although Big Willow Creek is not within the Weiser River drainage, it drains country similar and adjacent to much of the lower Weiser River basin. The resultant estimates of monthly mean discharges for the 1975 water year for the 18 selected streams are given in basic-data table C.

Basic-data table C.



The process used to convert the monthly mean discharges to the mean monthly discharge for each stream in basic-data table C is as follows: (1) the monthly mean discharges developed by the Riggs method were used to determine an annual mean discharge for the 1975 water year; (2) the annual mean discharge was then adjusted to a mean annual discharge by assuming the same relation of 1975 annual mean to mean annual exists at the measurement site and the correlation station; (3) the mean monthly discharge for each month was estimated by a percentage of the mean annual flow for each month as determined by nearby station records. The mean monthly discharges for each stream are also given in basic-data table C. In addition, the mean monthly and mean annual runoff (runoff shows the depth in inches to which the drainage area would be covered if all the streamflow for a given period was uniformly distributed) for each stream have been computed and are also given in the same basic-data table. Bar graphs depicting the mean monthly runoffs of the selected tributaries and at three Weiser River stations are shown in figure 12.

Subbasins within the Weiser River basin exhibit one of two different runoff patterns. The particular pattern depends somewhat on the altitude of the subbasin. The streams in the lower altitudes of the basin normally reach their peak monthly runoff in January and normally can be

Figure 12

expected to go dry at least 1 month of the year (some are dry about 9 months of the year), while the streams in the higher altitudes of the basin have peak monthly runoff in April and May and flow year round.

Runoff from the two different areas is also shown by the bar graphs for the Weiser River stations. For Weiser River at Tamarack in the northern part of the basin, high monthly runoff occurs in April and May. High monthly runoff near the middle of the basin, as shown by the station Weiser River near Cambridge, occurs from March through June. High monthly runoff in the southern part of the basin, as shown by the station Weiser River near Weiser, occurs from January through June.

The mean annual runoff estimates computed for the monthly measurement sites and listed in basic-data table C are also shown in figure 12. The runoff data used in this map were supplemented by data from gaging-station records wherever possible.

## Daily Discharges

The gaged daily-discharge record provides the most detailed information commonly available about the flow characteristics of a stream. However, streamflow records of more than a few years' duration contain large masses of data that must be summarized to permit efficient use of the data. A number of data summarizing techniques are available. The two techniques used in this report are conversions of the data into the duration hydrographs and the flow-duration curves. The duration hydrograph is produced by examining the daily discharges for the period of record being considered, determining the highest and lowest flows that have occurred, and the flows that have been exceeded 50 percent of the time. Computer program constraints limit record periods to 9, 19, 29, 39, and 49 years. Thus, not all of the available data were used to generate the duration hydrographs of this report. Figures 13 and 14 illustrate the lowest, highest, and median (50 percent exceeded) flows obtained from this analysis.

The highest median discharges for the six Weiser River stations (shown in fig. 13) occurred in April and May as a result of normal spring snowmelt runoff. However, the highest daily discharges occurred during the period December through February. These discharges are usually the result of rain on a snowpack.

Figure 13

Figure 14

Average lowest discharges for all measurement sites, as indicated by the median line, occur in late summer. The isolated 1-day low discharges on the Weiser River at Tamarack hydrograph (fig. 13) are probably the result of the draining and filling of the log pond at Tamarack. When the pond is flushed, the discharge at the gage is increased. When the pond is filled, the flow is reduced and produces the isolated lows.

Duration hydrographs for selected tributaries are shown in figure 14. The hydrographs for West Branch Weiser River, Middle Fork Weiser River, Little Weiser River, Pine Creek, and Mann Creek are representative of those streams that are not regulated by reservoir storages and releases. All streams but Mann Creek normally peak in April-May, as shown by the median line. The runoff peak (April) of Mann Creek probably occurs early because the stream drains a lower altitude than most of the tributaries shown. Also, the sub-basin faces mostly south; therefore, most slopes get sun early in the year, and snow melts earlier.

The duration hydrographs for Lost Creek, West Fork Weiser River, and Crane Creek gaging stations show the effects of regulation. The closer the station to the point of regulation, the more pronounced the effects of regulation. Noticeable effects include long periods of time with the same discharge and periods of no flow. The farther

downstream, the less the effects of regulation on the stream. The effects of regulation at the gage on Lost Creek are more apparent than at the downstream station on the West Fork Weiser River. Even though the hydrographs for both stations on Crane Creek exhibit the effects of regulation, the downstream station curves show the lesser effects. A comparison of the curves for both of these stations shows that some flow is generated between the stations.

The flow-duration curve, the second technique, shows the percentage of time that specified discharges have been equaled or exceeded during the period of record examined. The computer program that produces the duration-curve data examines all daily flow data during the period being considered--the entire period of record for this report--and produces the frequency curve without regard to the particular day or year in which a flow occurred. Thus, the duration curve can be used to determine the flow (daily discharge) that is exceeded a specified percent of the time.

For example, the duration curves for the Weiser River gaging stations (fig. 15) show that 10 percent of the time (36.5 days a year), the discharge equals or exceeds the following: Weiser River at Tamarack, 136 ft<sup>3</sup>/s (3.9 m<sup>3</sup>/s); Weiser River at Starkey, 358 ft<sup>3</sup>/s (10 m<sup>3</sup>/s); Weiser River near Council, 1,180 ft<sup>3</sup>/s (33 m<sup>3</sup>/s); Weiser River near Cambridge, 1,790 ft<sup>3</sup>/s (51 m<sup>3</sup>/s); Weiser River above Crane



Figure 15

Creek, 2,650 ft<sup>3</sup>/s (75 m<sup>3</sup>/s); and Weiser River near Weiser, 3,000 ft<sup>3</sup>/s (85 m<sup>3</sup>/s). This curve generally shows a logical increase in discharge from upstream stations to downstream stations on the Weiser River. The exceptions to this orderly increase are at the lower river stations during low-flow periods. The drop in the curves for Weiser River above Crane Creek and Weiser River near Weiser is probably the result of increased diversions for irrigation from the river combined with a decrease in natural inflow in late summer and early fall.

Flow-duration curves for selected tributaries are shown in figures 16, 17, and 18. With the exceptions of Lost Creek, West Fork Weiser River, and the two Crane Creek stations, the curves represent unregulated tributaries in the basin. Flow-duration curves for all regulated streams, except Crane Creek at mouth, show they can experience some period of no flow, as indicated by the curve leaving the plot (for example, see figure 16; Lost Creek leaves graph at 98 percent). The curve for Crane Creek at mouth (fig. 18) nears the bottom of the graph (0.1 ft<sup>3</sup>/s, or 0.0021 m<sup>3</sup>/s), but the flow at this station is sustained by spring flow and has never experienced a zero flow in 52 years of record. Other tributaries also have periods of no flow, as shown by figure 18 for Monroe Creek and Mann Creek and figure 17 for Rush Creek. Upstream irrigation diversions on Monroe and

Figure 16

Figure 17

Figure 18

Rush Creeks partially affect the discharges of these stations and may account for the no-flow periods. The periods of no flow for Mann Creek may also have been caused by a diversion.

In an area where agriculture depends on streamflow for irrigation water, a more useful flow-duration curve is one which shows the percentage of time that flows are equaled or exceeded during the irrigation season. The irrigation season (May 1 through September 30) flow-duration curves for the Weiser River stations are shown in figure 19. This figure shows that flow in the Weiser River for 10 percent of the time during the irrigation season equals or exceeds 104 ft<sup>3</sup>/s (2.9 m<sup>3</sup>/s) at Tamarack, 320 ft<sup>3</sup>/s (9.1 m<sup>3</sup>/s) at Starkey, 1,010 ft<sup>3</sup>/s (29 m<sup>3</sup>/s) near Council, 2,950 ft<sup>3</sup>/s (84 m<sup>3</sup>/s) near Cambridge, 2,500 ft<sup>3</sup>/s (71 m<sup>3</sup>/s) above Crane Creek, and 1,830 ft<sup>3</sup>/s (52 m<sup>3</sup>/s) near Weiser.

Figure 19

## Low-Flow Discharge

Low-flow characteristics of a stream are important in determining the adequacy of streamflow to supply water for irrigation, industrial, and municipal needs, to maintain fish populations, and to remove wastes during critical low-flow periods. The low-flow data presented in this section were derived from gaging-station records where the period of record was 10 years or more, or by correlation with nearby stations using techniques given by Riggs (1973).

Low flows refer to the lowest average flow for periods of 1 day of the year, 3 consecutive days of the year, 7 consecutive days of the year, and 14 consecutive days of the year. The flows used are the average for the indicated period and generally are reported in cubic feet per second. Thus, a 7-day low flow of 20 ft<sup>3</sup>/s (0.6 m<sup>3</sup>/s) means that during the 7-day period, daily discharge averaged 20 ft<sup>3</sup>/s (0.6 m<sup>3</sup>/s). In addition to a flow period, recurrence intervals are also reported in discussing low-flow characteristics. For example, the 7-day, 10-year low flow for the Weiser River at Tamarack is 3.1 ft<sup>3</sup>/s (0.09 m<sup>3</sup>/s). The 10-year period cited in the example is the recurrence interval, or the average time period between low flows lower than the specified magnitude. The recurrence interval of 10 years does not indicate that lower than specified flows will occur at 10-year intervals; it indicates only that the average



interval between such occurrences is 10 years. Because probability is the reciprocal of the recurrence interval, the example can be restated to say that there is a 10 percent chance--or the probability is 0.10--that the 7-day low flow at the Weiser River at Tamarack will be lower than 3.1 ft<sup>3</sup>/s (0.09 m<sup>3</sup>/s) in any one year. Low-flow characteristics of the Weiser River and selected tributaries for 1-day, 3-day, 7-day, and 14-day periods and recurrence intervals of 2, 5, 10, and 20 years are given in basic-data table D.

Basic data table D

## High-Flow Discharge

High-flow characteristics of streams are important in the proper design of dams, levees, bridges, culverts, and other structures which are subject to damage from excessively high streamflows. They are presented as frequencies in a manner similar to that used for the low-flow characteristics.

High-flow frequencies are listed in basic-data table E for the Weiser River and selected tributaries for the 1-day, 3-day, 7-day, 15-day, and 30-day high-flow periods for recurrence intervals of 2, 5, 10, and 25 years. For example, the 7-day high-flow discharge with a recurrence interval of 10 years for the Weiser River at Tamarack is 542 ft<sup>3</sup>/s (15 m<sup>3</sup>/s).

For most streams in the Weiser River basin, much of the total annual discharge of each stream occurs during a short high-flow discharge period. This is especially true of the low-altitude, low-precipitation streams of the southern part of the basin.

Basic data table  $\equiv$

## Floods

The largest floods in the Weiser River basin usually occur during the winter months and are generally caused by rapid snowmelt resulting from rain falling on the snowpack, unseasonably warm temperatures, or both. Winter floods of a more localized nature are usually the result of a sudden thaw which breaks up river ice. The river ice begins to flow and creates ice jams, causing the streams to overflow.

A parameter frequently used in describing floods is the annual peak discharge. The discharge referred to is the highest momentary flow experienced during a water year at a particular site. Most commonly, annual peak-discharge data are collected at gaging stations. However, such annual peak discharges can also be measured at other sites by indirect methods involving surveys of water profiles and stream cross sections and mathematical computation of flow through the surveyed reach. This has been done at discontinued gages and ungaged sites in the Weiser basin. For example, indirect measurements of the December 1955 flood were made at the discontinued gaging station Rush Creek at Cambridge and at the ungaged site South Fork Crane Creek near Crane, and have been reported by Decker and others (1970).

Analyses of annual peak-discharge data are used by hydrologists and engineers to estimate flood-hazard areas, determine optimum sizes for bridges and culverts, and to

plan for other hydraulic structures. Such analyses involve determination of the frequency of occurrence of peaks. A procedure to be used by Federal agencies in the analysis of peak-discharge data has been proposed by the Water Resources Council (1967). The log-Pearson Type III frequency analysis procedure has been followed in this report, and the frequency curves shown in figures 20, 21, 22, and 23 have been derived using the proposed procedure.

The magnitude and frequency of annual peaks on the Weiser River for the six gaged sites are shown in figure 20. The series of dashed lines show that the peak discharges expected to be equaled or exceeded on the average of once in 10 years are 800 ft<sup>3</sup>/s (23 m<sup>3</sup>/s) for the Weiser River at Tamarack; 2,280 ft<sup>3</sup>/s (65 m<sup>3</sup>/s) for the Weiser River at Starkey; 5,170 ft<sup>3</sup>/s (146 m<sup>3</sup>/s) for the Weiser River near Council; 8,160 ft<sup>3</sup>/s (231 m<sup>3</sup>/s) for the Weiser River near Cambridge; 12,600 ft<sup>3</sup>/s (357 m<sup>3</sup>/s) for the Weiser River above Crane Creek near Weiser; and 17,100 ft<sup>3</sup>/s (484 m<sup>3</sup>/s) for the Weiser River near Weiser. Magnitudes and frequencies of peak discharges for tributary basins are presented in figures 21, 22, and 23. These figures can be used in the same manner as figure 20.

The highest flood of record (38 years) on the Weiser River near Weiser is 19,900 ft<sup>3</sup>/s (564 m<sup>3</sup>/s), which was recorded during December 1955. The same flood was also the

Figure 20

Figure 21



Figure 22

Figure 23

highest of record (36 years) at the station Weiser River near Cambridge with 10,100 ft<sup>3</sup>/s (286 m<sup>3</sup>/s). The recurrence intervals for the December 1955 flood at these stations, based on the frequency curves, are 23 years for Weiser River near Weiser, 40 years for Weiser River near Cambridge, 30 years for Weiser River near Council, and in excess of 100 years for Weiser River at Tamarack. In contrast, the peak discharge for the 1975 water year of the Weiser River near Weiser was 6,700 ft<sup>3</sup>/s (190 m<sup>3</sup>/s), with a recurrence interval of 1.2 years; Weiser River near Cambridge, 5,060 ft<sup>3</sup>/s (143 m<sup>3</sup>/s), 2 years; and Weiser River at Tamarack, 707 ft<sup>3</sup>/s (20 m<sup>3</sup>/s), 6.2 years.

## WATER QUALITY

Three water-quality stations were established on the Weiser River. These stations were sampled monthly from April 1974 through December 1975 for chemical constituents and during periods of high flows for suspended-sediment concentrations. Nineteen water-quality stations were established on tributary streams and were sampled for chemical constituents during periods of low flows and for suspended-sediment concentrations during periods of high flows. An additional 13 stations, along with several other miscellaneous sites, were sampled for suspended-sediment concentrations during periods of high flows.

From August 20 to August 28, 1974, a survey of stream-flow losses and gains was made along the Weiser River from river mi 94.8 (km 153) above the mill pond at Tamarack to mi 0.0 (km 0.0) at the mouth in Weiser. During the same period, the river was sampled at 32 sites for nutrients, dissolved oxygen, dissolved solids, pH, and temperature. In addition, sampling was done at selected sites for coliform bacteria concentrations and pesticide levels.

To determine the chemical character of the ground water within the basin, municipal wells in the communities of Weiser, Midvale, Cambridge, and Council were sampled during August 1974. In August 1975, 27 stock, irrigation, and domestic wells were sampled throughout the Weiser River basin.

The chemical and biological characteristics of water determine its suitability for domestic, agricultural, and industrial use.

The physical factors of the stream, such as flow velocity, volume of water, bottom contours, rate of water exchange, depth, light penetration, and temperature, play vital roles in the chemical reactions and the nature of biological activities.

The natural aquatic environment includes diverse species of plants and animals that vary in their chemical and physical needs. Natural and manmade sources introduce a variety of organic and inorganic materials into the aquatic environment. Within the aquatic environment, these materials are transported, converted, respired, incorporated, excreted, and deposited.

Many of man's various physical activities that maximize the use of water often adversely affect its quality. Alteration of streambeds by channelizing, filling, diking, removing sand and gravel, and impounding may have adverse effects on water quality. In addition, activities on the watershed--clearing, logging, grazing, and leveling--can affect the quality of water entering streams.

Table 3 relates chemical and biological characteristics to significance, concentration of normal occurrence, limits of beneficial use, adverse effects, and concentrations observed in the Weiser River basin during the study.

Table 3

## Ground-Water Quality

Ground-water samples were collected from 35 wells throughout the area to define current water-quality conditions.

Chemical analyses of water from municipal, domestic, irrigation, and stock wells in the Weiser River basin are given in basic-data table F.

Differences and similarities among selected waters can be illustrated graphically. A distinctive pattern system was suggested by Stiff (1951). His method uses three parallel horizontal axes extending on each side of a vertical zero axis. Concentrations of three cations can be plotted, one on each axis to the left of zero; likewise, three anion concentrations may be plotted, one on each axis to the right of zero. The concentrations are expressed in milliequivalents per liter. The resulting points are connected to give an irregular polygonal pattern (fig. 24). The shape of the resulting polygon is a distinctive identifier of water characteristics. The overall width of the polygon suggests the dissolved-solids concentration of the water. The numerical value of specific conductance above the diagram is a further indicator of the dissolved-solids concentration. The patterns in the upper part of the basin show the ground water to be calcium bicarbonate type with low concentrations of dissolved solids in both the basalt



Basic data table F

Figure 24

and sedimentary-rock aquifers. In the southern parts of the basin, the ground water increases in dissolved-solids concentration but is still generally a calcium bicarbonate type. An exception to this occurs in the vicinity of Cambridge and Midvale, where the water is predominantly a sodium bicarbonate type.

Municipal wells in Council, Cambridge, and Midvale are producing water of "good" quality that is chemically suited for use as drinking water. However, water from municipal well 14N-3W-DDC2 at Cambridge contains concentrations of iron high enough to cause possible staining problems on plumbing fixtures. The municipal wells at Council, Cambridge, and Midvale all withdraw water from the deeper basalt aquifer. Wells 14N-3W-3DDC1 at Cambridge and 13N-3W-8CCC1 at Midvale discharge warm water at 26° and 28.5°C, respectively; this is not unusual because the Weiser River basin has known geothermal systems (Young and Mitchell, 1973). Municipal wells 11N-5W-29BAC1, 11N-5W-29BCD1, and 11N-5W-29BDB1 at Weiser withdraw water from the sedimentary rocks and produce harder water, with dissolved-solids concentrations of 393, 490, and 514 mg/L, respectively. The municipal wells in Council, Cambridge, Midvale, and Weiser were all sampled for bacteria concentrations. At the time of sampling, no bacteria were found in the waters.

Water from wells 14N-1W-10DBA1 and 14N-1W-27ABA1, in Indian Valley, has high concentrations of iron, 2.8 and 1.2 mg/L, respectively. Water from wells in the vicinity of Weiser has fairly high concentrations of dissolved solids. Water from well 10N-5W-17ACC1, south of Weiser on the Snake River flood plain, has the highest concentration of dissolved solids of all wells sampled in the basin (1,150 mg/L). Water from wells 13N-3W-5BCB1, north of Midvale, and 13N-2W-2DCDD2, east of Midvale, has high concentrations of sulfate, chloride, and nitrate, indicating possible contamination. Both wells are downgradient from stock corrals.

## Surface-Water Quality

Three water-quality stations were operated during this study along the 100-mi (161-km) stretch of the Weiser River--Weiser River above the mill pond at Tamarack at river mi (94.8 (km 152.5), Weiser River near Cambridge at river mi 50.3 (km 80.9), and Weiser River near Weiser at river mi 15.1 (km 24.3). These stations were sampled monthly from April 1974 to December 1975. The Weiser River near Weiser station has about three samples per year from 1968, which are also included in basic-data table G.

Water in the Weiser River is generally of good chemical quality and suitable for most uses. Figure 25 shows the dissolved-solids concentrations at the three monthly stations on the Weiser River for the period of study.

In a preceding section, "Ground-Water Contribution to Surface-Water Flow," the effect of ground-water discharge on the specific conductance of surface water was discussed. As the proportion of ground-water discharge to the Middle Fork Weiser River increased, the dissolved-solids concentrations; therefore, the specific conductance also increased (fig. 7).

The dissolved-solids concentrations reflect the quality of the two main sources of water to the Weiser River--ground-water inflow and overland flow from snowmelt. Ground-water discharge dominates streamflow in the fall and winter months and causes the dissolved-solids concentration in the

Basis data table G

Figure 25

river to increase to maximums of about 100-120 mg/L. In the spring and early summer, snowmelt runoff is dominant and causes the dissolved-solids concentration to decrease to about 50 mg/L. The station Weiser River near Cambridge receives a greater proportion of direct runoff from snowmelt and precipitation, as can be deduced from the precipitation contours on figure 12. The dissolved-solids concentration of the Weiser River is therefore lower at Cambridge than at the other two stations.



## Tributaries to Weiser River

Specific-conductance measurements were obtained monthly during periods of flow throughout the study period (basic-data table H). The tributary streams derive most of their flow from snowmelt, which lasts 1 to 3 months during the spring. The flow for the remainder of the year is mostly ground-water discharge. Samples of low-flow discharge were collected during the summer months of 1974 (basic-data table H). The purpose of collecting low-flow samples was to chemically characterize ground water discharging to stream channels throughout the basin.

Selected water-quality characteristics of the Weiser River and its tributaries are shown diagrammatically in figure 26. In addition, values of specific conductance are given above each diagram. As generally indicated by the width of the patterns throughout the basin, water discharging to the tributary stream channels contains very low concentrations of dissolved solids. Exceptions are in waters discharging to Dixie, Banner, Warm Spring, and Hog Creeks, which have higher concentrations of dissolved solids. These streams, except Warm Spring Creek, receive water from aquifers that are composed chiefly of sedimentary materials. Flow in Warm Spring Creek is primarily from hot spring discharge.

Basic data table H

Figure 26

Water-Quality Conditions in the Weiser River  
During a Low-Flow Period

A low-flow study of the Weiser River was made August 20-28, 1974, during a period of little or no precipitation on the basin. The small amounts of precipitation that did fall were not large enough to cause runoff in the basin; consequently, the study was conducted during a period of continuous low flow in the Weiser River. All inflows and outflows were measured. Field measurements included water and air temperatures, specific conductance, pH, and dissolved oxygen. Samples were obtained for the determination of nutrients, which included total nitrite plus nitrate, total phosphorus, and total orthophosphorus.

The data collected during the low-flow study are tabulated in basic-data table I, and locations of sampling sites and discharge-measuring sites are shown in figure 27. Graphical representations of observed and measured parameters (figs. 28 and 29) show the range in values at each site.

Apparent gains from or losses to the ground water shown in figure 27 are small in some reaches. However, the general relation of the surface and ground water is shown. The Weiser River generally gains from ground-water discharge in its upper reach, loses to ground-water recharge in its middle reach, and gains from ground-water discharge in its lower reach.

Basis data table I

Figure 27

Figure 28

Figure 29



Nutrient concentrations in the upper reaches of the Weiser River are low, with some introduction of organic materials near Council and Cambridge. In the lower reaches of the river, nutrient concentrations are high enough to support a large algal population, but because the silt content in the lower reaches of the river masks sunlight, algal growths are not large below Crane Creek.

Specific conductance increased downstream throughout the length of the river from 117 to 247  $\mu$ mhos, with exceptions resulting from the inflows from West Fork Weiser River, Middle Fork Weiser River, and Crane Creek, which lowered the specific conductance at the point of inflow. The inflow from Little Weiser River increased the specific conductance, possibly because of dissolved solids being carried by irrigation-return water.

Maximum water temperatures generally increased along the river from 15° to 29°C.

The range in percent saturation of dissolved oxygen changed from 98-88 to 159-83 from Tamarack to above Crane Creek. Below Crane Creek, the percent saturation was approximately 130-90 because of less aquatic growth. Levels of pH remained near 8 from Tamarack to Weiser. Generally, throughout all reaches, pH values paralleled dissolved-oxygen concentrations.

Bacteria associated with fecal materials (table 4) were found in the Weiser River at and below Council, below Cambridge, and at the mouth at Weiser.

Pesticides were not detected in the river during the low-flow period.

Table 4

## Suspended-Sediment Yield

Sediment is solid material that originates mostly from disintegrated rocks and soil and is transported by streams in a selective process in which the finer grained and lighter weight particles are removed and carried away by runoff and streamflow. Suspended sediments, therefore, generally contain higher percentages of clay, silt, and organic matter than the soils from which they were derived.

Soil structure and drainage patterns, together with the intensity and temporal distribution of precipitation, determine the susceptibility of a soil to erosion. In areas where precipitation occurs throughout the year, protective grasses, shrubs, and trees develop. In areas of intermittent precipitation, protective plant growth is limited, thus making soils more susceptible to erosion during periods of runoff. Moreover, the removal of protective vegetation and land-surface disturbances by man's activities cause increased soil erosion during runoff periods.

Land use has a strong bearing on the potential sediment yield of an area. Land use in the Weiser River basin (fig. 30), as determined from land-classification maps by the U.S. Department of Agriculture, Soil Conservation Service, includes rangeland, woodland, irrigated crop- and pastureland, nonirrigated cropland, recreation, and urban, in descending order of use.

Figure 30

In the central and southern parts of the basin, rangeland is predominant, whereas in the more mountainous northern part of the basin, woodlands predominate. Irrigated crop- and pasturelands are confined to the lowlands and valleys along the Weiser River and its major tributaries. Non-irrigated croplands are mostly adjacent to the irrigated croplands and are restricted to the gentle, rolling terrain of the central and southern parts of the basin.

Sediment transport is generally related to stream discharge and the relations can be depicted by sediment-rating curves. These curves are graphs of sediment load versus stream discharge. The sediment-rating curves presented in figures 31 and 32 were constructed using data given in basic-data table J. The graph for Weiser River near Cambridge (fig. 31) also includes and is partly based on unpublished data from the U.S. Bureau of Reclamation.

Sediment-rating curves were used in conjunction with daily discharges published in U.S. Geological Survey annual surface-water data reports (1974 and 1975) to estimate sediment yields for the Weiser River gaging stations for the study period. These estimates are presented as monthly and annual totals (table 5).

Average annual sediment yields can also be estimated using the sediment-rating curves of figures 31 and 32 in conjunction with streamflow-duration data. Flow-duration

Figure 31

Figure 32



Basic data table J

Table 5

curves of daily flows at selected Weiser River stations are shown in figure 15. Estimated mean annual suspended-sediment transport is about 43,000 tons (39,000 t) at Weiser River near Cambridge and about 97,000 tons (88,000 t) at Weiser River near Weiser (table 6).

Another technique can be used to estimate annual sediment transport past a site having only short or intermittent flow records. This method uses an estimated duration curve developed by a correlation technique. This curve then can be used to estimate average annual sediment yields from sediment-rating curves, as above.

Mean annual suspended-sediment transport at Weiser River near Cambridge using the duration curve for the period of record is about 43,000 tons/yr (39,000 t/yr) (table 6). Mean annual suspended-sediment transport using estimated duration curve is about 56,000 tons/yr (47,000 t/yr), or about 16 percent difference. Mean annual suspended-sediment transport at Weiser River near Weiser using the duration curve for the period of record is about 97,000 tons/yr (88,000 t/yr) (table 6). Mean annual suspended-sediment transport using the estimated duration curve is about 128,000 tons/yr (116,000 t/yr), or about 24 percent difference. Thus, the estimated duration curve technique gives reasonable mean annual sediment yield values within the Weiser River basin. Table 7 is a tabulation of estimated annual sediment yields within the basin.

Table 6

Table 7

The mean annual suspended-sediment transports given in table 7 are average rates of yield over the entire area contributing runoff to a gaging site. Obviously, not all parts of a drainage basin yield sediment runoff at the same rate. However, these rates, when modified by varying land-use patterns, differing degrees of surface slope, variable amounts of precipitation, variations in altitudes of land surface, and personal field observations of sediment-yield characteristics, are helpful in defining suspended-sediment-yield rates from a specific basin. Figure 33 illustrates the distribution of sediment yields for an average year as determined and modified by these criteria. Suspended-sediment yields in the Weiser River basin for an average runoff year range from less than 5 tons/mi<sup>2</sup> (2 t/km<sup>2</sup>) in the more heavily vegetated woodland areas to over 500 tons/mi<sup>2</sup> (200 t/km<sup>2</sup>) from unirrigated farmlands where plowed hill-sides are allowed to stand fallow, at least during winter months.

Figure 33

Crane Creek Reservoir is located in the southeastern part of the Weiser River basin, has a capacity of 51,700 acre-ft ( $6.3 \times 10^9 \text{ m}^3$ ), and is filled by runoff from 242 mi<sup>2</sup> (626 km<sup>2</sup>) of generally unirrigated farmlands and sparsely vegetated grazing lands. Suspended-sediment yield from these lands is estimated in the range of 20 to 60 tons/mi<sup>2</sup> (70 to 150 t/km<sup>2</sup>) for an average runoff year (fig. 33). Observations of turbid water leaving the reservoir during the irrigation season of 1974 raised the question of how much sediment was being transported to the Weiser River by releases from the reservoir. Sediment samples were obtained August 14, 1974, at the stations Crane Creek near Midvale just below the reservoir, Crane Creek at mouth, Weiser River above Crane Creek, and Weiser River at mouth. These samples were analyzed for particle-size distribution, as well as sediment concentration. The particle-size (fig. 34) analysis showed that 95 percent of the sediment leaving the reservoir was composed of silt- and clay-sized materials. The amount of sediment entering the Weiser River from Crane Creek Reservoir increased the sediment concentration in the Weiser River just below their confluence from 10 to 54 mg/L. From August 1 to October 15 each year, an increase in the sediment load of the Weiser River near Weiser is evident as the releases from Crane Creek Reservoir are increased. Figure 32 shows a change in the sediment-rating curve for



Figure 34

this period to be used for computing sediment load in the Weiser River introduced from Crane Creek Reservoir.

## SUMMARY

The largest source of readily available water in the Weiser River basin is surface water, and the principal use of water in the basin is for irrigation. The surface- and ground-water resources in the basin are not closely related, except in areas of surface-water use near Weiser. Therefore, the optimum development and use of the surface water would not greatly affect the ground-water resources, except near Weiser.

The principal aquifers in the Weiser River basin are in the Columbia River Basalt Group and in the overlying Tertiary and Quaternary sedimentary rocks. Ground water occurs under both artesian and water-table conditions in the basalt and is typically confined or semiconfined in the sedimentary rocks, except near Weiser, where water-table conditions are found. The principal source of recharge to the basalt aquifer is precipitation falling on basalt outcrops in the mountains. Recharge to sedimentary-rock aquifers is from infiltration of water from snowmelt runoff, streams, and near Weiser, from infiltration of water from canals and irrigated fields. Yields from both basalt- and sedimentary-rock aquifers are highly variable. Ground-water discharge to streams in the mountains is usually sufficient to maintain year-round streamflow.

Mean annual flow past the Weiser River near Weiser gaging is 1,090 ft<sup>3</sup>/s (30.8 m<sup>3</sup>/s), or 788,000 acre-ft/yr (0.97x10<sup>9</sup>m<sup>3</sup>/yr). Tributary runoff is strongly related to altitude, with maximum flows in the lower altitude tributaries occurring in January, and in the higher altitude tributaries in April and May. Weiser River flows are directly affected by irrigation diversions, especially in the mid- and late summer months.

Ground waters of the basin are generally of "good" quality; that is, they are suitable for present uses. Ground water in the part of the basin above Cambridge contains dissolved-solids concentrations of less than 200 mg/L. The valley-fill areas near Cambridge and Midvale have a similar type of ground water, with dissolved-solids concentrations of about 150 mg/L.

The possible contamination of rural wells by barnyard or septic-tank pollutants is suspected in a few places in the basin. Improper well construction probably permits these contaminants to enter wells.

During low-flow periods, usually late summer, the water quality in the Weiser River deteriorates. Where waters have high temperatures, near 25°C, algal growths are abundant in some reaches between Cambridge and Weiser. Introduction of fecal material at Council, Cambridge, and Weiser during these critical low-flow periods causes high concentrations

of pollution-indicating bacteria, which suggest a possible health hazard.

Suspended-sediment yields in the Weiser River basin range from 5 tons/mi<sup>2</sup> (2 t/km<sup>2</sup>) to over 500 tons/mi<sup>2</sup> (200 t/km<sup>2</sup>) per year.

## RECOMMENDATIONS FOR MONITORING NETWORK

To provide data for management of the water resources of the Weiser River basin, the following network for the monitoring of ground-water-level fluctuations, surface-water flow, and water-quality changes is suggested. (1) ground-water observation wells: Initiate bimonthly water-level measurements in the following wells completed in the basalt aquifers near or in Fruitvale, Council, Mesa, Cambridge, and Crane Creek Reservoir--17N-1W-15AAC1, 16N-1W-22BBA1, 15N-1W-22BAD1, 14N-2W-6DCD1, and 13N-1W-32ADC1; initiate bimonthly water-level measurements in the following wells completed in the sedimentary-rock aquifers near Cambridge, Mann Creek, and Weiser--14N-2W-10BCA1, 12N-4W-31DBB1, and 11N-6W-25CAC1; and continue bimonthly water-level measurements in the following Idaho State observation well completed in the basalt aquifer near Indian Valley--14N-1W-11CC1, and the Idaho State observation wells completed in the sedimentary-rock aquifers near Council and Midvale--16N-1W-3DDD2 and 13N-4W-12CDC1. (2) Stream-gaging stations: Continue operation of the gaging stations Weiser River near Weiser and Weiser River near Cambridge to provide streamflow data for the Weiser River; install a gaging station on Crane Creek above the reservoir to provide streamflow data descriptive of hydrologic conditions in the upper Crane Creek area. (3) Water-quality sampling sites: Randomly sample

individual domestic water-supply systems from wells completed in the sedimentary-rock aquifers near Weiser and Midvale to detect possible water-quality and bacterial changes resulting from localized contaminants; sample the Weiser River at Weiser monthly for chemical and bacterial concentrations to determine the quality of the surface water leaving the basin; sample the Weiser River below Council, Cambridge, and Midvale monthly from July to August for bacteria and nutrients to assess the contaminants entering the river; sample at the station Weiser River near Weiser monthly for suspended-sediment concentrations to determine annual suspended-sediment yield of the basin and of Crane Creek Reservoir, and sample Crane Creek and South Fork Crane Creek for suspended-sediment concentrations during high-flow periods above the reservoir to determine the amount of sediment entering Crane Creek Reservoir.

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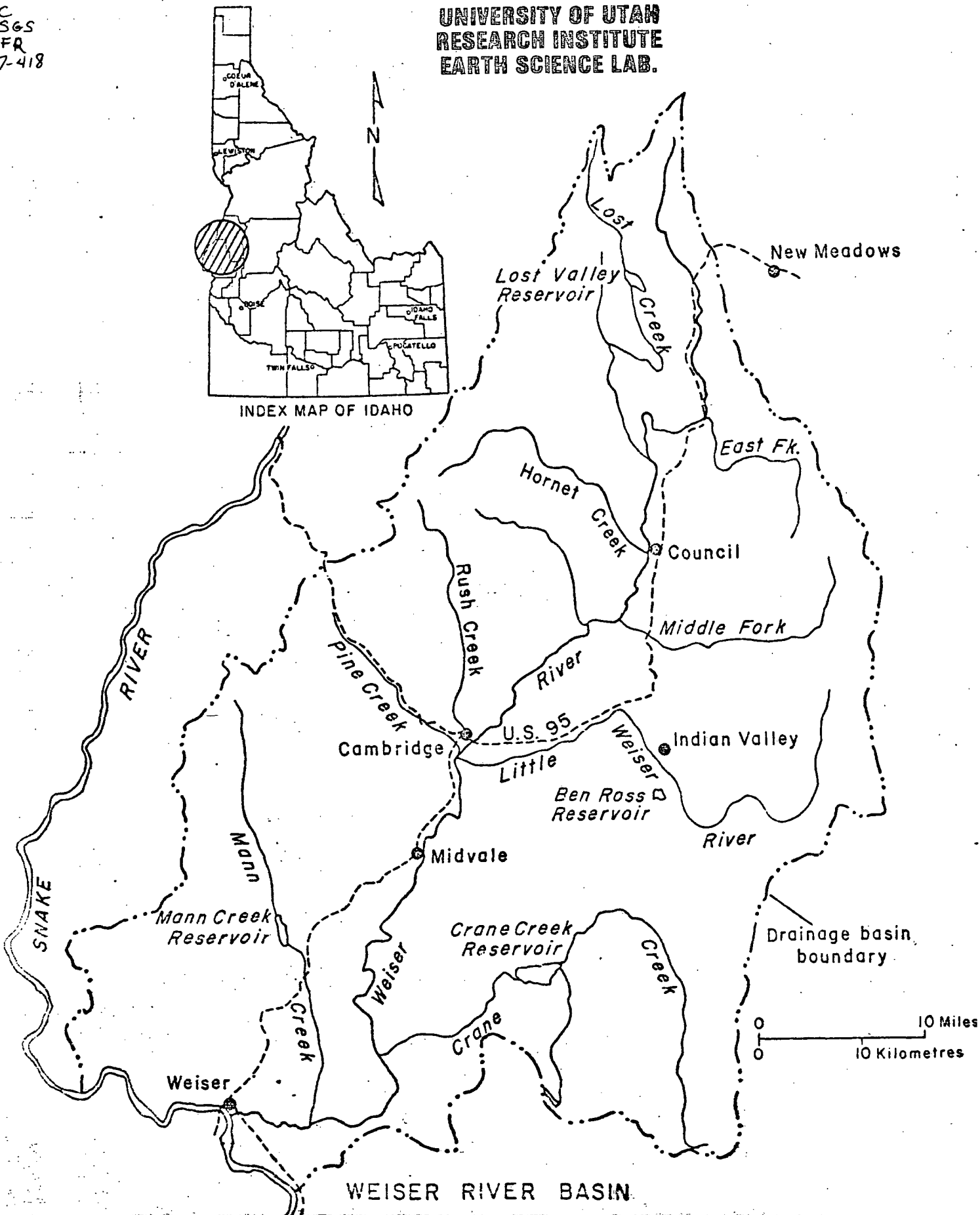


Figure 1. Map showing area covered by this report

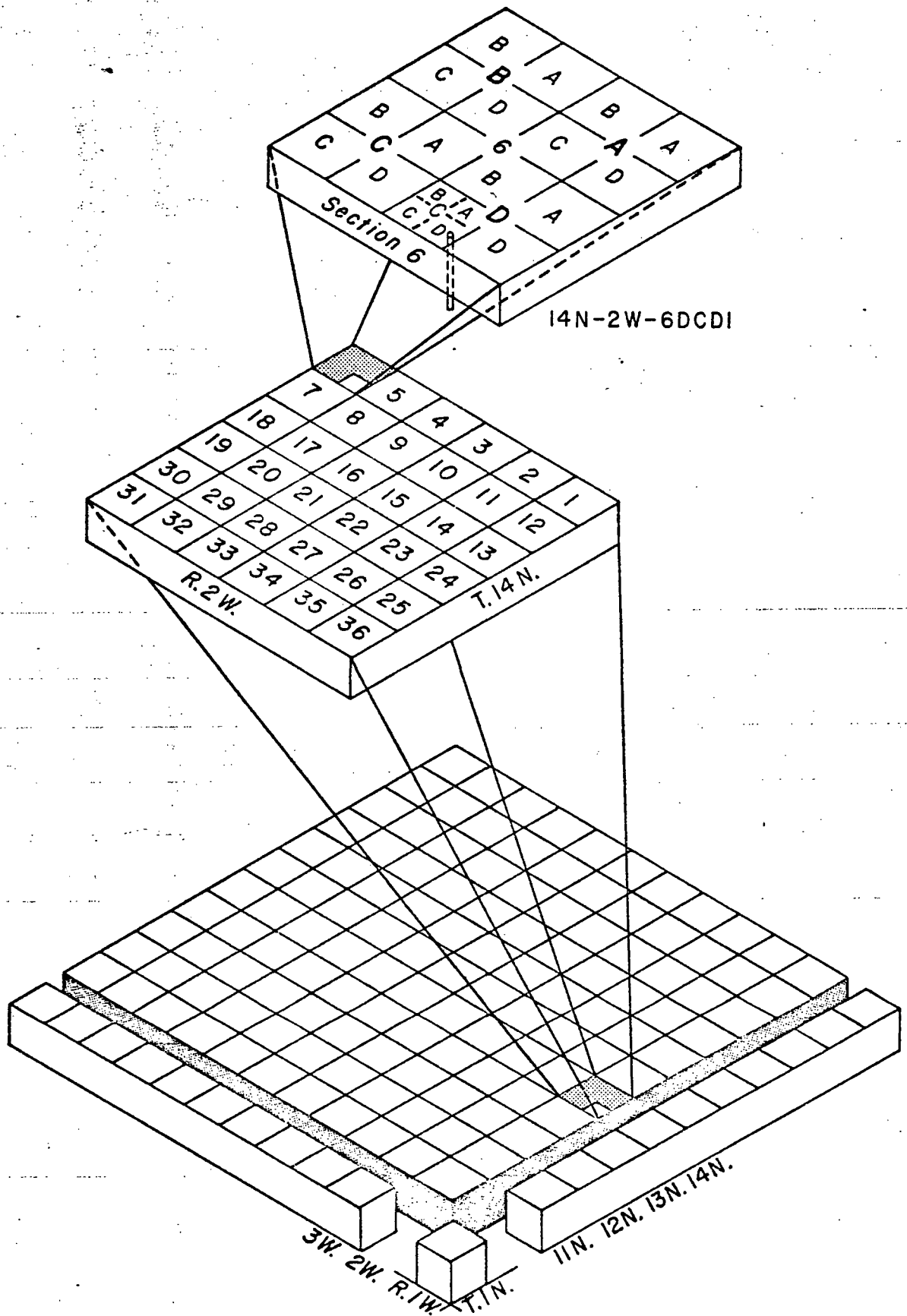


Figure 2. Diagram showing well- and spring-numbering system (using well 14N-2W-6DCD1)

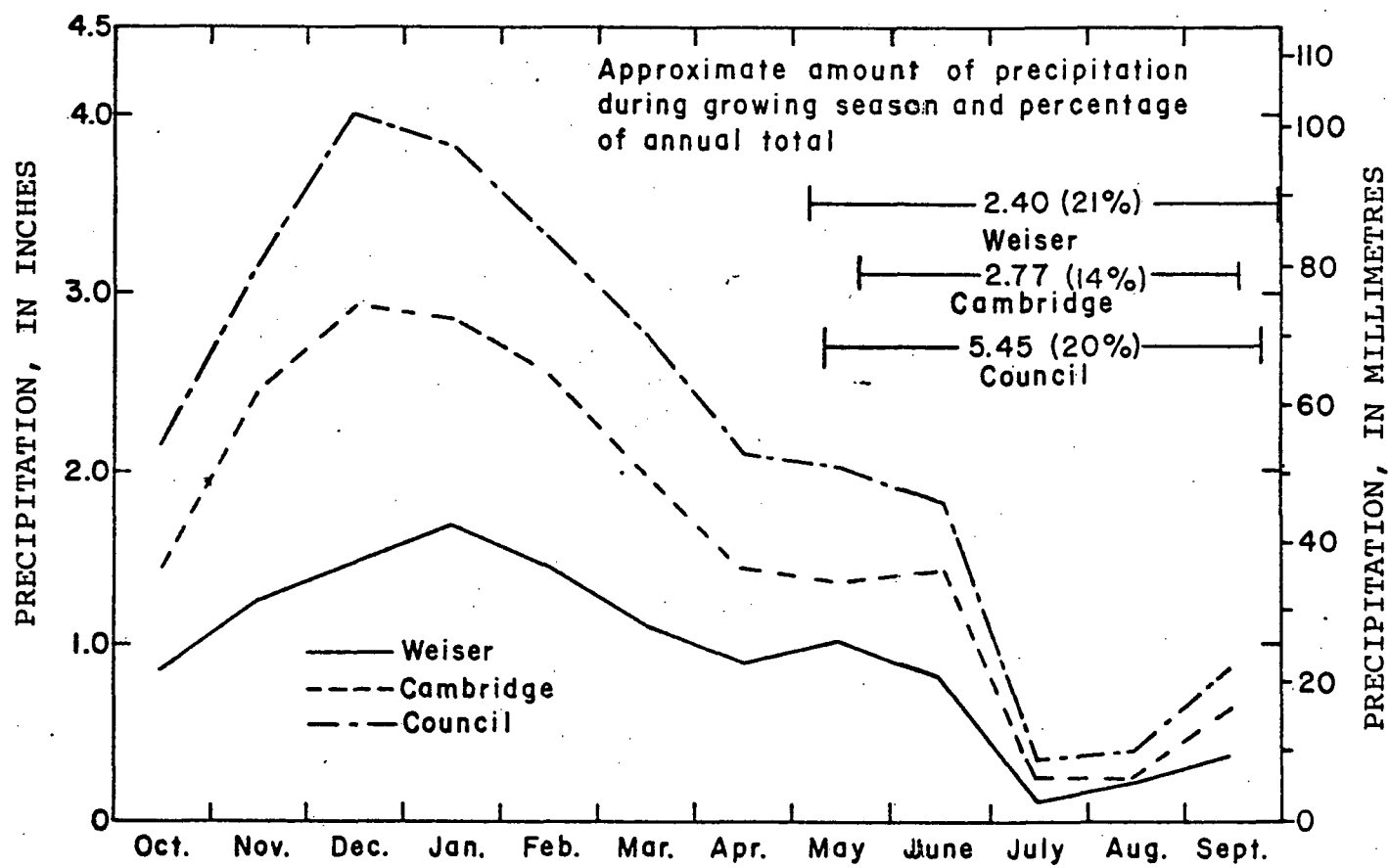
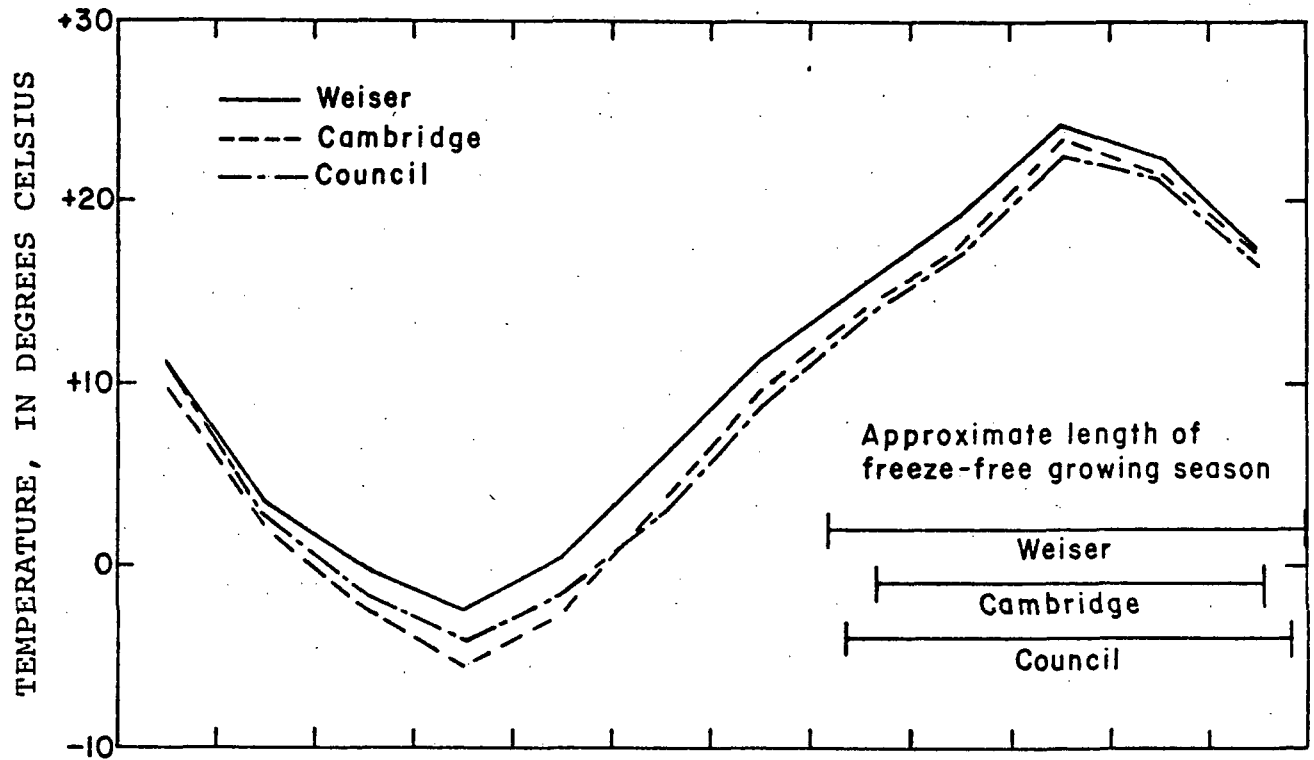


Figure 3. Mean monthly temperature and precipitation at selected stations in the Weiser River basin (based on data from National Weather Service 1931-60)

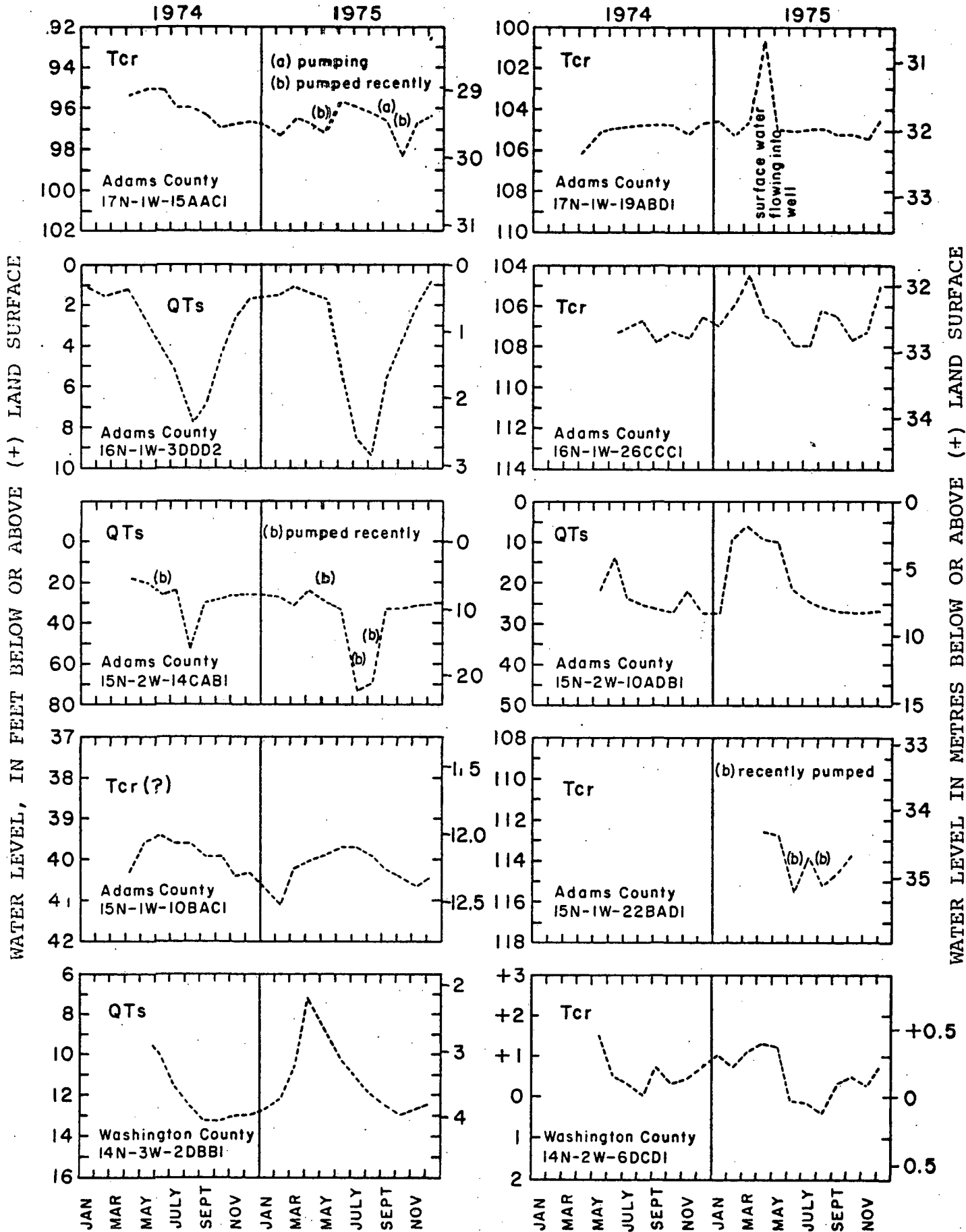


Figure 5. Ground-water levels in selected wells in the Weiser River basin



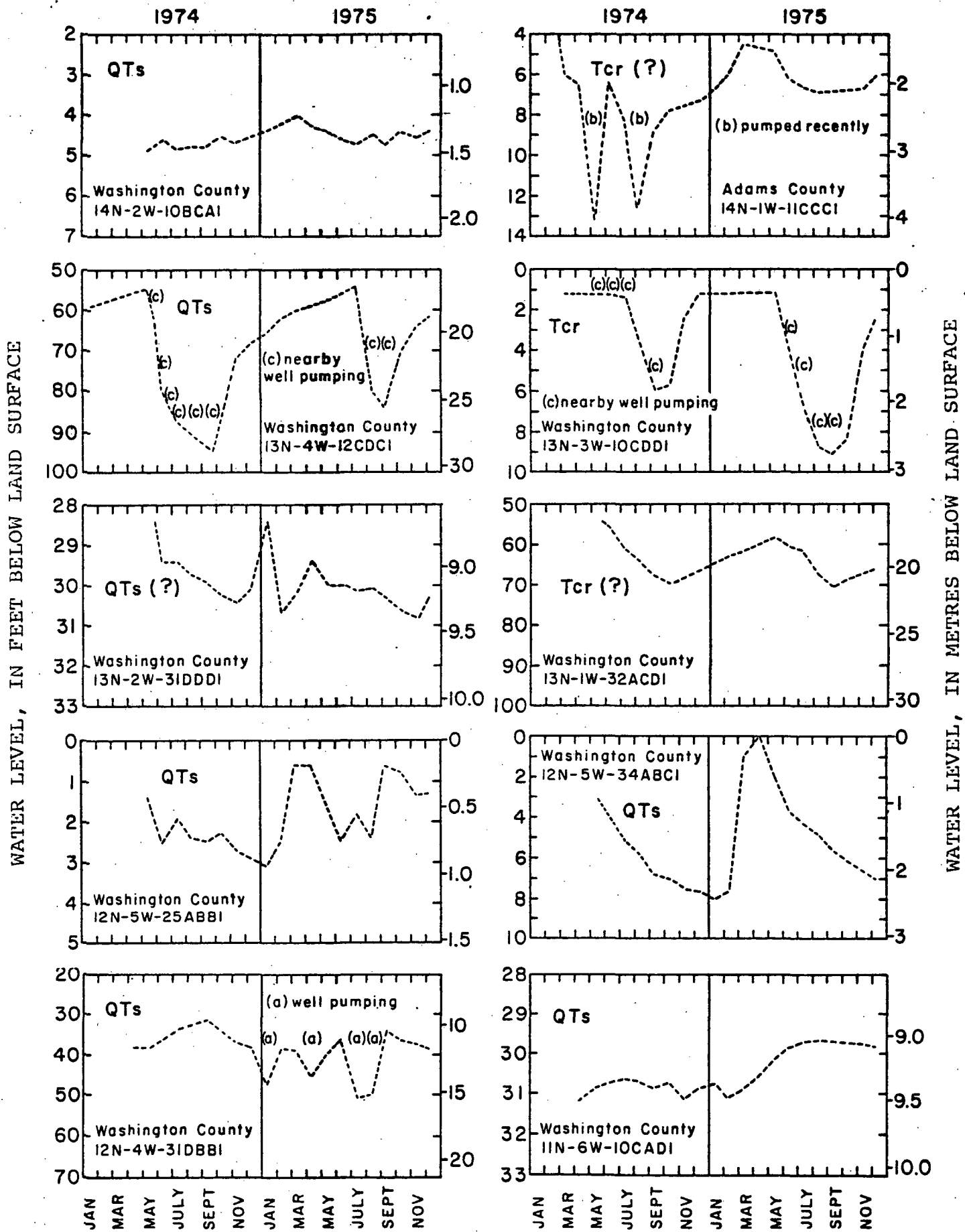
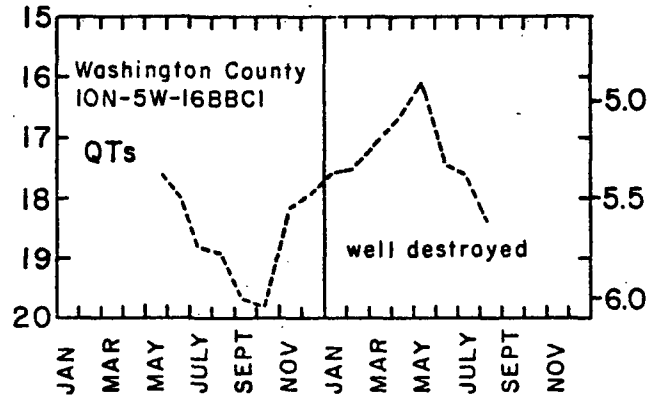
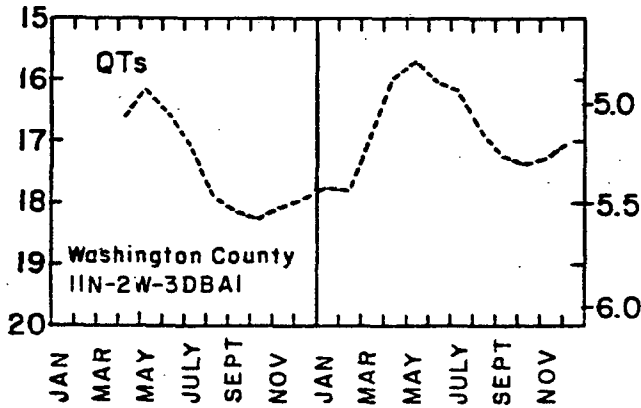
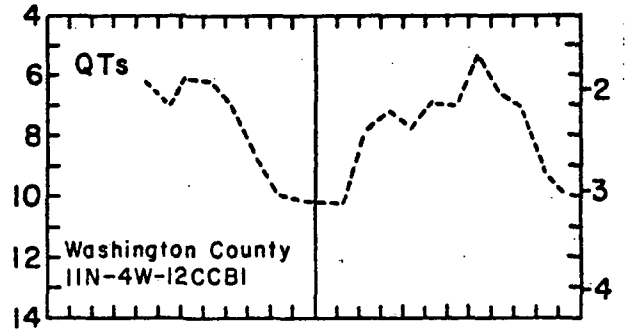
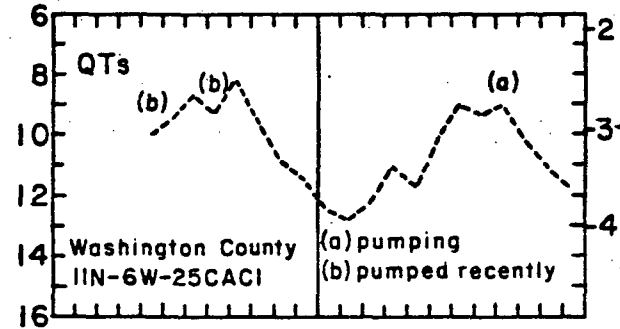


Figure 5. Ground-water levels in selected wells in the Weiser River basin (Cont'd)

WATER LEVEL, IN FEET BELOW LAND SURFACE



WATER LEVEL, IN METERS BELOW LAND SURFACE

QTs Quaternary and Tertiary sedimentary rocks

Tcr Columbia River Basalt Group

Figure 5. Ground-water levels in selected wells in the Weiser River basin (Cont'd)

DISCHARGE, IN CUBIC FEET PER SECOND

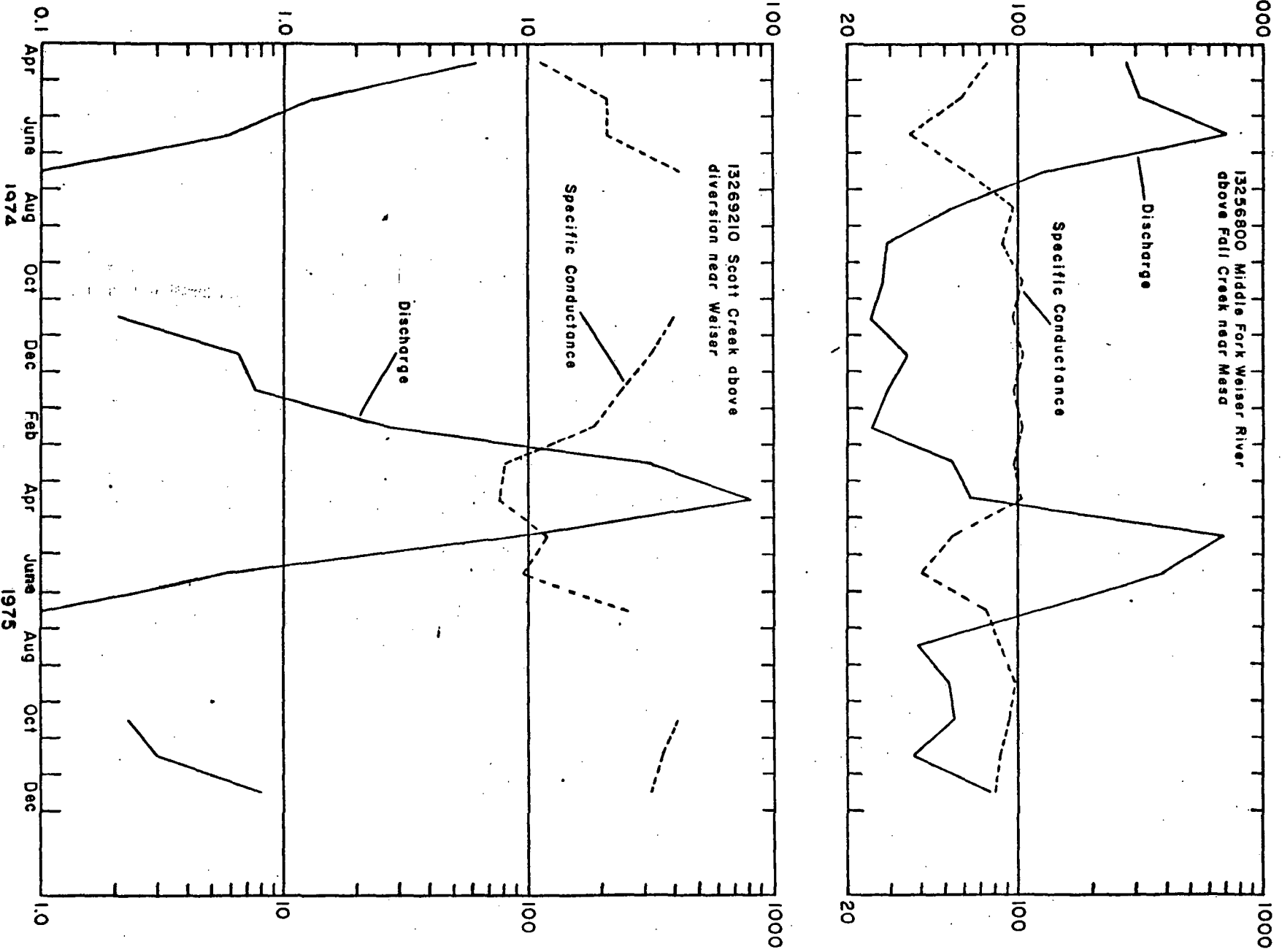


Figure 7. Discharge and specific conductance of selected streams in the Weiser River basin

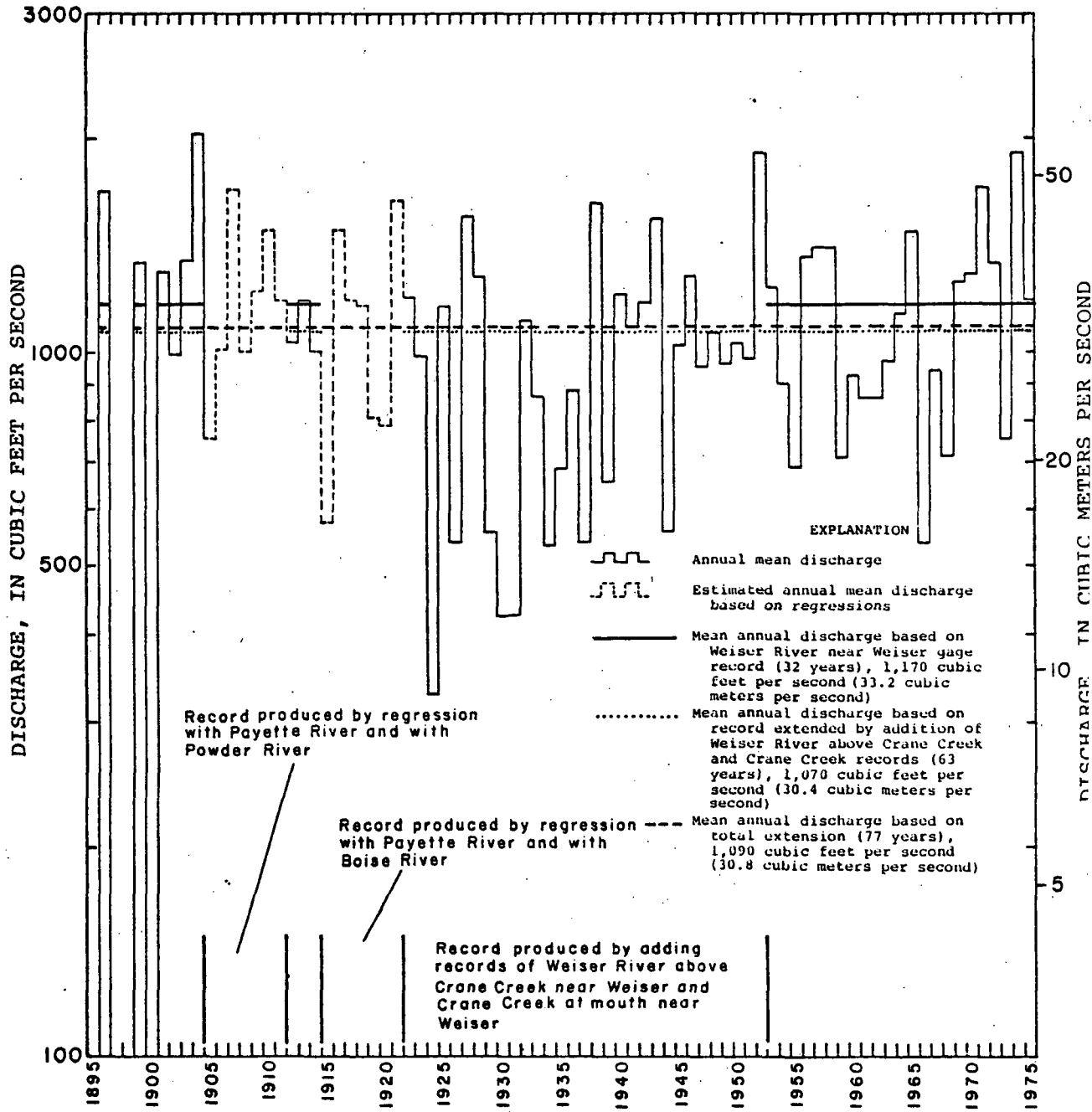


Figure 9. Annual mean discharges and mean annual discharges for Weiser River near Weiser

EXPLANATION  
 — Mean monthly discharge  
 - - - Monthly mean discharge  
 April 1974 to December 1975

- A. 13251500 Weiser River at Tamarack (1937-71)
- B. 13253500 Weiser River at Starkey (1940-49)
- C. 13256000 Weiser River near Council (1938-52)
- D. 13258000 Weiser River near Cambridge (1940-73)
- E. 13263500 Weiser River above Crane Creek near Weiser (1922-52)
- F. 13266000 Weiser River near Weiser (1896, 1899, 1901-04, 1911-14, 1953-73)

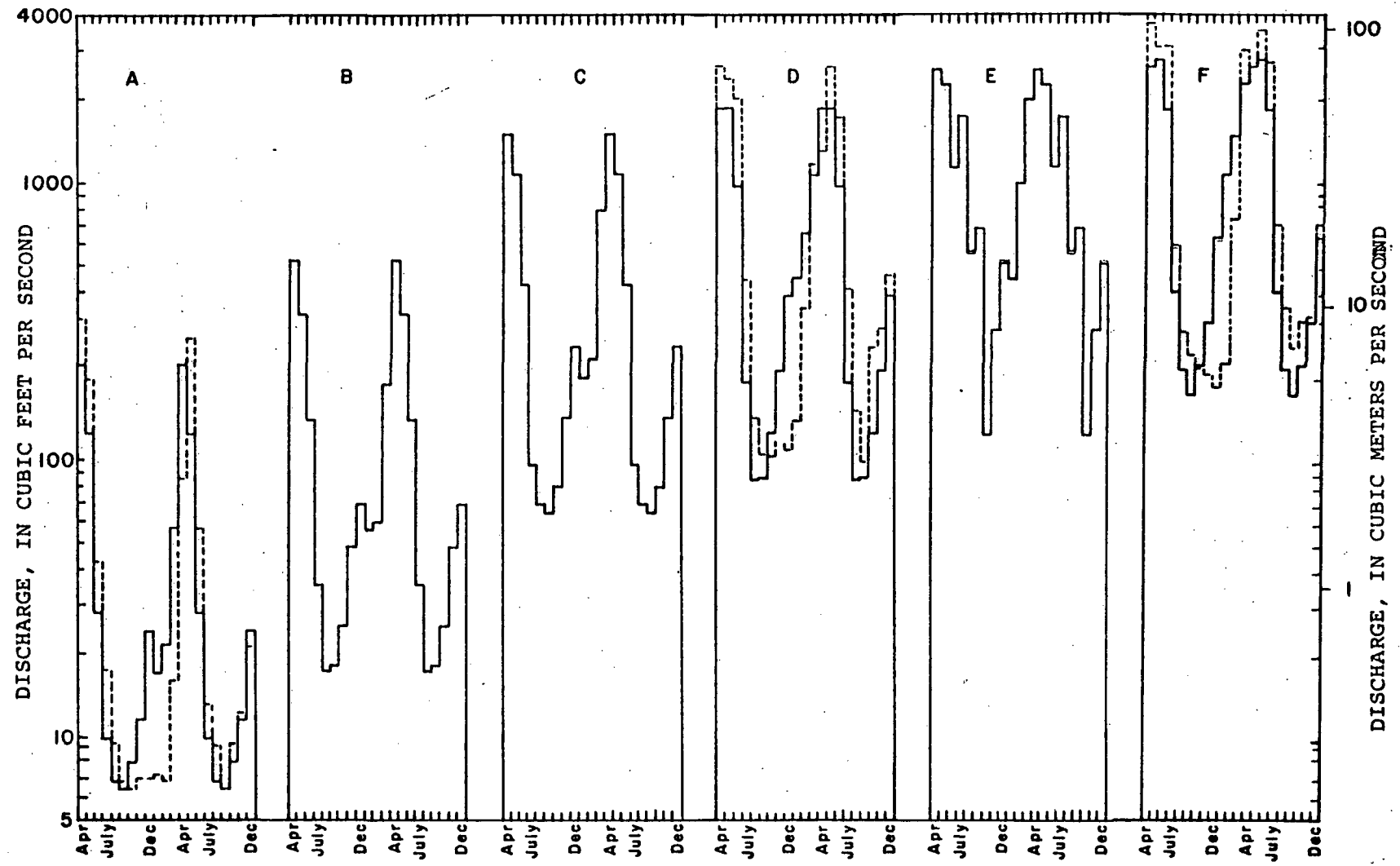


Figure 10. Mean monthly and monthly mean discharge for selected stations on the Weiser River

- A. 13254500 Lost Creek near Tamarack (1931-69)
- B. 13255000 West Fork Weiser River near Fruitvale (1911-12, 1920-22, 1925, 1938-49)

- C. Fork Weiser River and Mesa Orchards Canal near Mesa (1938-49)
- D. 13260000 Pine Creek near Cambridge (1932-62)
- E. 13261000 Little Weiser River near Indian Valley (1925-27, 1939-71)

- F. 13264500 Crane Creek near Midvale (1913-15, 1925-69)
- G. 13265500 Crane Creek at mouth near Weiser (1922-73)
- H. 13267000 Mann Creek near Weiser (1912-13, 1938-61)

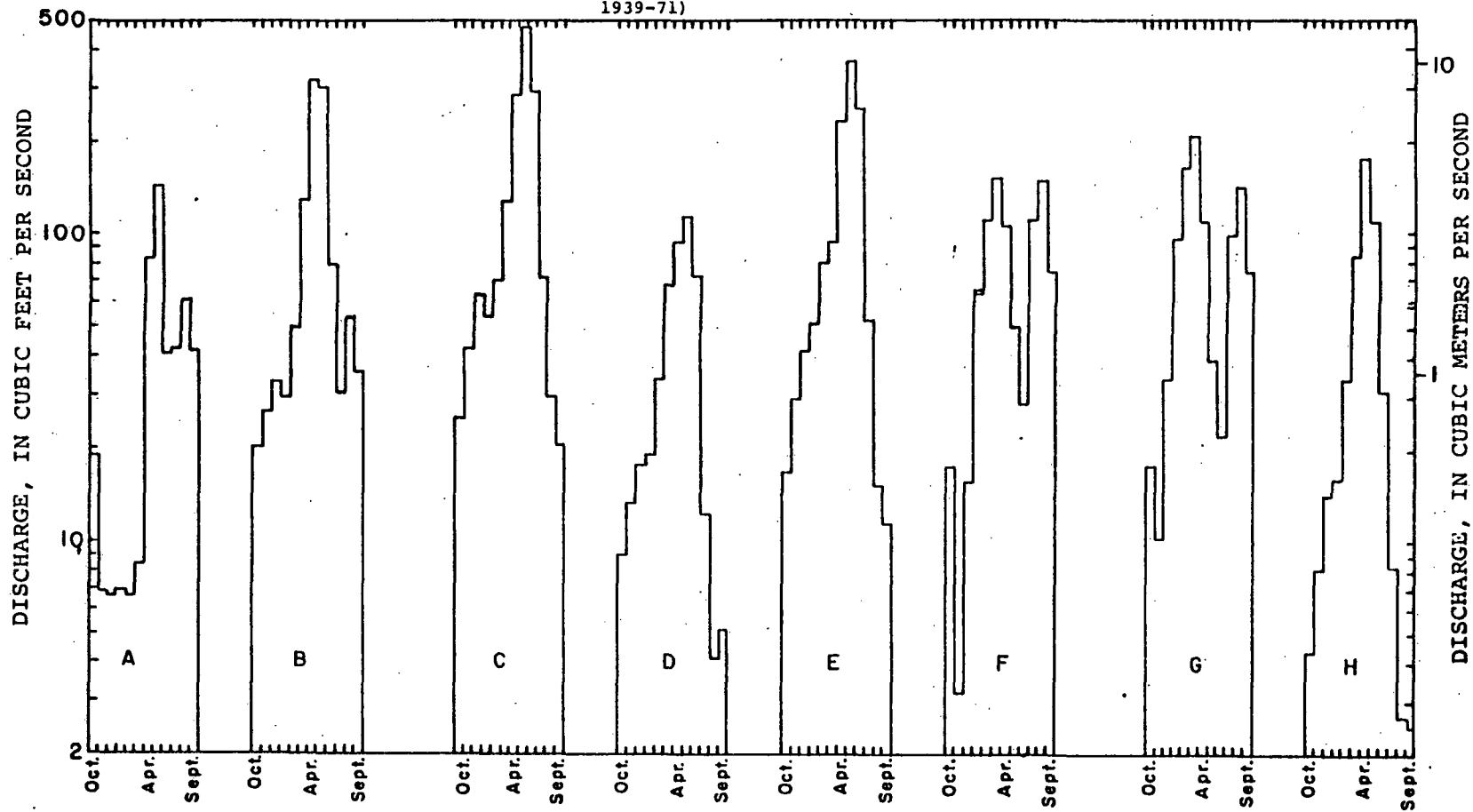
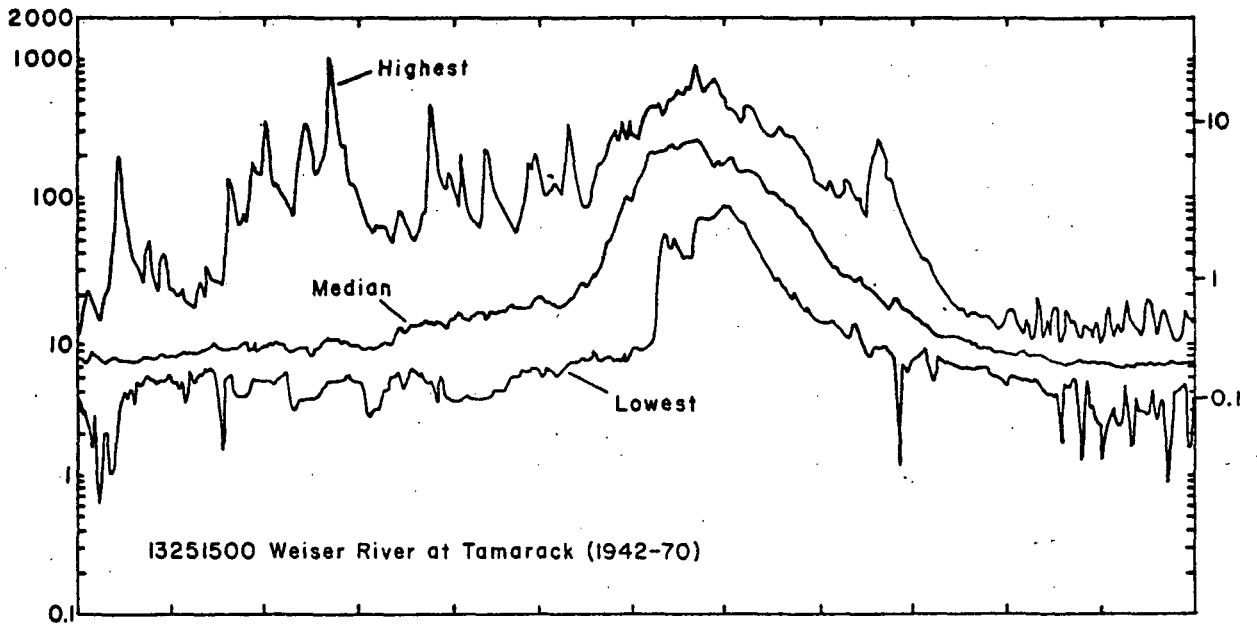
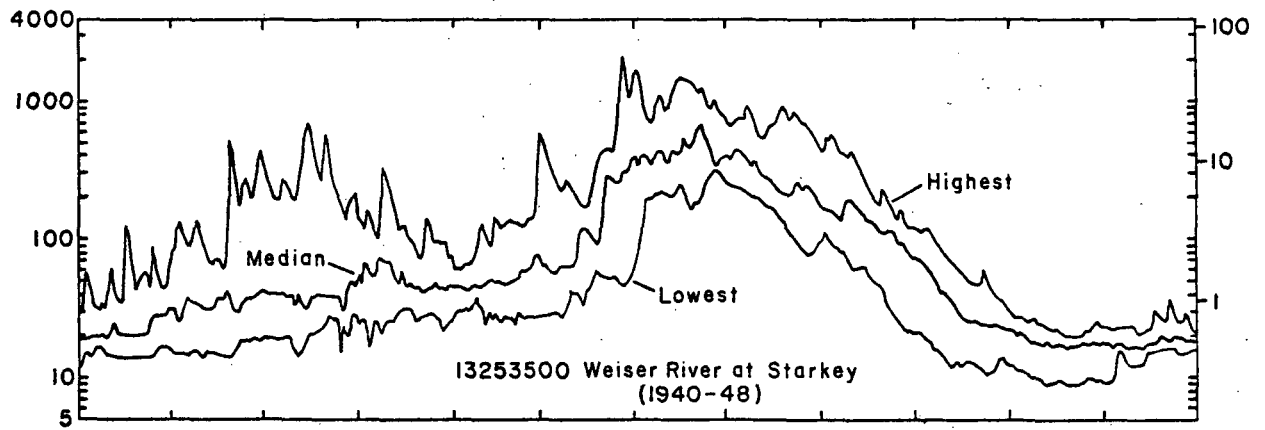


Figure 11. Mean monthly discharges for selected tributaries in the Weiser River basin



DISCHARGE, IN CUBIC FEET PER SECOND



DISCHARGE, IN CUBIC METERS PER SECOND

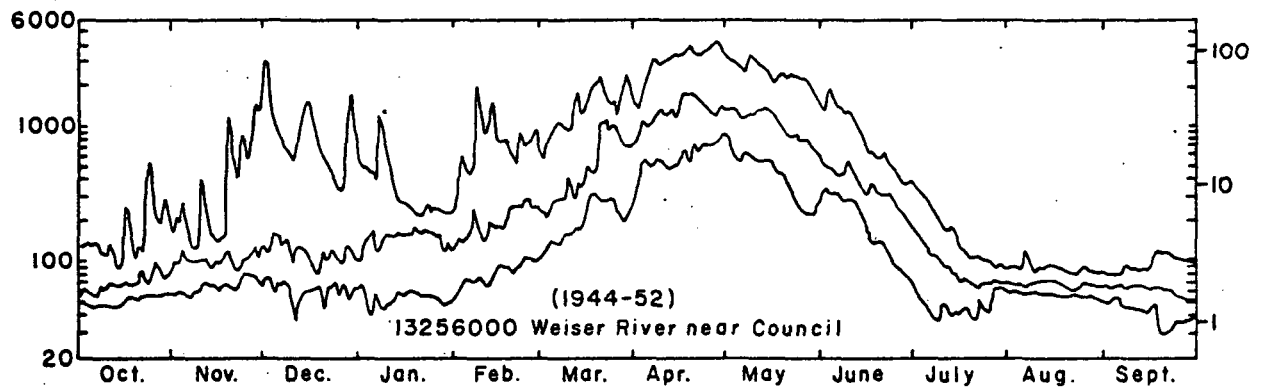


Figure 13. Duration hydrographs for selected stations on the Weiser River

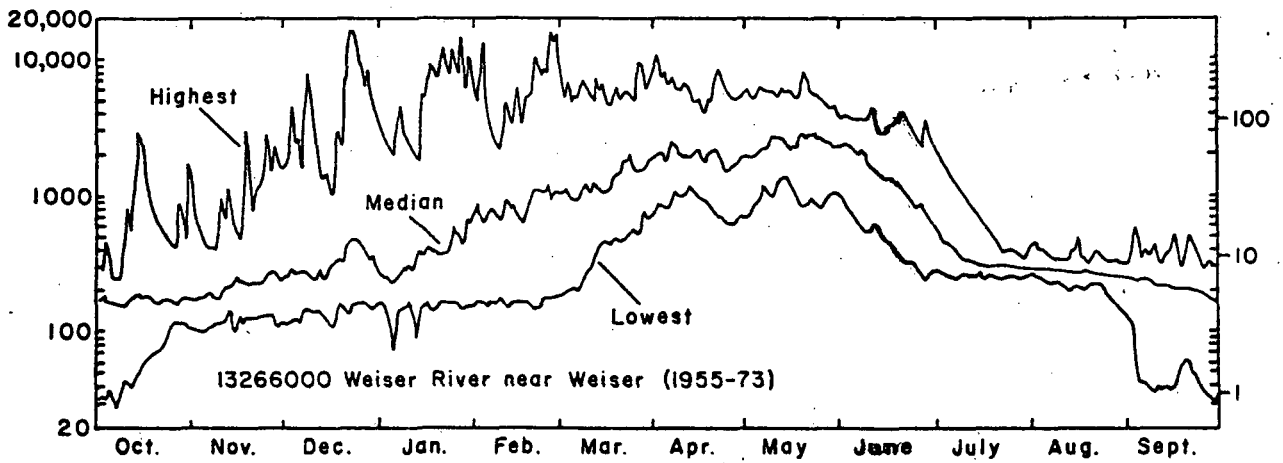
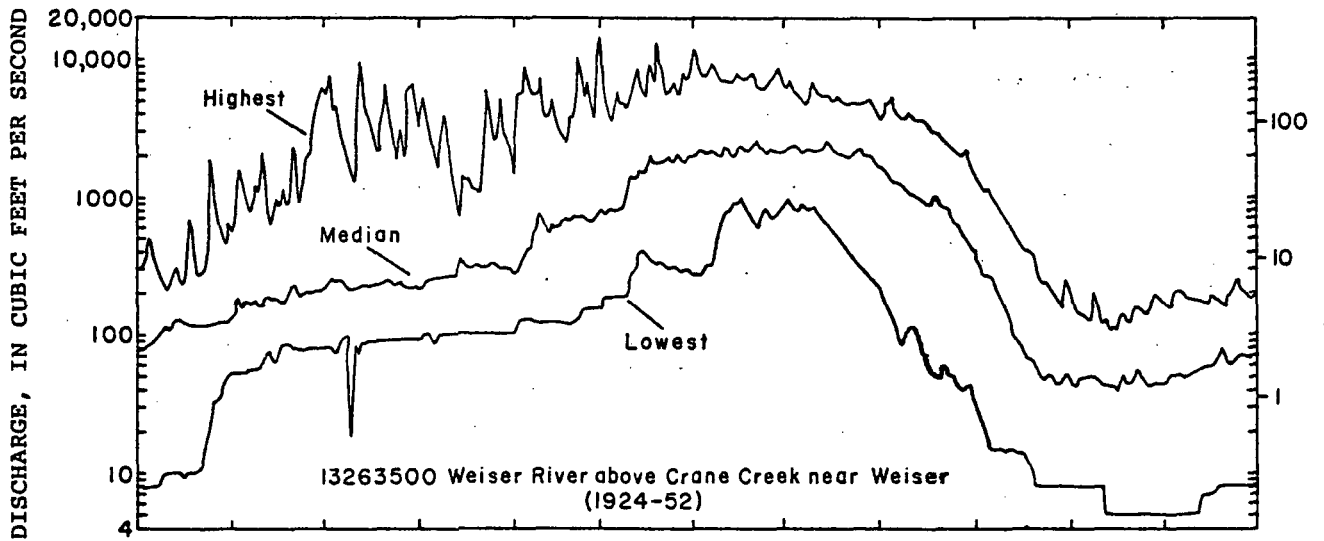
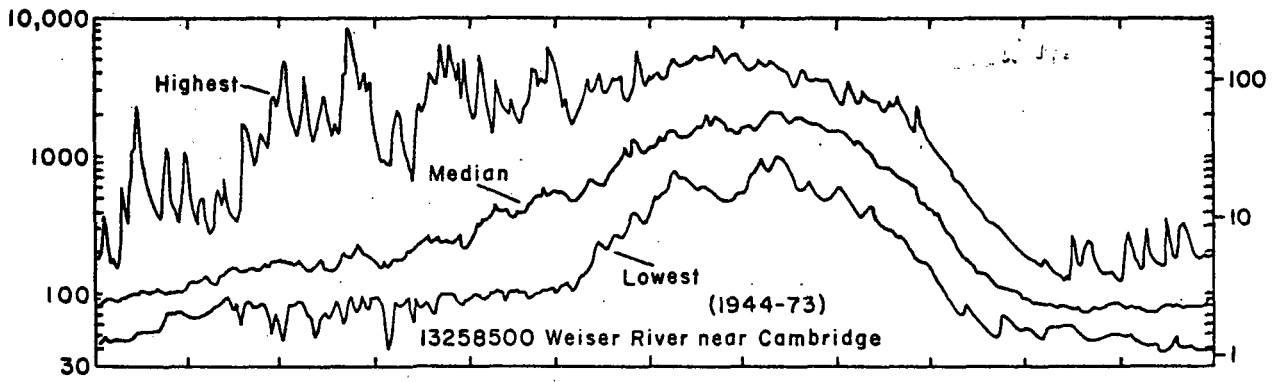


Figure 13. Duration hydrographs for selected stations on the Weiser River (Cont'd)

DISCHARGE, IN CUBIC METERS PER SECOND



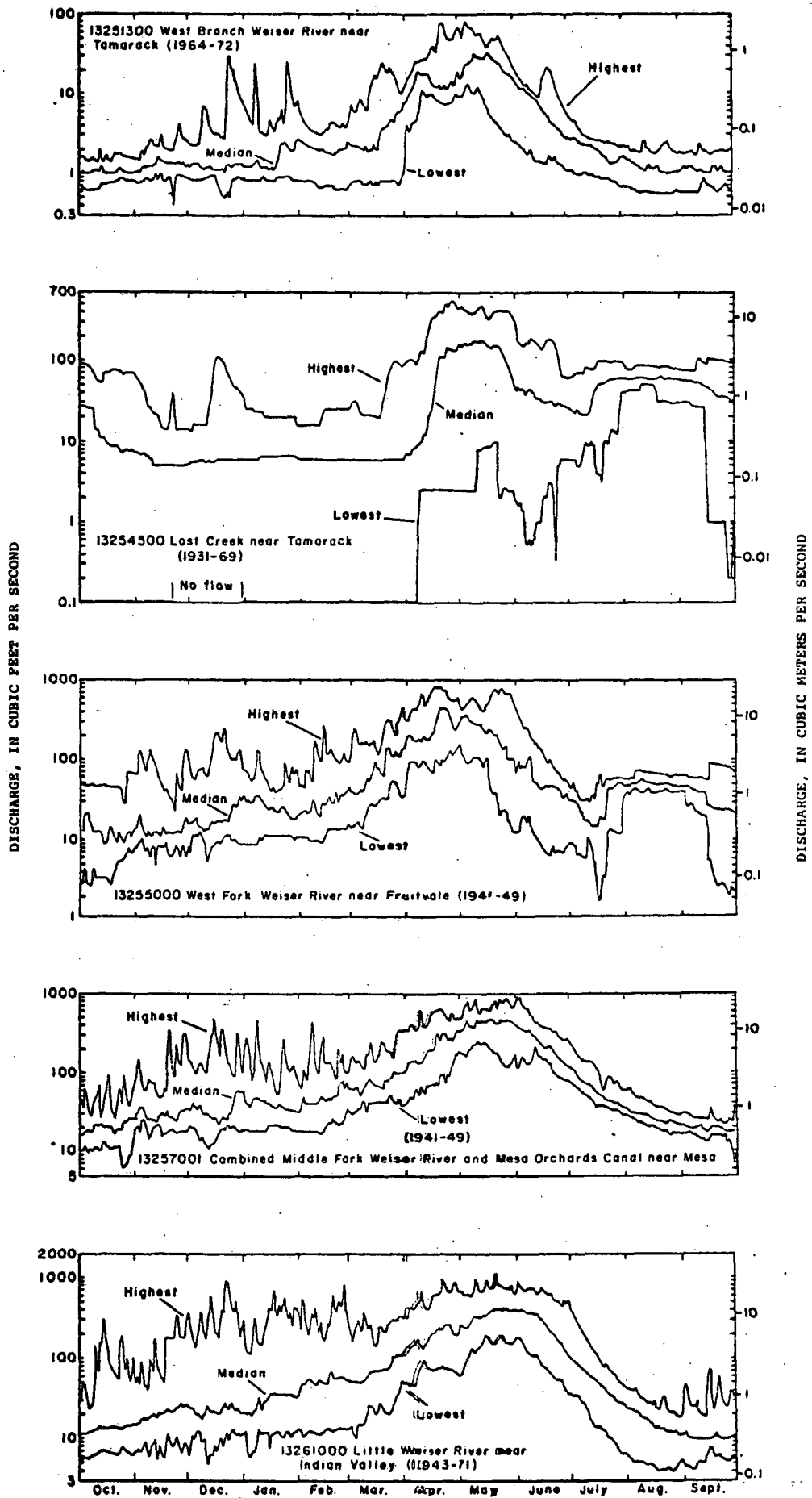
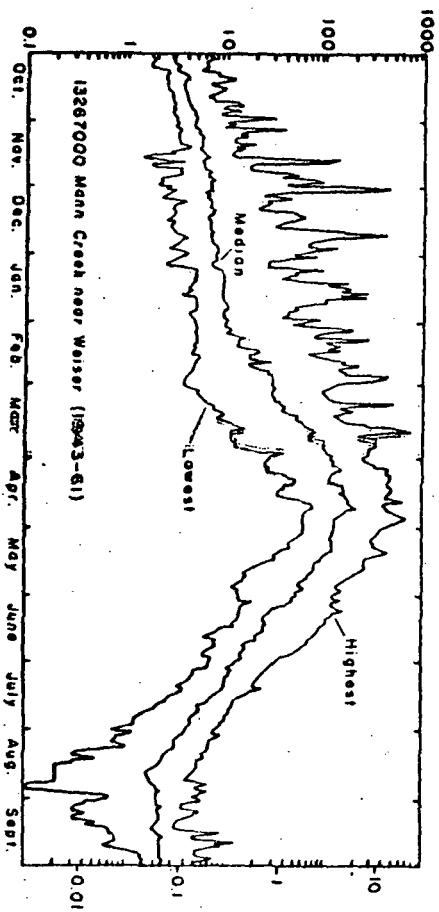
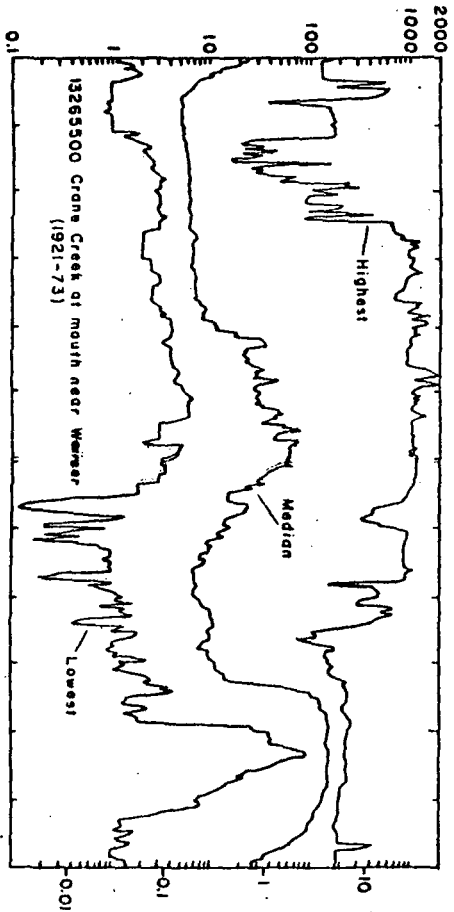
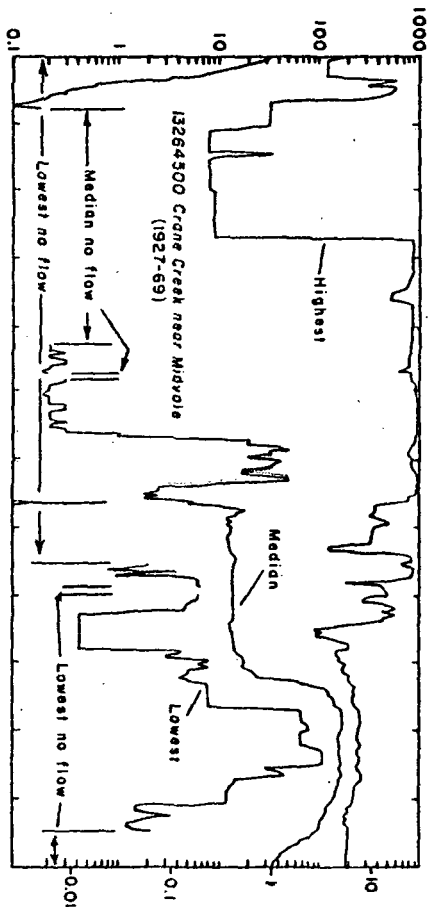
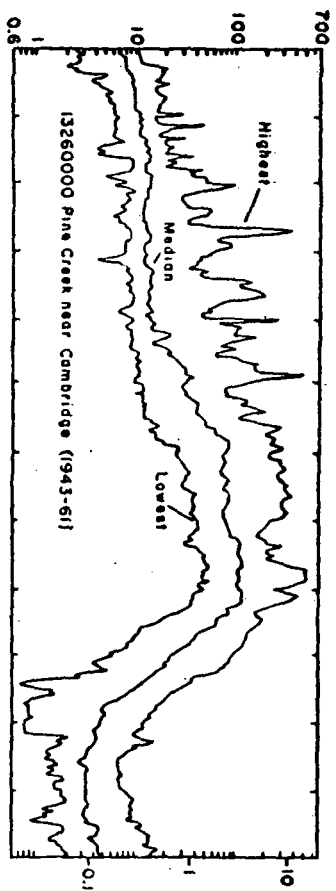


Figure 14. Duration hydrographs for selected tributaries in the Weiser River basin



DISCHARGE, IN CUBIC FEET PER SECOND

DISCHARGE, IN CUBIC METERS PER SECOND

Figure 14. Duration hydromographs for selected tributaries in the Boise River basin (cont'd)

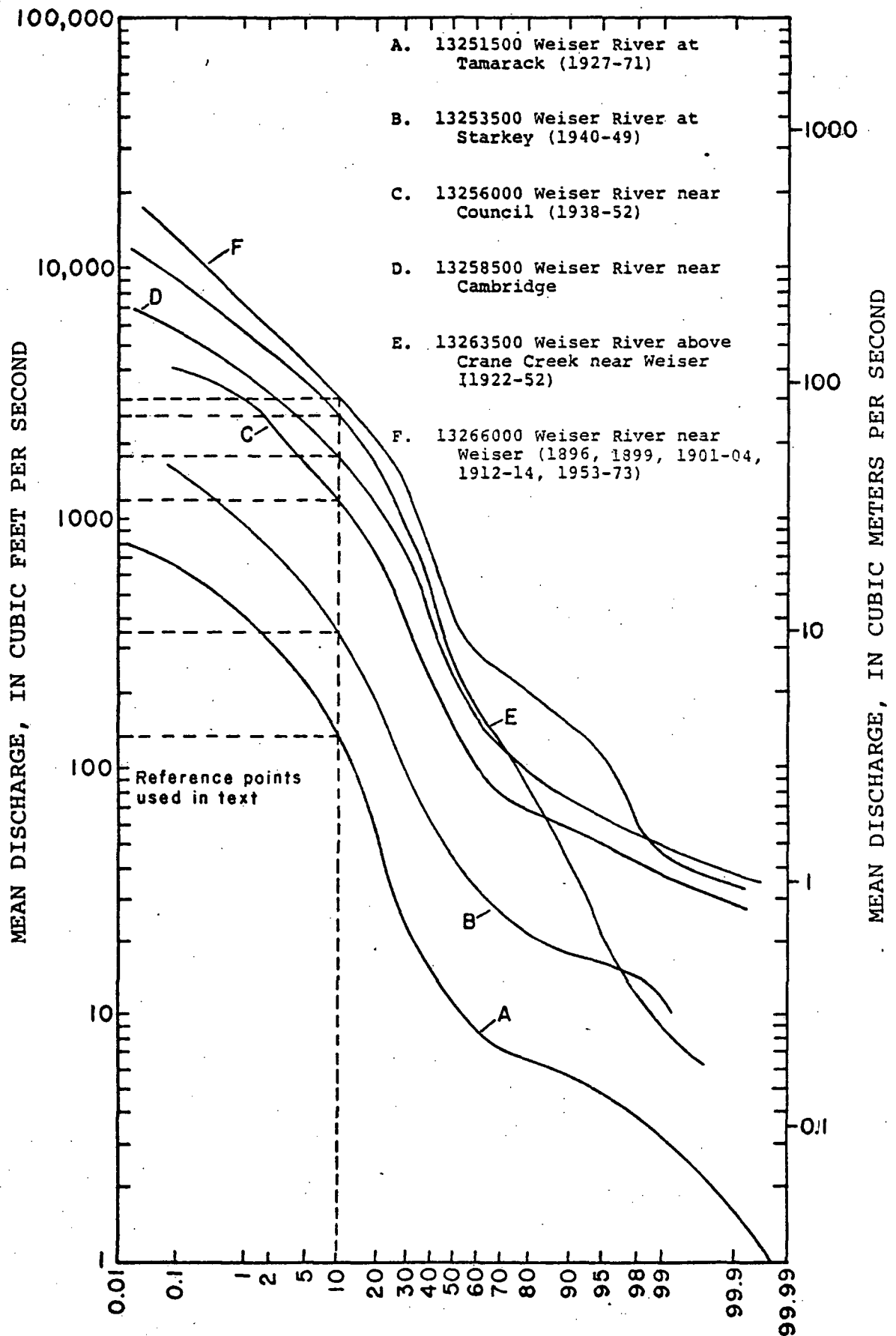


Figure 15. Flow-duration curves of daily flow for selected stations on the Weiser River

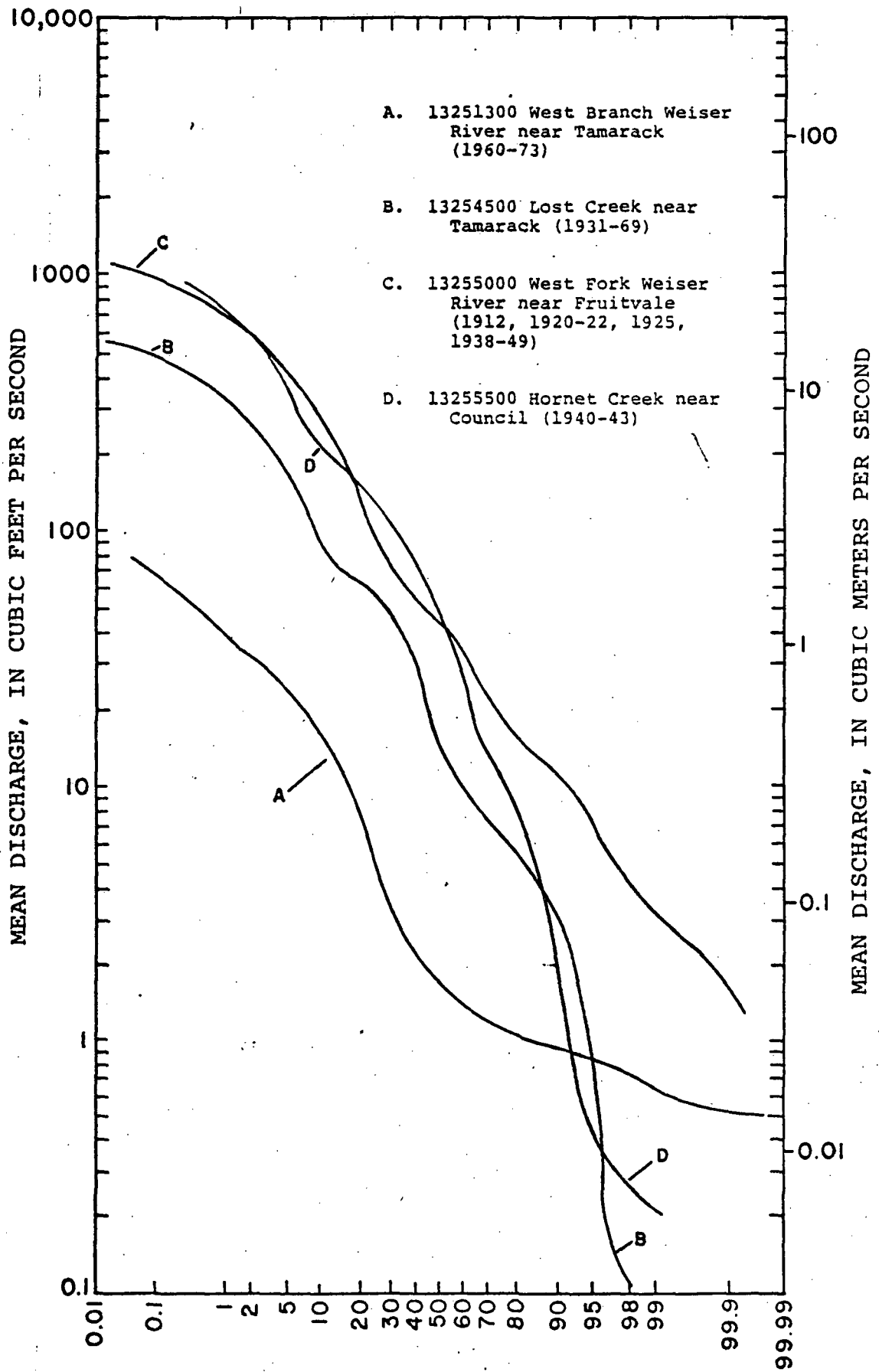
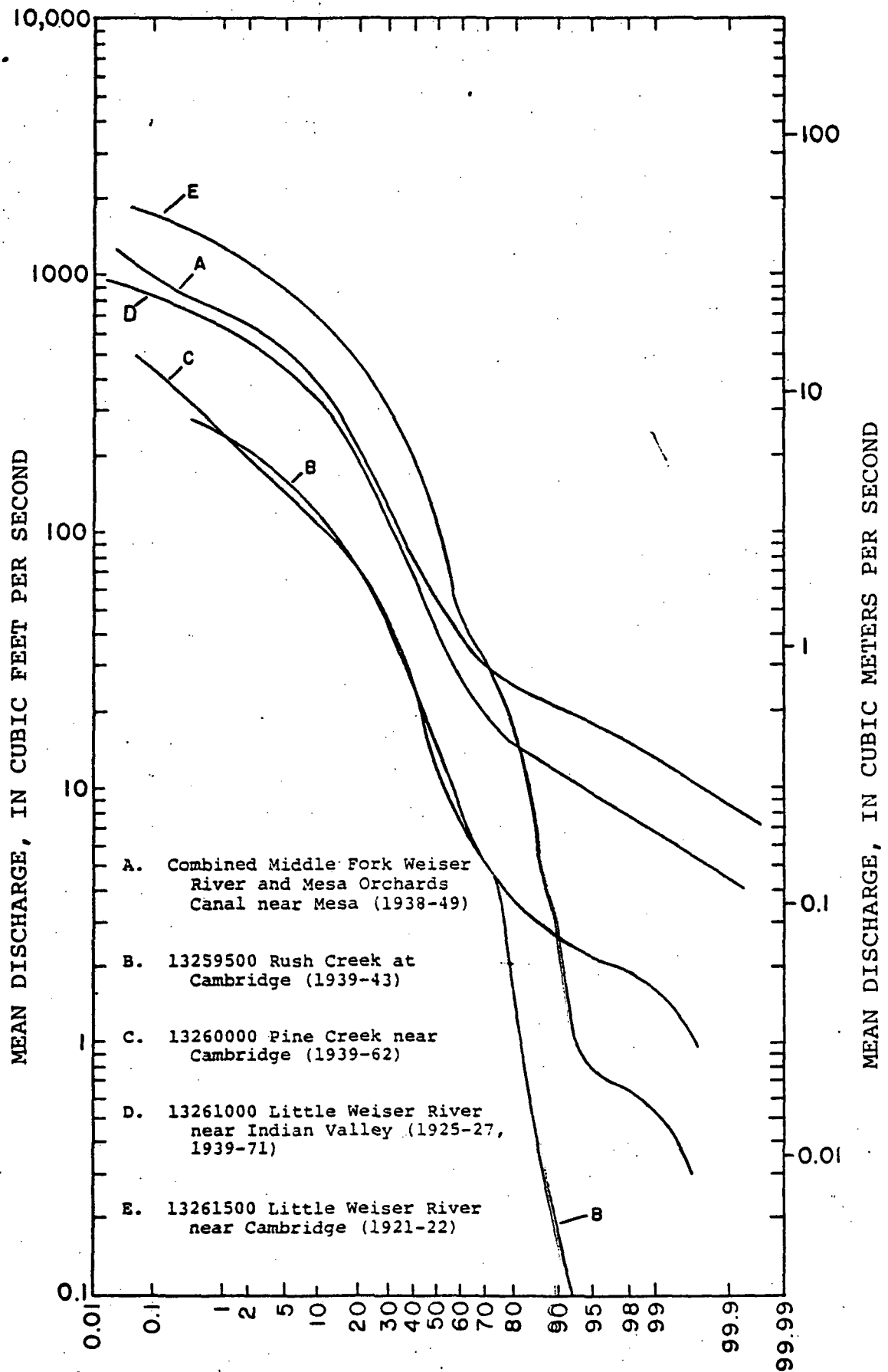
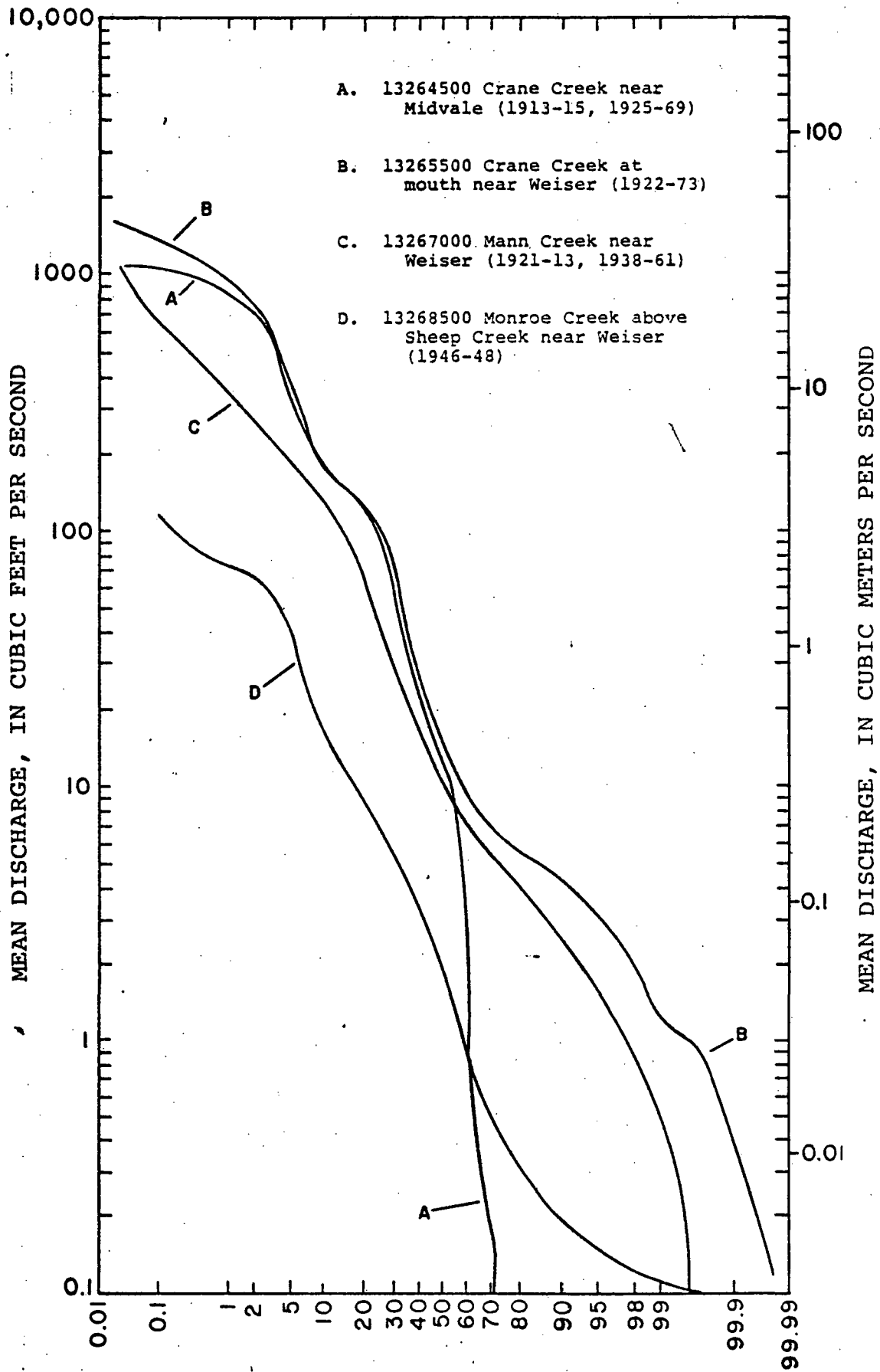


Figure 16. Flow-duration curves of daily flow for selected tributaries in the upper Weiser River basin



PERCENTAGE OF TIME MEAN DAILY DISCHARGE WAS EQUALED OR EXCEEDED

Figure 17. Flow-duration curves of daily flow for selected tributaries in the middle Weiser River basin



PERCENTAGE OF TIME MEAN DAILY DISCHARGE WAS EQUALED OR EXCEEDED

Figure 18. Flow-duration curves of daily flow for selected tributaries in the lower Weiser River basin

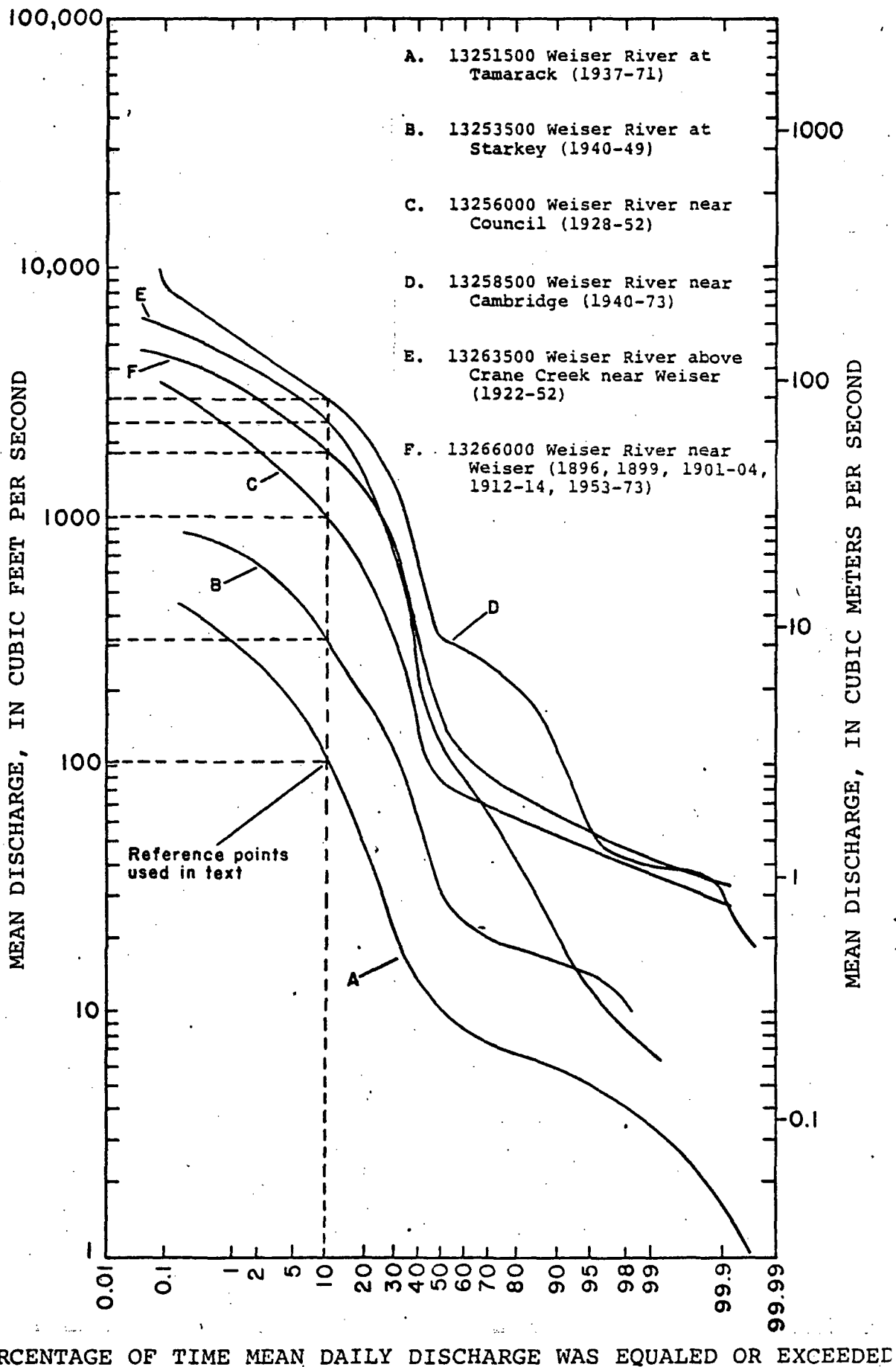


Figure 19. Flow-duration curves of daily flow May 1 to September 30, for selected stations on the Weiser River

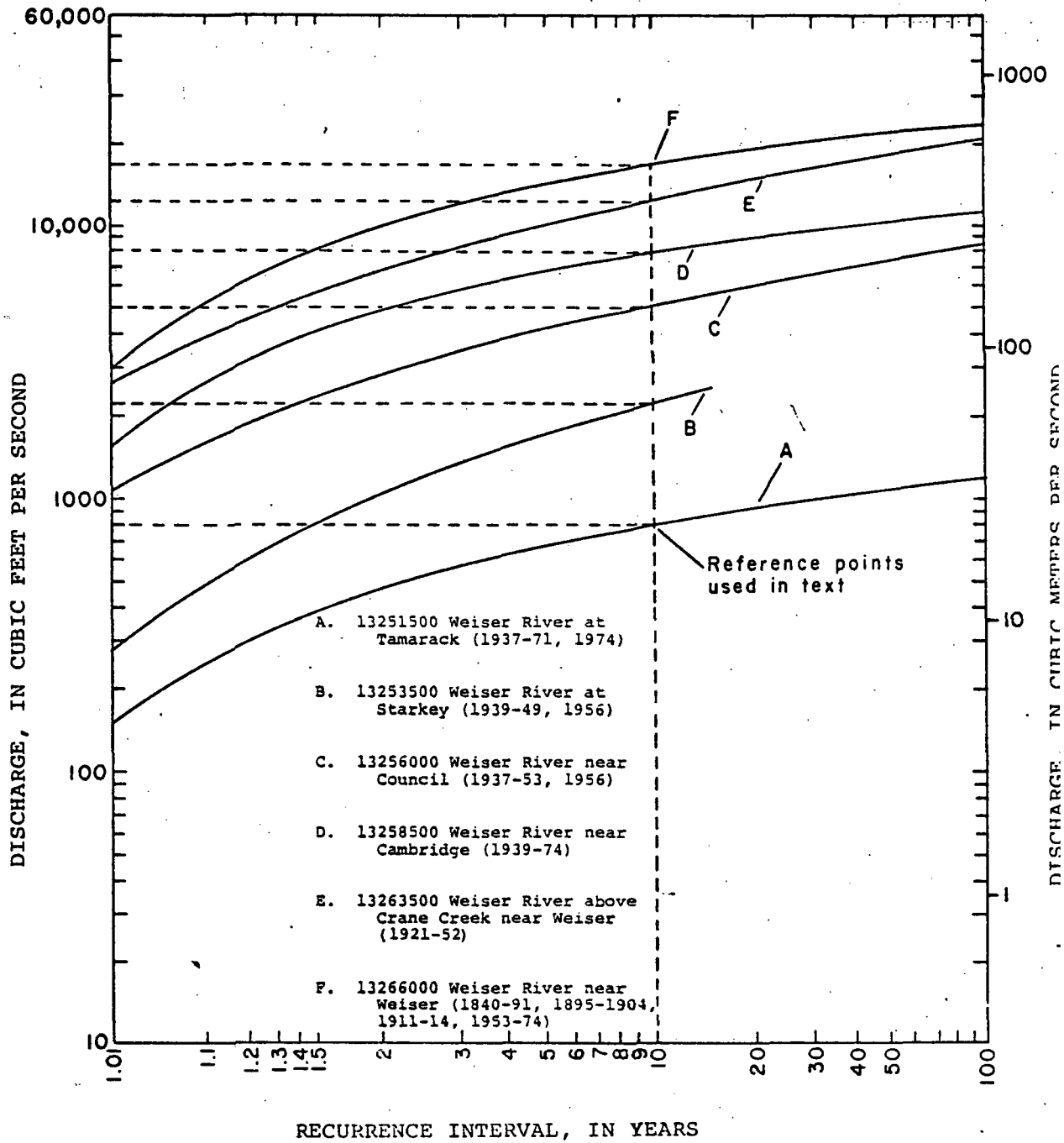


Figure 20. Magnitude and frequency of floods at selected sites on the Weiser River



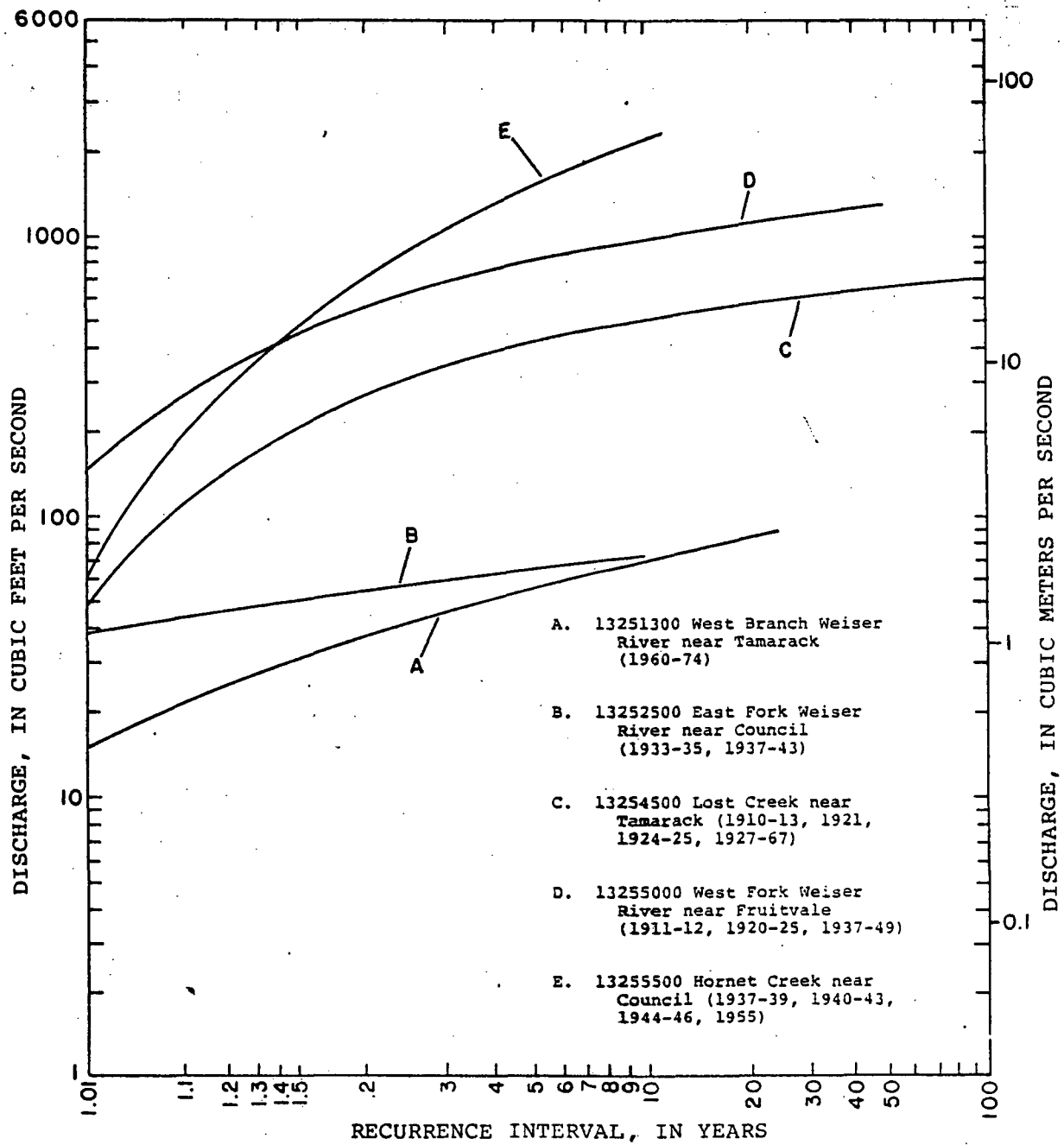


Figure 21. Magnitude and frequency of floods on selected tributaries in the upper Weiser River basin

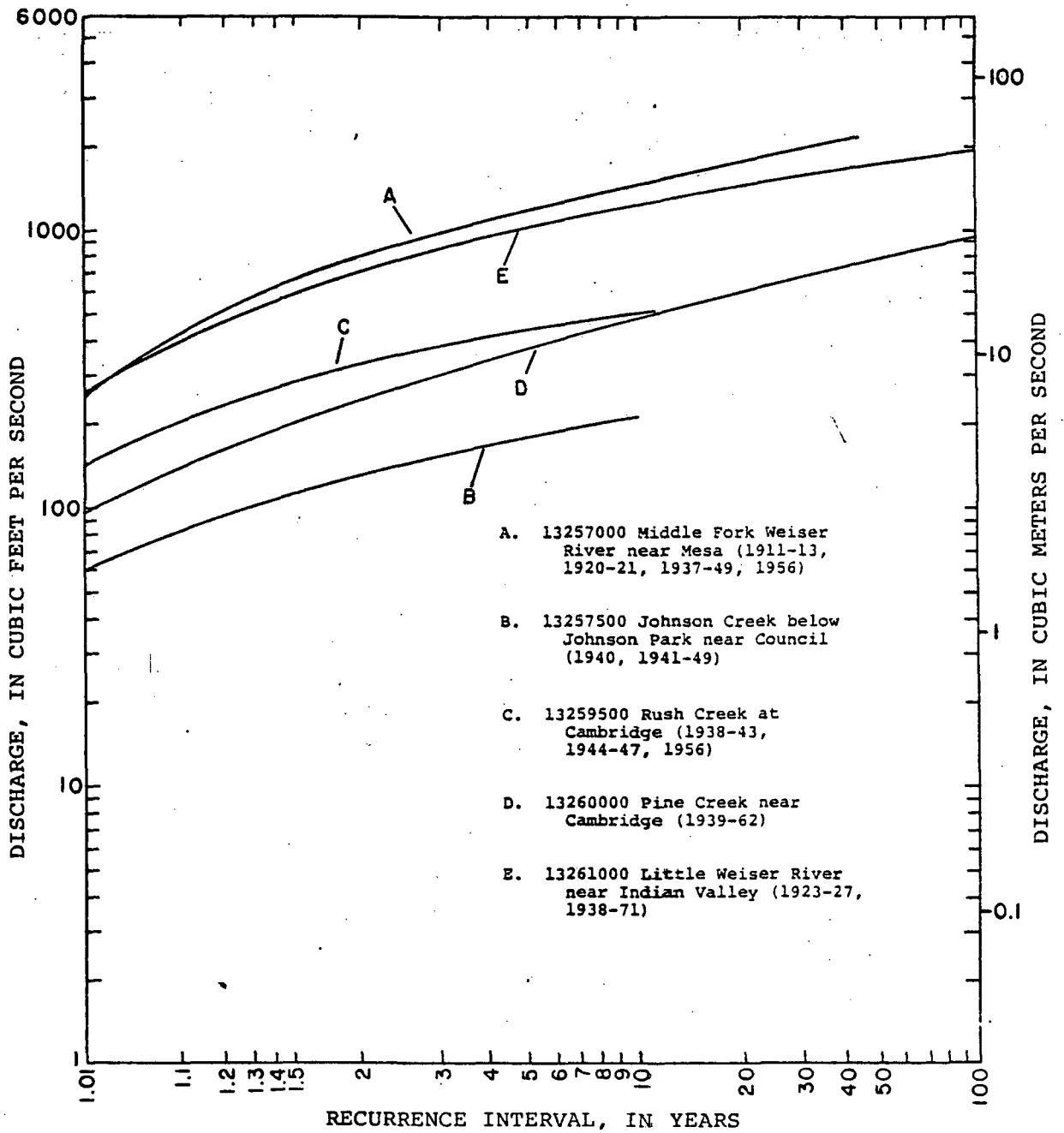


Figure 22. Magnitude and frequency of floods on selected tributaries in the middle Weiser River basin

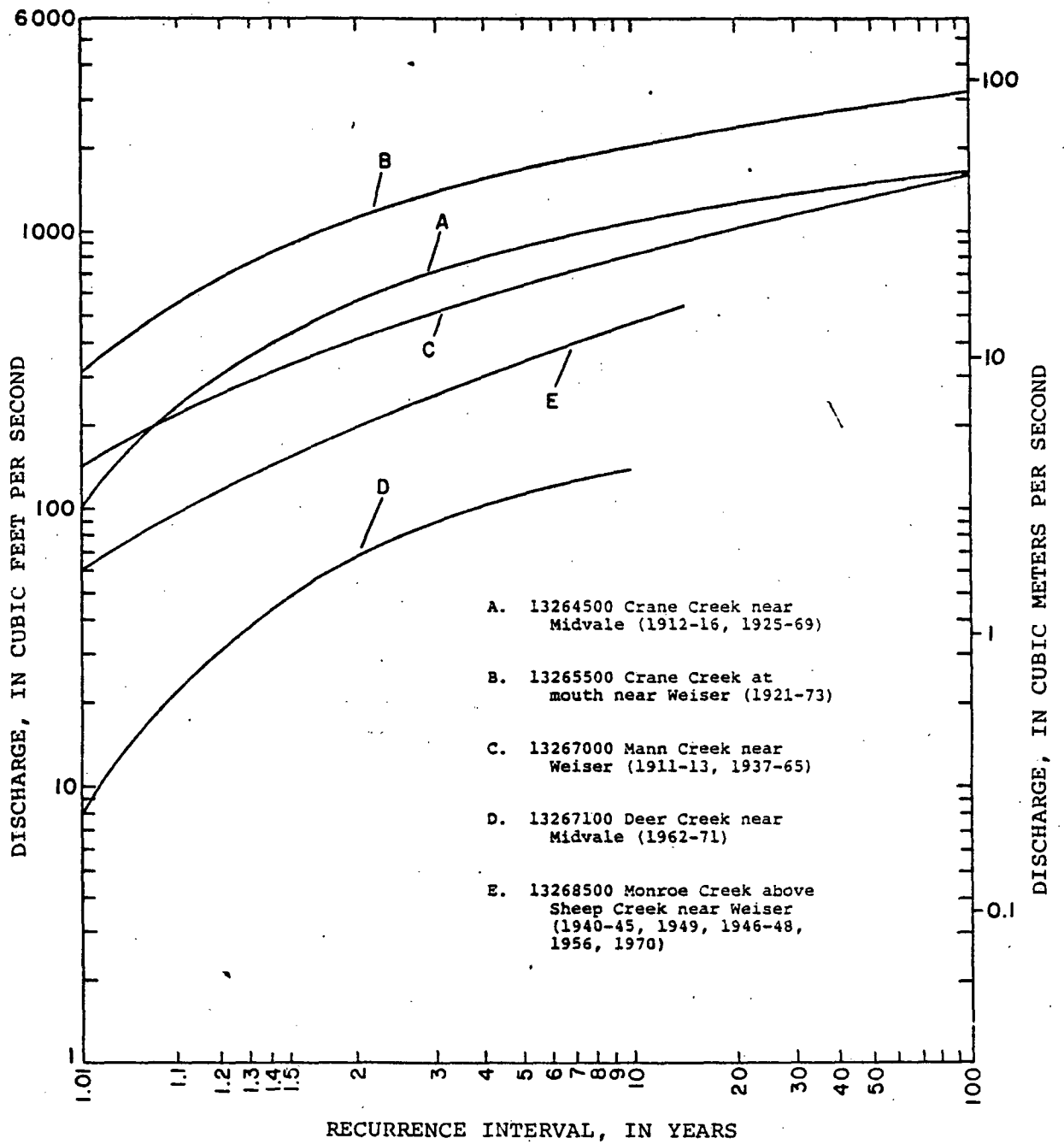


Figure 23. Magnitude and frequency of floods on selected tributaries in the lower Weiser River basin

Fig 23

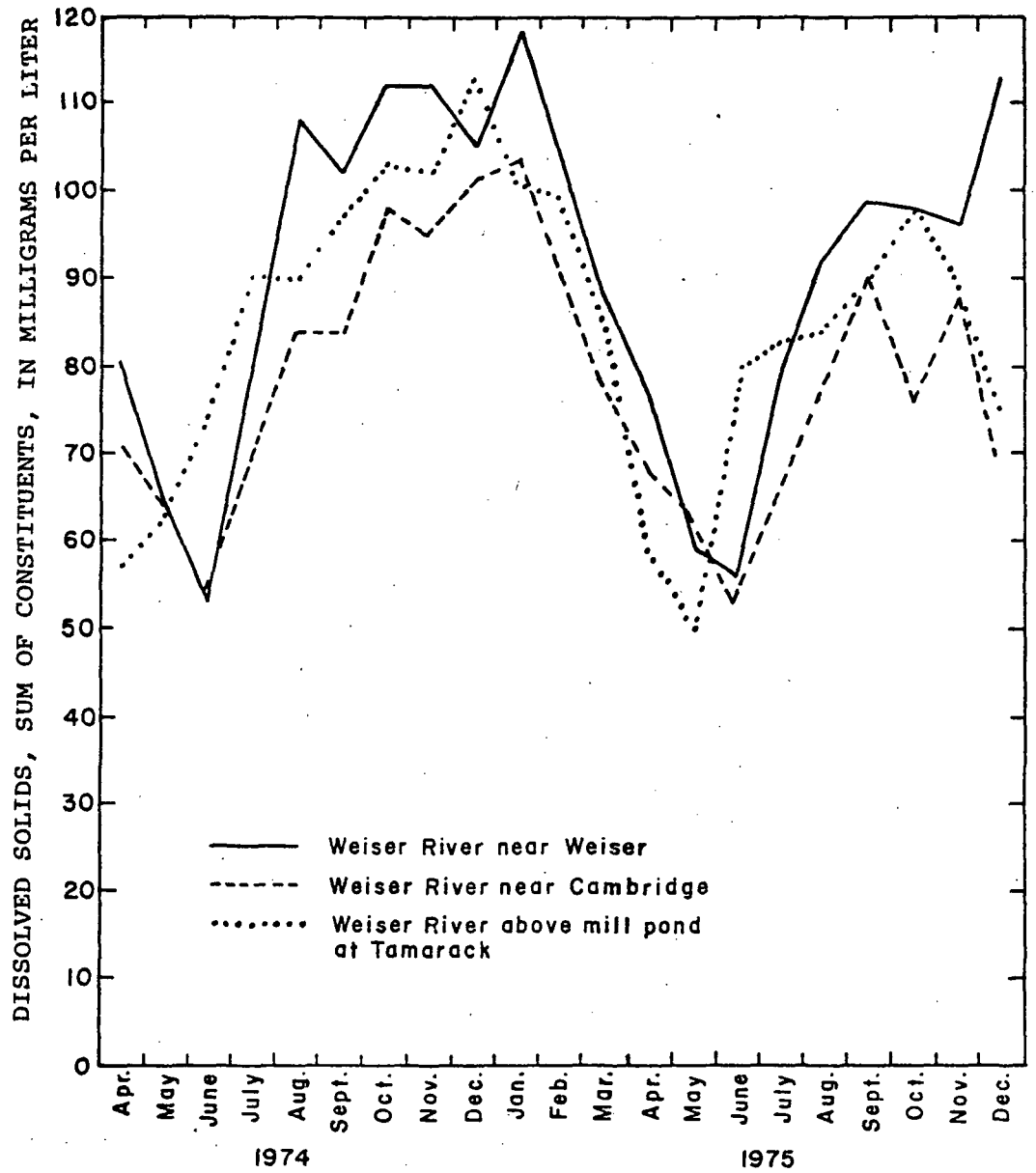


Figure 25. Dissolved-solids concentrations at selected sites on the Weiser River, April 1974 to December 1975

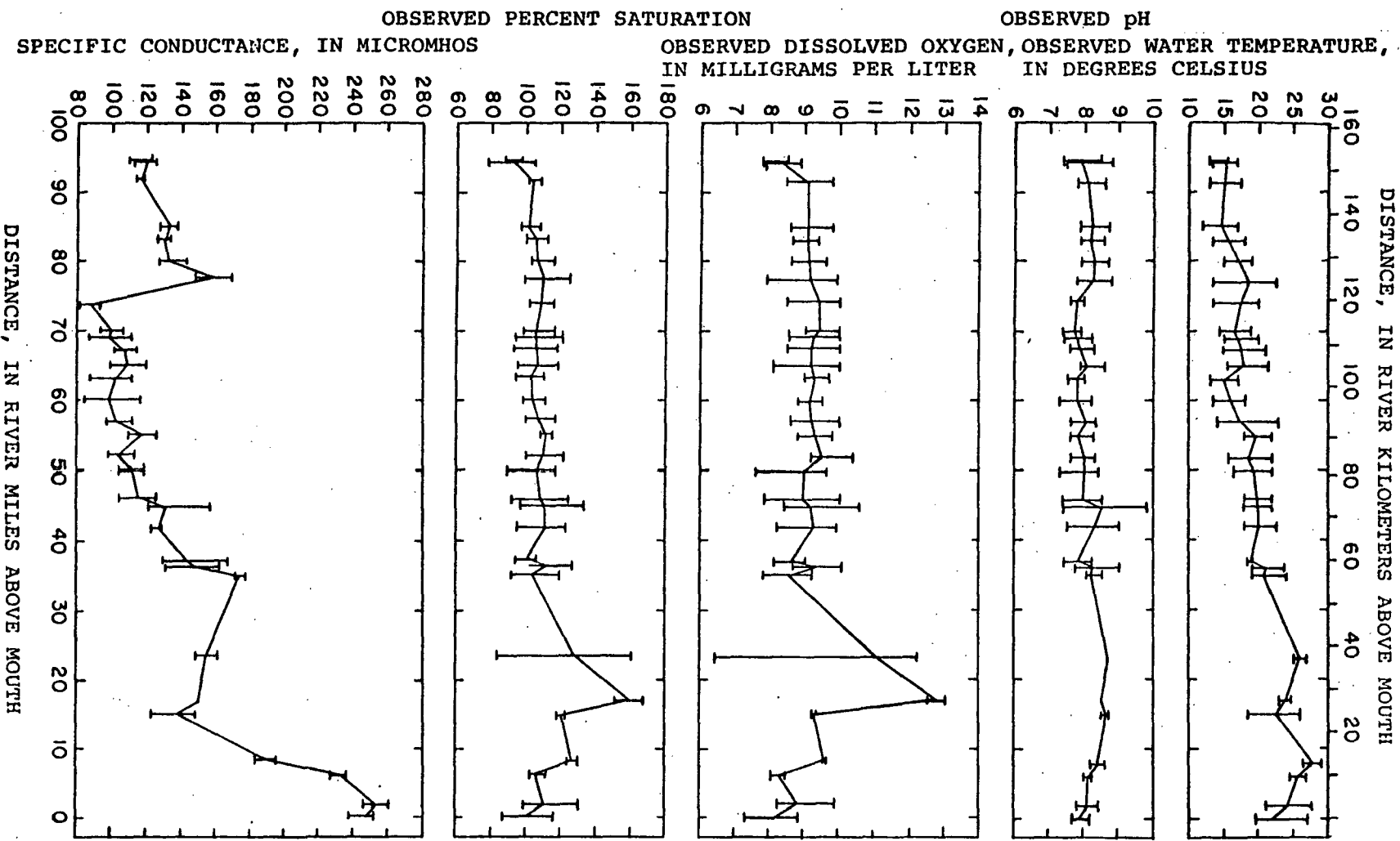


Figure 28. Observed dissolved-oxygen ranges in the Weiser River

PHOSPHORUS, TOTAL ORTHO AS P      NITRITE PLUS NITRATE AS N  
 PHOSPHORUS, TOTAL AS P

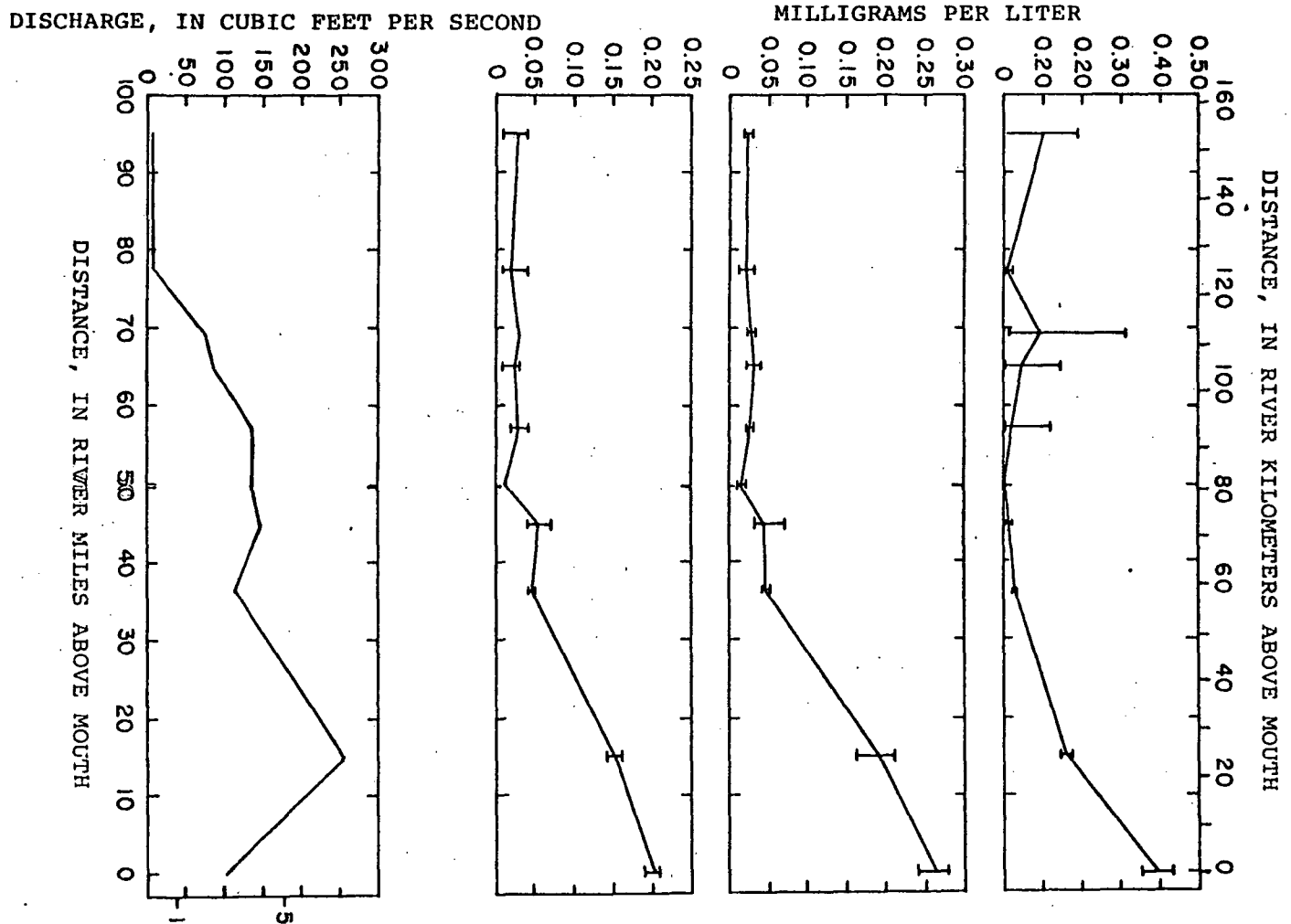


Figure 29. Nutrient ranges in the Weiser River

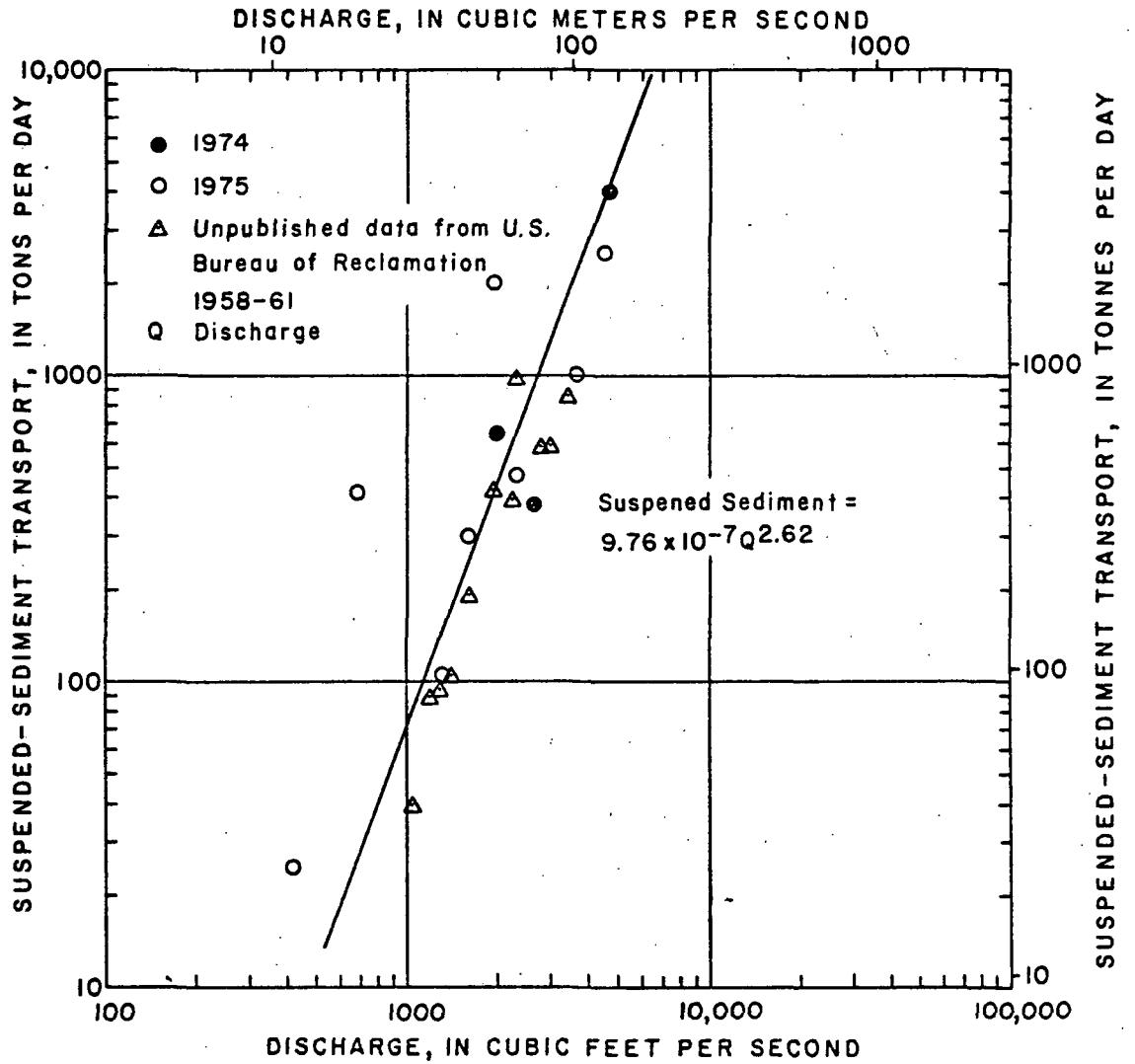


Figure 31. Suspended-sediment transport as a function of stream discharge, Weiser River near Cambridge

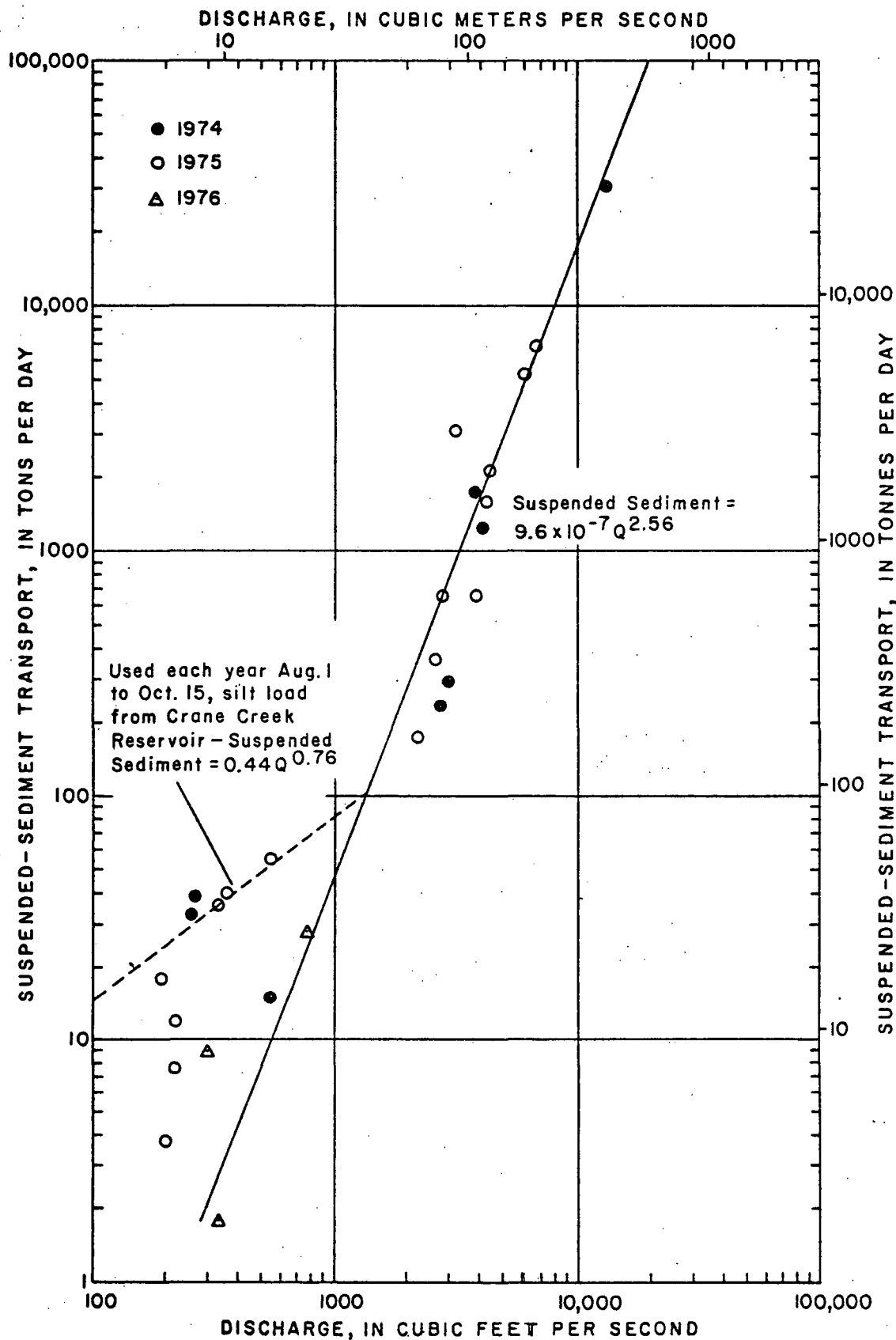


Figure 32. Suspended-sediment transport as a function of stream discharge, Weiser River near Weiser



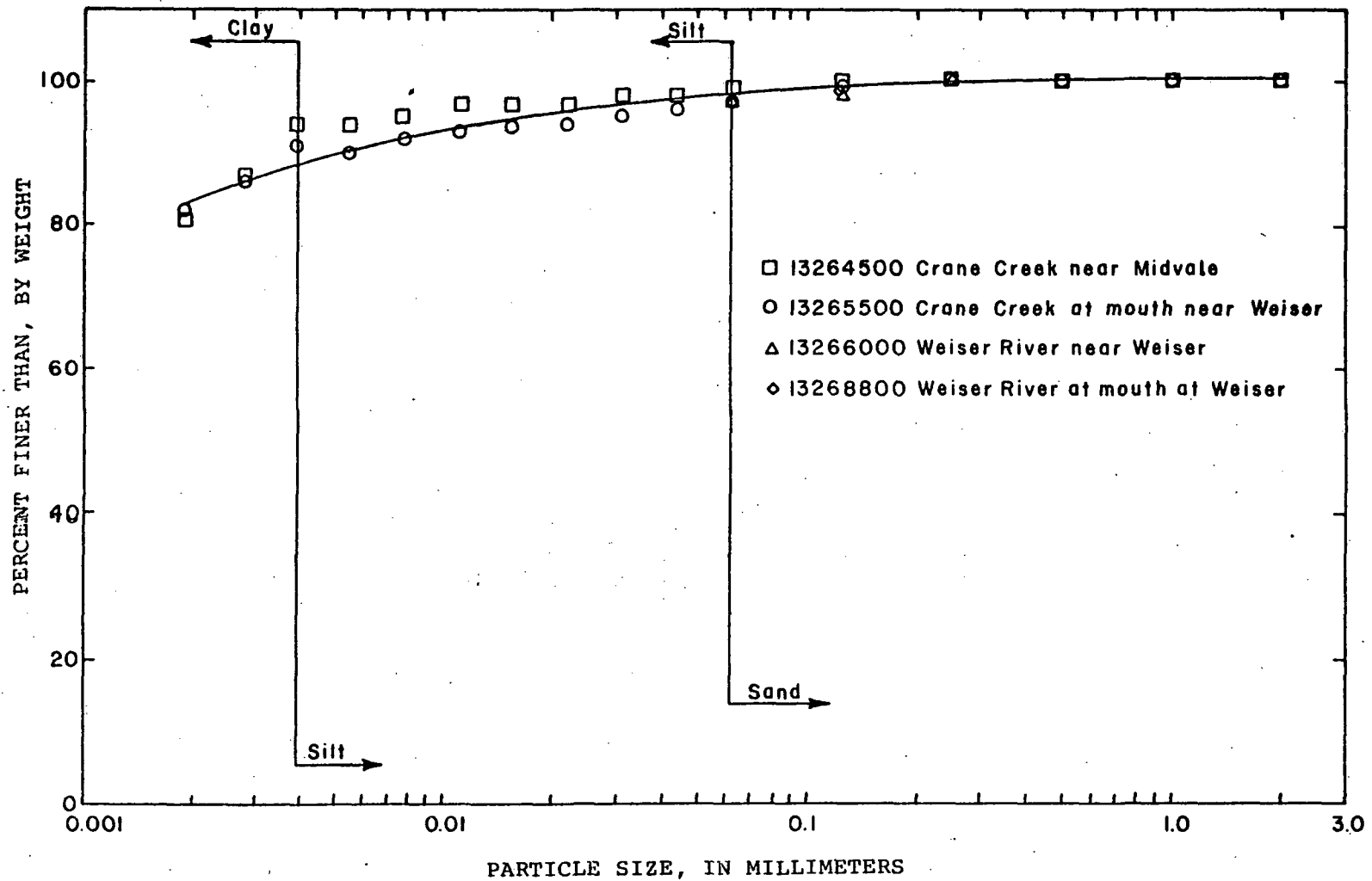


Figure 34. Particle-size distribution of suspended sediment for selected sites on the Weiser River and Crane Creek

TABLE 1 - Capacities of major reservoirs in the Weiser River basin.

Reservoir name	Owner	Stream	Active capacity (acre-feet)	Total capacity (acre-feet)
Lost Valley	Lost Valley Reservoir Company	Lost Creek	10,100	10,100
C. Ben Ross	Little Weiser River Irrigation District <sup>2</sup>	Little Weiser River	7,600	7,800
Mann Creek	U.S. Bureau of Reclamation	Mann Creek	11,000	13,000
Crane Creek	Crane Creek Reservoir Administration Board	Crane Creek	52,000	52,000
Totals			80,700	82,900

Data from U.S. Bureau of Reclamation, 1971

1 - Reservoir capacity available for release

2 - Reservoir not located on river

To convert acre-feet to cubic meters multiply by 1,233

Table 2 Water rights (decrees, licenses, and permits) in the Weiser River basin as of April, 1974. Data furnished by Idaho Department of Water Resources

Source	Rate of diversion allowed by rights, cubic feet per second			
	Decreases	Licenses	Permits	Total
Weiser River	259	145	47.2	451
West Fork Weiser River	1.83	0	0	1.83
East Fork Weiser River	19.3	0	0	19.3
Middle Fork Weiser River	73.7	0	0	73.7
Beaver Creek	0	1.05	0	1.05
Gaylord Creek	0	5.2	6.4	11.6
Warm Spring Creek	0	1.8	2.0	3.8
Mill Creek	13.0	0.7	0	13.7
Hornet Creek	18.9	1.2	0.53	20.7 <sup>6</sup>
Lester Creek	0	0.48	0	0.48
Cottonwood Creek	19.6	0.8	0	20.4
Johnson Creek	0	1.5	0	1.5
Goodrich Creek	0.28	12.9	0	13.2
Cow Creek	1.44	1.38	0	2.82
Rush Creek	23.0	10.0	0	33.0
Spring Creek	0.95	0	0.1	1.05
Pine Creek	24.5	4.02	0	28.5
Dixie Creek	0	1.2	0	1.2
Keithly Creek	15.9	2.1	0	18.0
Banner Creek	0	0	2.4	2.4
Sage Creek	6.96	0.06	14.0	21.0
Deep Creek	0	0	1.0	1.0
Pole Creek	0	0	2.4	2.4
Thousand Springs Creek	0	1.6	0	1.6
Hog Creek (near Crane)	0	0	0.8	0.8
Mill Creek (near Crane)	0	2.4	0	2.4
Crane Creeks	4.67	32.3	12.5	49.5

Table 2 continued

Source	Decrees	Licenses	Permits	Total
Cove Creek	0	1.2	3.0	4.2
Mann Creek	0	0	47.3	47.3
Monroe Creek	ALL	28.1	5.12	33.2
Jenkins Creek	0	21.1	0	21.1
Scott Creek	0	0.62	6.4	7.02
Hog Creek	0	0.62	0	0.64
Miscellaneous Streams	4.42	33.7	38.6	76.7
Miscellaneous Springs	<u>0</u>	<u>4.6</u>	<u>12.7</u>	<u>17.3</u>
Total	487	316	202	1005

a Includes both North and South Forks of Crane Creek

b Monroe decrees not shown in total

c Water rights given in acre-feet - converted to c.f.s. assuming a 180 day flow period.

To convert cubic feet per second to cubic meters per second multiply by 0.028

TABLE 3 Significance of selected chemical and biological characteristics

Constituent	Significance	Concentration of Normal occurrence	Limits for Domestic Use	Adverse Effects	Usual Concentration May Indicate	Concentrations Observed in Sampled Water	Remarks
Silica (SiO <sub>2</sub> )	Present in most waters in varying concentrations	10 to 60 mg/l	None	Forms scales in steam boilers.	Association with thermal water	2-84 mg/l	
Iron (Fe)	Detrimental for most domestic and industrial uses	0.01 to 10 mg/l	0.5 mg/l	Physiological taste, staining	Iron-bearing mineral	0 to 2.8 mg/l	
Sodium (Na)	Present in most waters in varying concentrations. If present in excess it detracts to agricultural uses.	1 to 200 mg/l	250 mg/l	Loss of soil permeability	Highway deicing, association with igneous-rock aquifers	2.5 to 250 mg/l	
Potassium (K)	Present in most waters, usually in concentrations less than sodium, essential plant nutrient	.01 to .01 mg/l	20 mg/l			0.9 to 25 mg/l	
pH	Expresses the acidity or basicity of a solution	5 to 9 pH units	4.5 to 10.0 pH units	Water corrosive if too high or too low	pH values near 9 units or higher indicate algal growths, pH values below 6 units indicate acid mineral waters	6.3 to 9.8 pH units	0 pH units Acid 7 Alkaline 14
Alkalinity as Calcium Carbonate (CaCO <sub>3</sub> )	Measure of waters capacity to neutralize acids	50 to 400 mg/l	Objectivable taste			25 to 746 mg/l	
Sulfate (SO <sub>4</sub> )	Present in most waters. It is detrimental for most uses if present in excess	1 to 100 mg/l	250 mg/l	Possible cathodic effect on humans	Association with sedimentary rock aquifers	0.6 to 250 mg/l	Concentrations in excess of 250-mg/l will form scales when heated.
Chloride (Cl)	Present in most waters in varying concentrations	1.0 to 100 mg/l	250 mg/l	Objectivable taste	Organic wastes, highway deicing	0 to 45 mg/l	Chloride is not removed by soils, good indicator of possible pollution.
Fluoride (F)	Concentrations of small magnitude have beneficial effect on structure and resistance to decay of teeth.	0.01 to 10 mg/l	10 mg/l	Dental fluorosis	Association with thermal water	0 to 1.0 mg/l	

FC  
USGS  
DTR  
77-418

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SUS- PENDED SEDI- MENT (MG/L)	PENDED SEDI- MENT DIS- CHARGE (T/DAY)
13266000 - WEISER RIVER NEAR WEISER, IDAHO (CONT'D)								
05-12-75	1330	4,420	80	10.5	22.5	38	179	2,140
05-16-75	1430	6,810	63	10.0	23.0	66	375	6,900
06-19-75	1045	2,230	43	10.5	19.0	6	29	175
07-17-75	0825	549	130	12.0	11.5	18	37	55
08-14-75	1200	360	129	20.0	29.0	53	41	40
09-19-75	1130	332	129	14.0	19.0	65	40	36
10-17-75	0920	301	144	10.0	10.0	10	11	8.9
11-13-75	1260	328	138	4.0	9.0	2	2	1.8
12-13-75	1620	785	107	1.0	-1.0	7	13	28
13266550 - COVE CREEK NEAR WEISER, IDAHO								
01-17-74	1200	31	183	5.0	10.0	--	185	15
02-14-75	1300	25	178	4.0	4.5	69	114	7.7
02-14-75	1315	27	173	4.0	5.5	60	97	7.1
13266850 - MANN CREEK ABOVE RESERVOIR NEAR WEISER, IDAHO								
04-16-74	0950	178	129	5.0	12.5	7	32	15
03-10-75	1215	77	103	4.0	4.0	16	17	3.5
04-14-75	1310	229	95	4.0	5.5	44	172	106
05-12-75	1715	314	118	10.5	18.5	38	287	243
13268500 - MONROE CREEK ABOVE SHEEP CREEK NEAR WEISER, IDAHO								
01-17-74	1510	122	118	4.0	9.0	--	1,360	448
04-16-74	0900	30	165	7.0	8.5	7	21	1.7
02-14-75	0920	23	156	1.0	-2.0	36	73	4.5
03-14-75	1052	41	130	2.0	3.5	20	46	5.2
03-19-75	1245	157	112	5.0	9.0	170	1,340	568
04-14-75	1220	122	97	5.5	8.0	92	824	271
05-12-75	1428	43	128	15.5	23.5	17	61	7.1

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SUS- PENDED SEDI- MENT (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)
13264500 - CRANE CREEK NEAR MIDVALE, IDAHO								
08-14-74	1015	122	95	17.5	--	--	120	40
13265500 - CRANE CREEK AT MOUTH NEAR WEISER, IDAHO								
01-17-74	1410	410	104	3.5	10.0	--	166	184
08-14-74	1130	144	108	18.5	--	--	106	41
08-27-74	1540	130	115	22.0	--	--	135	47
09-16-74	1410	109	104	18.0	27.5	150	66	19
10-17-74	1115	28	138	11.0	14.0	90	47	3.6
02-14-75	1045	171	92	1.5	4.5	37	57	26
03-14-75	1243	487	76	5.5	12.5	44	23	30
03-20-75	1500	885	93	6.0	--	58	43	103
04-18-75	1113	275	92	7.5	12.0	47	7	5.2
08-14-75	1140	214	101	19.0	27.5	67	72	42
09-19-75	0911	193	106	15.0	14.0	95	47	24
13266000 - WEISER RIVER NEAR WEISER, IDAHO								
01-17-74	1515	13,100	64	2.5	9.0	--	859	30,400
04-15-74	1740	2,750	82	10.5	17.0	14	32	238
05-13-74	1615	3,000	72	9.0	14.5	--	36	292
06-06-74	1430	4,120	--	16.5	12.0	32	112	1,250
06-14-74	1230	3,850	62	14.0	28.5	43	168	1,750
07-16-74	1145	542	122	19.0	29.0	6	10	15
08-14-74	1500	267	137	--	--	--	54	39
09-16-74	1215	257	129	16.0	24.5	60	47	33
10-17-74	1215	220	134	12.0	20.0	25	20	12
11-13-74	0945	200	132	6.5	12.0	11	7	3.3
12-13-74	1200	193	162	1.0	8.0	7	35	18
01-13-75	1037	219	126	0.0	-1.0	8	13	7.7
02-14-75	1135	3,200	87	1.5	5.0	70	362	3,130
03-14-75	1205	2,640	95	5.0	10.5	33	51	364
03-19-75	1130	6,170	88	4.5	--	86	318	5,300
03-20-75	1545	4,310	98	4.0	--	55	137	1,590
04-18-75	1125	2,870	87	8.5	12.5	25	85	659

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
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13257700 - DRY CREEK AT GOODRICH, IDAHO

04-19-74	1835	10	53	13.0	12.5	--	4	.11
02-12-75	1325	33	56	2.0	3.5	50	289	26

13257800 - GOODRICH CREEK NEAR GOODRICH, IDAHO

04-19-74	1940	75	57	6.0	9.0	--	139	28
02-12-75	1505	11	69	1.0	2.5	35	183	5.4
05-15-75	0915	111	36	4.5	15.5	15	46	14

13258500 - WEISER RIVER NEAR CAMBRIDGE, IDAHO

01-18-74	1505	4,680	64	2.0	2.5	--	324	4,090
04-16-74	1925	1,980	73	10.0	16.5	7	121	647
06-06-74	1155	2,670	--	9.0	19.0	17	53	382
02-12-75	1740	677	89	6.5	3.5	50	229	419
02-13-75	1710	1,960	73	1.5	3.0	70	379	2,010
03-12-75	0805	1,310	69	2.0	-7.0	16	30	106
03-19-75	1915	2,320	79	--	--	25	76	476
04-17-75	0900	1,620	84	5.5	10.0	22	69	302
05-13-75	1640	3,650	73	9.5	24.0	25	103	1,020
05-15-75	2015	4,520	57	10.0	19.5	42	210	2,560
07-15-75	1315	419	100	10.5	19.0	7	22	25

13259500 - RUSH CREEK AT CAMBRIDGE, IDAHO

04-16-74	1800	37	80	12.5	17.5	4	7	.70
06-03-74	1630	248	--	11.5	23.5	20	85	57
06-05-74	1130	369	--	7.5	16.0	42	188	187
02-13-75	1230	33	82	.5	4.0	45	125	11
03-19-75	1600	153	88	7.0	--	36	213	88
05-16-75	0905	96	49	7.0	15.0	19	88	23
06-19-75	0845	214	37	6.0	10.5	8	58	34



DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	RICARONATE (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CALCIUM (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS PER AC-FEET	DIS-SOLVED SOLIDS PER DATE	HAZARDOUS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	(FIELD) SPECIFIC CONDUCTANCE (MICROHMS)	(FIELD) PH	TEMPERATURE (DEG C)	
13269210 - SCOTT CREEK ABOVE DIVERSIONS, NEAR WEISER, IDAHO (LAT 44 30 40 LONG 117 00 37)																										
APR.	15...	1615	6.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	113	--	13.0	
MAY	13...	1455	1.3	40	24	9.6	9.8	3.3	121	2	103	20	2.4	.5	.01	.07	171	.23	.35	49	0	17	.4	209	8.4	16.2
JUNE	10...	1335	.58	43	32	13	15	5.3	164	0	135	27	4.0	.2	.06	.14	221	.30	.25	130	0	19	.5	212	9.6	27.5
JULY	15...	1135	.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	419	--	25.0	
NOV.	11...	1100	.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	394	--	6.0	
DEC.	12...	1240	.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	321	--	2.0	
JAN.	17...	1130	.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	246	--	2.0	
FEB.	07...	0655	.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	280	--	1.0	
MAR.	14...	1125	2.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	186	--	1.0	
APR.	10...	1055	.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	81	--	3.0	
MAY	14...	1102	.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	77	--	5.0	
JUNE	12...	1020	9.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	120	--	10.0	
JULY	16...	1225	.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	196	--	22.0	
AUG.	22...	1107	.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	258	--	26.0	
OCT.	19...	1453	.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	410	--	16.0	
NOV.	10...	1417	.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	358	--	5.0	
DEC.	10...	1135	.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	318	--	3.0	
13269220 - FOX CREEK NEAR WEISER, IDAHO (LAT 44 17 58 LONG 117 05 20)																										
JAN.	17...	1315	.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	214	--	7.0	
FEB.	15...	1330	2.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	282	--	17.0	
MAY	13...	1315	1.0	37	40	14	41	5.8	273	0	183	54	8.3	.5	.05	.09	316	.43	.28	160	0	35	1.4	414	8.3	20.0
JUNE	10...	1140	.96	37	37	12	39	6.8	162	6	143	72	8.0	.3	.03	.07	294	.41	.05	140	0	36	1.4	450	8.9	27.0
NOV.	11...	1200	.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	628	--	6.0	
DEC.	12...	1354	.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	488	--	2.0	
JAN.	17...	1230	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	375	--	7.0	
FEB.	06...	1629	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	514	--	-2.0	
MAR.	14...	1930	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	197	--	1.0	
APR.	16...	0950	.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	137	--	2.0	
FEB.	14...	1005	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	218	--	7.0	
MAY	12...	1135	2.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	284	--	13.0	
OCT.	14...	1319	.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	607	--	17.0	
NOV.	10...	1517	.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	560	--	5.0	
DEC.	10	1045	.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	419	--	3.0	

To convert cubic feet per second to cubic meters per second multiply by 0.02832

To convert tons to metric tonnes multiply by 0.9072

To convert acre-feet to cubic meters multiply by 1233

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
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13268800 - WEISER RIVER AT MOUTH AT WEISER, IDAHO

08-14-74	1605	71	197	27.0	--	--	61	12
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13269100 - JENKINS CREEK NEAR WEISER, IDAHO

01-17-74	1140	35	--	1.5	--	--	1,330	126
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13269210 - SCOTT CREEK ABOVE DIVERSIONS, NEAR WEISER, IDAHO

02-14-75	1125	2.8	186	.0	.5	18	1	.01
03-10-75	1055	32	81	3.0	4.5	32	88	7.6
04-14-75	1102	61	77	5.0	6.0	84	633	138

13269228 - HOG CREEK NEAR WEISER, IDAHO

01-17-74	1315	35	214	-.5	11.0	--	433	41
02-14-75	1030	14	197	.0	-2.0	32	31	1.2
03-10-75	0950	34	137	2.5	3.0	39	48	4.4

To convert cubic feet per second to cubic meters per second multiply by 0.02832  
 To convert tons to metric tonnes multiply by 0.9072

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
13263500 - WEISER RIVER AB. CRANE CREEK NR. WEISER, IDAHO								
08-14-74	1345	123	116	22.5	--	2	10	3.3
13263700 - CRANE CREEK ABOVE RESERVOIR NEAR CRANE, IDAHO								
02-13-75	1320	1,750	48	1.0	4.5	125	930	4,490
13263750 - HOG CREEK NEAR CRANE, IDAHO								
03-12-75	1645	90	106	3.0	3.5	82	121	29
03-20-75	1130	100	97	2.0	--	88	123	33
13263800 - MILL CREEK NEAR CRANE, IDAHO								
01-17-74	1755	34	49	4.5	.5	--	3	.28
02-13-75	1450	252	48	3.0	6.0	59	188	128
13263930 - TENNISON CREEK NEAR SOUTH CRANE SCHOOL, IDAHO								
02-13-75	1605	118	75	3.5	7.5	87	359	114
13263950 - SOUTH FORK CRANE CREEK NEAR CRANE, IDAHO								
01-17-74	1645	140	76	5.5	4.5	--	74	28
02-13-75	1755	956	66	1.5	6.0	155	845	2,180
03-13-75	1030	25	103	3.5	1.0	15	7	.47
03-20-75	1340	63	97	7.0	--	28	17	2.9

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
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13255500 - HORNET CREEK NEAR COUNCIL, IDAHO

01-18-74	1615	763	71	2.5	3.0	--	169	348
04-18-74	1615	344	67	9.5	16.5	8	39	36
06-06-74	1045	210	--	9.0	12.0	8	33	19
04-16-75	1648	348	89	10.5	12.0	17	47	44
05-14-75	1810	460	74	15.5	27.0	20	81	101

13255750 - COTTONWOOD CREEK ABOVE DIVERSIONS NEAR COUNCIL, IDAHO

04-18-74	1715	102	64	7.0	15.0	4	32	8.8
05-15-75	1234	254	54	5.5	18.5	15	110	75

13255800 - COTTONWOOD CREEK NEAR COUNCIL, IDAHO

04-18-74	1830	99	65	9.0	16.5	4	25	6.7
06-04-74	1307	149	--	7.0	13.0	6	40	16
02-12-75	1645	13	87	.5	1.5	36	144	5.1
05-15-75	1230	167	56	6.0	23.5	21	138	62

13256800 - MIDDLE FK. WEISER RIVER AB. FALL CR. NR. MESA, IDAHO

04-19-74	1310	274	75	7.5	13.5	3	14	10
06-04-74	1040	821	--	5.5	7.0	14	81	180
06-05-74	1750	1,010	--	7.0	15.0	31	300	818
05-15-75	1751	689	54	5.5	21.5	42	428	796

13257600 - JOHNSON CREEK NEAR GOODRICH, IDAHO

04-19-74	1715	109	84	8.5	16.0	--	69	20
06-04-74	1620	146	--	8.0	12.5	5	19	7.5
02-12-75	1245	32	67	1.0	5.5	41	170	15
05-15-75	1020	182	50	5.0	17.0	18	69	34

Basic-data table I Water quality data for low-flow A Weiser River August 20 to August 22, 1974

\* Dissolved value

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL NITRITE PLUS NITRATE (M) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MOS)	(FIELD) PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	(FIELD)	PER- CENT SATUR- ATION
										DIS- SOLVED OXYGEN (MG/L)	

13251490 - WEISER RIVER ABOVE MILL POND, AT TAMARACK, IDAHO (LAT 44 57 32 LONG 116 24 10.01)

AUG., 1974											
20...	0950	7.4	.01	.02	.03	123	8.1	13.5	11.0	8.0	89
20...	1215	7.9	.19	.02	.04	121	8.5	15.5	17.0	8.5	98
20...	1625	7.9	.00	.02	.01	110	7.8	14.5	17.0	7.8	88
20...	1935	7.9	.00	.03	.03	114	7.8	14.5	19.0	8.3	93
21...	1000	7.7	.01*	.02	--	118	7.4	13.0	16.5	8.4	92

13251500 - WEISER RIVER AT TAMARACK IDAHO (LAT 44 56 49 LONG 116 22 55)

AUG., 1974											
20...	0935	7.9	--	--	--	120	9.8	13.5	11.0	8.9	99
20...	1240	7.9	--	--	--	125	--	17.0	17.0	8.8	105
20...	1645	7.9	--	--	--	113	7.6	17.0	16.5	7.8	78
20...	1950	7.0	--	--	--	122	7.6	15.0	13.0	7.9	90
21...	1030	6.0	--	--	--	122	7.5	14.0	22.0	8.6	96

13251700 - WEISER RIVER BELOW HEAVER CR. NR TAMARACK, IDAHO (LAT 44 55 41 LONG 116 22 58.01)

AUG., 1974											
20...	1020	11	--	--	--	116	8.2	13.0	11.0	9.4	103
20...	1255	11	--	--	--	116	8.6	16.0	17.0	9.3	108
20...	1705	11	--	--	--	114	8.3	17.5	16.5	8.5	102
20...	2000	10	--	--	--	119	7.8	16.0	15.0	8.7	101
21...	1055	11	--	--	--	118	7.8	13.0	25.0	9.8	107

13252000 - WEISER RIVER ABOVE FRUITVALE, ID (LAT 44 50 56 LONG 116 22 39.01)

AUG., 1974											
20...	1040	19	--	--	--	133	8.3	12.0	11.0	9.2	97
20...	1345	19	--	--	--	138	8.7	17.0	17.5	9.2	108
20...	1730	19	--	--	--	128	8.4	17.0	16.0	8.6	100
20...	2015	18	--	--	--	128	8.0	15.0	13.5	8.8	99
21...	1115	19	--	--	--	133	7.9	12.0	21.5	9.8	103

Constituent	Significance	Concentration of Normal occurrence	Limits for Domestic Use	Adverse Effects	Unusual Concentration May Indicate	Concentrations Observed in Sampled Water River Basin after	Remarks
Nitrite plus Nitrate as Nitrogen ( $\text{NO}_2 + \text{NO}_3$ as N)	Plant nutrient	0.10 to 10 mg/l	10 mg/l <sup>1</sup>	Infants may develop temporary blood disorder excessive algae growths	Organic wastes or excessive fertilization	0 to 9.0 mg/l	Excessive concentrations may indicate possible organic pollution
Ortho-phosphate as Phosphate (P)	Plant nutrient		1 mg/l	Excessive algae growths	Organic pollution	0.01 to .79 mg/l	
Dissolved Solids	Measure of mineralization of water	50 to 1,000 mg/l	500 mg/l <sup>1</sup>	Cathartic effect on humans	Excess Salinity	50 to 1,150 mg/l	
Percent sodium	Percent sodium among the total cations in milliequivalents per liter		50 percent	Loss of soil permeability		15 to 25 percent	
SAR (Sodium Adsorption Ratio)	Indication of cation exchange in water and soil ions.					0.2 to .5	
Specific conductance	Estimate of dissolved solids	50 to 1,000 $\mu\text{mhos per cm.}$	700 $\mu\text{mhos per cm.}$			50 to 1,810 $\mu\text{mhos per cm.}$	Easily measured
Temperature (°C)	Higher ground water temperatures indicate deeper water circulation or thermal activity			Surface water higher temperatures less dissolved oxygen	Thermal pollution, association with thermal water	0° to 28.5°C	
Dissolved Oxygen (DO)	In surface water required to sustain aquatic life			loss of aquatic growth and reproduction	Low concentrations in surface water may indicate pollution	6.4 to 13 mg/l	
Indicator-Bacteria (Fecal coliform)					Fecal pollution	0 to 940 col. per 100 ml.	

(1) Limits For Drinking Water, U.S. Public Health Service, 1962

(2) Water Use Criteria, 1972; The Environmental Protection Agency EPA-23-73-033 March 1973, 504 p.

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SUS- PENDED SEDI- MENT (MG/L)	PENED SEDI- MENT DIS- CHARGE (T/DAY)
13261600 - LITTLE WEISER RIVER NR. MOUTH NR. CAMBRIDGE, IDAHO								
01-18-74	0905	980	51	1.5	.5	--	459	1,210
04-19-74	1045	435	86	7.0	9.0	24	60	70
06-03-74	1815	503	--	15.0	23.0	27	91	124
06-05-74	1330	798	--	10.0	17.0	115	592	1,280
02-13-75	1450	1,410	62	.5	6.5	150	1,990	7,580
03-13-75	1324	360	87	4.5	10.5	28	64	62
05-16-75	1005	798	64	6.5	16.0	67	362	780
13261670 - DIXIE CREEK NR. CAMBRIDGE, IDAHO								
02-13-75	1545	25	107	.0	3.0	57	131	8.8
03-12-75	1710	51	117	8.0	6.0	85	292	40
13261880 - KEITHLY CREEK ABOVE DIVERSIONS NEAR MIDVALE, IDAHO								
04-16-74	1455	60	73	9.0	14.5	4	6	.97
03-10-75	1412	23	89	6.5	6.5	8	10	.62
04-14-75	1457	48	84	5.0	6.0	9	28	3.6
05-13-75	0840	121	63	5.0	10.0	17	126	41
13261962 - KEITHLY CREEK AT MOUTH NEAR MIDVALE, IDAHO								
04-16-74	1320	88	102	14.0	9.5	6	12	2.8
02-13-75	1105	288	74	1.0	1.0	78	462	359
03-14-75	0855	112	85	1.0	-4.5	15	48	15
04-14-75	1600	160	97	8.0	10.0	25	116	50
05-13-75	1112	131	70	7.5	16.5	20	113	40
13263150 - BANNER CREEK NEAR MIDVALE, IDAHO								
03-14-75	1000	7.7	260	1.0	.5	30	62	1.3
03-20-75	1030	21	202	2.5	--	90	405	23

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT CHARGE (T/DAY)
13251500 - WEISER RIVER AT TAMARACK, IDAHO								
01-18-74	1055	574	--	0.5	1.0	--	38	59
04-17-74	1640	352	52	6.5	14.5	5	14	13
06-06-74	0905	78	--	9.5	9.0	2	18	3.8
03-11-75	1500	19	91	1.0	3.0	18	10	.51
04-16-75	0900	61	67	1.0	.0	20	52	8.6
05-14-75	0810	508	58	4.0	4.5	8	23	32
13253000 - EAST FORK WEISER RIVER NEAR STARKEY, IDAHO								
04-17-74	1810	135	73	7.5	7.0	4	25	9.1
13253900 - LOST CREEK ABOVE RESERVOIR NEAR TAMARACK, IDAHO								
06-12-74	1545	142	33	10.5	21.5	2	9	3.4
13255050 - WEST FORK WEISER RIVER NEAR FRUITVALE, IDAHO								
04-18-74	0930	553	60	4.5	13.0	5	27	40
04-15-75	1420	195	73	8.0	16.0	5	20	11
05-14-75	1405	742	63	7.5	26.5	16	70	140
13255200 - MILL CREEK NEAR COUNCIL, IDAHO								
05-15-75	1355	70	73	6.5	21.5	12	69	13
13255280 - NORTH HORNET CREEK NEAR COUNCIL, IDAHO								
04-18-74	1330	157	49	7.5	12.0	10	54	23
04-15-75	1300	102	68	5.0	10.5	10	21	5.8



DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	CIFIC CON- DUCT- ANCE (MICRO- MOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
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13253200 - WEISER RIVER AT GLENDALE, NEAR FRUITVALE, IDAHO (LAT 44 50 08 LONG 116 24 24.01)

AUG., 1974											
20...	1105	18	--	--	--	126	8.3	15.0	15.5	9.2	102
20...	1400	18	--	--	--	133	8.6	18.0	18.5	9.2	110
20...	1800	17	--	--	--	131	8.2	17.0	21.0	8.7	102
20...	2030	17	--	--	--	132	7.9	16.0	16.0	8.9	100
21...	1135	18	--	--	--	126	8.0	13.5	20.5	9.4	112

13253500 - WEISER RIVER AT STARKFY, IDAHO (LAT 44 50 45 LONG 116 26 32.01)

AUG., 1974											
20...	1120	19	--	--	--	126	8.4	15.0	16.0	9.2	102
20...	1430	19	--	--	--	143	8.7	19.0	19.5	9.6	115
20...	1815	18	--	--	--	133	8.3	18.0	23.5	8.6	102
20...	2045	18	--	--	--	131	8.0	17.0	14.0	8.6	106
21...	1150	19	--	--	--	130	7.9	15.0	23.0	9.6	106

13253750 - WEISER RIVER AT FRUITVALE, IDAHO (LAT 44 49 04 LONG 116 26 56.01)

AUG., 1974											
20...	1135	7.5	.01	.02	.02	162	8.5	16.0	21.5	9.2	103
20...	1505	7.3	.01	.03	.04	164	8.8	22.0	22.5	9.8	125
20...	1830	8.4	.00	.02	.02	158	8.4	20.0	25.0	8.6	109
20...	2100	8.4	.01	.03	.03	148	7.9	18.5	16.0	8.2	104
21...	0915	7.2	.00	.02	.01	169	8.3	13.5	14.5	9.1	97
21...	1215	7.2	.00*	.01	--	158	7.9	17.0	23.5	9.8	112
21...	1310	7.2	.00	.01	.01	164	8.3	19.0	20.5	9.9	118
21...	1620	7.2	.00	.03	.03	158	8.3	22.5	26.5	9.5	121
21...	2125	7.0	.02	.02	.02	162	7.8	19.0	20.0	7.9	101
22...	1005	7.0	.00	.01	.01	160	7.8	15.5	19.5	9.6	106

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL NITRITE PLUS NITRATE (MG/L)	TOTAL PHOSPHORUS (MG/L)	TOTAL ORTHO PHOSPHORUS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION
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13257610 - WEISER R BELOW JOHNSON CR, NR GOODRICH, IDAHO (LAT 44 39 48 LONG 116 31 34.01)

AUG., 1974											
22...	1245	130	--	--	--	117	8.2	15.0	23.5	9.0	98
22...	1650	130	--	--	--	85	8.0	18.0	27.0	9.5	111
22...	2020	130	--	--	--	86	7.7	18.0	21.0	8.8	103
23...	0910	135	.01	.02	.03	105	7.3	13.5	17.0	9.3	98

13257710 - WEISER RIVER AT GOODRICH, IDAHO (LAT 44 39 03 LONG 116 33 20.01)

AUG., 1974											
22...	1330	138	.00	.02	.02	108	8.3	16.5	21.5	9.0	103
22...	1715	138	.00	.03	.03	98	8.2	16.0	27.5	10.0	116
22...	2055	138	.01*	.02	--	98	7.9	18.0	22.5	8.6	100
23...	0945	138	--	--	--	112	7.9	14.0	18.0	9.3	99
23...	1200	135	.02	.02	.02	100	7.9	17.0	25.0	9.4	107
23...	1400	136	--	--	--	108	8.4	18.0	26.5	9.8	114
23...	1750	135	.00	.03	.03	98	8.3	23.0	33.0	8.8	112
24...	1000	135	.12	.03	.04	97	7.6	17.0	25.0	8.8	101

13257995 - WEISER R AB BACON CR, NR GOODRICH, IDAHO (LAT 44 38 14 LONG 116 34 41.01)

AUG., 1974											
23...	1235	142	--	--	--	113	7.6	18.0	29.5	9.3	108
23...	1410	142	--	--	--	110	8.3	18.5	26.0	9.8	115
23...	1810	142	--	--	--	126	7.7	22.0	31.5	8.8	110

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	SUS- PENDED SEDI- MENT (MG/L)	PENDED SEDI- MENT DIS- CHARGE (T/DAY)
13259800 - SPRING CREEK AT CAMBRIDGE, IDAHO								
03-13-75	1545	52	97	6.0	10.0	30	84	12
03-19-75	1840	221	79	8.5	--	74	521	311
13260000 - PINE CREEK NEAR CAMBRIDGE, IDAHO								
01-18-74	1215	176	90	3.0	1.5	--	244	116
13260090 - WEST <del>BEAR</del> PINE CREEK NEAR CAMBRIDGE, IDAHO								
04-16-74	1730	<sup>8</sup> 49	89	11.0	15.0	4	12	1.6
03-10-75	1530	54	83	7.0	6.0	10	34	5.0
04-17-75	0808	73	88	5.5	4.5	13	35	6.9
05-13-75	1325	84	84	10.0	19.5	14	92	21
13260300 - PINE CREEK AT MOUTH AT CAMBRIDGE, IDAHO								
04-16-74	1600	141	89	11.5	17.5	7	24	9.1
06-03-74	1455	204	--	12.0	21.0	18	81	45
06-05-74	0930	304	--	7.5	10.5	48	292	240
02-13-75	0905	76	105	1.0	1.5	38	127	26
03-13-75	1463	111	109	6.5	9.0	14	36	11
03-19-75	1730	275	90	7.5	--	44	200	148
05-13-75	1520	220	90	12.0	22.5	20	93	55
06-19-75	1517	158	71	9.0	16.5	6	35	15
13260500 - LITTLE WEISER RIVER AT RUBY RANCH NR. INDIAN VALLEY, IDAHO								
04-19-74	1320	208	78	7.0	13.5	15	31	17
05-16-75	1135	727	70	5.5	15.5	27	197	387

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- PHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
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13258350 - WEISER R NR COVE SCHOOL, NR CAMBRIDGE, IDAHO (LAT 44 35 44 LONG 116 36 57.01)

AUG., 1974											
23...	1115	146	--	--	--	113	8.1	15.5	19.0	9.2	100
23...	1305	146	--	--	--	98	7.8	17.5	26.0	9.3	106
23...	1445	146	--	--	--	106	8.3	19.0	26.0	10.4	122
23...	1835	145	--	--	--	102	8.2	22.0	31.5	9.4	118
24...	1125	<del>146</del> 144	--	--	--	98	7.6	18.0	27.0	9.3	108

13258500 - WEISER RIVER NR CAMBRIDGE, IDAHO (LAT 44 34 47 LONG 116 38 20)

AUG., 1974											
23...	1130	136	--	--	--	114	8.2	16.5	22.0	9.2	103
23...	1500	136	--	--	--	117	8.4	19.5	26.5	9.6	114
23...	1545	136	--	.01	--	104	8.2	21.0	32.5	9.6	117
23...	1835	136	.00	.02	.01	104	8.2	22.0	31.0	9.3	116
24...	1045	135	.00	.01	.01	115	8.0	18.0	18.5	8.7	101
24...	1330	134	.00	.01	.01	118	8.4	19.5	27.0	9.2	109
24...	1700	134	.00	.02	.01	107	8.2	22.0	29.0	9.5	119
25...	0910	132	--	--	--	113	7.3	17.5	19.0	7.9	91
26...	0810	130	--	--	--	110	7.5	18.5	18.0	7.6	89
26...	1210	130	--	--	--	115	8.0	20.0	28.0	9.3	111

13259520 - WEISER R. BELOW SPRING CR, AT CAMBRIDGE, IDAHO (LAT 44 33 54 LONG 116 40 35.01)

AUG., 1974											
23...	1240	130	--	--	--	114	8.2	18.5	23.0	9.0	105
23...	1500	129	--	--	--	116	7.7	21.0	32.0	9.2	113
23...	1515	130	--	--	--	116	8.5	21.0	26.5	9.3	114
24...	1130	129	--	--	--	120	8.0	18.0	20.0	8.5	93
24...	1335	129	--	--	--	105	8.0	21.0	29.5	9.3	113
24...	1725	129	--	--	--	120	7.6	22.0	32.5	10.0	125
25...	0945	128	--	--	--	116	8.1	18.0	19.0	8.3	96
26...	0840	128	--	--	--	114	7.4	18.0	19.0	7.9	92
26...	1140	128	--	--	--	118	7.9	20.5	27.0	9.1	110

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICHO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
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13266000 - WEISER RIVER NEAR WEISER, IDAHO (LAT 44 16 23 LONG 116 46 23)

AUG., 1974											
22...	1345	<del>250</del> 250	--	--	--	148	--	19.5	26.5	--	--
26...	1350	254	--	--	--	125	--	24.5	31.0	9.3	120
27...	1415	254	.22*	.21	--	139	8.5	24.0	32.0	9.3	119
27...	1700	254	.14	.20	.16	122	8.7	26.0	35.0	9.2	121
28...	0835	<del>254</del> 254	.17	.16	.14	127	--	18.5	--	--	--

13266600 - WEISER RIVER AT REBECCA, NR WEISER, IDAHO

AUG., 1974											
27...	1345	38	--	--	--	183	8.2	26.5	32.0	9.5	124
27...	1630	38	--	--	--	195	8.6	29.0	35.0	9.6	130

13267350 - WEISER RIVER BELOW DIVERSION DAM, NR WEISER, ID (LAT 44 13 36 LONG 116 54 34.01)

AUG., 1974											
27...	1320	96	--	--	--	229	8.0	24.5	31.0	8.0	102
27...	1615	95	--	--	--	236	8.2	27.0	35.0	8.4	111

13267400 - WEISER R R BELOW LOWER PAYETTE CANAL, NR WEISER ID (LAT 44 14 29 LONG 116 56 34.01)

AUG., 1974											
27...	1130	75	--	--	--	246	8.0	23.5	27.0	8.5	106
27...	1545	74	--	--	--	261	8.4	27.5	35.0	9.8	130
28...	1015	73	--	--	--	254	7.8	21.0	30.0	8.2	99

13268800 - WEISER RIVER AT MOUTH, AT WEISER, IDAHO (LAT 44 14 22 LONG 116 58 10.01)

AUG., 1974											
27...	1040	98	.50*	.27	--	251	7.7	20.5	25.0	7.3	86
27...	1530	98	.35	.24	.19	252	8.2	27.0	35.0	8.8	116
28...	0825	98	.43	.28	.21	238	7.7	17.5 <sup>ok</sup>	24.0	8.4	97

To convert cubic feet per second to cubic meters per second multiply by 0.02832

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	SPECIFIC CONDUCTANCE (MICHO-PHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION
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13261965 - WEISER RIVER AT MIDVALE, IDAHO (LAT 44 28 15 LONG 116 43 51)

2 AUG., 1974

23...	1315	<del>116</del> 116	.02	.04	.05	153	8.7	20.0	--	--	--
24...	1315	116	--	--	--	155	8.7	20.0	27.0	10.1	121
24...	1645	<del>115</del> 115	.03	.05	.04	152	9.0	23.0	30.0	10.0	126
25...	1130	115	--	--	--	162	8.2	20.0	30.0	9.2	110
25...	1500	112	.00	.04	--	141	8.5	23.5	34.0	9.6	123
25...	1545	115	--	--	--	141	8.5	23.5	31.0	9.6	123
26...	0940	114	--	--	--	132	7.7	19.0	20.0	8.7	102
26...	1000	114	--	--	--	144	7.7	19.0	21.0	8.9	104
26...	1240	114	--	--	--	150	8.1	22.0	30.0	10.0	125

13261995 - WEISER R BELOW DRY CREEK, NR MIDVALE, IDAHO (LAT 44 27 13 LONG 116 44 27.01)

AUG., 1974

25...	1215	121	--	--	--	175	7.9	19.0	30.0	8.5	99
25...	1645	121	.07	.07	.07	178	8.5	24.0	32.0	9.2	119
26...	0920	128	.05	.07	.07	<del>175</del> 175	7.9	19.0	22.0	7.8	91

13263400 - WEISER R AT CONCRETE, NR MANN CREEK, IDAHO (LAT 44 21 02 LONG 116 47 54.01)

AUG., 1974

26...	1410	132	--	--	--	148	--	25.5	35.0	11.8	154
26...	1600	132	--	--	--	150	--	25.5	35.5	12.2	159
26...	1805	131	--	--	--	155	--	27.0	36.0	10.5	139
26...	2000	131	--	--	--	149	8.7	26.0	32.0	7.5	98
26...	2130	131	--	--	--	161	--	25.0	27.0	6.4	83

13263500 - WEISER R ABOVE CRANE CREEK, NR WEISER, IDAHO (LAT 44 17 20 LONG 116 47 22.01)

AUG., 1974

25...	1215	<del>133</del> 133	--	--	--	<del>149</del> 149	--	23.0	31.0	12.5	151
26...	1315	133	--	--	--	149	8.5	24.5	34.0	13.0	167

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	SPF-CIFIC CON-DUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	AIR TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
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13261650 - WEISER R BELOW LITTLE WEISER NR CAMBRIDGE, IDAHO (LAT 44 33 06 LONG 116 41 44.01)

AUG., 1974											
23...	1305	148	.02	.07	.07	105	9.0	22.0	24.5	10.6	133
23...	1545	148	.01	.04	.04	130	9.8	21.5	26.5	8.5	105
24...	1140	148	--	--	--	123	7.9	18.5	20.0	9.0	105
24...	1430	148	--	--	--	137	8.9	21.5	29.0	9.8	120
24...	1545	148	.10*	.03	--	122	8.7	21.0	30.0	9.6	117
25...	1000	146	--	--	--	126	8.5	18.0	22.5	8.5	98
26...	0850	144	--	--	--	121	7.4	18.0	20.0	8.4	97
26...	1130	144	--	--	--	122	8.0	20.0	27.5	9.1	109

13261830 - WEISER R BELOW DIXIE CR, NR MIDVALE, IDAHO (LAT 44 30 47 LONG 116 41 14.01)

AUG., 1974											
24...	1215	72	--	--	--	127	8.5	19.5	22.0	9.6	113
24...	1530	72	--	--	--	123	9.0	22.5	27.5	9.8	123
25...	0910	71	--	--	--	126	7.5	18.0	21.0	8.8	102
25...	1015	71	--	--	--	129	8.2	18.0	27.5	8.2	95
26...	1230	70	--	--	--	129	8.2	21.5	31.0	9.9	122

13261840 - WEISER R ABOVE KEITHLY CREEK, NR MIDVALE, IDAHO (LAT 44 29 48 LONG 116 42 37.01)

AUG., 1974											
24...	1300	95	--	--	--	134	8.2	19.0	25.0	9.0	105
25...	1045	93	.01	.04	.04	167	7.4	18.5	27.5	8.1	94
26...	0930	91	--	--	--	129	7.8	18.5	20.0	8.8	102

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
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13255630 - WEISER RIVER NR 100F CEMETERY, NR COUNCIL, IDAHO (LAT 44 42 56 LONG 116 27 22.01)

AUG., 1974											
21...	1130	80	--	--	--	114	8.0	16.0	20.5	9.6	107
21...	1515	80	--	--	--	114	8.3	19.0	26.5	10.0	118
21...	1745	79	--	--	--	104	8.1	21.0	28.0	9.1	113
21...	2050	79	--	--	--	101	7.8	19.5	27.5	8.7	104
22...	1030	78	--	--	--	110	7.9	15.5	18.0	8.7	96
22...	1235	78	--	--	--	105	7.7	16.5	22.0	9.7	109
22...	1905	78	--	--	--	104	8.0	18.0	23.0	9.2	107
23...	0945	78	--	--	--	102	7.6	15.0	23.0	8.5	93

13256000 - WEISER RIVER NEAR COUNCIL, IDAHO (LAT 44 41 32 LONG 116 28 02.01)

AUG., 1974											
21...	1210	85	.03	.02	.01	117	8.1	16.5	22.5	10.0	113
21...	1520	85	.11	.03	.01	120	8.6	19.5	26.5	9.9	118
21...	1820	85	.00	.04	.04	100	8.2	21.5	29.5	8.8	109
21...	2020	85	.15	.04	.03	107	8.0	20.5	22.5	8.1	99
22...	1030	85	--	--	--	112	8.0	16.0	17.5	8.6	95
22...	1335	85	.00	.03	.03	103	7.9	16.5	22.5	9.9	112
22...	1930	85	.01	.04	.02	105	8.1	18.5	24.0	9.4	110
23...	1015	85	.00	.02	.03	112	--	15.5	24.5	9.0	99

13257050 - WEISER RIVER BELOW M FK WEISER R, NR MESA, IDAHO (LAT 44 40 02 LONG 116 29 10.01)

AUG., 1974											
22...	1115	127	--	--	--	110	8.0	13.0	18.5	9.0	94
22...	1545	127	--	--	--	88	8.0	17.0	26.5	9.7	110
22...	1600	129	.00	.03	.04	111	7.5	16.0	24.0	9.2	102
23...	1050	127	--	--	--	97	7.7	15.0	25.5	9.2	100



DATE	TIME	INSTAN-	TOTAL	TOTAL	TOTAL	DUCT-	PH	TEMPER-	AIR	DIS-	PER-
		TANEOUS	NITRITE	PHOS-	OF THO				CON-	TEMPER-	
		DIS-	PLUS	PHOS-	PHOS-	ANCE		ATURE	ATURE	OXYGEN	SATUR-
		CHARGE	NITRATE	PHORUS	PHORUS	(MICRO-		(DEG C)	(DEG C)	(MG/L)	ATION
		(CFS)	(N)	(P)	(P)	MHOS)	(UNITS)				
		(MG/L)	(MG/L)	(MG/L)	(MG/L)						

13255060 - WEISER R NR WHITE SCHOOL, NEAR FRUITVALE, IDAHO (LAT 44 47 10 LONG 116 26 25.01)

AUG., 1974											
21...	1005	55	--	--	--	94	8.0	13.5	14.5	9.6	102
21...	1330	65	--	--	--	89	8.0	17.5	23.5	10.0	116
21...	1640	65	--	--	--	82	7.7	20.0	26.0	9.6	116
21...	1900	64	--	--	--	85	--	20.0	27.5	8.5	103
22...	1030	63	--	--	--	86	7.6	15.0	20.0	9.4	103

13255070 - WEISER R NR WINKLER CEMETERY, NR COUNCIL, IDAHO (LAT 44 45 10 LONG 116 27 30.01)

AUG., 1974											
21...	1030	71	--	--	--	103	7.8	14.5	17.5	9.5	103
21...	1400	71	--	--	--	107	7.9	17.5	23.0	10.0	116
21...	1655	70	--	--	--	94	7.9	19.0	29.0	9.0	107
22...	1055	70	--	--	--	95	7.4	15.0	20.0	9.0	98

13255080 - WEISER RIVER AT HORNET CR ROAD, AT COUNCIL, ID (LAT 44 43 56 LONG 116 26 50.01)

AUG., 1974											
21...	1100	74	--	--	--	108	7.8	15.5	19.5	9.5	105
21...	1400	73	--	--	--	112	8.0	18.5	24.5	9.8	115
21...	1720	73	--	--	--	103	8.0	20.0	30.0	10.0	121
21...	1920	73	--	--	--	95	8.0	20.0	29.0	9.2	112
22...	0915	78	.02	.02	.03	102	7.4	15.0	16.5	8.8	96
22...	1150	78	--	.02	--	87	7.5	16.0	24.0	9.4	105
22...	1520	78	.01	.03	.03	90	8.2	16.5	22.5	9.0	102
22...	1845	78	.31	.02	.03	95	8.0	18.0	26.5	9.1	107
23...	0850	78	.01	.03	.03	96	7.5	15.0	24.0	8.6	94

**UNIVERSITY OF UTAH  
RESEARCH INSTITUTE  
EARTH SCIENCE LAB.**

Basic-data table A Records of wells in the Wasatch River basin

Contours: From topographic maps

Well finish: F - gravel packed with perforations;  
O - open end; P - perforated; S - well  
screen; T - sand point; X - open  
hole.

Water Level: (W) - set above land surface;  
R - reported.

Principal Aquifer: OTS - Quaternary and Tertiary  
alluvial deposits; Ter - basalt of  
Columbia River basalt group.

Use of Water: H - domestic; I - irrigation;  
P - public supply; S - street;  
U - unused.

Remarks: Log - Driller's log available;  
QW - Chemical analysis of  
water available (basic-data table F)

Well Number	County	Section	Township	Range	Zone	Well Finish	Water Level	Date Measured	Principal Aquifer	Depth to Principal Aquifer	Reported Discharge (gpm)	Mineral Specific Capacity (gallons per minute)	Use of Water	Water Level	Remarks	
9W	21E	318E	4200	112	6	17	X	52.40	75-9-24	OTS	20	8		H	1	Log
12W	21E	324E	3650	142	6	19	X	34.51	75-9-24	Ter	90	10		H		Log
17N	02W	028E	3760	80	6	40	X	62.97	75-9-24					H, S	1/2	
		09C	3580		6			Flows	75-9-24					H	3/4	Flows
		12A	3700	17	16			9.84	74-7-10					U		
		14D	3240	10	6			6.97	75-9-24					H	1/3	
17N	01W	02D	3520	172	6	19	X	147.07	75-9-24	Ter	160	10	10	H	1	Log
		02D	3340	76	6	35	X	35.64	75-9-24	Ter	65	9	0.26	H	1	Log
		09A	3160	223	8	55	X	96.85	75-9-24	Ter	115	20	2.0	S	1	Log
		09E	3090	83	8	23	X	50.40	75-9-24	Ter	20	20	2.0	H	1	Log
		10E	3090	169	8	100	X	21.74	75-9-24	Ter	160	20	0.2	H	1	Log
		12C	3550	215	6	63	X	224.80	75-9-24	Ter	120	10		H	1/2	Log
		14B	3100	120	8	83.5	X	141.15	75-9-24	Ter	85	20	1.0	H	3/4	Log
		15A	3115	131	6	111	X	96.49	75-9-24	Ter	129	7	0.35	H		Log
		15A	3050	150	6			54.80	75-9-24					H	1/2	
		18B	3520	209	8	17	X	164.97	75-9-24	Ter	200	10		S	1/2	Log
19A	3355	150	8	2	X	105.25	75-9-24	Ter	140	15	1.5	U		Log		
22C	3030		6			1.63	75-9-24					U				
25E	3400	100	6	38	X	23.34	75-9-24	Ter	55	20	0.67	H	3/4	Log		
26B	3015	135	6	56	X	19.49	75-9-24	OTS	90	30	1.0	U		Log		
26D	3020	170	8	44	X	37.05	75-9-23	OTS	125	20	1.0	H		Log		
28C	3020	140	6	61	X	56.38	75-9-25	OTS	65	10	0.29	H	1/2	Log		
31A	2990	120	6			37.69	75-9-25	Ter				H	3	Log		
34D	3010	98	6	45	X	7.19	75-9-23	OTS				H	1			
35A	3085	115	8	42	X	27.13	75-9-23	Ter	63	30	1.5	I	3	Log		
35C	3105	155	6	27	X	54.02	75-9-23	Ter	120	15	1.75	H	1	Log		







No.	Name	No.	Location of Well	Elevation to point of discharge	Capacity		Well Finish	Water Level	Level Date	Principal Aquifer	Depth to Principal Aquifer	Reported Discharge (gpm)	Principal Aquifer Capacity	Use of Water	Remarks	Remarks	
					Design	Actual										Flow	Flow
14N	OBW	01BBD1	2675	137	6	35	X	14.86	75-9-23	QTS	137	20	0.4	H	1	Log	
		02ACAI	2675	362	12	6	P			Tcr				I		Log	FLOW
		02EAC1	2678	254	4	187	X	+44.40	75-9-24	Tcr	250			H		Log	FLOW
/		02DEB1	2660	29.10	6			12.63	75-9-23	QTS				U			
		03ADD1	2680	179	6	90	X	16.60	75-9-24					I	5		
		03DOB1	2680	102	6	61	X	29.17	75-9-24	QTS	98	45		I	3	Log	
	WALLE	03DDE1	2680	929	8	906	Φ			Tcr	906			P		Log	FLOW QW
		03DDE2	2680	400	8		X	20(R)		(Tcr)				P	10	Log	QW
		04ACD1	2710	317	12	50	X			Tcr	295	35	1.75	I	7 1/2	Log	FLOW
		04BDB1	2790		6			31.43	75-9-23					H	3/4		
		05CB1	2675	57	6	33	X	4.74	75-9-23	QTS	56	25	5	H	1	Log	
		11CCB1	2625	105	8	82.5	X	6.88	75-9-22	QTS	95	30	375	H	3/4	Log	QW
		13ABB1	2655	83	8	66	X	13.05	75-9-22	QTS	88	60	2.14	H,S	3/4	Log	
		19CBD1	2750	42	6			5.05	75-9-25					U			
		19DAD1	2670	45	4			1.64	75-9-25					S			
		19DAP2	2680		6			0.70	75-9-25					H	1/2		
		20ACE1	2675	8.47	3		Φ	5.9(1)	74-6-18								DESTROYED
		21BCA1	2720	189	12	52	P	132.4	75-9-22	QTS	45	700	8.05	I,H	50	Log	
		25DED1	2690	220	12	140	X	27.6	75-9-22	Tcr	60	400	3.33	H		Log	QW
		27BAD1	2600	32	10	20	P	15.85	75-9-24	QTS	20	10		H,S	3/4	Log	
		28BCB1	2680	173	6			12(R)			7			U	1		
		29CAC1	2645	300	8	75	X	35.40	75-9-25	QTS	75			U		Log	
		30ADC1	2644	370	12	180	P							I	7 1/2	Log	FLOW
		30CDD1	2635	160	8	70.5	X	22.35	75-9-25	QTS	100	20		H	1/2	Log	
		316DA1	2640	10	6		Φ	3.39	75-9-25	QTS				U			
		32DAB1	2640		6			33.41	75-9-24					U			
		538BB1	2635	58	6			7.93	75-9-24					S	1/2		

No.	Name	No.	Approximate Location of Well	Depth of Well, Feet	Casing		Well Finish	Water Level Feet Below Surface	Level Date Measured	Principal Aquifer	Depth to Principal Aquifer Feet Below Surface	Reported Discharge (GPM)	Specific Capacity gallons per foot of drawdown	Use of Water	Miscellaneous	Remarks	
					Depth Feet	Material Structure											
		24	DDBI	2620		1 1/2	T							S		Flows	
		25	ADBI	2730	20	24 (sq)	Φ	6.89	75-9-24					U			
14N	02W	02	DCCI	2755	75	4		7.40	75-9-22					H			
		06	ADCI	2700	125	8	69	X	7.90	75-9-23	QTS	50	20	1.34	H	LOG QW	
		06	DCCI	2745	398	4	315	X			Tcr			I	3	Flows QW	
		06	DCCI	2765	405.5	6	345	X	+0.11	75-9-23	Tcr	402	20	H		LOG Flows	
		07	BDCI	2690	245	16	49	P	12.48	75-9-23	QTS	125	125	1.25	S	LOG	
		07	CAAI	2680	70	6			23.51	75-9-23				H			
		08	CAAI	2685	150	5	60	X	2.25	75-9-23				H			
		09	CCCI	2695	30	6	21	X	8.96	75-9-23	QTS			H	3/4		
		10	BADI	2750	12	36			4.69	75-9-22	QTS			H			
		10	BCAI	2705	129	6			4.69	75-9-23	QTS			U			
		15	ACDI	2755	115	6	74	X	14.74	75-9-22	QTS	100	25	0.71	I, H	5	LOG
		16	DABI	2710	212	6	208	Φ	12 (R)	69-7-18	QTS	210	4	H	1	LOG Flows	
		17	DAAI	2715	120	8			33.96	75-9-30				H	3/4		
		19	ADDI	2755	100	10	40	X	13.47	75-9-22	Tcr	65		S	3/4		
		20	BDI	2788	211.8	12	46	X	42.29	75-9-22				U			
14N	01W	02	CBBI	2920	166	6	162	Φ			QTS	162	15	0.15	H, S	LOG Flows	
		02	DDAI	2920	18	36		W	9.20	75-9-27	QTS			H			
		23	BBBI	2890	103	6	100	Φ	51.45	75-9-25	QTS	100	30	0.4	H	3/4	
		04	BEAI	2840	31.6	6		X	8.67	75-9-25				H	1/2		
		04	BDI	2870	197	6	16	X	25.80	75-9-23	QTS	15	20		H	1	LOG
		04	DCCI	2910	80	6			7.66	75-9-25				H	1/2		
		10	CBAI	2955	80	6	72	X	1.43	75-9-25	QTS	80	30	3.0	H	1	LOG QW
		11	CCCI	2985	87	6	60	X	38.68	75-9-25				H	1/2		





Well No.	Loc.	No.	Elevation of top of casing	Elevation of top of well	Casing	Well	Elev. of top of casing	Elev. of top of well	Principal Aquifer	Depth to Principal Aquifer	Reported Discharge (GPM)	Elevation of Principal Aquifer	Use of Water	Remarks	
															Feet Below Ground Surface
12N	03W	02CD1	2810	220	8"	149	X	9.36	75-9-23	Ter	229		I	Log	
		11BBA1	2690	25	6"	25	Ø	2.70	75-9-24				H		
		53CA1	2600	160	8"			23.87	75-9-25	QTz	145	25	1.0	H	3 Log
		12CBD1	2585											H	1/2 Flow
		17ADE1	2570	56	6"	55	X	10.16	75-9-22	QTz	55	10	0.33	H	1 Log QW
		18PCA1	2580		4"			7.36	75-9-20					H	1 Flow
		18BAA1	2570	362	6"	288	X	3.25	75-9-22	Ter	360	30	0.30	H	Log QW
		20CAC1	2590	30	6"			3.03	75-9-22					H	1/2
		21CBA1	2675	125	6"	125	Ø	7.10	75-9-22					U	Flow
		22CBA1	2580		6"			13.79	75-9-23					U	
		24CDA	3130	62	22"	12	Ø	1.07	75-9-22					U	
		26RDA1	3110	65	6"			21.28	75-9-22					S	
		28ABA1	2760	35	6"			13.14	75-9-22					S	
		29BAA1	2590	48	6"	40	X	16.18	75-9-25					H	1/2
30CAC1	2960		1"			2.93	75-9-22					U	Flow S		
32BAR1	2880	117	8"	71	X	21.22	75-9-22	QTz	45			H	1		
34BBA1	2845	74	6"			14.48	75-9-22					H	3/4		
12N	02W	05BCC1	2980		1 1/2"		T	8.33	75-9-23				S	2	
		06DDN1	3000	25	24"			13.14	75-9-25					U	
		07CAE1	3110	32	6"			11.95	74-6-26					U	
		11DBA1	3275											H	1 Flow
		12DBA1	3285	460	12"			70.70	75-9-30					I	100
		14BCD1	3237		6"			33.94	75-9-23					H	1
		15CBG1	3320	27	36"			23.45	75-9-23					U	
		16CD1	3320	89	10"	72	P	54.90	75-9-25	QTz	70	25		U	Log
		21DCDZ	3320					40.15	75-9-25	QTz		9		H	1 QW
26CCE1	3240	167	6"	93	X	18.88	75-9-25					H	1		

Well No.	Name	Elevation of well casing above ground	Elevation of top of well	Casing		Well Finish	Well	Well	Local	Principal Aquifer	Depth to principal aquifer	Reported Discharge (cfs)	Reported Specific Capacity (gpm/ft)	Use of water	Dimensions	Remarks
				Material	Thickness											
12N	OZW	3100	3225	43	6			30.58	75-9-24	QTS				U		
12N	OIW	1600	3285	299	16	198	P	68.69	75-9-25	QTS	270	1200		I		Log
		2000	3340	240	6	270	X	100.70	75-9-25							
		2100	3300	34	6	20	X	38.59	75-9-25							
		2100	3270	225	10	118.5	X	5.20	75-9-25	Tcr	124	60	0.43	H	4	Log GW
		2100	3310	294	12	192	P	71.60	75-9-24	Tcr	245	900	9.0	I	25	Log
		2100	3275	40	4	20	X	29.52	75-9-25					H	1/2	
		2100	3230	196	6			17.76	75-9-25					H	1	
		2100	3270	142	3			69.87	75-9-23	Tcr(?)				U		
		2100	3240	280	4			40.30	75-9-25					S	3/4	
		2100	3295	300	6			11.48	75-9-24					H	1	
		2100	3290	110	6			41.38	75-9-24					H	1	
12N	OZW	1100	2805	49	36			31.06	75-9-23					H	3/4	
		1100	2920	50.5	6	105	X	72.60	75-11-3	Tcr	141	25	1.79	S		Log
		1200	2740	45	6	20	X	8.06	75-9-23					H	3/4	
		1200	2800	115	6		P	28.59	75-9-23					H	1/2	
		2200	2650	184	12	45	P	16.03	75-9-23	QTS	45	30	0.30	I	3	Log
		2200	2600	20	20	20	Φ	4.52	74-7-22							
		2200	2590	95	6	22	X	1.04	75-9-23	QTS	13	10	2.50	H	3/4	Log
		2200	2570	118	6	40	X	3.84	75-9-23	QTS	116	10	0.17	H	1/2	Log
		2200	2592	123	14			0.92	75-9-23	QTS				U		
		2200	2550	54	4			6.02	75-9-24					H	1	
		2200	2560		10			60.79	75-9-24					H	1/2	
		2200	2450	323	6	180	X	49.15	74-7-16					H		
		2200	2680	140	12	20	P	55.70	74-6-25	QTS	19	400	4.08	I	25	Log
		2200	2400	784	6	20	X	7.75	75-9-25	QTS	20	3	0.12	H	1/2	Log
		2200	2480	75	6	20	X	14.58	75-9-25					H	1	
		2200	2440	83	6	60	X	5.78	75-9-23	QTS				U		



Dist	Name	No.	Elevation of base of well	Suspended Solids	Suspended Solids	Capacity	Type	Well Finish	Water Level	Principal Aquifer	Depth to Principal Aquifer	Reported Discharge	Principal Specific Capacity	Use of Water	Remarks	Notes	
																	ft. B. In. 100 ft. desc.
11N	OGW	11BCSI	2178	72	12	45	F	34.70	75-9-22	QTz	45	500	11.1	I	15	Log	
		16PDDI	2140	65	6		P	24.60	75-9-22	QTz				H	3/4		
		17RDDI	2117		3				13.63	75-9-25	QTz		1.0		S		Floors QW
		18RDDI	2100	125	12				11.38	75-9-22	QTz				S	1 1/2	
		20IXBI	2097	35	6				3.91	75-9-26	QTz				H	1/2	
		21BBBI	2110	20	8	20		Φ	4.46	75-9-23	QTz				I	1	
		22CCBI	2116		4				13.56	75-9-26	QTz				H	1/2	
		24RBDI	2165	50	12	25		P	31.14	75-9-23	QTz	25	500	20	I	15	Log
		24BIEI	2176	54	12				32.17	75-9-23	QTz				I	15	
		24DDAI	2180	40	10				29.37	74-6-13	QTz				I	3	
		25PAPI	2173	58	12	35		P	23.48	74-6-13	QTz				I	5	
		25AAEI	2162		12				16.55	75-9-23	QTz				I	5	
		25OCBI	2127	39	27	10		X	10.64	75-9-75	QTz				H		QW
		27ALDI	2125	115	16	20		P	12.18	75-9-22	QTz	19	250	8.33	U		Log
11N	OSW	28RCCI	2100	22	6	22	Φ	7.71	75-9-22	QTz				H	3/4		
		28AAGI	2090	38	6	32		11.88	74-7-20	QTz	22	50	8.33	H		Log	
		28PEBI	2102		6			11.82	75-9-22	QTz				H	1/3		
		28EDAI	2105	34	6	28		15.56	75-9-22	QTz	3	40	3.33	H	1/2	Log	
		29DCCI	2320	70	6	42		12.99	75-9-24	QTz	68	20	2.0	H	1	Log	
		29DCCI	2320		6			2.81	75-9-24					S			
		29CDDI	2370	22	8	22		14.65	75-9-22	QTz	15	100	16.7	I	1/2	Log	
		29PDDI	2220	70	6	56		P	22.89	75-9-20	QTz	54	7	0.18	H	1/3	Log
		29ADAI	2305	2320	12				29.65	74-6-22					U		Log
		29DEBI	2320	92	8	55		P	44.26	75-9-23	QTz	42	20	1.0	I	1/2	Log
		29CDAI	2435		6				160.94	74-6-14					S	1/2	
		29ABDI	2390	343	12	129		P	86.58	75-9-22	QTz	129	150	1.07	S		Log
		29PBDI	2215	320	12	140		F	215.02	62-6-30	QTz	240	918	6.12	I	60	Log
		29RBDI	2360	195	6	99		X	105.17	64-1-6	QTz	192	30	1.0	S		Log QW

No.	Name	No.	Elevation of land surface above datum	Elevation of well, feet below land surface	Casing		Well Finish	Water level date measured	Principal Aquifer	Depth to principal aquifer	Reported Discharge (gpm)	Specific Capacity (gpm per foot of drawdown)	Use of water	Meters	Remarks	
					Inside	Outside										
11N	05W	2160A	2190	103	6	31	X	22.65	75-9-23	QTz	27	6	0.12	H	1/2	Log
		2780A	2400	288	6	22	X	215.33	75-9-26	QTz	240	15	0.42	S	1	Log
		2800A	2240	123	6	22	X	58.69	75-9-26	QTz	80	45	2.05	H	1	Log
		2180D	2225	226	12	123	P			QTz				P	30	QW
		2980B	2240	204	16	123	P	120.00	75-9-24	QTz	143	450	6.82	P	40	Log; QW
		2210A	2260	250	16	180	P			QTz				P	50	QW
		2000A	2172		12					QTz				I	10	
		2030A	2170	50	12			19.16	75-9-23	QTz				I	10	
		2040B	2180	40	12	20	P	8.57	75-9-24	QTz	20	100	5.56	I		Log
		2080B	2120		60			10.59	75-9-24	QTz				I	25	
		2090A	2115	150	6	21	X	0.20	75-9-26	QTz	25	4	0.14	H		Log
		2300A	2105	9	10			4.42	75-9-25	QTz				U		
		2140B	2158	70	12		P	39.41	75-9-26	QTz				T	30	
		2050A	2175	85	6	65	X	55.68	75-9-26	QTz	63	50	2.5	H	1	Log
		2060W	2180	95	8			14.94	75-9-26	QTz				S	1/3	
11N	04W	0600A	2460	50	6			6.60	74-7-1	QTz				S	1	
		0710A	2405		8			29.01	75-9-20	QTz				H	1/2	
		1210B	2300	29	5			7.01	75-9-22	QTz				U		QW
		1200A	2300	30	6					QTz		24		H		QW
		1200B	2325	7	48		Φ	3.67	75-9-22	QTz				H		
		1700A	2325		6			19.54	75-9-24	QTz				S	1/2	
		1900B	2250	48	6			5.35	75-9-24	QTz				H	1/2	
		2700A	2350		4			2.4						U		
		2000B	2360		6			33.11	75-9-23					S	1/2	
		2000A	2270		6			56.20	74-7-1	QTz				H	1/2	
		3100A	2160	73	4			4.58	75-9-24	QTz				U	1/2	
		3200A	2165	27	6		P	5.05	75-9-22	QTz		20	2.0	H	2	Log
		2200A	2210	48	48		X	19.48	75-9-22	QTz				U		

No.	No.	No.	Altitude of Land Surface	Elevation of Well	Casing		Well Finish	Well Depth	Date Measured	Principal Aquifer	Depth to Principal Aquifer	Reported Discharge	Specific Capacity (gal/min per foot of drawdown)	Use of Water	Remarks	CS
					Inner Diameter	Outer Diameter										
11N	04W	34CDBI	2220	69	6	65	S	25.73	75-9-24	QTS	64	15	2.5	H	Log	
11N	03W	27DBBI	3505	28	6			10.67	75-9-24					U		
		32DBBI	2975		8			10.16	75-9-22					H		
11N	02W	03DBAI	3260	28	6			17.58	75-9-22					H		
		05CDBI	3480	14	10	14	Φ	12.44	75-9-22					U		
		14AACI	3300	441	16	120	X	150.00	69-3-6	Tcr	175	1825	52.4	I	200	Log; RW
		16DBCI	3330	75	6			1.76	75-9-23					H	1	
		22DCDI	3360		6			22.48	75-9-23					S	1	
		27ADB1	3385	493	16	31	X	18.80	75-9-25	QTS	360	400	2.2	I	30	Log
11N	01W	12BCCI	3490	210	6	65	X	43.78	75-9-24					H	1 1/2	
		23BCCI	3525	200	6	20	X	1.72	75-9-24					S	1 1/2	
		25CCCI	3590		4			25.31	75-9-24					H		
		25BADI	3620		3			10.85	75-9-24					H	1/3	
10N	05W	01RADI	2170	60	6		P	31.67	74-6-11	QTS				H	1/2	
		02DCCI	2190		6			61.80	75-9-25	QTS				H	2	
		04CADI	2114	25	6			15.17	75-9-25	QTS				I	3	
		05BBDI	2106	20	2 1/2		T	11.64	74-6-13	QTS				I	1/2	
		08DBAI	2114	37	6	24	P	13.39	75-9-24	QTS	20	30	2.73	H	1/2	Log
		09ADCI	2110	30	12	20	P	8.54	75-9-25	QTS	20	50	5.0	I	5	Log
		09BADI	2125	28	16	20	P	16.11	75-9-24	QTS				I	20	Log
		10BCCI	2115	24	6	24	Φ	16.15	75-9-25	QTS				I	3	
		11AACI	2160	30	8	26	X	13.75	75-9-25	QTS				H	1	
		12BBDI	2162	125	6	73	X	16.30	74-6-11	QTS	124	50	3.75	H	2	Log
		15DBCI	2112	42	16			8.75	74-6-13	QTS				I	10	
✓		16BCCI	2114	25	72	25	Φ	15.40	75-8-5	QTS				U		Well destroyed 75-9
		16DBAI	2120	26	72	25	Φ	14.69	75-9-24	QTS				I	10	
7/10		17ACCI	2108	(27)	8	(27)	Φ	13.72	75-9-24	QTS	27	20	10.0	H	1 1/2	Log; RW
		20AAAI	2115	20	8			18.05	75-9-24	QTS				H	1/2	

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Well Number	Altitude of Land Surface Above Mean Sea Level	Reported Depth of Well, Feet Below Land Surface	Casing		Well Finish	Water Level	Date Measured	Principal Aquifer	Depth to Principal Aquifer	Reported Discharge (GPM)	Reported Specific Capacity (GPM per Foot of Drawdown)	Use of Water	Miscellaneous	Remarks	
			Diameter, Inches	Thickness, Feet											
10N 05N 21AAB1	2110	30	8	30	Φ	14.89	75-9-24	OT <sub>2</sub>				H	2		
	22ADB1	2108	75	6	40	X	7.88	74-9-25	OT <sub>2</sub>			H	1		
	23CBA1	2115	20	2		T	10.48	75-9-25	OT <sub>2</sub>			H	3		
	24BBC1	2170	14	30	14	Φ	8.90	75-9-25	OT <sub>2</sub>			L			
	25ACB1	2175	65	8		X	52.41	75-9-25	OT <sub>2</sub>			H	3/4		
	25CBC1	2116	18	72	18	Φ	10.23	75-9-25	OT <sub>2</sub>			I	1/2		
	36AAB1	2164	16	2 1/2			1.28	75-9-25	OT <sub>2</sub>			H			
10A1 04W 01DRA1	2200		4				21.71	74-7-29	OT <sub>2</sub>			H			
	02RDB1	2215		6			28.69	75-9-25	OT <sub>2</sub>			H	1/2		
	03FEA1	2200		6			30.94	75-9-25	OT <sub>2</sub>			H	1/2		
	03DECI	2195		8			22.85	75-9-25	OT <sub>2</sub>			H	1		
	04DCC1	2230		6			20.14	74-7-29	OT <sub>2</sub>			H	2		
	05DDI1	2210		4			22.47	75-9-26	OT <sub>2</sub>			H	1/2		
✓	06AID1	2185	460	6			48.72	75-9-22	OT <sub>2</sub>			S		Fluv.	
	06CMI1	2130		4			11.55	75-9-26	OT <sub>2</sub>			H	3/4		
	07ADA1	2228	257	12	53	F	53.08	64-1-23	OT <sub>2</sub>	53	1080	7.23	I	50 Log	
	07DVA1	2230		12			41.10	75-9-25	OT <sub>2</sub>			L			
	17ACC1	2275		6			70.60	75-9-25	OT <sub>2</sub>			H	1/2		
	17DDI1	2335		4			145.09	75-9-22	OT <sub>2</sub>			S	3/4		
	18AAN1	2200	310	14	150	P	60.10	64-3-13	OT <sub>2</sub>	180	1647	16.5	I	75 Log	
	19ACA1	2270		4			220.66	75-9-25	OT <sub>2</sub>			S	1/2		
	30AEB1	2555	635	6	50	X	319.65	75-9-25	OT <sub>2</sub>	403	5	S		Log	
	To convert feet to meters														multiply by 0.3048
	To convert inches to millimeters														multiply by 25.4
	To convert feet to meters														multiply by 0.3048

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COMPUTATION FORM—DOUBLE

Basic data table B. Gaging stations, basin characteristics, and periods of record in the Weiser River basin.

Station number	Station name	Drainage Area (sq. mi.)	Mean annual flow (cfs) at gaging station	D - duration of record (calendar year) P - annual peak flow (cfs) for year M - annual minimum flow (cfs) at measurement (calendar year)	Periods of record (calendar year)
1325 1300	West Branch Weiser River near Tamarack	39.6	4,900	D: 1959 - present.	
1325 1490	Weiser River above mill pond at Tamarack	-	-		Water samples collected during 1974-75 study period.
1325 1500	Weiser River at Weiser Tamarack	36.5	4,620	M: 1914; D: 1936-71, 1974-75.	
1325 2000	Weiser River near Starkey	66.6	-	D: 1937-39.	
1325 2500	East Fork Weiser River near Council	2.00	6,920	M: 1931; D: 1932-43.	
1325 3000	East Fork Weiser River near Starkey	30.4	5,640	D: 1937-39; M: 1931, 1974.	
1325 3500	Weiser River at Starkey	106	5,100	M: 1920, 1922; D: 1939-49; M: 1955, 1974.	
1325 3850	West Fork Weiser River <sup>near</sup> <del>above</del> Tamarack	24.4	5,200	M: 1974-75.	
1325 3900	Lost Creek above reservoir near Tamarack	25.1	5,540	M: 1912, 1921, 1974.	
1325 4000	Lost Valley Reservoir near Tamarack	29.4	-	D: 1924, 1926-66.	
1325 4500	Lost Creek near Tamarack	29.4	-	D: 1913-14, 1920-21; M: 1922; D: 1924-69.	
<del>1325 5000</del>	<del>West Fork Weiser River near Fruitvale</del>	<del>8.6</del>	<del>4,020</del>	<del>D: 1913-13, 1919-25, 1937-49</del>	
1325 5000	West Fork Weiser River near Fruitvale	81.7	4,020	M: 1974-75.	
1325 5050	West Fork Weiser River near Fruitvale	8.22	5,460	M: 1912, 1974-75.	
1325 5200	Mill Creek near Council	31.2	4,650	M: 1974-75.	
1325 5280	North Hornet Creek near Council	108	4,660	D: 1937-43; M: 1955, 1974-75.	
1325 5500	Hornet Creek near Council	18.5	5,780	M: 1974-75.	
1325 5750	Cottonwood Creek above diversions near Council	20.7	5,430	M: 1938, 1974-75.	
1325 5800	Cottonwood Creek near Council	390	4,620	D: 1937-53; M: 1955, 1974.	
1325 6000	Weiser River near Council	-	-	D: 1924, 1928-55.	
1325 6500	Mesa Orchards Canal near Mesa	64.0	5,720	M: 1974-75.	
1325 6800	Middle Fork Weiser River above Fall Creek near Mesa	26.5	5,430	D: 1912-12, 1919-21, 1937-49; M: 1955.	
1325 7000	Middle Fork Weiser River near Mesa	4.81	6,290	D: 1941-49.	
1325 7500	Johnson Creek below Johnson Park, near Council	21.0	5,030	M: 1974-75.	
1325 7600	Johnson Creek near Goodrich	7.37	3,630	M: 1974-75.	
1325 7700	Dry Creek at Goodrich	15.3	5,630	M: 1974-75.	
1325 7800	Goodrich Creek near Goodrich	0.71	-	D: 1944-49.	
1325 8000	Bacon Creek near Mesa	605	4,650	M: 1914; D: 1939 - present.	
1325 8500	Weiser River near Cambridge	-	-	D: 1929-30.	
1325 9000	Rush Creek power plant tailrace near Cambridge	30.4	5,020	D: 1933-43; M: 1955, 1974-75.	
1325 9500	Rush Creek at Cambridge	16.8	3,500	M: 1938, 1975.	
1325 9800	Spring Creek at Cambridge	54	4,770	D: 1933-62; M: 1964-65, 1974-75.	
1326 0000	Pine Creek near Cambridge				



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station number	Station name	Drainage Area sq. mi.	Mean altitude feet above sea level	Periods of record		P—annual peak only (water year) M—miscellaneous measurements only (calendar year)
				D—daily or monthly figures (calendar year)	M—miscellaneous measurements only (calendar year)	
1326 0090	West Pine Creek near Cambridge	23.9	4,630	M: 1974-75.		
1326 0300	Pine Creek at mouth near Cambridge	83.5	4,730	M: 1938, 1974-75.		
1326 0500	Little Weiser River at Ruby Ranch near Indian Valley	79.0	4,800	D: 1933; M: 1974-75.		
1326 1000	Little Weiser River near Indian Valley	81.9	—	D: 1920-21, 1923-27, 1938-71.		
1326 1500	Little Weiser River near Cambridge	187	—	D: 1920-26.		
1326 1600	Little Weiser River near mouth near Cambridge	204	3,320	M: 1955-56, 1974-75.		
1326 1670	Dixie Creek near Cambridge	11.0	3,240	P: 1973-present (M: 1974-75).		
1326 1880	Keithly Creek above diversions near Midvale	13.7	5,110	M: 1974-75.		
1326 1962	Keithly Creek at mouth near Midvale	52.7	3,830	M: 1974-75.		
1326 2000	Sage Creek near Midvale	5.56	—	D: 1913.		
1326 2500	Sommercamp Creek near Midvale	2.5	—	D: 1913.		
1326 3000	Miller Creek near Midvale	0.96	—	D: 1913.		
1326 3150	Banner Creek near Midvale	8.95	3,220	M: 1974-75.		
1326 3500	Weiser River above Crane Creek near Weiser	1,160	—	D: 1920-52.		
1326 3700	Crane Creek above reservoir near Crane	116	3,810	M: 1955, 1975.		
1326 3750	Hog Creek near Crane	27.2	3,340	M: 1955, 1975.		
1326 3800	Mill Creek near Crane	12.2	3,600	M: 1955, 1974-75.		
1326 3930	Tennison Creek near South Crane School	12.1	3,730	M: 1974-75.		
1326 3950	South Fork Crane Creek near Crane	48.2	3,670	M: 1955, 1970, 1974-75.		
1326 4000	Crane Creek Reservoir near Midvale	242	—	D: 1923-69.		
1326 4500	Crane Creek near Midvale	242	—	M: 1919-20, 1922; D: 1923-69.		
1326 5000	Crane Creek Irrigation District Canal near Weiser	—	—	D: 1920-26.		
1326 5500	Crane Creek at mouth near Weiser	288	—	D: 1920-73; M: 1974-75.		
1326 6000	Weiser River near Weiser	1,460	—	D: 1890-91, 1894-1904, 1910-14, M: 1919-20; D: 1953-present.		
1326 6500	Galloway Canal near Weiser	—	—	D: 1920-69.		
1326 6550	Cove Creek near Weiser	36.9	3,230	M: 1974-75.		
1326 6850	Mann Creek above reservoir near Weiser	53.5	4,970	M: 1974-75.		
1326 6900	Mann Creek Reservoir near Weiser	56.0	—	D: 1967-70.		
1326 7000	Mann Creek near Weiser	56.0	4,860	D: 1911-13, 1920, 1937-62; P: 1962-65.		
1326 7050	Mann Creek below Mann Creek Dam near Weiser	56.0	4,860	D: 1967-70.		
1326 7100	Deer Creek near Midvale	4.60	3,210	P: 1962-71.		
1326 7400	<del>Weiser River at Weiser</del>	—	—	M: 1935, 1969-70, 1974.		

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COMPUTATION FORM-DOUBLE

station number	Station name	Drainage Area sq mi	Mean Altitude feet above sea level	D = M =	Periods of record
13267500	Monroe Creek near Weiser	7.2	-	D: 1911-12.	
13268000	Monroe Creek near Weiser	29.1	-	D: 1911-13.	
13268500	Monroe Creek above Sheep Creek near Weiser	30.5	3,800	M: 1938, 1940-45; D: 1945-49; M: 1955, 1970, 1974-75.	
13269100	Jenkins Creek near Weiser	17.8	3,270	M: 1974.	
13269210	Scott Creek above diversions near Weiser	21.7	3,960	M: 1974-75.	
13269228	Hog Creek near Weiser	21.4	3,030	M: 1974-75.	
To convert square miles to square kilometers multiply by 2.59 To convert feet to meters multiply by 0.3048					

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COMPUTATION FORM—DOUBLE

Basic data table C. Estimates of stream flow characteristics for the Abasco River basin.

(discharge in cubic feet per second; runoff in inches)

Station Number and Name					Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		Annual 1975	Mean Annual	Mean Annual Runoff
1325	<del>3950</del> West Fork	Monthly mean	1975		2.3	3.0	3.6	3.0	2.9	9.6	50	284	49	6.1	3.6	2.3		35		
		Mean monthly			7.8	12	18	14	19	44	157	115	35	10	6.1	6.3			37	
		Mean monthly runoff			.37	.56	.86	.68	.82	2.1	7.2	5.4	1.6	.47	.29	.29				21
1325	200 Mill Creek	Monthly mean	1975		4.2	4.7	6.1	4.9	4.1	6.8	17	33	64	16	7.2	8.6		15		
		Mean monthly			2.8	4.9	7.4	6.4	8.2	15	33	55	33	8.5	3.4	2.4			15	
		Mean monthly runoff			.40	.67	1.0	.89	1.0	2.1	4.5	7.7	4.4	1.2	.47	.32				25
1325	5280 North Hornet Creek near Council	Monthly mean	1975		.59	1.3	1.4	1.1	1.7	31	168	79	6.4	1.8	.04	.12		24		
		Mean monthly			5.5	8.5	13	10	14	31	110	80	24	7.0	4.3	4.4			26	
		Mean monthly runoff			.20	.31	.48	.37	.45	1.1	4.0	3.0	.87	.26	.16	.16				11
1325	750 Cottonwood Creek above diversions near Council	Monthly mean	1975		3.2	3.2	4.4	4.4	4.3	19	50	120	206	23	15	4.5		38		
		Mean monthly			7.5	13	20	17	22	40	89	147	87	23	9.0	6.3			40	
		Mean monthly runoff			.47	.79	1.2	1.1	1.2	2.5	5.3	9.2	5.3	1.4	.56	.38				29
1325	800 Middle Fork Abasco River above Fall Creek near Mesa	Monthly mean	1975		2.9	2.6	3.4	2.9	2.6	6.2	65	326	618	115	87	6.0		123		
		Mean monthly			2.4	4.2	6.4	5.5	7.1	128	286	490	281	73	2.9	2.0			129	
		Mean monthly runoff			.43	.73	1.1	.98	1.1	2.3	4.9	8.5	4.9	1.3	.52	.35				27

Station Number and Name																			Annual 1975	Mean Annual	Mean Annual Runoff
					OCT.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.					
1325	2600 Johnson Creek	Monthly mean	1975		3.6	3.9	4.3	5.3	2.9	3.7	4.8	8.6	12.3	1.5	4.6	4.5		20			
	near Goodrich	Mean monthly			6.4	1.0	1.5	1.5	2.4	3.9	7.4	10.7	7.0	1.5	5.3	1.3			32		
		Mean monthly runoff			.35	.54	.81	.83	1.2	2.1	3.9	5.9	3.7	.83	.29	.23					21
1325	7700 Dry Creek	Monthly mean	1975		0	0	0	0	8.4	5.4	1.9	1.1	.50	0	0	0		7.7			
	at Goodrich	Mean monthly			0	0	0	0	2.2	2.4	1.7	4.9	3.5	0	0	0			5.9		
		Mean monthly runoff			0	0	0	0	3.4	3.6	2.6	.77	.53	0	0	0					11
1325	7800 Goodrich Creek	Monthly mean	1975		4.1	3.2	3.4	3.7	1.0	1.4	2.5	5.3	18.7	2.9	1.2	5.9		2.9			
	near Goodrich	Mean monthly			6.0	9.5	1.4	1.4	2.3	3.6	6.9	10.0	6.6	1.4	5.0	4.0			30		
		Mean monthly runoff			.45	.69	1.0	1.1	1.5	2.7	5.0	7.5	4.8	1.1	.37	.29					26
1326	0990 West Pine Creek	Monthly mean	1975		3.7	3.7	4.2	5.3	4.6	5.1	7.4	5.0	6.2	1.1	6.0	3.8		2.3			
	near Cambridge	Mean monthly			4.1	7.0	1.0	1.1	2.4	4.7	8.6	6.8	3.3	6.5	2.1	2.4			2.5		
		Mean monthly runoff			.20	.33	.48	.54	1.0	2.3	4.0	3.3	1.5	.31	.10	.11					14
1326	0500 Little White River	Monthly mean	1975		1.2	1.2	1.5	2.0	2.9	10.6	11.5	3.0	6.4	9.6	3.8	1.8		12.4			
	at Ruby Ranch	Mean monthly			2.2	3.7	5.4	6.5	10.1	11.9	2.93	4.57	3.25	6.8	2.0	1.4			1.31		
	near Indian Valley	Mean monthly runoff			.32	.52	.79	.95	1.3	1.7	4.1	6.7	4.6	.99	.29	.20					2.2

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Station Number and Name						OCT.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		Annual 1975	Mean Annual	Mean Annual Runoff
1326	672	Little Creek	Monthly mean	1975		.01	.01	.03	.13	3.3	7.7	2.2	.55	.01	.01	0	0		7.0		
		near Cambridge	Mean monthly			1.4	2.6	8.0	18	11	11	7.9	2.3	1.6	.82	0	0			5.3	
			Mean monthly runoff			.14	.26	.84	1.8	1.1	1.1	.80	.24	.16	.09	0	0				8.6
1326	680	Little Creek	Monthly mean	1975		4.9	5.9	7.1	12	1.5	1.9	3.0	9.9	18	5.9	7.9	5.1		18		
		above diversions near Middle	Mean monthly			2.3	3.9	5.6	6.3	13	2.6	4.8	3.8	18	3.6	1.2	1.4			14	
			Mean monthly runoff			.19	.32	.47	.53	1.0	2.2	3.9	3.2	1.5	.31	.10	.11				14
1326	750	Bonne-Creek	Monthly mean	1975		.09	.24	.61	3.2	6.3	1.7	2.8	1.4	.31	.04	0	.01		1.3		
		near Middle	Mean monthly			.26	.49	1.5	3.3	2.1	2.0	1.5	.42	.30	.16	0	.20			1.0	
			Mean monthly runoff			.03	.06	.19	.42	.24	.25	.18	.05	.04	.02	0	.02				1.5
1326	800	Mill Creek near Crane	Monthly mean	1975		0	0	0	0	3.3	1.5	1.5	0	0	0	0	0		3.8		
			Mean monthly			0	0	0	0	1.3	1.3	9.5	0	0	0	0	0			2.9	
			Mean monthly runoff			0	0	0	0	1.1	1.2	.87	0	0	0	0	0				3.2
	3																				
1326	950	Tennessee Creek near South Crane School	Monthly mean	1975		0	.01	.69	3.8	1.5	8.5	5.7	1.6	.26	0	0	0		2.9		
			Mean monthly			0	1.3	3.4	7.6	4.8	4.6	3.4	.97	.70	0	0	0			2.2	
			Mean monthly runoff			0	.12	.33	.72	.41	.44	.32	.09	.06	0	0	0				2.5



UNITED STATES DEPARTMENT OF THE INTERIOR  
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FILE \_\_\_\_\_

Basic data table D Low-flow characteristics of selected tributaries and Weiser River stations

Station number and name	1-Day Low Flow				3-Day Low Flow				7-Day Low Flow				14-Day Low Flow			
	2-year	5-year	10-year	20-year	2-year	5-year	10-year	20-year	2-year	5-year	10-year	20-year	2-year	5-year	10-year	20-year
13251300 West Branch Weiser River near Tamarack	.68	.52	.45	.40	.71	.57	.52	.48	.76	.61	.55	.51	.81	.67	.61	.57
13251500 Weiser River at Tamarack	3.7	2.2	1.5	1.1	4.5	3.0	2.3	1.7	4.7	3.6	3.1	2.7	5.0	4.1	3.6	3.2
13253500 Weiser River at Starkey	15	12	11	—	15	13	11	—	15	13	11	—	16	13	11	—
13253850 West Fork Weiser River near Tamarack	1.2	.65	.41	.27	1.6	.98	.69	.49	1.7	1.2	1.0	.84	1.8	1.4	1.2	1.1
13254500 Lost Creek near Tamarack	2.2	.66	.30	.15	2.5	.76	.35	.17	2.7	.88	.42	.21	3.5	1.2	.54	.26
13255050 West Fork Weiser River near Fruitvale	5.0	2.3	1.4	.86	6.0	2.8	1.6	.94	7.6	3.6	2.1	1.2	8.3	4.6	3.0	2.0
13255200 Mill Creek near Council	4.0	2.9	2.3	1.9	4.4	3.5	3.0	2.6	4.6	3.9	3.6	3.3	4.7	4.2	3.9	3.7
13255280 North Hornet Creek near Council	.56	.32	.22	.15	.69	.46	.34	.25	.73	.56	.47	.40	.78	.63	.55	.49
13255750 Cottonwood Creek above diversions near Council	3.9	2.4	1.8	1.3	4.7	3.3	2.6	2.0	4.9	3.9	3.4	3.0	5.2	4.3	3.9	3.5
13256000 Weiser River near Council	39	32	28	26	41	34	30	27	45	37	33	30	48	42	40	37
Council Middle Fork Weiser River near Mesa and Orchard's Corn	13	8.9	7.3	6.2	14	10	8.8	7.5	16	12	10	9.0	17	14	12	11
13256800 Middle Fork Weiser River above Fall Creek near Mesa	17	11	8.6	6.6	18	14	11	8.5	19	16	15	14	20	17	16	15
13257600 Johnson Creek near Goodrich	3.7	2.3	1.6	1.2	4.4	3.1	2.4	1.9	4.6	3.7	3.2	2.8	4.9	4.1	3.6	3.3
13257700 Dry Creek at Goodrich	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13257800 Goodrich Creek near Goodrich	2.8	1.8	1.3	.97	3.2	2.2	1.7	1.3	3.3	2.7	2.4	2.2	3.5	2.9	2.7	2.5
13258500 Weiser River near Cambridge	53	42	38	34	56	44	39	35	60	48	42	38	63	51	46	42
13259500 Rush Creek at Cambridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13260000 Pine Creek near Cambridge	2.1	1.3	.99	.80	2.2	1.4	1.1	.89	2.4	1.6	1.3	1.1	2.7	1.8	1.5	1.3
13260090 West Pine Creek near	3.3	2.2	1.6	1.3	3.8	2.8	2.3	1.8	3.9	3.2	2.9	2.6	4.1	3.6	3.2	3.0
13260300 Pine Creek at mouth at Cambridge	5.5	4.4	4.0	3.7	5.8	4.6	4.1	3.7	6.1	5.0	4.4	4.1	6.4	5.3	4.8	4.4
13260500 Little Weiser River at Ruby Ranch near Indian Valley	9.9	8.1	7.3	6.7	10	8.4	7.5	6.8	11	9.0	8.1	7.4	12	9.5	8.6	8.0
13261000 Little Weiser River near Indian Valley	7.6	5.8	4.9	4.3	8.1	6.2	5.3	4.6	8.5	6.6	5.6	4.9	9.0	6.9	5.9	5.1
13261600 Little Weiser River near mouth near Cambridge	14	11	10	9.2	14	12	10	9.3	15	12	11	10	16	13	12	11
13261670 Dixie Creek near Cambridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13261800 Keithly Creek above diversions near Midvale	3.4	2.4	1.8	1.4	3.9	3.0	2.4	2.0	4.0	3.4	3.0	2.7	4.2	3.6	3.4	3.1
13263150 Banner Creek near Midvale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13263500 Weiser River above Crane Creek near Weiser	28	14	9.5	6.8	29	14	9.6	6.8	30	15	9.9	6.9	33	16	10	7.0

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File

COMPUTATION FORM—DOUBLE

Station number and name	1-Day Low Flow				3-Day Low Flow				7-Day Low Flow				14-Day Low Flow			
	2-Year	5-Year	10-Year	20-Year	2-Year	5-Year	10-Year	20-Year	2-Year	5-Year	10-Year	20-Year	2-Year	5-Year	10-Year	20-Year
13263800 Mill Creek near Crane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13263930 Tension Creek near South Crane School	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13263950 South Fork Crane Creek near Crane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13264500 Crane Creek near Midvale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13265500 Crane Creek at mouth near Weiser	1.6	.75	.46	.20	2.0	.92	.57	.27	2.5	1.3	.90	.64	3.2	1.8	1.2	.92
13266000 Weiser River near Weiser	87	49	33	23	94	53	36	26	102	56	36	27	108	59	40	28
13266850 Mann Creek above reservoir near Weiser	1.0	.49	.33	.23	1.1	.54	.36	.25	1.3	.72	.52	.39	1.5	.86	.63	.48
13266500 Monroe Creek above sheep Creek near Weiser	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13269210 Scott Creek above diversions near Weiser	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13269228 Hog Creek near Weiser	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To convert cubic feet per second to cubic meters per second multiply by 0.02832																

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UNITED STATES DEPARTMENT OF THE INTERIOR  
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COMPUTATION FORM—DOUBLE

Basic data table E High-flow characteristics of selected tributaries and Upper River stations

(Flows in cubic feet per second)

Station	number and name	1-Day High Flow				3-Day High Flow				7-Day High Flow				15-Day High Flow				30-Day High Flow			
		2-Year	5-Year	10-Year	25-Year	2-Year	5-Year	10-Year	25-Year	2-Year	5-Year	10-Year	25-Year	2-Year	5-Year	10-Year	25-Year	2-Year	5-Year	10-Year	25-Year
1325100	West Fork Uviser River near Fruitvale	541	51	64	83	32	48	60	77	31	45	55	69	27	40	48	60	25	33	39	47
13251500	Uviser River at Tammarack	425	598	705	834	295	536	617	709	347	470	542	621	293	402	462	531	247	323	368	418
13252000	East Fork Uviser River near Starkey	312	404	459	522	293	371	414	461	265	335	374	416	236	297	331	368	204	251	277	306
13252500	Uviser River at Starkey	917	1,440	1,760	2,140	910	1,300	1,520	1,750	831	1,210	1,450	1,720	702	992	1,160	1,250	603	811	932	1,010
13253050	West Fork Uviser River near Tammarack	450	680	834	1,020	407	594	707	840	347	505	602	713	287	416	494	587	228	317	373	437
13254000	West Fork Uviser River near Fruitvale	629	759	832	914	601	714	772	835	560	663	718	775	514	607	657	710	462	537	578	631
13254500	Mill Creek near Council	63	76	84	93	60	72	78	84	56	66	72	78	51	61	66	71	43	53	58	62
13255080	North Hornet Creek near Council	87	124	148	176	80	110	128	149	70	96	112	129	59	81	94	109	49	65	74	85
13255500	Hornet Creek near Council	482	541	572	606	449	521	547	573	449	498	523	548	426	472	495	519	400	438	458	478
13256050	Gettysburg Creek near Council	277	374	433	503	258	339	384	435	230	301	342	386	200	262	297	326	169	215	242	271
13256200	Gettysburg Creek near Council	155	186	204	224	148	176	190	205	138	143	177	190	127	150	162	175	115	133	143	153
13256600	Uviser River near Council	3,520	3,580	4,300	5,230	2,370	3,360	4,010	4,830	2,160	3,000	3,520	4,120	1,920	2,670	3,140	3,690	1,610	2,250	2,670	3,210
	Combined near Middle Fork Uviser River	806	1,030	1,140	1,240	754	913	972	1,020	681	807	851	891	600	720	766	802	524	623	676	709
13256800	Middle Fork Uviser River near Council	542	631	682	740	516	592	623	678	485	556	595	627	444	508	542	576	398	452	481	512
13257000	Johnson Creek near Council	277	375	435	507	257	340	386	438	229	301	343	388	199	262	297	337	168	215	241	271
13257100	Dry Creek at Goodrich	121	192	243	311	88	128	174	223	61	94	116	144	38	62	79	102	24	48	62	73
13257500	Goodrich Creek near Council	145	172	188	207	137	160	173	187	128	149	161	174	116	135	145	156	102	118	127	136
13258000	Weiser River near Council	4,070	5,530	6,430	7,490	3,440	4,590	5,280	6,100	2,970	3,980	4,600	5,320	2,590	3,450	3,960	4,570	2,200	2,920	3,380	3,950
13258500	Rush Creek near Council	309	360	375	382	275	317	330	337	238	272	282	289	206	234	242	247	184	206	212	215
13260000	Pine Creek near Council	228	329	401	496	202	290	355	445	174	250	308	393	151	217	268	342	125	176	217	276
13260290	West Pine Creek near Council	121	156	177	201	114	144	160	178	103	120	145	161	92	115	128	143	60	98	108	119
13260300	Pine Creek at Council	111	414	476	548	266	348	396	452	232	305	348	399	204	267	303	346	175	228	262	302
13260500	Little Uviser River near Council	499	658	754	865	428	556	631	719	375	489	557	635	331	429	486	554	286	369	421	485
13260600	Little Uviser River near Council	617	810	924	1,060	563	735	835	948	518	663	743	829	458	592	669	754	405	523	591	667
13260600	Little Uviser River near Council	699	923	1,060	1,220	600	780	885	1,010	525	685	781	891	464	602	682	776	400	517	590	680
13260700	Dixie Creek near Council	114	262	398	618	65	145	220	341	33	72	105	156	15	34	53	84	6.3	14	22	35

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COMPUTATION FORM—DOUBLE

Station	number and name	1-Day High Flow				3-Day High Flow				7-Day High Flow				15-Day High Flow				30-Day High Flow			
		2-Year	5-Year	10-Year	25-Year	2-Year	5-Year	10-Year	25-Year	2-Year	5-Year	10-Year	25-Year	2-Year	5-Year	10-Year	25-Year	2-Year	5-Year	10-Year	25-Year
13261880	Koithly Creek above reservoir	86	109	121	136	82	101	111	122	75	92	102	111	68	83	91	100	59	71	78	85
13261867	Koithly Creek at mouth near bridge	256	298	322	349	230	267	286	313	204	235	252	271	175	205	222	241	150	174	189	205
13262150	Banner Creek near bridge	61	102	133	174	43	71	92	120	28	46	58	74	17	29	38	50	10	17	22	29
13263500	Weiser Creek near Weiser	5,760	8,250	9,990	12,200	4,960	6,900	8,210	9,780	4,180	5,780	6,740	7,950	3,550	4,760	5,800	6,750	3,000	4,220	4,980	5,870
13263750	Hog Creek near Crane	132	146	153	161	123	136	143	150	114	125	131	137	103	114	120	127	93	103	108	114
13264800	Mill Creek near Crane	78	146	201	279	51	94	126	176	31	55	74	79	17	32	44	62	6.8	17	23	32
13264930	Tennison Creek near South Fork Crane Creek	119	231	323	460	76	144	201	285	45	82	112	153	23	46	65	93	12	23	32	46
13264950	Crane Creek near Crane	402	739	1,010	1,390	265	479	650	897	163	287	379	504	89	167	230	320	48	88	121	168
13264500	Crane Creek at mouth near Weiser	547	877	1,080	1,340	534	865	1,080	1,330	500	824	1,040	1,310	415	695	897	1,170	301	489	635	845
13265500	Weiser Creek near Weiser	734	1,210	1,530	1,920	630	1,100	1,420	1,850	653	954	1,290	1,690	464	821	1,100	1,440	328	586	772	1,020
13266000	Weiser Creek near Weiser	9,100	12,900	15,400	18,500	7,550	10,600	12,500	14,900	5,870	8,220	9,670	11,400	4,620	6,440	7,540	8,220	3,780	5,100	5,880	6,780
13266450	Cave Creek near Weiser	41	52	58	66	35	44	49	56	29	36	40	45	23	29	33	37	18	23	26	29
13266850	Mann Creek above reservoir near Weiser	355	550	694	895	297	456	576	742	245	377	475	612	218	325	404	513	184	262	317	390
13268500	Menrot Creek above Sheep Creek near Weiser	278	441	558	713	201	317	400	511	139	214	265	330	88	142	181	233	65	87	111	142
13269210	Scott Creek above divisors near Weiser	79	132	171	225	56	92	119	156	37	60	75	96	22	38	49	65	13	22	29	38
13269228	Hog Creek near Weiser	74	131	176	238	50	87	116	158	32	54	70	92	18	32	44	60	10	18	24	33
To convert cubic feet per second to cubic meters per second multiply by 0.02832																					

Basic-data table F Chemical analyses of water from selected wells and springs in the Weiser River basin  
(Chemical constituents in milligrams per liter except where noted)

Water level: R - reported

Principal aquifer: QTs - Quaternary and Tertiary sedimentary deposits

Ter - Basalts of the Columbia River Basalt Group

Use of water: I - irrigation; P - public supply;

S - stock; U - unused.

Well	Number	Depth to base of water (ft)	Static water level (ft)	Principal aquifer	Use of water	Date of sample	Discharge (gpm)	Dissolved silica (mg/l)	Dissolved iron (mg/l)	Dissolved manganese (mg/l)	Dissolved calcium (mg/l)	Dissolved magnesium (mg/l)	Total dissolved solids (mg/l)	Total hardness (mg/l)	Alkalinity as CaCO <sub>3</sub> (mg/l)	Fluoride (mg/l)	Dissolved chlorine (mg/l)	Dissolved fluorine (mg/l)	Residual chlorine (mg/l)	Total phosphorus (mg/l)	Ammonia nitrogen (mg/l)	Nitrate nitrogen (mg/l)	Iron (mg/l)	Copper (mg/l)	Zinc (mg/l)	Lead (mg/l)	Cadmium (mg/l)	Mercury (mg/l)	Vanadium (mg/l)	Present	Subsequent location	Specific conductance (µmhos/cm)	pH	Temperature (°C)	Dissolved oxygen (mg/l)	Dissolved oxygen (ppm)
172A	Q1W	122A	142	27.05	Ter	I	750912	48	52	10	-	17	6.3	8.3	2.3	102	0	54	2.2	0.5	0.1	0.11	0.03	136	50	0	23	0.5	152	7.6	12.5	-	-			
172A	Q1W	122B	76	34.05	Ter	H	750911	12	50	0	-	14	6.7	5.5	2.5	112	0	34	1.1	0.6	0.1	0.25	0.04	135	52	0	15	0.3	149	-	13.0	-	-			
172A	Q1W	122C	131	-	Ter	H	750911	3.2	47	10	-	14	4.2	5.7	1.5	83	0	68	1.6	1.0	0.1	0.29	0.03	136	53	2	14	0.3	145	7.3	16.0	-	-			
172A	Q1W	122D	102	24.87	QTs	H	750911	8	48	20	-	25	8.7	9.7	1.1	156	0	138	6.8	2.4	0.7	0.26	0.08	153	99	0	17	0.1	240	2.9	12.5	-	-			
		122E	20	20.25	Ter	H	750911	13	46	40	-	23	12	11	5.8	16.8	0	138	12	2.8	0.1	0.06	0.05	126	110	0	17	0.5	264	1.8	18.5	-	-			
		122F	150	-	Ter	P	750911	30.1	54	3	0	12	6.0	6.4	2.2	88	-	72	2.1	1.6	0.1	0	0.10	120	50	0	12	0.1	126	3.9	15.5	1	12			
		122G	150	-	Ter	P	750915	20.2	37	0	0	15	5.4	17	5.5	35	-	78	1.5	2.2	0.2	0.12	0.02	120	50	0	35	1.0	198	6.0	12.0	2	10			
		122H	200	14.4	Ter	I	750915	60	10	0	-	11	4.5	16	5.1	100	0	84	1.2	2.8	0.2	0.08	0.06	164	110	0	40	1.0	157	7.1	15.0	-	-			
172A	Q1W	122I	110	15.2	Ter	H	750915	26	48	50	-	29	10	11	6.2	172	0	150	2.6	1.3	0.2	0.06	0.05	162	110	0	17	0.1	157	2.0	15.0	-	-			
172A	Q1W	122J	110	12.92	Ter	H	750915	10	47	0	-	16	4.3	11	4.6	25	0	52	2.2	1.3	0.2	0.05	0.04	157	110	0	12	0.6	132	3.5	12.5	-	-			
172A	Q1W	122K	110	11.5	Ter	H	750915	24	50	0	-	17	3.5	6.1	6.3	165	0	52	2.0	1.1	0.1	0.04	0.04	120	70	0	15	0.2	132	3.1	12.0	-	-			
172A	Q1W	122L	110	-	Ter	H	750915	-	30	-	-	2.6	12	22	6.5	187	0	55	1.6	1.5	0.1	0.05	0.04	120	70	0	21	1.2	217	6.7	16.5	-	-			
		122M	110	-	Ter	P	750915	-	71	10	0	2.4	2	6.3	1.0	157	0	132	1.6	2.2	0.2	0.04	0.04	120	70	0	59	0.7	202	6.2	26.0	15	100			
		122N	110	-	Ter	P	750915	-	56	20	60	4.1	4	10	10	161	0	97	3.1	2.3	0.6	0.06	0.07	120	110	0	24	0.7	182	3.0	18.0	6	120			
		122O	110	6.19	QTs	H	750915	12	49	150	-	2.6	1.1	5.2	5.5	157	0	68	1.4	1.6	0.2	0.05	0.07	120	110	0	72	2.9	135	3.6	13.0	-	-			
		122P	110	3.26	Ter	H	750915	6.9	37	30	-	11	2.7	2.0	14	193	0	158	1.8	1.5	0.5	0.07	0.06	224	27	0	16	2.8	119	3.5	17.0	-	-			
172A	Q1W	122Q	110	6.66	QTs	H	750915	13	44	100	-	2.9	1.6	3.5	5.7	124	0	122	1.1	1.5	0.2	0.11	0.05	165	21	0	22	3.2	250	3.4	18.5	-	-			
		122R	110	-	Ter	I	750915	52	49	0	-	2.8	1.4	10	3.7	147	7	124	1.1	1.5	0.4	0	0	217	26	0	72	3.8	257	3.0	12.0	-	-			
172A	Q1W	122S	80	0.10	QTs	H	750915	12	41	200	-	1.8	1.6	1.3	1.5	147	0	116	1.1	3.2	0.2	0.01	0.02	171	50	0	25	1.6	230	3.7	16.0	-	-			
		122T	120	10.65	Ter	H	750915	16	52	1200	-	15	9.6	11	5.0	124	0	102	1.1	1.9	0.3	0	0	40	173	77	0	22	1.5	266	3.5	16.0	-	-		
172A	Q1W	122U	85	20.14	Ter	H	750915	16	47	30	-	25	12	14	5.0	144	0	112	1.6	1.1	0.2	0.02	0.05	174	110	0	14	0.3	291	2.4	13.5	-	-			
172A	Q1W	122V	101	7.24	QTs	H	750915	10	47	12	-	43	23	25	5.1	251	0	206	1.8	3.0	0.3	0.04	0.04	218	210	9	20	0.7	474	7.1	22.5	-	-			
		122W	762	-	Ter	P	750915	-	84	-	-	4.7	1.8	7.3	2.3	225	0	185	1.4	2.1	0.7	0.04	0.04	216	25	0	74	6.4	279	4.3	28.0	-	-			
		122X	110	-	Ter	P	750915	-	64	20	0	10	7	65	2.3	276	0	155	1.1	3.1	0.7	0.02	0.04	220	24	0	71	2.4	249	3.7	28.5	8	120			
		122Y	56	9.84	QTs	H	750915	14	23	100	-	12	6.8	12	11	266	0	118	4.3	3.0	0.5	0.01	0.03	224	52	0	65	3.5	277	2.6	12.0	-	-			

Basic data table G: Chemical analyses of surface water for selected stations on the Weiser River

13251400 - WEISER RIVER ABOVE MILL POND AT TAMAHACK, IDAHO

WATER QUALITY DATA

DATE	TEMP T(°C)	INSTAN- TANEOUS DIS- CHARGE (CFD)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINIT- AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRI- TE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF SOLIDS CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS PER AC-FT.	DIS- SOLVED SOLIDS PER DATI	HARD- NESS (CA+M) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	(FIELD) SPECI- FIC CON- DUCTI- VANCE (MICHO- MHOS)	(FIELD) PH	TEMPER- ATURE (DEG. C)	CARBON DIOXIDE (CO2) (MG/L)
MAY 17...	1640	352	27	6.3	2.0	2.7	.9	32	0	26	1.4	.6	.1	.01	.04	57	.08	54.2	24	0	19	.2	105	7.7	6.5	1.0
MAY 15...	1100	144	26	7.6	2.0	3.0	.9	43	0	35	1.1	.5	.0	.10	--	62	.80	24.1	27	0	19	.3	64	7.6	5.0	1.7
JUNE 13...	0900	40	28	9.8	2.9	3.5	1.1	53	0	43	1.3	.8	.0	.05	.03	74	.10	8.03	36	0	17	.3	105	6.9	13.0	1.1
AUG. 16...	1540	24	30	12	4.5	4.5	1.3	71	0	58	1.3	.9	.0	.00	.04	90	.12	3.40	49	0	16	.3	117	7.8	20.5	1.0
MAY 14...	1135	6.2	29	13	4.3	4.3	1.4	70	0	57	1.4	.9	.0	.25	.05	90	.12	2.00	50	0	15	.3	111	8.0	15.0	4.0
MAY 21...	1000	7.7	29	12	3.0	4.5	1.3	73	0	50	1.5	1.0	.1	.01	.02	90	.12	1.83	46	0	17	.3	118	7.4	13.0	4.0
SEP. 17...	1320	7.7	30	15	3.8	4.7	1.4	60	0	66	1.6	.9	.1	.01	.04	97	.13	2.02	53	0	16	.3	109	7.8	14.0	2.0
OCT. 16...	1630	6.0	31	14	5.4	5.9	1.8	84	0	69	1.6	1.9	.1	.03	.04	103	.14	1.68	57	0	10	.3	132	7.2	8.0	0.5
NOV. 12...	0900	7.7	29	14	4.8	5.7	1.3	77	0	63	1.6	2.5	.1	.01	.05	102	.14	2.12	55	0	18	.3	120	7.8	3.0	2.0
DEC. 13...	1210	6.4	29	14	5.6	9.2	2.8	87	0	71	1.5	2.8	.1	.01	.03	113	.15	1.95	56	0	25	.5	144	7.6	.5	3.5
JAN. 1975	1000	7.2	20	14	4.4	7.0	1.8	80	0	66	1.9	3.5	.0	.06	.05	101	.14	1.96	53	0	22	.4	135	8.6	.0	.3
FEB. 20...	1225	7.5	27	16	4.6	5.8	1.8	78	0	64	1.7	3.5	.1	.05	.03	94	.13	2.00	59	0	17	.3	118	8.2	1.0	.8
MAR. 18...	1350	19	25	13	4.4	4.4	2.0	64	0	53	2.0	1.5	.0	.00	.03	84	.11	4.31	51	0	15	.3	99	7.0	1.0	10
MAY 18...	0940	61	22	7.6	2.4	3.2	1.2	41	0	34	1.2	.8	.0	.08	.04	59	.08	9.72	29	0	19	.3	69	7.4	1.0	2.6
MAY 16...	1015	508	22	5.5	1.8	2.5	1.0	31	0	25	1.0	.5	.0	.04	.05	50	.07	88.6	21	0	20	.2	35	7.1	17.5	3.9
JUNE 17...	1305	34	27	9.7	3.0	3.9	1.0	59	0	41	1.6	.8	.0	.02	.02	80	.11	7.52	37	0	18	.3	64	7.9	11.0	1.0
JULY 18...	1445	12	29	12	3.8	4.5	1.3	65	0	53	1.6	.0	.0	.02	.05	83	.11	2.69	46	0	17	.3	101	9.0	11.0	.1
AUG. 13...	1645	5.0	26	12	4.5	5.4	1.5	64	0	53	2.3	.9	.1	.02	.02	84	.11	1.15	69	0	19	.3	118	9.0	17.0	.1
SEP. 19...	1320	7.2	28	13	4.1	5.1	1.0	74	0	61	1.4	.2	.1	.01	.04	90	.12	1.76	49	0	18	.3	127	8.4	14.0	.5
OCT. 18...	1640	7.1	26	16	4.6	5.5	1.5	84	0	69	1.6	.9	.1	.01	.04	98	.13	1.88	59	0	16	.3	127	8.5	9.0	.4
NOV. 13...	1320	9.1	27	13	4.6	4.9	1.3	76	0	62	1.5	.3	.1	.02	.03	90	.12	2.22	51	0	17	.3	118	8.1	1.6	1.0
DEC. 12...	1320	31	24	9.1	3.6	3.4	1.4	45	0	37	4.8	1.3	.1	.09	.02	70	.10	5.60	38	1	16	.2	80	7.7	1.5	

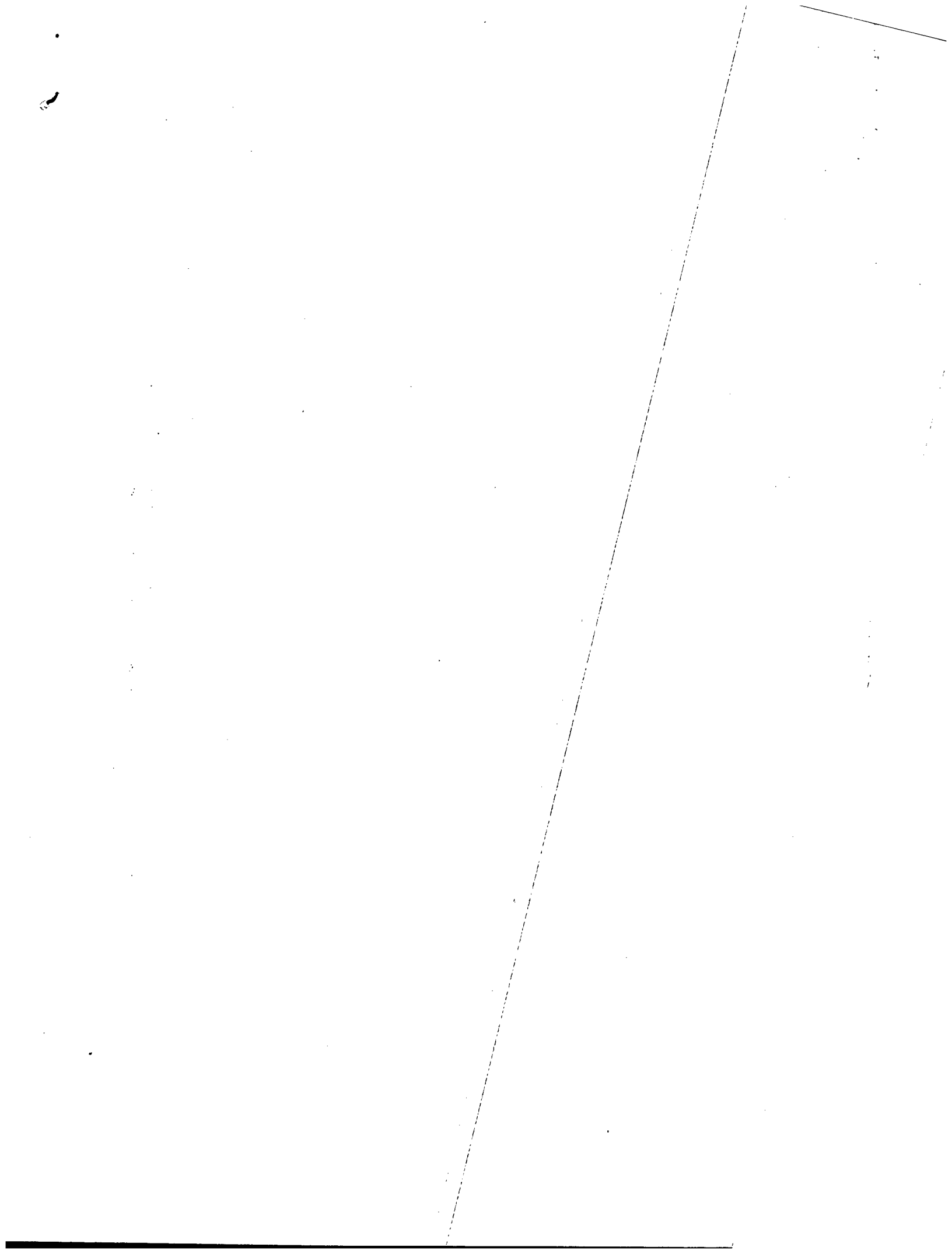
13253750 WEISER RIVER AT FRUITVALE, IDAHO

AUG. 1974	21	1215	7.2	32	15	4.5	13	1.7	82	0	13	2.6	.1	.00	.01	122	.16	2.33	56	0	33	.8	158	7.9	17.0	
AUG. 1974	22	1150	7.8	24	12	3.8	5.8	2.4	60	0	3.9	1.4	.1	.00	.02	83	.10	14.7	46	0	21	.4	87	7.5	16.0	
AUG. 1974	22	2055	13.8	25	11	3.3	5.3	1.7	59	0	3.7	1.3	.1	.01	.02	81	.11	2.4	41	0	21	.4	98	7.9	18.0	

13257710 WEISER RIVER AT GOODRICH, IDAHO













1326000 - WEISER RIVER NEAR WEISER, IDAHO

WATER QUALITY DATA

DATE	TIME	INSTAN- TANEOUS CHANGE (CF5)	DIS- SOLVED SILICA (MG/L)	DIS- SOLVED CAL- CIUM (MG/L)	DIS- SOLVED MAG- NESIUM (MG/L)	DIS- SOLVED SODIUM (MG/L)	DIS- SOLVED TAS- SIUM (MG/L)	BICAR- BONATE (MG/L)	CAR- BONATE (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED CHLO- RIDE (MG/L)	DIS- SOLVED FLUO- RIDE (MG/L)	DIS- SOLVED NITRI- TE (MG/L)	DIS- SOLVED NITRI- TE (MG/L)	TOTAL PHOS- PHORUS (MG/L)	DIS- SOLVED SOLIDS SUM OF CONSTITU- ENTS (MG/L)	DIS- SOLVED SOLIDS PER AC-PTI (MG/L)	DIS- SOLVED SOLIDS PER DATI	HARD- NESS (CAL-MG)	NON- CAR- BONATE HARD- NESS (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	CIFIC CON- DUCTI- VANCE (MICHO- MHOS)	(Field)			CARBON DIOXIDE (MG/L)
																									PH	TEMPER- ATURE (DEG C)		
APR. 09...	1010	2920	30	9.2	3.6	4.5	1.5	53	0	43	3.8	.8	.1	.25	.13	81	.11	639	38	0	20	.3	97	7.4	7.5	3.4		
15...	1740	2750	32	9.2	3.5	4.1	1.4	53	0	43	2.8	.8	.2	.12	.08	81	.11	601	37	0	19	.3	97	7.9	10.5	1.1		
MAY 13...	1615	3000	25	7.6	2.3	3.3	1.2	42	0	34	1.9	.7	.0	.08	--	63	.09	510	28	0	19	.3	72	7.6	9.0	1.7		
JUNE 14...	1230	3850	20	5.8	1.8	3.0	1.4	31	0	27	2.4	1.5	.0	.20	.06	53	.07	551	22	0	22	.3	62	6.7	14.0	11		
JULY 16...	1145	542	25	11	4.2	5.8	1.9	58	0	48	4.0	1.1	.1	.06	.06	82	.11	120	45	0	21	.4	122	7.8	19.0	1.5		
AUG. 12...	1120	450	29	14	4.8	7.4	3.6	75	0	62	5.0	2.0	.1	1.1	.18	108	.15	131	55	0	21	.4	170	7.5	19.5	3.8		
27...	1415	254	27	11	5.1	7.8	3.3	77	0	63	5.5	3.4	.1	.23	.21	102	.14	70.8	48	0	24	.5	139	8.5	24.0	4		
SEP. 16...	1215	257	25	14	4.2	7.4	3.1	82	0	67	5.5	2.0	.1	.16	.17	102	.14	70.4	52	0	22	.4	129	7.1	16.0	18		
26...	1315	202	24	15	5.4	14	2.7	84	0	69	5.7	2.7	.1	.38	.14	113	.15	81.8	60	0	33	.8	150	7.3	19.5	6.7		
OCT. 17...	1215	220	24	15	6.3	9.1	2.8	91	0	75	6.3	3.1	.1	.14	.06	112	.15	66.5	63	0	23	.5	134	8.2	12.0	1.4		
NOV. 13...	1440	200	28	15	5.0	8.8	2.1	89	0	73	6.3	2.8	.1	.03	.04	112	.15	60.5	58	0	24	.5	132	8.0	6.5	1.4		
DEC. 13...	1200	193	31	14	5.8	8.1	1.8	85	0	70	2.1	1.4	.1	.00	.03	105	.14	54.7	56	0	23	.5	162	7.6	1.0	1.4		
JAN. 1975 13...	1037	219	31	15	5.4	9.1	2.8	91	0	75	6.7	1.9	.1	--	.05	116	.16	69.8	60	0	24	.5	126	8.7	1.0	1.2		
MAR. 14...	1205	2640	28	9.2	4.7	4.9	2.6	53	0	43	4.7	2.7	.1	1.1	.10	98	.12	627	42	0	19	.3	95	7.9	5.0	--		
APR. 18...	1125	2970	28	10	3.5	4.1	1.6	48	0	39	2.1	1.0	.1	.44	.12	76	.10	589	39	0	18	.3	87	7.8	8.5	1.2		
MAY 16...	1470	6410	23	6.7	2.3	3.1	1.5	38	0	31	.4	.8	.1	.28	.42	54	.08	1080	26	0	19	.3	63	7.9	10.0	1.4		
JUNE 19...	1045	2230	22	6.7	2.0	3.4	1.2	38	0	31	1.2	.7	.0	.09	.03	56	.08	337	25	0	22	.3	63	7.9	10.5	1.1		
JULY 17...	0825	549	27	11	3.4	5.5	2.1	54	0	46	2.7	.7	.1	.07	.06	80	.11	119	41	0	21	.4	130	9.0	12.0	1.1		
AUG. 14...	1200	380	27	12	3.9	7.7	3.4	67	0	52	4.7	1.8	.1	.18	.13	92	.13	89.4	46	0	25	.5	129	8.6	20.0	1.3		
SEP. 19...	1130	332	28	12	4.1	8.4	3.5	73	0	60	4.7	1.8	.2	.10	.17	99	.13	88.7	47	0	24	.5	129	8.6	14.0	1.3		
OCT. 17...	0920	301	23	12	4.9	8.1	2.3	82	0	67	5.3	1.9	.1	.00	.03	98	.13	79.1	50	0	25	.5	144	8.5	10.0	1.4		
NOV. 04...	1225	383	27	12	4.7	6.8	1.9	81	0	66	3.0	2.3	.1	.02	.07	98	.13	101	49	0	22	.4	126	8.4	8.0	1.5		
13...	1620	328	25	12	5.0	7.8	1.8	78	0	64	4.3	1.3	.1	.01	.02	96	.13	85.1	53	0	22	.4	136	8.4	9.0	1.5		
15...	1625	785	27	10	3.4	4.7	1.5	50	0	41	3.1	1.7	.1	.24	.04	78	.11	165	41	0	19	.3	85	8.4	1.0	1.5		
22...	1100	344	32	15	5.1	8.2	1.9	83	0	68	5.6	3.3	.1	.23	.04	113	.15	95.8	58	0	23	.5	131	--	10.0	1.5		

DATE	TIME	INSTAN- TANEOUS CHANGE (CF5)	DIS- SOLVED SILICA (MG/L)	DIS- SOLVED CAL- CIUM (MG/L)	DIS- SOLVED MAG- NESIUM (MG/L)	DIS- SOLVED SODIUM (MG/L)	DIS- SOLVED TAS- SIUM (MG/L)	BICAR- BONATE (MG/L)	CAR- BONATE (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED CHLO- RIDE (MG/L)	DIS- SOLVED FLUO- RIDE (MG/L)	DIS- SOLVED NITRI- TE (MG/L)	DIS- SOLVED NITRI- TE (MG/L)	TOTAL PHOS- PHORUS (MG/L)	DIS- SOLVED SOLIDS SUM OF CONSTITU- ENTS (MG/L)	DIS- SOLVED SOLIDS PER AC-PTI (MG/L)	DIS- SOLVED SOLIDS PER DATI	HARD- NESS (CAL-MG)	NON- CAR- BONATE HARD- NESS (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	CIFIC CON- DUCTI- VANCE (MICHO- MHOS)	PH	TEMPER- ATURE (DEG C)	CARBON DIOXIDE (MG/L)		
AUG., 1974	28	1245	73	25	19	6.7	18	3.8	182	0	16	4.4	.3	.30	.26	155	.21	30.7	75	0	33	.9	246	8.1	22.8	--			
AUG., 1974	27	1040	97	28	22	7.8	20	4.6	137	0	18	6.7	.3	.50	.27	177	.23	44.5	87	0	32	.9	251	8.2	20.0	--			

To convert cubic feet per second to cubic meters per second multiply by 0.02832

Basic-data table H Chemical analyses of surface water for selected tributaries near the lower river basin

DATE	TIME	INSTAN- TANOUS PIN- CHANGE (CFS)	DIS- SOLVED SILICA (MG/L)	DIS- SOLVED CAL- CIUM (MG/L)	DIS- SOLVED MAG- NESI- UM (MG/L)	DIS- SOLVED SODI- UM (MG/L)	DIS- SOLVED TAN- SODI- UM (MG/L)	RICA- RONATE (MG/L)	CAR- BONATE (MG/L)	ALKA- LINIT- Y AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED CHLO- RIDE (MG/L)	DIS- SOLVED FLUO- RIDE (MG/L)	DIS- SOLVED NITRIT- E (MG/L)	DIS- SOLVED NITRAT- E (MG/L)	TOTAL PHOS- PHORUS (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-F) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	PERCENT SODIUM	SODIUM AU- SODI- UM RATIO	(FIELD) SPECI- FIC CON- DUCT- ANCE (MICRO- MHOS)	(FIELD) PH	TEMPER- ATURE (DEG C)		
																											17...	15...
13253000 - EAST FORK WEISER RIVER NEAR STAPKEY 10 (LAT 44 50 42 LONG 116 22 19.01)																												
APR. 1974	17...	1010	135	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	--	7.5
MAY	15...	1000	144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69	--	3.0
JUNE	13...	1015	180	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	51	--	4.5
JULY	18...	1425	41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	84	--	13.0
AUG.	14...	1230	3.9	30	14	4.9	5.3	1.3	76	0	62	2.2	1.0	.1	.00	.06	.98	.13	1.04	55	0	17	.3	122	8.1	12.5		
13254400 - WEST FORK WEISER RIVER NR TAMAWACK (UAMH (LAT 44 54 43 LONG 116 29 42)																												
MAY 1974	15...	1335	92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	61	--	4.5
JUNE	12...	1200	40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	--	12.0
JULY	19...	0915	7.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	106	--	14.0
AUG.	14...	0945	4.4	30	10	3.8	5.0	1.3	70	--	57	1.5	1.1	.1	.07	.06	.88	.12	1.05	41	0	23	.4	111	--	12.0		
SEP.	17...	1115	2.6	30	12	4.5	5.1	1.5	75	0	62	1.4	.8	.1	.00	.03	.92	.13	.65	49	0	16	.3	112	7.1	9.5		
OCT.	16...	1715	2.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	115	--	8.0
NOV.	12...	1050	2.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	111	--	3.0
DEC.	10...	1430	3.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	116	--	.5
FEB. 1975	11...	1145	2.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	112	--	1.0
MAR.	11...	0936	9.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100	--	1.5
APR.	16...	1420	41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	85	--	8.0
MAY	14...	1255	510	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	58	--	6.0
JUNE	17...	1005	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	61	--	7.0
JULY	16...	1135	5.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	120	--	6.5
AUG.	12...	1707	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	107	--	18.0
SEP.	18...	1705	1.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	115	--	12.0
OCT.	16...	1425	2.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	109	--	8.0
NOV.	13...	0946	3.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100	--	.0
DEC.	12...	1054	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	86	--	2.0





DATE	TIME	INSTAN- TANOUS CHARGE (GFS)	DIS- SOLVED SILICA (MG/L)	DIS- SOLVED CAL- CIUM (MG/L)	DIS- SOLVED MAG- NESIUM (MG/L)	DIS- SOLVED SODIUM (MG/L)	DIS- SOLVED POTAS- SIUM (MG/L)	BICAR- BONATE (MG/L)	CAR- BONATE (MG/L)	ALMA- GINITY AS CALCIUM (MG/L)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED CHLO- RIDE (MG/L)	DIS- SOLVED FLUO- RIDE (MG/L)	DIS- SOLVED NIT- RATE (MG/L)	DIS- SOLVED NIT- PLUS (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FE)	DIS- SOLVED SOLIDS (TONS PER DAY)	NON- CAL- BONATE MAG- NESIUM (MG/L)	PERCENT SODIUM	SODIUM CON- CENT- RATION (MG/L)	(FIELD) PH	TEMPER- ATURE (DEG C)
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13257600 - JOHNSON, CREEK NEAR GOODRICH, IDAHO (LAT 44 40 30 LONG 116 32 06.01)

APR. 1974	1715	109	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	84	--	8.5
MAY	1305	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52	--	6.5
JUNE	1620	144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	45	--	8.0
13...	1520	128	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	45	--	13.5
JULY	1515	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40	--	19.5
AUG.	1420	6.8	29	8.8	3.2	3.7	1.5	53	43	1.5	.9	.1	.08	.04	.75	.10	1.38	35	0	18	.3	90	8.0	18.5	
OCT.	0915	3.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	93	--	7.0
NOV.	0430	4.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	101	--	2.5
DEC.	1030	4.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	96	--	1.0
JAN. 1975	1000	5.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	92	--	1.5
FEB.	1245	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	--	1.0
MAR.	1030	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	--	3.0
APR.	1105	40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	--	5.5
MAY	1020	142	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	59	--	5.0
JUNE	0643	41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	44	--	7.0
JULY	1645	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	79	--	11.0
AUG.	1217	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	81	--	19.0
SEP.	1536	2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	94	--	14.0
OCT.	1344	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30	--	1.0
NOV.	1454	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49	--	4.0
DEC.	0405	27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	70	--	2.0

13257700 - DRY CR AT GOODRICH ID (LAT 44 39 15 LONG 116 33 19.01)

APR. 1974	1435	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	93	--	13.0
MAY	1430	2.5	33	6.4	2.2	2.8	1.3	40	33	1.1	.6	.4	.01	.05	.68	.09	.48	25	0	19	.2	62	7.8	15.5	
JUNE	1530	3.9	38	9.0	2.4	4.3	2.0	46	34	1.4	.5	.2	.03	.05	.80	.11	.67	32	0	22	.3	69	6.7	24.5	
APR. 1975	1325	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	55	--	2.0
MAY	1175	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	53	--	4.0
APR.	1145	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64	--	9.0
MAY	0930	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54	--	10.0
JUNE	0750	.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	75	--	6.5
NOV.	1450	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	84	--	8.0
DEC.	1000	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	63	--	4.0



DATE	TIME	INSTAN- TAN-DUS DTS- CHANGE (CF5)	DIS- SOLVED SILICA (MG/L)	DIS- SOLVED CAL- CIUM (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (MG/L)	DICAR- BONATE (MG/L)	CAR- BONATE (MG/L)	AL+A- LINITY AS (MG/L)	DIS- SOLVED COLO- SULFID (MG/L)	DIS- SOLVED CHLO- RIDE (MG/L)	DIS- SOLVED FERO- SULFID (MG/L)	DIS- SOLVED NITRAT- E (MG/L)	TOTAL PHOS- PHORUS (MG/L)	DIS- SOLVED SOLIDS SUM OF CONSTIT- UENTS (MG/L)	DIS- SOLVED SOLIDS TOTAL AC-FIT (MG/L)	OLS- SOLVED SOLIDS PER DAY	MAR- NESS (MG/L)	NONA- CAL- HAND- NESS (MG/L)	PERCENT SOLIDS	SOLIDS RATIO	ANCI- ONIC- PHOS	(PCCLD) PH	TEMPER- ATURE (DEG C)
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13255750 - CUMTUNWOOD CREEK AB. DIV. RR. COUNCIL, IDAHO (LAT 44 40 53 LONG 116 22 39.01)

APR. 1974																									
APR. 1715	102	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64	--	7.0	
MAY 14...	1010	82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	57	--	3.0	
JUNE 13...	1045	142	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	85	--	6.0	
JULY 18...	1145	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	61	--	11.5	
AUG. 14...	1440	8.1	25	7.4	2.2	3.3	7	44	0	36	1.1	.7	.1	.13	.02	63	.09	1.38	28	0	20	43	45	8.0	14.0
SEP. 17...	1540	3.4	24	7.6	1.6	3.8	7	45	--	37	1.6	.7	.1	.03	.01	52	.08	.57	26	9	24	43	64	8.8	13.0
OCT. 16...	1300	3.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	--	6.0	
NOV. 12...	1350	3.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	81	--	3.5	
DEC. 11...	1350	4.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	75	--	4.0	
JAN. 1975																									
FEB. 14...	1600	4.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	75	--	1.0	
MAR. 11...	1510	4.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	85	--	1.5	
APR. 15...	1315	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	--	4.0	
MAY 15...	0915	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69	--	2.5	
JUNE 15...	1234	254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54	--	5.5	
JULY 17...	1520	128	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	45	--	6.5	
AUG. 15...	1850	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	70	--	5.5	
SEP. 13...	1247	6.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	70	--	14.0	
OCT. 16...	1200	3.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	77	--	9.0	
NOV. 16...	0830	7.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.0	
DEC. 12...	1217	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	--	8	
JAN. 12...	1325	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	75	--	2.0	

13255800 - MIDDLE FK WEISER RIVER AB FALL CP, NP PESA, ID (LAT 44 38 43 LONG 116 22 23.01)

APR. 1974																									
APR. 1710	274	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	75	--	7.5	
MAY 17...	1030	313	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	59	--	5.0	
JUNE 13...	1405	707	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	37	--	9.5	
JULY 14...	1625	131	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	61	--	10.0	
AUG. 13...	1219	54	27	7.7	2.9	4.9	1.3	49	0	40	3.5	1.6	.1	.07	.04	73	.10	.6	31	9	25	48	95	7.7	14.0
SEP. 14...	1320	29	29	10	2.0	5.8	1.1	54	0	44	5.2	1.6	.1	.01	.05	81	.11	.36	33	0	27	44	47	6.0	10.5
OCT. 15...	1135	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	105	--	5.5	
NOV. 12...	1445	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	95	--	4.0	
DEC. 11...	1210	35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	105	--	4.0	
JAN. 1975																									
FEB. 15...	1405	29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	96	--	4.0	
MAR. 10...	1410	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	104	--	14.5	
APR. 12...	1315	54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	96	--	3.5	
MAY 17...	1045	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	106	--	4.0	
JUNE 15...	1751	640	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54	--	5.5	
JULY 17...	1053	365	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40	--	7.0	
AUG. 16...	1241	114	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	--	7.0	
SEP. 13...	1017	39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	43	--	13.0	
OCT. 17...	1355	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	97	--	13.5	
NOV. 15...	1037	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	92	--	4.0	
DEC. 12...	1432	37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	44	--	4.0	
JAN. 1975																									
FEB. 14...	1417	77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40	--	4.0	





DATE	TIME	INSTAN- TANFONS DIS- CHANGE (CF)	DIS- SOLVED SILICA (STOZ) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (NA) (MG/L)	DIS- SOLVED SODIUM SIUM (K) (MG/L)	BICAR- BONATE (MCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINIT- AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRILE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA/MG) (MG/L)	NON- CAR- BONATE HEAVY- NESS (MG/L)	PERCENT SODIUM	SODIUM SU- DPM- 1103 RATIO	(FIELD) SPECI- FIC CON- DUCTI- ANCE (MICRO- MHOS)	(FIELD) PH	TEMPER- ATURE (DEG C)
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1326000 - L. WEISSER R. AT RUBY RANCH NR. INDIAN VALLEY, IDAHO (LAT 44 29 22 LONG 116 23 24)

APR. 1974																									
19...	1320	20R	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	78	--	7.0
MAY																									
17...	1310	157	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	--	5.5
JUNE																									
11...	1515	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	45	--	9.5
JUL																									
17...	1205	8R	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	--	16.5
AUG.																									
13...	1010	3P	29	9.2	3.3	3.8	1.2	52	43	1.5	.7	.1	.04	.03	74	.10	6.39	37	0	18	.3	95	--	13.0	
SEP.																									
18...	1515	16	29	12	3.0	3.9	1.6	62	51	2.0	1.3	.1	.00	.04	82	.11	3.56	42	0	16	.3	86	7.2	14.5	
OCT.																									
17...	0900	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	99	--	5.5
NOV.																									
13...	1030	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	113	--	2.5
DEC.																									
11...	1515	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	107	--	.5
JAN. 1975																									
18...	1320	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	99	--	.0
FEB.																									
10...	1550	29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	98	--	2.5
MAR.																									
12...	1435	93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	92	--	5.0
APR.																									
17...	1233	113	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	87	--	7.0
MAY																									
16...	1135	727	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	70	--	5.5
JUNE																									
18...	1213	457	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	45	--	6.0
JULY																									
17...	1209	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	--	5.0
AUG.																									
13...	0915	27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	76	--	13.0
SEP.																									
17...	1145	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	98	--	14.0
OCT.																									
15...	1125	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	89	--	11.0
NOV.																									
12...	0900	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	94	--	.0
DEC.																									
13...	1255	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	90	--	.0

13251670 - DITE CREEK NEAR CAMBRIDGE, IDAHO (LAT 44 29 56 LONG 116 36 38)

JAN. 1974																									
22...	0930	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	129	--	.0
FEB.																									
09...	1450	8.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	207	--	7.0
20...	1245	142	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	196	--	12.5
MAY																									
14...	1650	.29	35	24	13	16	4.3	176	149	10	1.9	.5	.79	.10	203	.29	.11	130	0	21	.5	262	8.4	16.0	
JUNE																									
11...	0915	.91	41	45	24	13	1.8	201	145	15	8.4	.1	14	.06	307	.42	.01	210	46	12	.4	466	6.9	11.5	
OCT.																									
15...	1355	<.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	645	--	11.0
NOV.																									
12...	--	<.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	491	--	6.5
DEC.																									
09...	1500	<.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	444	--	1.0
JAN. 1975																									
13...	1325	.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	398	--	4.0
FEB.																									
06...	1450	<.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	472	--	2.5
13...	1545	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	107	--	.0
MAR.																									
12...	1710	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	117	--	8.0
APR.																									
17...	1530	2.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	190	--	17.0
MAY																									
16...	0940	.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	249	--	12.0
JUNE																									
15...	1710	.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	367	--	22.0
JULY																									
15...	1210	<.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	420	--	23.0
AUG.																									
11...	1235	.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	190	--	1.0

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	RICARBOONATE (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CALCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRILE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SULFIDES (SUM OF) (MG/L)	DIS-SOLVED SOLIDS (LOSS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	(FIELD) SPECIFIC CONDUCTANCE (MICROHMUS)	(FIELD) PH (UNITS)	TEMPERATURE (DEG C)
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13261880 - KEITHLY CREEK, AD. DIV., NR. MIDVALE, IDAHO (LAT 44 3) 02 LONG 116 49 53)

APR. 1974																										
16...	1455	60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	--	9.0
MAY																										
17...	1520	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	82	--	6.0
JUNE																										
10...	1715	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	90	--	15.5
JULY																										
16...	1555	6.2	35	14	5.0	4.2	1.9	74	0	61	1.8	1.1	.1	.08	.03	100	.14	1.67	56	0	14	.2	138	7.6	17.0	
AUG.																										
15...	0800	7.5	34	14	5.0	4.0	1.9	77	0	63	1.1	1.3	.2	.14	.04	100	.14	2.02	56	0	13	.2	132	8.2	11.0	
SEP.																										
19...	1030	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	109	--	11.0
OCT.																										
15...	1630	5.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	117	--	9.5
NOV.																										
13...	1210	5.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	126	--	6.0
DEC.																										
12...	0910	4.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	129	--	1.5
JAN. 1975																										
16...	1505	5.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	119	--	4.0
FEB.																										
12...	0920	5.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	117	--	3.0
MAR.																										
10...	1412	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	89	--	6.5
APR.																										
14...	1457	48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	84	--	5.0
MAY																										
13...	0840	121	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	63	--	5.0
JUNE																										
16...	1545	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	75	--	13.0
JULY																										
15...	1037	6.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	113	--	15.0
AUG.																										
11...	1634	5.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	119	--	17.0
OCT.																										
16...	1332	4.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	119	--	15.0
NOV.																										
15...	0814	5.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	125	--	8.0
DEC.																										
11...	0947	6.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	124	--	2.0
DEC.																										
16...	1590	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	117	--	4.5

13263150 - BANNER CREEK NEAR MIDVALE, IDAHO (LAT 44 26 00 LONG 116 43 28)

APR. 1974																										
16...	1200	3.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	397	--	10.5
MAY																										
14...	1400	1.6	38	43	29	21	6.3	304	5	254	12	3.8	.5	1.6	.13	316	.43	1.33	230	0	16	.6	421	8.5	12.5	
JUNE																										
11...	1000	.82	45	47	31	25	8.1	349	0	285	10	4.8	.2	1.7	.19	351	.43	.78	250	0	18	.7	407	6.8	12.5	
JULY																										
15...	1525	.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	477	--	19.5
OCT.																										
15...	1550	.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	500	--	10.5
NOV.																										
11...	1525	.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	486	--	6.0
DEC.																										
12...	1030	.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	479	--	2.0
JAN. 1975																										
16...	1635	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	356	--	.0
FEB.																										
05...	1415	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	419	--	.0
MAR.																										
14...	1000	7.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	260	--	1.0
APR.																										
20...	1030	21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	202	--	2.5
MAY																										
18...	0825	3.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	372	--	4.0
JUNE																										
13...	1155	1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	424	--	12.5
JULY																										
16...	1453	.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	323	--	17.0
AUG.																										
15...	0905	.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	526	--	17.0
SEP.																										
15...	1215	.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	454	--	16.0
OCT.																										
19...	1530	.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	474	--	12.0
NOV.																										
11...	0915	.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	464	--	2.0
DEC.																										
11...	1325	.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	401	--	2.0



FC  
USGS  
DPR  
77-418

TABLE 4 Coliform bacteria counts for selected stations on the Weiser River

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

UNIVERSITY OF UTAH  
RESEARCH INSTITUTE  
EARTH SCIENCE LAB.

13255080 - WEISER RIVER AT HORNET CREEK ROAD, AT COUNCIL, IDAHO					
DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG. C)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
AUG., 1974					
21	1400	73	18.5	170	91
13255630 - WEISER RIVER NR IOOF CEMETERY, NR COUNCIL, IDAHO					
AUG., 1974					
21	1515	80	19.0	100	86
22	1030	78	15.5	1,100	180
13258500 - WEISER RIVER NR CAMBRIDGE, IDAHO					
AUG., 1974					
23	1545	136	21.0	50	38
13259520 - WEISER RIVER BELOW SPRING, AT CAMBRIDGE, IDAHO					
AUG., 1974					
23	1500	129	21.0	1,650	200
13261650 - WEISER RIVER BELOW LITTLE WEISER RIVER NR CAMBRIDGE, IDAHO					
AUG., 1974					
24	1545	148	21.0	350	100

TABLE 6  
 Mean annual <sup>suspended</sup> sediment transport using 45 days of flow duration  
 and sediment rating for Weiser River near Cambridge and near Weiser

Days of high flow	Percentage of yearly time	Average percent	Q <sub>s</sub> from duration curve (in cubic feet per second)	Q <sub>s</sub> per day from figures 31 and 32	Q <sub>s</sub> days (in tons)
Weiser River near Cambridge					
1	0 - .27	.135	5,500	6,150	6,150
2	.27 - .82	.54	4,400	3,430	4,860
4	.82 - 1.92	1.37	3,600	2,030	8,110
8	1.92 - 4.11	3.02	2,850	1,100	8,800
15	4.11 - 8.22	6.16	2,200	558	8,370
<u>15</u>	<u>8.22 - 12.33</u>	<u>10.28</u>	<u>1,770</u>	<u>316</u>	<u>4,740</u>
Weiser River near Weiser					
1	0 - .27	.135	10,800	20,320	20,320
2	.27 - .82	.54	7,600	8,260	16,520
4	.82 - 1.92	1.37	5,850	4,230	16,920
8	1.92 - 4.11	3.02	4,500	2,160	17,280
15	4.11 - 8.22	6.16	3,480	1,120	16,800
<u>15</u>	<u>8.22 - 12.33</u>	<u>10.28</u>	<u>2,770</u>	<u>120</u>	<u>9,300</u>
45 days	12.33 %				97,140 Tons per Year

To convert cubic feet per second to cubic meters per second multiply by 0.02832  
 To convert tons to metric tonnes multiply by 0.9072.

TABLE 7 Estimated annual suspended sediment yields for selected stations in the Weiser River basin

Station number and name	Drainage area (square miles)	Suspended-sediment load	
		Tons per year	Tons per year per square mile
13251500 Weiser River at Tamarack	36.5	699	19
13255050 West Fork Weiser River near Fruitvale	87.7	682	8
13255500 Hornet Creek near Council	108	5,370	50
13255800 Cottonwood Creek near Council	20.7	333	16
13256800 Middle Fork Weiser River above Fall Creek near Mesa	64.5	6,780	100
13257600 Johnson Creek near Goodrich	21.0	1,220	58
13257800 Goodrich Creek near Goodrich	15.3	2,440	160
13258500 Weiser River near Cambridge	605	51,600	85
13259500 Rush Creek at Cambridge	30.4	2,560	84
13260090 West Pine Creek near Cambridge	23.9	1,180	49
13261600 Little Weiser River near mouth near Cambridge	204	35,600	170
13261880 Keithly Creek above diversions near Midualle	13.7	358	26
13261962 Keithly Creek at mouth near Midualle	52.7	7,750	150
13263950 South Fork Crane Creek near Crane	48.2	425	9
13266000 Weiser River near Weiser	1460	122,000	84
13266850 Mann Creek above reservoir near Weiser	53.5	2,900	54
13268500 Monroe Creek above Sheep Creek near Weiser	30.5	16,800	550
13269210 Scott Creek above diversions near Weiser	21.7	291	13
To convert square miles to square kilometers		multiply by	2.59
To convert tons to metric tonnes		multiply by	0.9072
To convert tons per square mile to tonnes per square kilometer		multiply by	0.3503

Sheet No. .... of ..... Sheets. Prepared by ..... Date ..... Checked by ..... Date .....

GPO: 1971 OF - 413-014



DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG. C)	IMMEDIATE COLIFORM	FECAL COLIFORM (COL. PER 100ML)
13261965 - WEISER RIVER AT MIDVALE, IDAHO					
AUG., 1974	1500	112	23.5	2,200	40
13267400 - WEISER RIVER BELOW LOWER PAYETTE CANAL NR WEISER, IDAHO					
AUG., 1974	1130	75	23.5	3,600	680
13268800 - WEISER RIVER AT MOUTH AT WEISER, IDAHO					
AUG., 1974	1530	97	27.0	1,250	940

To convert cubic feet per second to cubic meters per second multiply by 0.02832