UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SURFACE WATER RECORDS OF COOK INLET BASIN, ALASKA, THROUGH SEPTEMBER 1975

by

David R. Scully, Larry S. Leveen, and Raymond S. George

Open-file Report 78-498
(basic data)

Anchorage, Alaska
1978

CONTENTS

	Page
Abstract	1
Purpose and scope	1
Cooperation	1
Definition of terms	1
Downstream order and station number	3
Explanation of stage, water-discharge, and water-temperature records	3
Collection and computation of data	3
Accuracy of field data and computed results	4
Publications	5
Other data available	5
Conversion table	6
Temperature conversion table	6
Section 1: Gaging station records	11
Barbara Creek near Seldovia	12
Tutka Lagoon Creek near Homer	13
Bradley River near Homer	14
Anchor River:	
Twitter Creek near Homer	15
Anchor River near Anchor Point	16
Anchor River at Anchor Point	17
Ninilchik River at Ninilchik	19
Kasilof River near Kasilof	21
Kenai River:	
Snow River near Divide	22
Snow River near Seward	23
Ptarmigan Creek at Lawing	24
Trail River:	
Grant Creek near Moose Pass	25
Trail River near Lawing	26
Falls Creek near Lawing	27
Quartz Creek near Gilpatricks	28
Crescent Creek near Moose Pass	28
Crescent Creek near Cooper Landing	29
Kenai River at Cooper Landing	31
Cooper Creek near Cooper Landing	33
Stetson Creek near Cooper Landing	34
Cooper Creek at mouth near Cooper Landing	35
Russian River near Cooper Landing	36
Russian River at mouth near Cooper Landing	36
Kenai River at Soldotna	37
Beaver Creek near Kenai	38
Ressurection Creek near Hope	39
Resurrection Creek at Hope	40
East Fork (head of Sixmile Creek):	
Canyon Creek:	
Mills Creek near Gilpatricks	40
Sixmile Creek at Sunrise	40
Glacier Creek at Girdwood	41
Campbell Creek:	
South Fork Campbell Creek at canyon mouth near Anchorage	42
South Fork Campbell Creek near Anchorage	43
North Fork Campbell Creek near Anchorage	45
Campbell Creek near Spenard	46
Sand Lake near Spenard	47
Chester Creek at Anchorage	48
Chester Creek at Arctic Boulevard at Anchorage	50
Ship Creek near Anchorage	51
Ship Creek at Elmendorf Air Force Base	54
Ship Creek below Power Plant at Elmendorf Air Force Base	55
Ditch on Elmendorf Air Force Base	56
Eagle River at Eagle River	57
Peters Creek near Birchwood	58
Eklutna Creek:	
East Fork Eklutna Creek near Palmer	58
West Fork Eklutna Creek near Palmer	59
Eklutna Creek near Palmer	60
Knik River near Palmer	61
Matanuska River:	
Caribou Creek near Sutton	63
Chickaloon River near Sutton	64
Matanuska River at Palmer	65
Cottonwood Creek near Wasilla	67

Page

Little Susitna River near Palmer 68
Susitna River near Denali 70
Maclaren River near Paxson 72
Susitna River near Cantwell 73
Susitna River at Gold Creek 74
Chulitna River near Talkeetna 76
Talkeetna River near Talkeetna 77
Willow Creek:
Craigie Creek near Wasilla 78
Yentna River:
Skwentna River near Skwentna 78
Susitna River at Susitna Station 79
McArthur River:
Chakachatna River near Tyonek 80
Section 2: Miscellaneous discharge measurements and crest-stage partial-record station data 81
Kachemak Bay Drainages 82
Anchor River to Kasilof River 83
Kenai River Basin 84
Kenai Lowlands 85
Turnagain Arm Drainages 87
Anchorage Area:
Little Rabbit Creek to Furrow Creek 88
Campbell Creek Basin 89
Hood Creek, Fish Creek 90
Chester Creek Basin 90
Ship Creek Basin 92
Knik Arm Drainages from South 92
Matanuska River Basin 93
Knik Arm Drainages from North 94
Susitna River Basin 95
Beluga River to Drift River 96
Section 3: Seepage Investigations 99
North Fork Campbell Creek 100
Ship Creek 100
Eagle River 102
Meadow Creek 102

ILLUSTRATIONS

Figure 1. Map showing locations of gaging stations, crest-stage partial-record stations, and miscellaneous discharge measurement sites . . . . . 8 and 9

Figure 2. Map showing locations of discharge measurement sites in the Eagle River drainage basin 102

SURFACE WATER RECORDS OF COOK INLET BASIN, ALASKA, THROUGH SEPTEMBER 1975

ABSTRACT

Water resources data for Cook Inlet Basin are provided through the 1975 water year. A summary of water-discharge data is given as monthly and annual mean discharge for 60 stations; monthly and annual extremes of lake elevation for 1 station; and extremes of discharge for each year for 60 stations. The water-temperature data included are periodic water temperatures at 37 stations; monthly maximum and minimum water temperatures at 9 stations; and both types of water-temperature data at 6 stations. Crest-stage partial-record data are shown for 26 stations, miscellaneous discharge measurements given for 173 sites, and the results of seepage investigations provided for 4 streams.

PURPOSE AND SCOPE

This report summarizes records of streamflow and water temperature collected prior to October 1, 1975, in the Cook Inlet Basin of south-central Alaska. In section 1 streamflow records for gaging stations are tabulated as monthly and annual summaries and annual extremes. For those gaging stations at which continuous or daily water temperature records have been collected, monthly summaries of water temperature extremes are shown. For other gaging stations periodic water temperatures are published. Discharge at crest-stage partial-record stations and at miscellaneous sites is tabulated in section 2. Results of seepage investigations are presented in section 3.

COOPERATION

Many State, Municipal, and private organizations have cooperated with the Geological Survey in basic data collection by either furnishing or helping to collect data. Organizations that assisted through cooperative agreements with the Survey in Alaska are:

Alaska Department of Highways in cooperation with the Federal Highway Administration, U.S. Department of Transportation

Alaska Department of Fish and Game

Alaska Department of Natural Resources

Alaska Department of Environmental Conservation

Alaska Department of Health and Social Services

Municipality of Anchorage

Kenai Peninsula Borough

Assistance in the form of funds or services was given by the following Federal agencies:

Corps of Engineers, U.S. Army

Forest Service, U.S. Department of Agriculture

Alaska Power Administration, U.S. Department of Interior

Alaska Air Command, U.S. Air Force

The specific organizations that supplied data are acknowledged in station descriptions.

DEFINITION OF TERMS

Terms related to streamflow, water temperature, and other hydrologic data, as used in this report, are defined below.

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

Basin characteristics is used in this report are selected physical attributes of the drainage basin upstream from the gaging station.

Area of lakes and ponds is expressed as the percentage of the total drainage area occupied by lakes and ponds.

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

Glacier area is expressed as the percentage of the total drainage area shown as glacier on the topographic maps.

Main-channel slope is the average slope between points 10 percent and 85 percent of the distance along the main stream from the gaging site to the basin divide.

Mean elevation is the mean elevation of the drainage basin measured by the grid-sampling method from topographic maps.

Stream length is the length of the main channel between the gaging station and the basin divide measured along the channel that drains the largest basin.

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

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

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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

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

Minimum daily discharge is the numerically least daily mean discharge during a specific period.

Momentary maximum discharge is the numerically greatest instantaneous discharge during a specific period.

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

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

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

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

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

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

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

Water year is the period of time beginning October 1 and continuing for 12 months to September 30 of any year.

WDR is used as an abbreviation for "Water-Data Report" to refer to State annual basic-data reports published since the 1970 water year report.

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

SURFACE WATER RECORDS OF COOK INLET BASIN, ALASKA, THROUGH SEPTEMBER 1975

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are, therefore, listed in the same downstream order as used for stations in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit station number, such as 15273900, appears just to the left of the station name and includes the 2-digit part number "15" plus the 6-digit downstream order number "273900".

EXPLANATION OF STAGE, WATER-DISCHARGE, AND WATER-TEMPERATURE RECORDS

Collection and computation of data

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

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

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

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge. This happens when the recorder is stopped for the winter or otherwise fails to operate properly, intakes to the stilling well are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins.

The data presented for most of the gaging stations comprise a description of the station, a table of annual extreme discharges, a table of monthly and annual mean discharges, a description of the water-temperature record, and a table of periodic water temperatures and/or monthly maximum and minimum water temperatures.

The description of the gaging station gives the location, basin characteristics, period of record, type and history of gages, general remarks, a credit statement for records furnished by

another agency, average discharge, and extremes of discharge. The location of the gaging station and the basin characteristics are obtained from the most accurate maps available. Periods for which there are published records for the station are given under "PERIOD OF RECORD".

The gage described first under "GAGE" is the one used most recently. The datum of the gage is given as the elevation above mean sea level. Where information as to datum is not available, the approximate elevation of the gage is given. Information is then given in chronological order for all gages used earlier, giving changes in location, type of gage, or datum. The location or datum of all earlier gages is given with references to the most recent gage.

Information pertaining to conditions which affect the natural flow at the gaging station is given under "REMARKS".

The AVERAGE DISCHARGE for a station is the average of all complete water years and is published only if there are five or more complete water years of record. The years used to determine the average are not necessarily consecutive. The average discharge at some stations does not reflect natural runoff due to the effects of diversion. For such stations, runoff in inches is not published unless satisfactory adjustments can be made for diversions or for other changes incident to use and control. The average discharge is not published for some stations because of extensive changes in diversion or storage, or other water development, that have occurred upstream.

In general, the momentary maximum discharge and gage height and the minimum daily discharge for the entire period of record are published in the "EXTREMES" paragraph. Unless otherwise qualified, the maximum discharge is the instantaneous discharge corresponding to the highest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a non-recording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge, it is given separately. For a few stations the instantaneous minimum discharge is given.

The table of annual extreme discharges gives the same information as the EXTREMES paragraph, except that data is given for each year. In most instances the minimum daily discharge occurs over a period of many days during the winter. During this period there is ice cover on the stream and, therefore, no stage-discharge relation. Discharge for the winter period is estimated as explained above. Footnotes to the table of annual extremes are used to qualify figures of discharge, gage height, or dates of occurrence. For some stations there is a horizontal line across the gage-height column. This line indicates a change in gage datum and means that the gage heights above and below the line are not comparable.

The streamflow data are summarized in a table of monthly and annual mean discharge. These figures represent discharge passing the station; they are unadjusted for storage or diversion upstream unless otherwise specified under "REMARKS" for the individual station. Each monthly figure is the mean for an entire month; no figure is shown for a partial month. Likewise, each annual figure is the mean flow for a full year, and no figure is shown for a partial year. The months are arranged on a water-year basis. The mean monthly discharge, mean annual discharge, and monthly percent of total flow are given below the table for stations with five or more years of record.

For water-temperature records, the PERIOD OF RECORD section indicates the periods for which there are published records of either periodic water temperature or daily water temperature measurements. The PERIOD OF DAILY RECORD indicates the period for which daily water temperature have been published. The REMARKS section indicates for daily water temperature whether there was a water temperature recorder or an observer and, if an observer, the frequency of readings. Factors that affect the natural water temperature are covered in REMARKS. The maximum and minimum water temperatures in the EXTREMES are limited to the period of daily record and are qualified if they do not represent the actual maximum or minimum.

The table of PERIODIC WATER TEMPERATURE lists by water year in chronological order the date and water temperature. These water temperatures were generally taken at the time of a discharge measurement. The table, WATER TEMPERATURE, gives, for those stations that have periods of daily record, the maximum and minimum water temperature for each month. Depending on the size of the stream, whether there was a water temperature recorder or an observer, and, if an observer, the frequency of readings, these figures may not necessarily give the absolute maximum or minimum.

Data collected at crest-stage partial-record stations and miscellaneous discharge measurement sites are given in section 2 of this report. On some streams, a series of discharge measurements is made within a short period to investigate seepage gains or losses along a reach of stream. These measurements are given for four streams in the Anchorage area in section 3 of this report.

Accuracy of Field Data and Computed Results

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

Figures of monthly and annual mean discharge in this report are shown to hundredths of cubic foot per second for discharges between 0.1 and 10 ft^3/s; to tenths between 10 and 100 ft^3/s; to units between 100 and 1,000 ft^3/s; and to four significant figures above 1,000 ft^3/s.

Discharge values listed in the extremes table and for the crest-stage partial-record stations and miscellaneous discharge measurements are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to units between 10 and 100 ft^3/s; and to three significant figures above 100 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure.

Water temperature values in this report are shown to the nearest one-half degree Celsius.

PUBLICATIONS

Streamflow records in this report were obtained from previously published reports of the Geological Survey. These Water-Supply Papers (WSP) and annual Water-Data Reports (WDR) are listed in the following table:

Number	Content
WSP 372	A water-power reconnaissance in south-central Alaska, 1913
WSP 1372	Compilation through water year 1950
WSP 1466	Daily data, water years 1951-53
WSP 1486	Daily data, water years 1954-56
WSP 1500	Daily data, water year 1957
WSP 1570	Daily data, water year 1958
WSP 1640	Daily data, water year 1959
WSP 1720	Daily data, water year 1960
WSP 1740	Compilation for water years 1951-60
WSP 1936	Daily data, water years 1961-65
WSP 2136	Daily data, water years 1966-70
WDR AK-71	Daily data, water year 1971
WDR AK-72	Daily data, water year 1972
WDR AK-73	Daily data, water year 1973
WDR AK-74	Daily data, water year 1974
WDR AK-75-1	Daily data, water year 1975

Records of daily water temperature are available in most of these reports. However, those for water years 1961-70 are published in the following Water Supply Papers:

WSP 1953	Daily data, water years 1961-63
WSP 1959	Daily data, water year 1964
WSP 1966	Daily data, water year 1965
WSP 1996	Daily data, water year 1966
WSP 2016	Daily data, water year 1967
WSP 2100	Daily data, water year 1968
WSP 2150	Daily data, water year 1969
WSP 2160	Daily data, water year 1970

Most of the data from Water Supply Paper 372 for the Cook Inlet Basin have been included in this report. However, some data for selected stations were not included as they were judged to be insignificant when compared with all the available information. The reader is referred to the above publications if he is interested in more detailed information.

OTHER DATA AVAILABLE

Information of a more detailed nature than that published for most of the gaging stations (such as discharge measurements, gage-height records, and rating tables) is on file in the Anchorage Subdistrict Office of the Water Resources Division. Also, most gaging-station records and daily water temperature records are available in computer-usable form and many statistical analyses have been made.

Water quality records also are collected at or near some gaging stations. Data are obtained on the suspended-sediment and chemical quality of the stream water. The data were published in annual Water-Supply Papers through water year 1970, in annual reports entitled "Water Data Report for Alaska, Part 2. Water Quality Records" for water years 1971-74, and in an annual water-data report entitled "U.S. Geological Survey Water Data Report AK-75-1" for the 1975 water year.

Information on the availability of unpublished data, statistical analyses, or quality of water records may be obtained by request to: District Chief, U.S. Geological Survey, Water Resources Division, 218 E. Street, Anchorage, AK 99501.

SURFACE WATER RECORDS OF COOK INLET BASIN, ALASKA, THROUGH SEPTEMBER 1975

FACTORS FOR CONVERTING ENGLISH UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

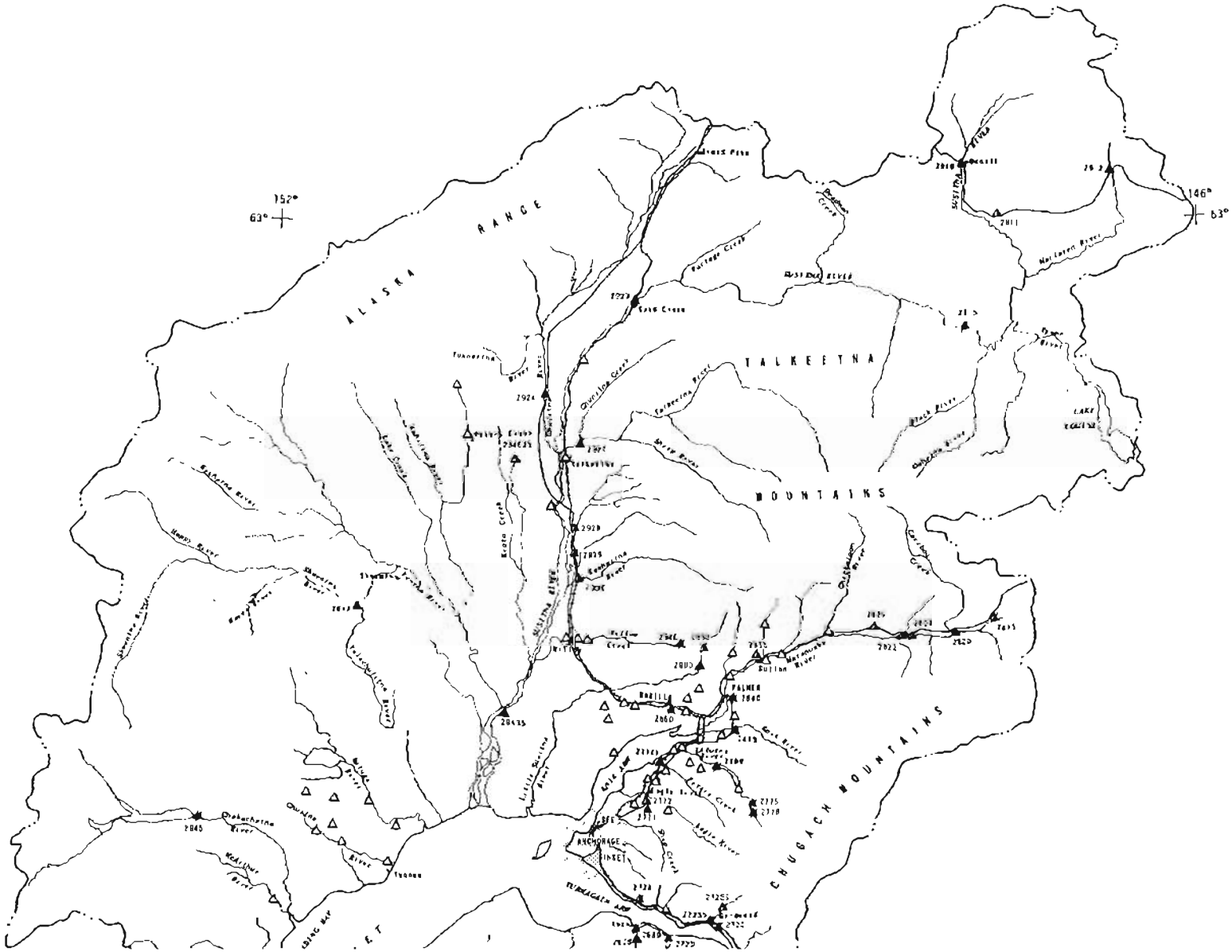
Multiply English Units	by	To Obtain SI Units
feet (ft)	0.3048	meters (m)
miles (mi)	1.609	kilometers (km)
acres	0.4047	square hectometers (hm^2)
square miles (mi^2)	2.590	square kilometers (km^2)
acre-feet per year (acre-ft/yr)	1,233	cubic meters per year (m^3/yr)
	1.233×10^{-3}	cubic hectometers per year (hm^3/yr)
	1.233×10^{-6}	cubic kilometers per year (km^3/yr)
cubic feet per second (ft^3/s)	0.02832	cubic meters per second (m^3/s)
inches per year (in/yr)	25.4	millimeters per year (mm/yr)

TEMPERATURE CONVERSION TABLE

Degrees Celsius (°C) to degrees Fahrenheit (°F)*

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	4.5	40	9.0	48	13.5	56	18.0	64
0.5	33	5.0	41	9.5	49	14.0	57	18.5	65
1.0	34	5.5	42	10.0	50	14.5	58	19.0	66
1.5	35	6.0	43	10.5	51	15.0	59	19.5	67
2.0	36	6.5	44	11.0	52	15.5	60	20.0	68
2.5	36	7.0	45	11.5	53	16.0	61	20.5	69
3.0	37	7.5	45	12.0	54	16.5	62	21.0	70
3.5	38	8.0	46	12.5	54	17.0	63	21.5	71
4.0	39	8.5	47	13.0	55	17.5	63	22.0	72

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


ALASKA RANGE
TALKEETNA MOUNTAINS
CHUGACH MOUNTAINS
152°
63°
146°
63°
Susitna River
Talkeetna River
Chulitna River
Yentna River
Matanuska River
Knik River
Eagle River
Ship Creek
Glacier Creek
Eagle Creek
Little Susitna River
Kashwitna River
Willow Creek
Sheep Creek
Caribou Creek
Cache Creek
Kahiltna River
Tokichitna River
Ohanapecosh River
Skwentna River
Yentna River
Tyonek
Cook Inlet
Knik Arm
Turnagain Arm
Cook Inlet
Palmer
Wasilla
Anchorage
Eagle River
Chugach Mountains
Talkeetna Mountains
Alaska Range
Lake Louise
Matanuska River
Sutton
Chickaloon River
Kashwitna River
Willow Creek
Sheep Creek
Caribou Creek
Cache Creek
Kahiltna River
Tokichitna River
Ohanapecosh River
Skwentna River
Yentna River
Tyonek
Cook Inlet
Knik Arm
Turnagain Arm
Palmer
Wasilla
Anchorage
Eagle River
Chugach Mountains
Talkeetna Mountains
Alaska Range
Lake Louise
Matanuska River
Sutton
Chickaloon River

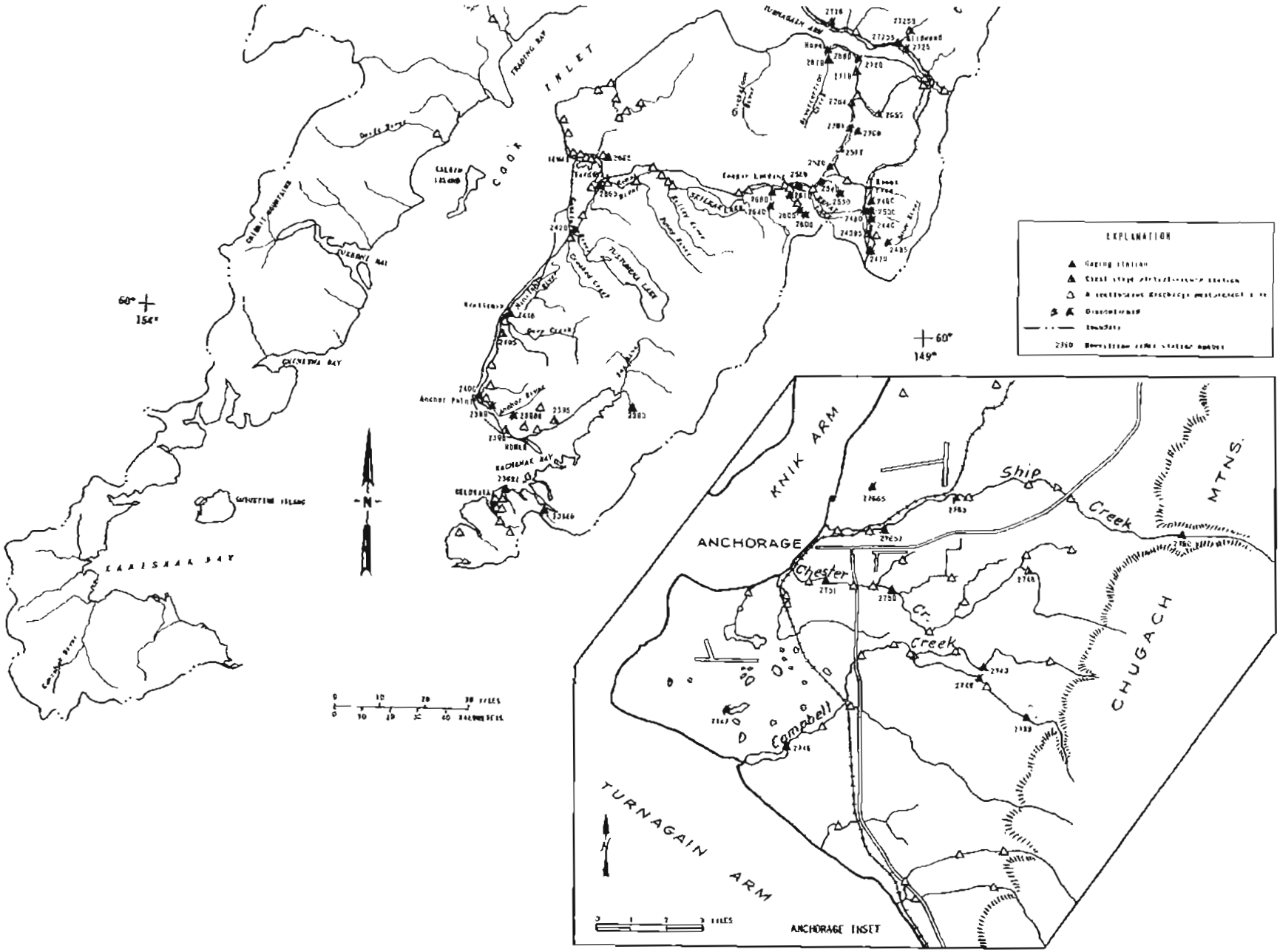


Figure 1.--Locations of gaging stations, crest-stage partial-record stations, and miscellaneous discharge measurement sites.

SECTION 1

GAGING STATION RECORDS

15238820 BARBARA CREEK NEAR SELDOVIA

LOCATION.--Lat 59°28'50", long 151°38'42", in SW¼ sec.15, T.8 S., R.14 W., Kenai Peninsula Borough, on left bank, 0.5 mi (0.8 km) above mouth, and 3.7 mi (6.0 km) northeast of Seldovia.

BASIN CHARACTERISTICS.--Drainage area, 20.7 mi² (53.6 km²); slope, 122 ft/mi (23.1 m/km); stream length, 9.8 mi (15.8 km); area of lakes and ponds, 0 percent; mean elevation, 1,610 ft (491 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1972 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (12 m), from topographic map.

EXTREMES.--Maximum discharge during period of record, 744 ft³/s (21.1 m³/s) June 29, 1975, gage height, 4.09 ft (1.247 m), from rating curve extended above 350 ft³/s (9.9 m³/s); minimum daily, about 16 ft³/s (0.45 m³/s) Feb. 27 to Apr. 3, 1973 and Mar. 18 to April 15, 1975.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum			Minimum daily	
	Date	Discharge	Gage height	Date	Discharge
1972a	June 16, 1972	b280	---	Aug. 19, 1972	39
1973	Oct. 16, 1972	335	3.35	Feb. 27 to Apr. 3, 1973	16
1974	June 3, 1974	312	3.28	Mar. 21 to Apr. 4, 1974	18
1975	June 29, 1975	744	4.09	Mar. 18 to Apr. 15, 1975	16

a Period June to September.
b Maximum daily.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1972	---	---	---	---	---	---	---	---	184	141	54.4	94.0	---
1973	103	51.3	29.8	21.6	17.9	16.0	26.6	102	238	149	56.9	69.6	74.1
1974	66.9	48.2	35.0	27.0	20.5	19.3	34.4	136	217	85.7	35.4	93.6	69.2
1975	106	94.7	36.4	25.8	21.4	17.5	17.3	129	343	224	63.8	107	99.9

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1972-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1972		1973		1974		1974-cont		1975-cont	
5-11-72	2.5	10- 8-72	2.5	10-11-73	3.0	6-20-74	6.0	1-24-75	0.5
6-22-72	4.5	11-30-72	0.5	1-24-74	0.5	9- 5-74	9.0	3-24-75	0.5
6-23-72	4.0	4-20-73	2.0	3-25-74	0.0	1975		6- 9-75	4.0
8-15-72	9.5	7-25-73	6.0	4-25-74	2.0	10- 9-74	2.5	8- 6-75	8.0
		9- 7-73	6.5			12- 7-74	1.5	4-11-75	6.5

15238860 TUTKA LAGOON CREEK NEAR HOMER

LOCATION.--Lat 59°23'59", long 151°24'36", on line between sec.36, T.8 S., R.13 W., and sec.1, T.9 S., R.13 W., Kenai Peninsula Borough, on left bank 700 ft (200 m) upstream from mean high water in Tutka Bay Lagoon, and 15 mi (24 km) south of Homer.

BASIN CHARACTERISTICS.--Drainage area, 10.8 mi² (28.0 km²); main channel slope, 196 ft/mi (37.1 m/km); stream length, 8.5 mi (13.7 km); area of lakes and ponds, 2 percent; mean elevation, 1,610 ft (491 m); glacier area, 7 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (15 m) from topographic map.

EXTREMES.--Maximum discharge during period of record, 1,540 ft³/s (43.6 m³/s) Sept. 12, 1974, gage height, 6.67 ft (2.033 m); minimum daily, 6.0 ft³/s (0.17 m³/s) Mar. 8 to Apr. 15, 1975.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum			Minimum daily	
	Date	Discharge	Gage height	Date	Discharge
1973a	Sept. 7, 1973	1,280	6.47	Aug. 31, 1973	30
1974	Sept. 12, 1974	1,540	6.67	Jan. 11 to Apr. 7, 1974	7.0
1975	Oct. 24, 1974	1,190	6.38	Mar. 8 to Apr. 15, 1975	6.0
	May 10, 1975	---	b6.49		

a Period August to September.
b Backwater from ice.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1973	---	---	---	---	---	---	---	---	---	---	70.9	121	---
1974	40.1	14.8	9.74	7.52	7.90	7.00	12.8	114	213	101	56.2	183	64.0
1975	114	60.1	26.4	15.5	10.7	6.29	6.50	46.1	251	183	72.4	182	83.2

WATER TEMPERATURE RECORDS

PERIOD OF DAILY RECORD.--October 1973 to September 1975.

REMARKS.--Continuous water-temperature recorder.

EXTREMES.--Maximum during period of daily record, 11.5°C August 13, 1974; minimum, 0.0°C on most days during winter period.

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1974	Max	a	2.5	0.0	0.0	0.0	0.0	1.5	4.5	7.5	10.0	11.5	9.0
	Min	a	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.5	3.5	5.0	4.0
1975	Max	6.0	4.0	1.0	0.0	0.0	0.0	0.5	4.5	6.0	8.0	9.5	8.0
	Min	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.5	2.5	4.5	5.0

a Data insufficient to compute monthly maximum or minimum.

15239000 BRADLEY RIVER NEAR HOMER

LOCATION.--Lat 59°45'24", long 150°51'02", in NE¼ SW¼ sec.8, T.5 S., R.9 W., Kenai Peninsula Borough, on right bank about 800 ft (200 m) downstream from Bradley Lake outlet, 3.5 mi (5.6 km) upstream from unnamed tributary, and 30 mi (42 km) northeast of Homer.

BASIN CHARACTERISTICS.--Drainage area, 54.0 mi² (139.9 km²); main-channel slope, 191 ft/mi (36.2 m/km); stream length, 13.3 mi (21.4 km); area of lakes and ponds, 0 percent; mean elevation, 2,800 ft (853 m); glacier area, 30 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to August 1955, October 1957 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 1,050 ft (320 m), from topographic map. July 13-22, 1955, nonrecording gage at site 1 mi (1.6 km) upstream at different datum, and July 23 to Aug. 5, 1955, nonrecording gage at site 3 mi (4.8 km) upstream at different datum.

AVERAGE DISCHARGE.--18 years, 404 ft³/s (11.44 m³/s), 101.60 in/yr (2,581 mm/yr), 292,700 acre-ft/yr (361 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 5,480 ft³/s (155 m³/s) Oct. 14, 1969, gage height, 9.13 ft (2.783 m) from rating curve extended above 2,400 ft³/s (68 m³/s); minimum daily, about 16 ft³/s (0.45 m³/s) Mar. 26 to Apr. 25, 1972.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1958	Aug. 13, 1958	4,220	8.20	Mar. 1-31, 1958	32
1959	Aug. 26, 1959	1,260	5.19	Mar. 1-31, 1959	22
1960	Aug. 2, 1960	2,000	6.00	Mar. 1-31, 1960	24
1961	Sept. 12, 1961	4,390	8.71	Mar. 26,27, 1961	26
1962	July 11, 1962	1,540	5.65	Mar. 1-31, 1962	22
1963	Aug. 25, 1963	3,250	7.35	Apr. 1-30, 1963	45
1964	Aug. 14, 1964	a2,500	---	Mar. 28, 1964	b17
1965	Sept. 16, 1965	3,300	7.12	Feb. 1-28, 1965	50
1966	Sept. 16, 1966	4,250	8.21	Mar. 1-31, 1966	31
1967	Sept. 18, 1967	4,150	8.17	Mar. 21 to Apr. 5, 1967	28
1968	Aug. 11, 1968	2,040	6.04	Apr. 13-23, 1968	60
1969	June 16, 1969	2,780	6.72	Jan. 9 to Mar. 25, 1969	34
1970	Oct. 14, 1969	5,480	9.13	Jan. 15-19, 1970	75
1971	July 14, 1971	2,270	6.27	Mar. 16 to Apr. 15, 1971	30
1972	Aug. 23, 1972	2,970	7.07	Mar. 26 to Apr. 25, 1972	16
1973	Aug. 24, 1973	1,460	5.46	Feb. 24 to Apr. 15, 1973	24
1974	Sept. 12, 1974	3,300	7.10	Mar. 13 to Apr. 20, 1974	19
1975	June 29, 1975	a2,000	---	Mar. 28 to Apr. 29, 1975	30

a Maximum daily.
b Momentary minimum, gage height, 0.36 ft.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1958	660	502	111	78.9	31.6	32.0	74.0	389	1116	1122	1378	355	492
1959	233	102	59.5	32.5	25.0	22.0	53.0	308	817	788	774	306	294
1960	160	94.0	60.0	39.0	35.0	24.0	53.0	593	719	906	859	455	353
1961	211	144	179	199	107	41.8	58.3	436	746	1070	906	1055	428
1962	300	116	71.1	55.0	31.0	22.0	39.0	177	669	843	656	413	285
1963	230	317	127	113	87.0	67.0	45.0	237	624	1199	1170	985	436
1964	484	93.5	108	74.6	63.1	40.2	32.6	86.9	347	865	1071	922	401
1965	411	140	85.2	68.8	50.0	55.0	75.0	131	327	900	965	1435	405
1966	513	165	70.9	39.0	32.0	31.0	41.0	150	762	886	1693	1512	393
1967	453	63.7	43.5	34.8	30.7	20.9	35.6	253	786	950	1228	1490	445
1968	108	224	136	98.9	90.5	105	62.3	307	564	872	984	408	359
1969	240	72.9	40.6	34.5	34.5	34.4	43.0	310	1358	1228	834	573	402
1970	1580	211	239	119	116	109	103	331	705	1048	1122	606	524
1971	197	382	75.7	45.4	35.8	30.5	31.0	115	641	1394	2262	507	396
1972	576	108	54.8	31.7	19.9	17.1	16.5	141	517	1172	1378	1019	406
1973	413	123	56.1	34.4	26.2	24.0	27.8	128	600	918	870	908	346
1974	575	175	49.5	31.7	22.9	19.1	22.2	227	351	860	1000	1501	421
1975	546	224	112	55.3	43.1	34.2	30.1	355	1035	1068	804	850	420
MEAN	427	181	93.2	65.5	49.5	41.0	43.1	260	739	1011	1068	848	404
MONTHLY PERCENT	9	4	2	1	1	1	1	5	15	21	22	17	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1955, 1957-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1955		1959-cont		1961-cont		1963-cont		1966-cont		1969		1972	
8- 2-55	8.0	9-17-59	8.5	6-10-61	3.5	5- 1-63	0.5	7-18-66	8.0	9-25-69	7.0	4- 6-72	0.0
1957		1960		7-13-61	9.0	1964		1967		1970		6-24-72	4.0
7-15-57	11.0	2-10-60	0.0	8-24-61	7.5	9- 3-64	6.5	9- 1-67	8.5	10-16-69	5.0	8-16-72	8.0
1958		3- 2-60	0.0	1962		1965		1968		6-23-70	3.5	1973	
6- 4-58	4.5	4-13-60	0.0	10-15-61	4.5	6-11-65	1.0	10- 3-67	6.0	1971		10- 7-72	6.0
7-10-58	5.5	7-27-60	9.5	1-15-62	0.0	7-21-65	5.5	3- 7-68	0.0	11-12-70	1.5	1974	
1959		1961		6-19-62	6.0	8-26-65	6.5	6-15-68	4.0	9- 8-71	7.0	4- 3-74	1.0
4- 2-59	7.5	10- 5-60	5.5	1963		1966		7-18-68	8.5	9-28-71	8.0	8-10-74	6.0
7-17-59	5.5	4- 4-61	0.0	10-19-62	6.5	1-14-66	0.5					1975	
												9-24-75	8.0

15239880 TWITTER CREEK NEAR HOMER

LOCATION.--Lat 59°42'54", long 151°37'46", in SE¼ sec.27, T 5 S., R.14 E., Kenai Peninsula Borough, on right bank, [illegible] mi (1.0 km) upstream from mouth, and 5.7 mi (9.2 km) northwest of Homer.

BASIN CHARACTERISTICS.--Drainage area, 16.1 mi² (41.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1971 to September 1973.

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (119 m), from topographic map.

EXTREMES.--Maximum discharge during period of record, 536 ft³/s (15.2 m³/s) May 15, 1973, gage height, 4.14 ft (1.262 m), from rating curve extended above 68 ft³/s (1.9 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 4.51 ft (1.375 m) May 7, 1972, backwater from ice; minimum daily discharge, 3.9 ft³/s (0.11 m³/s) Apr. 4-6, 1973, gage height, 0.59 ft (0.180 m).

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

	Momentary maximum			Minimum daily	
Water year	Date	Discharge	Gage height	Date	Discharge
1971a	Aug. 6, 1971	78	2.04	Sept. 15, 18, 1971	b10
1972	May 7, 1972	---	c4.51	Mar. 16 to Apr. 25, 1972	4.5
	May 10, 1972	203	3.06		
1973	Apr. 13, 1973	--	c4.31	Apr. 4-6, 1973	d3.9
	May 15, 1973	536	4.14		

a Period August to September.
b Momentary minimum, gage height, 0.94 ft.
c Backwater from ice.
d Gage height, 0.59 ft.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1971	---	---	---	---	---	---	---	---	---	---	14.7	15.3	---
1972	10.5	10.2	6.61	5.48	5.00	4.74	4.65	76.0	38.8	11.8	14.8	39.7	21.6
1973	42.8	11.1	5.47	4.59	4.31	4.20	11.9	87.0	32.3	11.6	16.2	16.8	20.9

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1971-74.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1971		1972-cont		1972-cont		1973-cont	
3-22-71	0.0	2-17-72	0.0	8-17-72	7.0	3-11-73	1.0
6-24-71	10.0	4-25-72	0.0	1973		6-20-73	7.5
8-27-71	8.0	5-26-72	1.5	10- 0-72	0.5	8- 8-73	5.0
1972		6-14-72	7.0	12- 1-72	0.0	1974	
11-10-71	0.0	[illegible]	12.0	3-30-73	0.0	10-11-73	3.0

15239900 ANCHOR RIVER NEAR ANCHOR POINT

LOCATION.--Lat 59°44'50", long 151°45'11", in NE¼ sec.13, T.5 S., R.15 W., Kenai Peninsula Borough, on left bank at downstream side of bridge on Sterling Highway, and 3.3 mi (5.3 km) southeast of Anchor Point.

BASIN CHARACTERISTICS.--Drainage area, 133 mi^2 (344 km^2); main-channel slope, 45.8 ft/mi (8.67 m/km); stream length, 26.2 mi (42.2 km); area of lakes and ponds, 0 percent; mean elevation, 1120 ft (341 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1965 to September 1973. Annual maximum, water year 1974.

GAGE.--Water-stage recorder. Datum of gage is 168.64 ft (51.401 m) above mean sea level.

AVERAGE DISCHARGE.--8 years, 184 ft^3/s (5.211 m^3/s), 18.79 in/yr (477 mm/yr), 133,300 acre-ft/yr (164 hm^3/yr).

EXTREMES.--Maximum discharge during period of record, 2,240 ft^3/s (63.4 m^3/s) May 15, 1973, gage height, 5.91 ft (1.801 m), from rating curve extended above 950 ft^3/s (27 m^3/s) on basis of slope-area and contracted-opening measurement at gage height 5.38 ft (1.640 m) and slope-area measurement of peak flow; maximum gage height, 7.00 ft (2.134 m) Apr. 27, 1968 (backwater from ice); minimum daily discharge, about 28 ft^3/s (0.79 m^3/s) Jan. 1-31, 1969.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum Date	Discharge	Gage height	Minimum daily Date	Discharge
1965a	Sept. 19, 1965	956	4.03	Sept. 3, 1965	b90
1966	Sept. 19, 1966	1,230	4.67	Dec. 16, 1965, to Jan. 5, 1966	30
1967	Sept. 7, 1967	1,010	4.10	Mar. 11 to Apr. 2, 1967	55
1968	Apr. 27, 1968	---	c7.00	Mar. 25 to Apr. 6, 1968	54
	May 13, 1968	1,140	4.39		
1969	(date unknown)	---	c4.78	Jan. 1-31, 1969	28
	May 22, 1969	1,050	4.14		
1970	Oct. 14, 1969	1,370	4.72	Oct. 2, 1969	74
	Mar. 30, 1970	---	c6.61		
1971	Apr. 30, 1971	---	c6.94	Apr. 1-20, 1971	72
	June 6, 1971	1,860	5.38		
1972	May 7, 1972	---	c5.05	Feb. 16 to Mar. 31, 1972	52
	May 20, 1972	1,260	4.56		
1973	May 15, 1973	2,240	5.91	Feb. 6 to Apr. 4, 1973	54
1974	June 1974	1,000	4.26		

a Period June to September.
b Momentary minimum, gage height, 2.29 ft.
c Backwater from ice.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1965										184	142	245	
1966	191	58.1	32.4	41.5	50.9	44.5	185	739	307	164	215	528	198
1967	287	119	97.9	83.4	63.4	56.6	71.1	191	217	118	158	362	152
1968	159	334	134	95.3	86.1	68.6	257	585	167	91.4	74.7	82.6	178
1969	116	54.5	50.7	28.0	54.6	55.2	322	162	142	82.4	55.4	59.2	119
1970	390	158	128	100	119	191	288	801	299	122	144	159	245
1971	143	207	91.7	85.7	79.4	71.0	77.7	576	803	217	205	156	227
1972	294	136	91.7	67.6	53.3	52.0	54.8	664	237	94.9	127	288	181
1973	336	107	69.2	59.4	54.4	54.0	147	597	271	105	135	136	174
MEAN	259	144	84.3	69.8	69.2	74.8	175	577	305	131	139	202	184
MONTHLY PERCENT	11	7	4	3	3	3	8	26	14	6	6	9	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1965-74.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1965		1967		1968-cont		1969-cont		1970-cont		1971-cont		1973	
8-27-65	10.5	11- 8-66	0.5	6-18-68	13.0	6-24-69	12.0	6-25-70	11.5	8-27-71	9.0	10- 9-72	2.5
1966		1-18-67	0.5	8- 1-68	11.0	7-30-69	13.0	8- 8-70	10.0	1972		5-11-73	2.0
11- 3-65	0.0	3-27-67	0.0	8-20-68	12.0	9- 8-69	7.5	9-28-70	5.5	2-17-72	0.0	6-20-73	9.0
2- 7-66	0.0	6-14-67	8.5	1969		1970		1971		5-10-72	2.0	7-24-73	15.5
4- 7-66	0.5	9- 3-67	9.5	10-22-68	0.0	10-23-69	0.0	11-11-70	1.0	5-25-72	3.5	9- 8-73	6.5
7-13-66	10.5	1968		1-13-69	0.0	1-13-70	0.0	12-21-70	0.0	7- 6-72	18.0	1974	
8-17-66	8.5	10-21-67	0.5	3-21-69	0.0	3- 4-70	0.0	6-24-71	10.0	8-14-72	12.0	10-10-73	3.0
		3-14-68	0.0	5- 8-69	2.0	4-24-70	2.0	7-15-71	9.5				

15240000 ANCHOR RIVER AT ANCHOR POINT

LOCATION.--Lat 59°46'21", long 151°80'05", in SE¼ sec.1, T.5 S., R 15 W., Kenai Peninsula Borough, near right bank on downstream side of Sterling Highway bridge at Anchor Point, 0.1 mi (0.2 km) downstream from North Fork and 1 mi (2 km) upstream from mouth.

BASIN CHARACTERISTICS.--Drainage area, 226 mi² (585 km²); main-channel slope, 51 ft/mi (9.7 m/km); stream length, 28 mi (45 km), area of lakes and ponds, 0 percent; mean elevation, 970 ft (296 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1953 to September 1966.

GAGE.--Non-recording gage. Datum of gage is 24 ft (7.3 m) above mean sea level (river profile survey)

AVERAGE DISCHARGE.--13 years, 299 ft³/s (8.468 m³/s), 17.97 in/yr (456 mm/yr), 216,600 acre-ft/yr (267 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 3,030 ft³/s (85.8 m³/s) Mar. 8, 1963 (discharge measurement), gage height, 6.36 ft (1.939 m), backwater from ice, maximum gage height, 11.6 ft (3.54 m) Jan. 20, 1961 from floodmarks (ice jam); minimum discharge observed, 28 ft³/s (0.79 m³/s) July 28, 1953, gage height, 1.81 ft (0.552 m), but may have been less during periods of no gage-height record.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1953a	Sept. 24, 1953	958	3.87	July 28, 1953	b28
1954	May 7, 1954	2,320	3.95	Jan. 1 to Feb. 28, 1954	30
1955	May 14, 1955	c1,870	4.50	Aug. 21, 1955	d40
1956	Apr. 29, 1956	---	e6.35	Apr. 1-15, 1956	80
	May 1, 1956	c1,300	--		
1957	Dec. 7, 1956	---	e5.00	July 16, 1957	f15
	May 9, 1957	1,620	4.30		
1958	Oct. 22, 1957	1,710	4.54	July 8, 1958	f83
	Dec. 24, 1957	---	e5.83		
1959	Apr. 24, 1959	---	e6.85	July 10, 1959	77
	Apr. 29, 1959	2,300	4.85		
1960	Apr. 30, 1960	---	e6.58	July 22, 1960	f63
	May 23, 1960	1,750	4.55		
1961	Jan. 20, 1961	---	e11.6	Nov. 25, 1960	91
	Sept. 11, 1961	2,200	4.83		
1962	Apr. 6, 1962	---	e6.55	Aug. 4, 5, 1962	75
	June 14, 1962	1,770	4.10		
1963	Mar. 7, 1963	---	e10.00	Dec. 1-10, 1962	75
	Mar. 8, 1963	g3,030	6.36		
1964	Apr. 6, 1964	---	e7.50	Nov. 9-30, 1963	77
	May 31, 1964	2,780	5.55		
1965	Dec. 3-5, 1964	---	e6.16	Feb. 17-21, 1965	97
	Sept. 27, 1965	1,370	4.13		
1966	Sept. 19, 1966	1,590	4.25	Dec. 16, 1965, to Jan. 5, 1966	95

a Period June to September.
b Minimum observed, gage height, 1.81 ft, but may have been less during periods of no gage-height record.
c Maximum daily.
d Minimum observed, gage height, 1.66 ft.
e Backwater from ice.
f Momentary minimum.
g Discharge measurement.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	ANNUAL
1953										82.3	193	284	
1954	553	165	100	50.0	50.0	87.0	223	1014	200	164	535	194	242
1955	114	278	110	120	120	120	140	1115	308	252	230	328	338
1956	289	110	99.0	100	92.0	97.0	250	925	370	194	254	512	297
1957	247	153	80.7	69.0	75.9	105	193	964	150	135	192	544	208
1958	611	832	259	174	96.2	165	581	895	590	225	517	243	394
1959	258	191	145	90.0	84.0	85.0	357	919	215	184	171	319	253
1960	290	197	155	160	161	104	285	972	172	220	252	322	268
1961	280	163	185	284	175	115	550	869	323	255	233	594	335
1962	384	203	134	130	120	120	195	1035	531	180	106	129	275
1963	197	207	113	166	285	981	375	473	265	317	554	471	326
1964	556	92.0	160	150	130	95.0	280	1512	783	360	230	188	363
1965	415	339	165	117	97.4	144	497	796	196	258	206	477	335
1966	514	89.2	49.8	56.3	78.0	56.8	265	992	186	257	382	477	293
MEAN	351	232	135	128	121	151	323	914	392	218	247	342	299
MONTHLY PERCENT	10	7	4	4	3	4	9	26	11	6	7	10	

15240000 ANCHOR RIVER AT ANCHOR POINT--Continued

WATER TEMPERATURE RECORDS

PERIOD OF DAILY RECORD.--May to August 1953, November 1953 to September 1954, April 1959 to November 1966 (seasonal).

REMARKS.--Once-daily readings by observer on most days during open water season.

EXTREMES.--Maximum observed during period of daily record, 23.0°C June 27, 1953; minimum, 0.0°C on most days during winter period.

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1953	Max	---	---	---	---	---	---	---	9.0	23.0	21.0	18.0	---
	Min	---	---	---	---	---	---	---	2.0	5.5	15.5	12.0	---
1954	Max	---	1.0	0.5	1.0	0	1.0	1.0	a	a	a	18.0	12.0
	Min	---	0.0	0.0	0.0	a	0.5	0.5	a	4.5	a	11.5	6.0
1959	Max	---	---	---	---	---	---	1.0	9.5	15.5	14.5	16.0	15.0
	Min	---	---	---	---	---	---	a	a	8.0	10.0	10.0	7.5
1960	Max	8.5	1.0	a	---	---	---	1.5	6.0	12.0	a	16.0	12.0
	Min	0.0	0.0	0.0	---	---	---	0.0	0.0	a	a	10.0	4.5
1961	Max	6.0	2.0	---	---	---	---	a	10.0	18.0	16.5	14.5	10.5
	Min	0.0	0.0	---	---	---	---	a	1.5	5.5	8.0	11.5	a
1962	Max	---	---	---	---	---	---	---	9.0	14.5	18.5	15.5	-
	Min	---	---	---	---	---	---	---	a	5.5	7.0	11.0	---
1963	Max	---	---	---	---	---	---	---	14.0	13.5	20.5	16.5	13.5
	Min	---	---	---	---	---	---	---	a	5.0	9.5	8.5	6.5
1964	Max	8.0	0.5	---	0.0	0.0	0.0	1.0	10.5	11.5	17.0	16.5	13.0
	Min	0.0	0.0	---	0.0	0.0	0.0	0.0	5.0	1.0	8.0	10.0	3.5
1965	Max	0.5	0.5	a	---	---	---	---	---	a	a	15.0	14.0
	Min	0.0	0.0	0.0	---	--	---	---	---	a	a	8.0	1.0
1966	Max	---	---	---	---	---	---	---	5.0	16.5	19.0	13.0	18.0
	Min	---	---	---	---	---	---	---	a	4.5	8.0	9.5	6.0
1967	Max	9.0	a	---	---	---	---	---	---	---	---	---	---
	Min	0.0	a	---	---	---	---	---	---	---	---	---	---

a Data insufficient to compute monthly maximum or minimum.

15241600 NINILCHIK RIVER AT NINILCHIK

LOCATION.--Lat 60°02'36", long 151°39'48" in NE¼ sec.31, T.1 S., R.14 W., Kenai Peninsula Borough, on downstream side of bridge at Ninilchik, and 0.9 mi (1.4 km) upstream from mouth.

BASIN CHARACTERISTICS.--Drainage area, 151 mi² (389 km²), main-channel slope, 12.7 ft/mi (2.41 m/km); stream length, 21 mi (34 km); area of lakes and ponds, 1 percent; mean elevation, 670 ft (204 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1963 to September 1975.

GAGE.--Nonrecording gage. Altitude of gage is 50 ft (9 m), from topographic map. Prior to Oct. 1, 1965, at site 0.2 mi (0.3 km) upstream at different datum.

AVERAGE DISCHARGE.--12 years, 101 ft³/s (2.945 m³/s), 10.78 in/yr (274 mm/yr), 73,330 acre-ft/yr (90.4 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 1,240 ft³/s (35.1 m³/s) Apr. 24, 1974, gage height, 6.04 ft (1.841 m), from graph based on gage readings; maximum height observed, 8.69 ft (2.649 m) Apr. 14, 1969, backwater from ice; minimum discharge observed, 30 ft³/s (0.85 m³/s) July 20, 1966, gage height, 3.64 ft (1.109 m).

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1963a	Apr. 24, 1963	---	b7.12	Aug. 16, 1963	c45
	May 4, 1963	d398	---		
1964	Apr. 17, 1964	---	b6.23	Nov. 16-30, 1963	34
	June 2, 1964	d650	4.48		
1965	Apr. 20, 1965	502	4.53	Jan. 1-31, 1965	38
1966	Nov. 3, 1965	---	b6.57	July 20, 1966	e30
	Sept. 18, 1966	d500	---		
1967	Oct. 15, 1966	d340	---	Mar. 1 to Apr. 19, 1967	50
	Nov. 16, 1966	---	b6.24		
1968	Nov. 3, 1967	d480	5.58	Mar. 28 to Apr. 8, 1968	40
	Dec. 6, 1967	---	b7.30		
1969	Oct. 8, 1968	d127	4.56	Jan. 11-20, 1969	38
	Apr. 14, 1969	---	b8.69		
	May 5, 1969	d127	4.40		
1970	Apr. 1, 1970	---	b6.43	Oct. 23, 1969	36
	May 15, 1970	d304	5.17		
1971	May 4, 1971	---	b8.22	Oct. 26, 27, 1970	40
	May 31, 1971	624	5.84		
1972	May 5, 1972	---	b7.08	July 30, 1972	36
	May 12, 1972	d1,000	--		
1973	Apr. 9, 1973	---	b6.20	July 25, 1973	f52
	May 15, 1973	462	5.37		
1974	Mar. 30, 1974	---	b6.80	Jan. 11 to Mar. 27, 1974	36
	Apr. 24, 1974	1,240	6.04		
1975	May 12, 1975	1,200	6.98	Jan. 3-7, 1975	45

a Period April to September.
b Backwater from ice.
c Gage height, 2.90 ft.
d Maximum daily.
e Gage height, 3.64 ft.
f Gage height, 4.00 ft.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1963								210	198	55.5	72.6	109	
1964	151	41.1	33.3	60.9	65.6	55.8	138	381	238	115	109	101	126
1965	148	117	38.0	58.0	40.0	47.5	127	167	141	124	89.1	155	119
1966	114	16.0	42.0	44.0	60.0	60.0	134	310	170	109	144	109	122
1967	203	96.2	68.1	55.8	55.0	50.0	61.5	111	118	55.6	94.4	144	95.4
1968	103	248	70.1	50.2	49.9	61.3	155	283	112	67.1	54.5	61.2	110
1969	78.1	51.6	44.2	39.1	43.5	49.1	52.2	91.7	63.2	55.5	47.8	54.6	55.4
1970	83.5	73.8	69.8	55.0	66.6	109	151	193	90.6	75.5	68.1	93.6	93.4
1971	98.0	165	72.9	46.8	50.8	55.5	66.2	227	131	90.0	126	95.2	101
1972	108	61.3	51.0	62.0	62.0	61.0	61.0	324	117	65.2	88.0	155	103
1973	178	78.5	69.0	67.4	66.0	66.8	101	147	92.3	69.4	100	94.2	94.6
1974	91.2	55.4	42.6	36.8	36.0	38.9	348	151	76.5	88.2	76.5	113	111
1975	139	79.5	59.2	51.0	51.4	56.0	61.0	390	173	72.5	66.4	129	113
MEAN	127	92.8	57.9	50.8	53.9	62.3	148	229	124	84.1	87.5	118	104
MONTHLY PERCENT	10	8	5	4	4	5	12	18	10	7	7	10	

15241600 NINILCHIK RIVER AT NINILCHIK--Continued

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1963, 1965-75.

PERIOD OF DAILY RECORD.--May to September 1963. October 1964, April to July 1965.

REMARKS.--Once-daily readings by observer on most days for period of daily record.

EXTREMES.--Maximum observed during period of daily record, 16.5°C July 14, 1963.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1966		1967-cont		1969-cont		1970-cont		1972-cont		1973-cont		1975	
11- 4-66	0.0	9- 3-67	10.0	5- 7-69	5.5	8- 7-70	13.5	5-25-72	3.5	9- 6-73	10.0	10- 8-74	2.5
2- 8-66	0.0	1968		6-23-69	15.0	9-28-70	5.0	6-13-72	11.0	1974		2- 1-75	0.0
7-13-66	13.0	10-21-67	0.0	7-31-69	11.0	1971		7- 6-72	15.0	10-10-73	3.0	4-24-75	1.0
8-17-66	13.0	3-11-68	0.0	9- 8-69	6.0	12-21-70	0.0	8-29-72	20.0	11-29-73	0.0	5- 5-75	0.0
9-20-66	6.5	6-18-68	13.0	1970		3-23-71	0.0	1973		4-26-74	0.5	5-13-75	3.0
1967		8- 1-68	11.0	10-23-69	5.0	6-24-71	10.5	10- 6-72	3.5	4-27-74	0.5	5-14-75	3.5
11- 8-66	0.5	8-21-68	10.0	1-13-70	0.0	8-27-71	8.0	11-22-72	0.0	6-19-74	10.0	6-11-75	7.0
1-18-67	0.5	1969		5- 4-70	0.0	1972		5-10-73	5.5	6-22-74	9.5	7- 8-75	17.5
6-14-67	12.5	10-22-68	0.0	5- 6-70	3.0	11- 9-71		6-20-73	7.5	9- 5-74	0.0	8- 6-75	11.0
7-28-67	13.0	3-21-69	0.0	6-25-70	10.0	2-17-72	0.5	7-25-73	13.5				

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1963	Max	---	--	---	---	---	--	---	12.0	12.0	16.5	15.5	12.0
	Min	---	---	---	---	---	---	---	a	6.0	8.5	9.0	3.5
1965	Max	6.0	--	---	---	---	---	4.0	10.0	a	a	--	---
	Min	a	---	---	--	---	---	a	1.5	6.0	a	---	---

a Data insufficient to compute monthly or minimum.

15242000 KASILOF RIVER NEAR KASILOF

LOCATION.--Lat 60°19'05", long 151°15'32", in SW¼ sec.30, T.2 N., R.11 W., Kenai Peninsula Borough, near center of span on downstream side of bridge on Sterling Highway, 0.9 mi (1.4 km) upstream from Crooked Creek, 4 mi (6 km) downstream from Moosehead Rapids, 5 mi (8 km) south of Kasilof, and 10 mi (16 km) downstream from Tustumena Lake.

BASIN CHARACTERISTICS.--Drainage area, 758 mi² (1,911 km²); main-channel slope, 68.3 ft/mi (12.94 m/km); stream length, 55 mi (88 km); area of lakes and ponds, 15 percent; mean elevation, 1,810 ft (552 m); glacier area, 28 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1949 to September 1970. Annual maximum, water years, 1971-74.

GAGE.--Nonrecording gage. Datum of gage is 23.37 ft (7.123 m) above mean sea level (Corps of Engineers' bench mark).

AVERAGE DISCHARGE.--21 years, 2,385 ft³/s (67.54 m³/s), 45.89 in/yr (1,115 mm/yr), 1,728,000 acre-ft/yr (2.13 km³/yr).

EXTREMES.--Maximum discharge during period of record, 12,300 ft³/s (348 m³/s) Sept. 14, 1957, gage height, 7.90 ft (2.408 m) from graph based on gage readings; maximum gage height observed, 8.62 ft (2.627 m) Nov. 25, 1955, backwater from ice; minimum daily discharge, 19 ft³/s (0.54 m³/s) Apr. 2, 1964.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1949a	Sept. 9, 1949	7,860	6.06	July 2, 1949	b2,080
1950	Aug. 27, 1950	8,440	6.30	Mar. 1-31, 1950	530
1951	Sept. 8, 1951	9,090	6.55	Mar. 16-31, 1951	280
1952	Aug. 16, 1952	7,430	5.88	Mar. 11-20, 1952	450
1953	Aug. 14, 1953	8,360	6.31	Apr. 16, 1953	c611
1954	Dec. 13, 1953	--	d5.91	Mar. 1-31, 1954	280
	Aug. 28, 1954	7,090	5.77		
1955	Sept. 12, 1955	6,240	5.27	Mar. 29, 1955	459
1956	Nov. 25, 1955	---	d8.62	Mar. 1-31, 1956	270
	Aug. 29, 1956	7,880	5.92		
1957	Sept. 14, 1957	12,300	7.90	Apr. 1, 2, 1957	353
1958	Aug. 16, 1958	11,000	7.38	Apr. 26,27,29, 1958	531
1959	Sept. 1, 1959	8,150	6.22	Mar. 23-26, 1959	270
1960	Aug. 14, 1960	7,600	5.99	Apr. 22, 1960	359
1961	Sept. 15, 1961	8,150	6.12	Apr. 19, 1961	596
1962	Dec. 18, 1961	--	d7.43	May 9, 1962	602
	Sept. 5, 1962	7,110	5.73		
1963	Sept. 9, 1963	8,650	6.35	May 11, 1963	e428
1964	Aug. 31, 1964	7,140	5.74	Apr. 2, 1964	19
1965	Sept. 30, 1965	f6,970	5.67	Jan. 16-31, 1965	520
1966	Aug. 16, 1966	8,680	6.36	Mar. 21 to Apr. 24, 1966	300
1967	Aug. 25, 1967	11,400	7.36	Mar. 21 to Apr. 7, 1967	380
1968	Aug. 22, 1968	8,860	6.38	May 5, 1968	536
1969	Aug. 8, 1969	6,030	5.32	Jan. 9 to Feb. 13, 1969	340
1970	Oct. 22, 1969	7,370	5.85	May 8, 1970	560
1971	---	11,000	7.10		
1972	Sept. 1972	8,950	6.41		
1973	Sept. 1973	4,900	4.82		
1974	---	7,210	5.79		

a Period July to September.
b Minimum observed, gage height, 3.05 ft.
c Gage height, 1.57 ft.
d Backwater from ice.
e Gage height, 1.32 ft.
f Stage rising, peak occurred Oct. 4, 1965; maximum peak discharge, 5,420 ft³/s Sept. 18, 1965.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1949										5412	5154	6948	
1950	4150	2098	1000	756	550	530	649	661	1182	3785	6514	6780	2399
1951	3739	1642	897	633	360	290	453	703	1564	4573	7259	8139	2508
1952	4342	2022	1235	937	582	464	569	591	824	2900	6625	4971	2173
1953	4223	2684	1886	1097	883	795	669	771	1821	4900	7810	6452	2848
1954	3651	1756	897	560	380	230	330	695	1399	3509	6406	5665	2148
1955	3654	2057	816	696	540	480	505	547	844	2681	5385	5561	1981
1956	2832	1161	558	299	280	270	449	743	1012	2462	6321	6483	1893
1957	3326	1441	728	454	401	428	314	625	1790	1855	6619	10480	2638
1958	5885	3706	1842	1113	719	572	581	656	1818	5513	8460	6207	3196
1959	2958	1423	847	414	314	285	494	717	1556	4311	6520	5691	2124
1960	3805	2037	1122	662	524	469	403	570	1576	3959	7029	5497	2313
1961	3203	1624	1138	652	955	695	675	809	1575	4060	7144	7057	2500
1962	4243	2283	1500	920	680	620	674	676	1400	4247	6148	5612	2414
1963	3022	1768	1130	716	609	566	520	591	1279	3656	6124	7462	2296
1964	4352	2328	1294	827	537	489	113	264	985	3785	6195	5857	2261
1965	3421	2014	1152	559	530	746	719	702	1038	2093	4168	5270	1874
1966	4954	1757	975	673	436	332	509	686	1281	4102	7638	7388	2557
1967	4981	2382	1048	669	491	399	157	981	1668	4565	10030	9594	3097
1968	5368	2494	1397	1136	868	700	587	649	1454	4024	7594	5506	2677
1969	2584	1262	635	530	371	192	488	581	1704	4726	5629	5982	1888
1970	5325	5430	1880	596	939	919	676	760	1219	2551	4575	4284	2293
MEAN	4001	2042	1142	716	569	515	517	664	1369	3848	6628	6404	2385
MONTHLY PERCENT	14	7	4	3	2	2	2	2	5	14	23	22	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1953-70

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1953		1957		1959-cont		1961-cont		1964-cont		1967		1969	
[illegible]	4.5	10-19-56	4.5	[illegible]-29-59	11.0	8-23-61	12.5	4-17-64	0.0	11- 9-66	0.5	10-21-69	4.0
[illegible]-17-53	3.0	3-15-57	18.0	[illegible]-26-59	10.5	1962		1965		1-19-67	0.5	3-22-69	0.0
1954		9-24-57	9.0	1960		10-13-61	5.0	3- 2-65	0.0	3-30-67	0.0	5- 9-69	6.0
1-21-54	0.5	1958		2- 4-60	1.0	6-25-62	10.5	4-23-65	5.5	6-14-67	12.0	6-25-69	13.0
5-27-54	10.5	4-28-58	4.5	3- 7-60	0	3- 7-62	14.0	6-10-65	9.5	7-28-67	15.0	8- 1-69	14.0
7-15-54	15.0	6- 3-58	10.5	1-12-60	0.0	8-30-62	11.5	7-22-65	15.0	9- 3-67	12.0	9- 9-69	9.5
1955		8- 7-58	13.5	4-10-60	10.0	1963		8-28-65	12.5	1968		1970	
10-20-54	6.5	9-14-58	11.0	1961		10-12-62	6.5	9-25-65	10.5	5-15-68	0.5	1-14-70	0.0
5-29-55	9.0	1959		1-[illegible]-60	2.0	11-29-62	0.0	1966		5-16-68	8.0	3- 4-70	1.0
1956		3-16-59	0.0	1- 5-61	0.5	7-20-63	13.5	11- 4-65	0.5	6-19-68	13.0	5- 6-70	8.0
8-14-56	15.5	4-23-59	1.5	6- 9-61	11.0	1964		2-10-66	0.5	8- 2-68	11.0	8- 8-70	10.5
9-12-56	11.5	5-12-59	2.5	7-24-61	15.5	2-12-64	1.0			8-21-68	14.0	9-29-70	8.5

15243500 SNOW RIVER NEAR DIVIDE

LOCATION.--Lat 60°18'05", long 149°13'10", Kenai Peninsula Borough, on left bank 0.5 mi (0.8 km) upstream from small tributary, 0.7 mi (1.1 km) downstream from small tributary, 5.1 mi (8.2 km) northeast of Divide, and 6.2 mi (10.0 km) upstream from Alaska Railroad Bridge.

BASIN CHARACTERISTICS.--Drainage area, 99.8 mi² (258.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1960 to July 1965.

GAGE.--Water-stage recorder. Altitude of gage is 1,050 ft (320 m), from topographic map.

EXTREMES.--Maximum discharge during period of record, 25,000 ft³/s (708 m³/s) Oct. 7, 1961, gage height, 10.3 ft (3.14 m) from floodmarks, from rating curve extended above 10,000 ft³/s (280 m³/s) caused by release of stored water behind ice dam upstream; minimum daily about 16 ft³/s (0.45 m³/s) Mar. 21-31, 1964.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1961a	Sept. 11, 1961	36,000	---	Mar. 10-31, 1961	53
1962	Oct. 7, 1961	25,000	10.3	Mar. 1-31, 1962	20
1963	Aug. 24, 1963	3,930	6.85	Apr. 1-15, 1963	22
1964	Sept. 23, 1964	17,900	9.48	Mar. 21-31, 1964	16
1965d	Oct. 7, 1964	3,050	6.96	Mar. 1-15, 1965	28

a Period December to September.
b Maximum daily, estimated.
c Result of release of stored water from glacier-dammed lake.
d Period October to July.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1961			110	12[illegible]	98.8	60.5	63.5	213	12[illegible]	2017	1305	2597	
1962	997	131	64.8	[illegible]	24.0	[illegible]	[illegible]	353	12[illegible]	1263	1029	[illegible]39	640
1963	163	200	61.8	43.1	[illegible]	36.1	34.0	380	[illegible]	2040	1674	1591	592
1964	301	91.1	87.8	50.2	32.1	20.5	33.5	157	1561	1914	1974	3439	821
1965	1262	587	45.4	36.3	32.1	25.5	119	412	1300				

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1961-64.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1961		1961-cont		1962		1963		1964	
12- 3-60	0.0	6-12-61	5.5	10-11-61	0.5	11-30-62	0.0	11-26-63	0.0
1- 2-61	0.0	7-25-61	8.0	1-16-62	0.0	5- 1-63	2.5	4-21-64	0.0
2-20-61	0.0	8-26-61	6.0	8-17-62	9.5			5-21-64	1.0
4-29-61	4.0								

15213900 SNOW RIVER NEAR SEWARD

LOCATION.--Lat 60°17'11", long 149°29'15", in SE¼ sec.6, T.2 N., R.1 E., Kenai Peninsula Borough, on downstream end of first pier on left bank at the Alaska Railroad bridge, 3.5 mi (5.6 km) upstream from mouth at Kenai Lake, and 13 mi (21 km) north of Seward.

BASIN CHARACTERISTICS.--Drainage area, 215 mi² (552 km²).

PERIOD OF RECORD.--August to September 1970, August to September 1974.

GAGE.--Water-stage recorder above 38.5 ft (11.73 m) and nonrecording gage below this stage. Altitude of gage is 475 ft (145 m) from topographic map.

EXTREMES.--Maximum discharge August to September 1970, 17,300 ft³/s (490 m³/s) Sept. 22, gage height, 39.57 ft (12.06 m), result of release of stored water from glacier-dammed lake.

Maximum discharge August to September 1974, 26,400 ft³/s (748 m³/s) Sept. 20, gage height, 40.75 ft (12.421 m), result of release of stored water from glacier-dammed lake.

Glacier-dammed lake outburst flood of about Aug. 31, 1967 reached a stage of 42.6 ft (12.98 m), from floodmarks, discharge, 55,000 ft³/s (1,600 m³/s), from rating curve extended above 27,000 ft³/s (760 m³/s).

REMARKS.--Station installed to record inflow into Kenai Lake from sub-glacial breakout of lake at head of an unnamed glacier in headwaters of Snow River. The lake is about 28 mi (45 km) upstream from the gage.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1970	---	---	--	---	---	---	---	---	---	-	--	3761	---
1974	---	--	---	---	--	---		--	---	---	2291	6294	---

15244000 PTARMIGAN CREEK AT LAWING

LOCATION.--Lat 60°24'20", long 149°21'45", Kenai Peninsula Borough, on right bank 200 ft (61 m) upstream from bridge on Seward-Anchorage highway, 0.2 mi (0.3 km) north of Lawing, 0.3 mi (0.5 km) upstream from mouth, and 3 mi (5 km) downstream from Ptarmigan Lake.

BASIN CHARACTERISTICS.--Drainage area, 32.6 mi² (84.4 km²); main-channel slope, 220 ft/mi (41.7 m/km); stream length, 14.6 mi (23.5 km); area of lakes and ponds, 6 percent; mean elevation, 2,800 ft (853 m); glacier area, 12 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1947 to September 1958.

GAGE.--Water-stage recorder. Altitude of gage is 500 ft (152 m), from topographic map. Prior to June 11, 1952, nonrecording gage at site 200 ft (61 m) downstream at different datum.

AVERAGE DISCHARGE.--11 years, 111 ft³/s (3.144 m³/s), 46.24 in/yr (1.174 mm/yr), 80,420 acre-ft/yr (99.2 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 980 ft³/s (27.8 m³/s) June 29, 1953, gage height, 5.28 ft (1.609 m); maximum gage height recorded, 4.38 ft (1.335 m) Dec. 18, 1956, backwater from ice; minimum daily discharge, about 9 ft³/s (0.25 m³/s) Mar. 1-15, 1951 and Apr. 1-15, 1952.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

	Momentary maximum			Minimum daily	
Water year	Date	Discharge	Gage height	Date	Discharge
1947a	bMay29, 1947	c366	0.92	May 1, 1947	18
1948	July 7, 1948	c590	1.30	Mar. 22-24, Mar. 30 to Apr. 8, 1948	12
1949	Sept. 4, 5, 1949	d500	---	Feb. 8-10, 17-21, 1949	10
1950	Nov. 23, 1949	c518	1.65	Apr. 7-9, 1950	13
1951	July 5-15, 1951	d310	---	Mar. 1-15, 1951	9.0
1952	July 25, 1952	300	2.12	Apr. 1-15, 1952	9.0
1953	June 26, 1953	---	3.32	Apr. 1-10, 1953	17
	June 29, 1953	980	3.28		
1954	Oct. 7, 1953	432	2.37	Mar. 16-31, 1954	10
	Jan. 19, 1954	---	e2.56		
1955	Dec. 25, 1954	---	e3.80	Mar. 1 to Apr. 30, 1955	19
	July 23, 1955	525	2.46		
1956	Nov. 26, 1955	---	e3.19	Feb. 9, 1956	f11
	July 17, 1956	396	2.20		
1957	Dec. 18, 1956	---	e4.38	Mar. 25-30, 1957	13
	Sept. 3, 1957	796	2.80		
1958	Dec. 21, 1957	---	e3.63	Mar. 1-31, 1958	18
	June 21, 1958	590	2.42		

a Period May to September.
b Also June 1, 1947.
c Maximum daily.
d Maximum daily, estimated.
e Backwater from ice.
f Minimum observed, discharge measurement.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1947								74.6	220	247	189	135	
1948	144	157	87.1	23.2	17.0	15.2	29.7	139	301	331	219	113	130
1949	114	71.1	24.9	14.0	11.4	13.7	16.2	93.8	276	334	233	265	135
1950	120	157	55.6	30.0	17.0	14.8	21.5	95.7	245	268	258	220	126
1951	66.0	30.3	16.5	12.4	10.0	9.52	19.7	79.3	155	251	162	245	88.5
1952	71.5	44.5	24.9	13.5	12.0	10.4	9.50	31.4	162	232	172	110	74.7
1953	198	185	85.5	41.5	28.7	20.0	33.0	158	511	381	233	141	169
1954	153	49.3	32.0	23.0	18.6	11.0	19.7	92.8	204	201	198	104	92.8
1955	91.8	92.1	38.2	27.8	20.0	13.9	14.9	37.4	170	359	199	125	100
1956	47.2	31.3	21.8	18.9	16.0	14.0	17.1	55.0	159	256	234	175	83.3
1957	47.5	41.2	33.6	19.4	16.0	15.2	20.2	90.3	234	175	187	342	103
1958	165	143	45.5	34.5	21.1	18.0	39.5	113	324	265	243	111	127
MEAN	113	89.2	42.2	23.5	17.1	14.2	21.9	88.4	247	275	211	170	111
MONTHLY PERCENT	9	7	3	2	1	1	2	7	19	21	16	13	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1953-58.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1953		1954-cont		1955-cont		1957		1958-cont	
4-15-53	2.5	5-28-54	6.0	12- 1-54	3.0	6-14-57	10.0	6- 2-58	4.5
5-18-53	5.0	7-14-54	14.0	1-21-55	1.0	8-17-57	15.5	7- 7-58	13.0
1954		1955		1956		9-27-57	6.5	8- 8-58	9.5
10- 9-53	6.0	10-22-54	5.0	8-13-56	11.5	1958		9-15-58	9.0
4-23-54	2.5			9-10-56	9.0	5- 1-58	4.0		

15246000 GRANT CREEK NEAR MOOSE PASS

LOCATION.--60°27'25", long 149°21'15", Kenai Peninsula Borough, on right bank 0.3 mi (0.5 km) upstream from mouth, 0.8 mi (1.3 km) downstream from Grant Lake, and 2.3 mi (3.7 km) south of Moose Pass.

BASIN CHARACTERISTICS.--Drainage area, 44.2 mi² (114.5 km²); main-channel slope, 150 ft/mi (28.4 m/km); stream length, 12.8 mi (20.6 km); area of lakes and ponds, 10 percent; mean elevation, 2,900 ft (884 m); glacier area, 18 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1947 to September 1958.

GAGE.--Water-stage recorder. Datum of gage is 491 ft (149.7 m) above mean sea level (river-profile survey). Prior to July 1, 1952, nonrecording gage at site 0.1 mi (0.2 km) downstream at datum 7.23 ft (2.204 m) lower.

AVERAGE DISCHARGE.--11 years, 193 ft³/s (5.466 m³/s), 59.30 in/yr (1,506 mm/yr), 139,800 acre-ft/yr (172 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 2,230 ft³/s (63.2 m³/s) June 28, 1953, gage height, 4.46 ft (1.359 m) from rating curve extended above 1,100 ft³/s (31 m³/s); minimum daily, about 11 ft³/s (0.31 m³/s) Feb. 3, 8-10, 17-21, 1949.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

	Momentary maximum			Minimum daily	
Water year	Date	Discharge	Gage height	Date	Discharge
1947a	Sept. 30, 1947	b439	2.92	Sept. 16, 1947	c152
1948	July 1, 1948	b780	---	Apr. 5-7, 1948	14
1949	Sept. 2, 5, 1949	b800	---	Feb. 3, 8-10, 17-21, 1949	11
1950	June 21, 1950	b865	4.00	Apr. 5-9, 1950	16
1951	July 8, 1951	b665	---	Mar. 1-15, 1951	13
1952	July 24, 1952	820	3.00	Apr. 16-30, 1952	14
1953	June 28, 1953	2,230	4.46	Apr. 1-5, 1953	24
1954	Oct. 7, 1953	782	3.11	Mar. 16 to Apr. 20, 1954	25
1955	July 11, 1955	1,050	3.45	Mar. 1 to Apr. 30, 1955	18
1956	Jan. 10, 1956	---	d3.3	Mar. 1-31, 1956	15
	Aug. 20, 1956	663	2.93		
1957	Sept. 3, 1957	1,700	4.06	Mar. 21-31, 1957	18
1958	June 21, 1958	1,020	3.42	Mar. 4, 1958	e23

a Sept. 1-30.
b Maximum daily.
c Gage height, 2.10 ft.
d Backwater from ice.
e Momentary minimum, gage height, 0.56 ft.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1947												260	
1948	262	200	116	32.4	24.1	16.5	27.1	244	493	556	385	162	211
1949	259	89.8	25.9	15.0	12.4	14.8	17.1	137	409	474	325	446	186
1950	194	197	71.3	37.2	21.1	18.3	26.1	117	447	521	481	338	207
1951	101	33.3	21.0	19.1	15.5	13.6	27.3	124	325	518	376	505	174
1952	87.8	51.5	30.4	18.5	15.9	15.7	14.5	66.1	375	572	434	268	163
1953	337	263	124	57.7	44.5	30.4	61.4	261	928	711	513	294	305
1954	257	69.1	39.7	32.1	33.3	28.4	29.7	173	409	420	384	201	174
1955	168	145	51.4	41.6	23.7	18.0	18.0	72.0	291	643	407	273	181
1956	81.5	42.0	25.0	20.0	17.0	15.0	21.9	121	264	471	493	215	147
1957	64.6	55.6	51.8	22.4	19.0	19.6	28.9	166	449	359	370	565	181
1958	207	181	56.3	44.1	29.1	25.5	65.6	170	535	449	418	155	194
MEAN	184	119	55.8	30.9	23.2	19.6	30.7	152	448	518	413	307	193
MONTHLY PERCENT	8	5	2	1	1	1	1	7	20	23	18	13	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1952-59.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1952		1954		1955-cont		1957		1958-cont	
12-15-51	0.5	10- 9-53	6.0	1-21-55	1.5	6-13-57	10.0	8- 9-58	11.0
1953		4-22-54	3.5	1956		8-17-57	13.5	9-15-58	11.0
11- 6-52	3.5	7-13-54	14.5	7-12-56	10.0	1958		1959	
4-16-53	2.5	1955		8-13-56	11.5	5- 1-58	5.0	10-17-58	4.0
5-19-53	4.0	10-21-54	6.5	9-11-56	10.5	7- 7-58	6.5		

15248000 TRAIL RIVER NEAR LAWING

LOCATION.--Lat 60°26'01", long 149°22'19", in SW¼ sec.13, T. 3 N., R. 1 W., Kenai Peninsula Borough, near center of stream on downstream end of pier at bridge site on old Seward-Anchorage Highway, 0.2 mi (0.3 km) upstream from Falls Creek, 0.2 mi (0.3 km) downstream from Lower Trail Lake, 1.9 mi (3.1 km) upstream from mouth, and 2.1 mi (3.4 km) north of Lawing.

BASIN CHARACTERISTICS.--Drainage area, 181 mi² (469 km²); main-channel slope, 89 ft/mi (16.9 m/km); stream length, 23 mi (43 km); area of lakes and ponds, 2 percent; mean elevation, 2,470 ft (753 m); glacier area, 11 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1947 to September 1974 (discharge); October 1974 to September 1975 (seasonal gage heights).

GAGE.--Water-stage recorder. Altitude of gage is 460 ft (140 m), from topographic map. Prior to Sept. 13, 1952, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--27 years, 780 ft³/s (22.09 m³/s), 58.52 in/yr (1,486 mm/yr), 565,100 acre-ft/yr (697 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 7,480 ft³/s (212 m³/s) Sept. 18, 1967, gage height, 11.93 ft (3.638 m); minimum daily, 48 ft³/s (1.36 m³/s) Feb. 9, 10, 1949.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water Year	Momentary maximum: Date	Discharge	Gage Height	Minimum daily: Date	Discharge
1947a	Aug. 2, 1947	2,800	7.4	May 1, 1947	120
1948	June 20, 1948	b3,340	7.9	Apr. 4-8, 1948	80
1949	Sept. 4,5, 1949	c3,000	---	Feb. 9, 10, 1949	48
1950	June 21, 1950	b3,600	8.12	Apr. 10-12, 1950	65
1951	July 10, 11, 1951	c3,000	---	Mar. 1-15, 1951	52
1952	July 14, 1952	b2,960	7.10	Apr. 1-15, 1952	61
1953	June 28, 1953	5,360	10.16	Apr. 8, 1953	86
1954	Oct. 7, 1953	3,620	8.33	Mar. 25-29, 1954	68
1955	July 11, 1955	4,030	8.69	Mar. 25, 1955	63
1956	Aug. 20, 1956	3,030	7.75	Mar. 30, 31, 1956	d64
1957	Sept. 4, 1957	b4,700	---	Mar. 31, 1957	e79
1958	June 22, 1958	4,080	9.22	Mar. 20, 1958	f84
1959	June 21, 1959	3,030	8.26	Mar. 22, 23, 1959	64
1960	July 26, 1960	2,780	8.01	Apr. 5, 1960	84
1961	Sept. 13, 1961	4,030	8.95	Mar. 27, 1961	99
1962	June 22, 1962	2,880	7.93	Mar. 21-24, 1962	60
1963	July 16, 1963	2,860	7.86	Mar. 27, 1963	g75
1964	Aug. 14, 1964	4,370	9.19	Mar. 28, 1964	62
1965	July 13, 1965	2,790	7.79	Feb. 20 to Mar. 2, 1965	105
1966	Sept. 16, 1966	5,520	10.62	Feb. 21 to Mar. 22, 1966	80
1967	Sept. 18, 1967	7,480	11.93	Mar. 21 to Apr. 6, 1967	85
1968	July 10, 1968	2,350	7.93	Apr. 15, 16, 1968	99
1969	June 16, 1969	4,090	9.20	Jan. 15-17, 1969	63
1970	Oct. 7, 1969	6,080	10.59	Apr. 12, 1970	h166
1971	July 14, 1971	4,150	9.30	Jan. 28-30, 1971	53
1972	Aug. 23, 1972	2,780	8.29	Jan. 25-31, 1972	51
1973	July 29, 1973	2,360	7.86	Jan. 30, 31, Feb. 1, 1973	71
1974	Sept. 16, 1974	3,220	8.57	Mar. 7, 1974	i64
1975	July 11, 1975	---	8.96		

a Period May to September.
b Maximum daily.
c Maximum daily, estimated.
d Gage height, 2.99 ft.
e Momentary minimum, gage height, 2.89 ft.
f Gage height, 2.98 ft.
g Momentary minimum, gage height, 2.72 ft.
h Momentary minimum, gage height, 3.93 ft.
i Momentary minimum, gage height, 2.82 ft.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1947								485	1594	2050	1673	998	
1948	909	755	543	167	131	95.6	175	758	1893	2243	1540	705	829
1949	729	311	115	52.2	58.5	69.5	104	581	1592	1989	1558	1651	723
1950	548	695	566	130	89.2	83.5	90.3	410	1895	2084	2160	1439	836
1951	427	142	84.8	71.3	57.6	55.5	110	543	1287	2221	1576	2050	722
1952	361	220	134	92.7	73.0	68.3	61.5	211	1295	2282	1624	976	618
1953	1152	857	397	209	149	105	268	1164	3007	2676	2165	1250	1120
1954	1076	291	157	117	90.0	76.6	116	833	1686	1796	1781	935	751
1955	675	580	239	146	90.2	72.3	81.1	435	1288	2686	1764	1221	778
1956	334	159	98.3	90.3	76.1	70.8	119	596	1093	1988	2129	964	646
1957	260	224	210	103	91.5	98.9	151	718	1965	1716	1770	2254	799
1958	989	729	241	188	114	90.5	307	767	2173	2031	1946	674	859
1959	419	264	164	109	84.1	74.0	173	931	2227	1767	1507	620	704
1960	517	366	222	143	129	94.6	126	1478	1887	2188	1693	986	823
1961	534	376	449	378	243	118	150	1038	1988	2378	1935	1359	934
1962	498	288	136	110	84.5	66.4	205	507	1706	2029	1480	769	660
1963	354	608	210	123	119	135	110	643	1303	2249	1657	1287	735
1964	613	232	262	175	127	98.1	303	488	2338	2006	2037	1087	815
1965	608	300	271	211	117	100	304	497	1350	2044	1694	1528	769
1966	557	192	154	123	89.2	88.1	130	468	1887	2025	1215	2082	840
1967	804	569	166	107	87.9	88.2	108	651	1691	1829	2045	2917	909
1968	709	332	253	190	176	225	134	922	1531	1904	1617	795	740
1969	306	210	117	68.5	86.1	89.2	187	824	2298	1953	1020	782	607
1970	2389	621	603	272	168	257	111	709	1301	1933	1849	846	961
1971	328	926	231	111	91.9	90.4	96.3	427	1771	2645	2437	1245	871
1972	598	212	132	73.6	60.3	71.2	64.8	367	1063	1936	1834	1230	640
1973	521	233	145	97.0	80.0	80.3	120	657	1288	1826	1436	916	621
1974	335	164	128	96.1	79.6	74.3	152	646	1614	1803	1467	1677	680
MEAN	648	300	231	147	109	98.8	155	670	1716	2081	1774	1259	780
MONTHLY PERCENT	7	4	2	2	1	1	2	7	19	22	19	14	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1952-73.

PERIOD OF DAILY RECORD.--April 1959 to March 1967.

REMARKS.--Once-daily readings by observer.

EXTREMES.--Maximum observed during period of daily record, 13.0°C July 22, 1965 and July 23-25, 1966; minimum, 0.0°C on most days during winter period.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1952		1955		1958-cont		1969-cont		1970-cont		1971-cont		1972-cont	
12-15-51	1.0	10-22-54	6.0	6- 2-58	9.0	3-20-69	0.0	6-23-70	9.5	8-10-71	9.0	8-31-72	11.0
1953		1956		7- 7-58	11.5	5- 7-69	3.5	8- 9-70	8.0	1972		1973	
11- 5-52	4.5	9-14-56	9.0	8- 9-58	10.0	6-26-69	11.0	9-22-70	8.0	10- 7-71	5.0	10-10-72	4.5
4-15-53	0.5	1957		9-15-58	9.5	7-29-69	11.0	1971		1-25-72	0.0	1-11-73	0.5
5-18-53	5.0	10-17-56	1.5	1968		9-10-69	9.0	10-29-70	2.0	2-23-72	0.0	3-28-73	1.0
1954		6-13-57	11.5	3-15-68	0.5	1970		1-29-71	0.0	3-22-72	0.0	5- 7-73	4.0
4-23-54	1.0	1958		6-20-68	10.0	10- 9-69	6.0	3-18-71	0.0	4-19-72	0.0	6-18-73	9.0
5-28-54	6.5	4- 4-58	1.0	8-22-68	10.5	1-15-70	0.0	4-23-71	1.0	5-23-72	4.0	7-24-73	11.0
7-14-54	12.0	5- 1-58	5.0	1969		3- 3-70	1.0	7- 1-71	3.5	7-10-72	10.0	9- 4-73	10.0
				1-16-69	0.5	5- 5-70	5.0						

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1959	Max	---	---	---	---	---	---	3.5	7.0	12.0	11.0	12.0	10.0
	Min	---	---	---	---	---	---	a	4.0	7.0	8.0	10.0	8.0
1960	Max	8.5	4.0	1.5	2.0	1.5	0.5	2.0	6.5	12.0	12.0	a	9.5
	Min	0.5	0.5	0.0	0.0	0.0	0.0	0.5	1.0	5.0	9.0	a	6.5
1961	Max	6.5	a	1.5	1.0	0.5	0.5	3.5	9.0	10.5	10.5	11.0	10.0
	Min	3.5	a	0.5	0.0	0.0	0.0	0.5	3.5	5.5	6.0	9.0	6.5
1962	Max	6.5	2.0	0.5	0.5	1.5	1.5	4.0	6.5	12.0	12.0	a	a
	Min	1.5	0.0	0.0	0.0	0.0	0.0	1.5	3.5	6.0	9.5	a	a
1963	Max	6.0	4.0	0.5	0.5	1.5	1.5	2.0	7.0	12.0	10.5	11.5	10.0
	Min	1.5	0.0	0.0	0.0	0.0	0.0	0.5	3.0	7.0	10.0	9.0	8.0
1964	Max	7.0	2.0	a	0.0	0.0	0.0	2.0	5.0	9.0	11.0	11.0	9.5
	Min	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.5	7.0	5.0	7.0
1965	Max	7.0	2.0	0.5	1.0	0.5	1.5	3.5	6.5	8.5	13.0	10.0	---
	Min	2.0	0.0	0.0	0.0	0.0	0.0	0.5	3.0	5.5	7.0	9.0	---
1966	Max	a	---	1.0	0.0	0.0	1.0	4.0	7.0	9.5	13.0	12.0	9.0
	Min	1.0	---	0.0	0.0	0.0	0.0	0.0	3.0	a	8.5	6.0	4.5
1967	Max	7.0	1.5	a	0.0	0.0	1.0	---	---	---	---	---	---
	Min	0.5	0.0	0.0	0.0	0.0	0.0	---	---	---	---	---	---

a Data insufficient to compute monthly maximum or minimum.

15250000 FALLS CREEK NEAR LAWING

LOCATION.--Lat 60°25'50", long 149°22'10", Kenai Peninsula Borough, 0.1 mi (0.2 km) upstream from mouth, and 2.0 mi (3.2 km) north of Lawing.

BASIN CHARACTERISTICS.--Drainage area, 11.8 mi² (30.6 km²), approximately; slope, 477 ft/mi (90.3 m/km); stream length, 8.1 mi (13.0 km); area of lakes and ponds, 0 percent; mean elevation, 3,480 ft (1061 m); glacier area, 6 percent.

PERIOD OF RECORD.--August to November 1913. Annual maximum, water years 1963-70.

GAGE.--Nonrecording gage. Altitude of gage is 460 ft (140 m), from topographic map. Different datum in 1913.

EXTREMES.--Maximum discharge, 693 ft³/s (19.6 m³/s) Sept. 5, 1966, gage height, 13.86 ft (4.225 m), from rating curve extended above 200 ft³/s (5.7 m³/s); minimum observed, 9.0 ft³/s (0.25 m³/s) Sept. 16, 1913, gage height, 2.50 ft (0.762 m), datum then in use.

MOMENTARY MAXIMUM, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Date	Discharge	Gage height
1913	Sept. 25, 1913	312	4.75
1963	July 2, 1963	110	12.20
1964	July 1964	130	11.72
1965	July 1965	120	11.64
1966	Sept. 5, 1966	693	13.86
1967	September 1967	450	13.11
1968	June 1968	210	12.16
1969	June 1969	300	12.56
1970	Oct. 6, 1969	491	13.22

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1913	---	---	---	---	---	---	---	---	---	---	---	43.5	---
1914	22.2	---	---	---	---	---	---	---	---	---	---	---	---

15252000 QUARTZ CREEK NEAR GILPATRICKS

LOCATION.--Lat 60°33'00", long 149°36'10", Kenai Peninsula Borough, 1 mi (2 km) upstream from Devils Creek, 4.2 mi (6.8 km) southeast of Gilpatricks, and 7 mi (11 km) upstream from mouth.

BASIN CHARACTERISTICS.--Drainage area, 30 mi² (78 km²), approximately.

PERIOD OF RECORD.--August to November 1913.

GAGE.--Nonrecording gage. Altitude of gage is 780 ft (238 m), from topographic map.

EXTREMES.--Maximum discharge observed during period of record, 135 ft³/s (3.87 m³/s) Sept. 24,25, 1913, gage height, 3.75 ft (1.143 m); minimum observed, 44 ft³/s (1.25 m³/s) Sept. 18-22, Oct. 29, 1913, gage height, 3.05 ft (0.930 m).

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1913	---	---	---	---	---	---	---	---	---	---	---	64.6	---
1914	57.5	---	---	---	---	---	---	---	---	---	---	---	---

15253000 CRESCENT CREEK NEAR MOOSE PASS

LOCATION.--Lat 60°28'45", long 149°34'25", Kenai Peninsula Borough, on left bank 90 ft (27 m) downstream from Crescent Lake Outlet, and 7 mi (11 km) west of Moose Pass.

BASIN CHARACTERISTICS.--Drainage area, 21.4 mi² (55.4 km²), main-channel slope, 136 ft/mi (25.8 m/km); stream length, 14.7 mi (23.7 km); area of lakes and ponds, 13 percent; mean elevation, 2,700 ft (820 m), glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1957 to September 1960.

GAGE.--Water-stage recorder. Datum of gage is 1,452.5 ft (442.72 m) above mean sea level (river-profile survey).

EXTREMES.--Maximum discharge during period of record, 262 ft³/s (7.42 m³/s) May 25, 1960, gage height, 2.81 ft (0.856 m); maximum gage height, 2.85 ft (0.869 m) Sept. 15, 1957; minimum daily discharge, about 13 ft³/s (0.37 m³/s) Apr. 1-13, 1960.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1957a	June 9, 1957	b210	2.55	Aug. 19, 20, 1957	c31
	Sept. 15, 1957	---	2.85		
1958	Oct. 31, 1957	---	2.65	Feb. 19,25, Mar. 20,21,23,24,26, 1958	14
	June 8, 1958	210	2.62		
1959	June 21, 1959	190	2.55	Feb. 1-28, Mar. 14-31, 1959	14
1960	May 25, 1960	262	2.81	Apr. 1-13, 1960	13

a Period May to September.
b Maximum daily.
c Momentary minimum, gage height, 1.62 ft.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1957	---	---	---	---	---	---	---	---	130	59.2	39.1	93.2	---
1958	64.7	92.5	38.4	32.3	18.1	15.3	17.3	60.3	147	89.8	75.6	85.4	50.9
1959	58.4	37.5	22.3	15.4	14.0	14.4	18.1	64.9	160	93.5	64.3	46.2	50.9
1960	39.6	41.4	27.3	18.0	15.7	14.2	15.2	120	138	110	95.2	75.2	59.1

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1956-61.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP
1956		1958		1960	
7-10-56	10.0	5-27-58	2.5	3- 3-60	0.5
8-16-56	13.0	8- 8-58	12.5	4-14-60	0.5
9-13-56	10.0	1959		1961	
1957		1-21-59	0.5	10- 3-60	6.5
10-15-56	2.5	4-21-59	1.0		
8-16-57	18.5				

15254000 CRESCENT CREEK NEAR COOPER LANDING

LOCATION.--60°29'49", long 149°40'38", Kenai Peninsula Borough, on left bank at bridge on old Seward-Kenai Highway, 0.3 mi (0.5 km) upstream from mouth, and 5.3 mi (8.5 km) east of Cooper Landing.

BASIN CHARACTERISTICS.--Drainage area, 51.7 mi² (82.1 km²); main-channel slope, 136 ft/mi (25.8 m/km); stream length, 14.7 mi (23.6 km); area of lakes and ponds, 15 percent; mean elevation, 2,700 ft (823 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1949 to September 1966. Annual maximum, water years 1967-75.

GAGE.--Water-stage recorder. Crest-stage gage only, since October 1966. Altitude of gage is 550 ft (168 m), from topographic map. Prior to Aug. 19, 1949, nonrecording gage at same site and datum. Since October 1, 1969 at datum 10.00 ft (3.048 m) lower.

AVERAGE DISCHARGE.--17 years, 73.8 ft³/s (2.147 m³/s), 32.47 in/yr (825 mm/yr), 54,920 acre-ft/yr (67.7 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 1,500 ft³/s (42.5 m³/s) Oct. 9, 1969, gage height, 12.73 ft (3.880 m); maximum gage height recorded, 3.35 ft (1.021 m) Jan. 14, 1961, backwater from ice, datum then in use; minimum discharge observed, 2.7 ft³/s (0.076 m³/s) Mar. 8, 1954, discharge measurement, caused by storage behind ice jam upstream.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

	Momentary maximum			Minimum daily	
Water year	Date	Discharge	Gage height	Date	Discharge
1949a	Sept. 26, 1949	220	1.61	Sept. 21, 1949	b65
1950	Dec. 19, 1949	---	c2.18	Apr. 1-13, 1950	12
	Sept. 22, 1950	312	1.88		
1951	June 6, 1951	177	1.48	Mar. 1-31, 1951	12
1952	Dec. 16, 1951	---	c2.28	Apr. 1-15, 1952	10
	June 27, 1952	213	1.63		
1953	June 27, 1953	---	2.85	Apr. 17, 1953	d14
	June 28, 1953	820	2.55		
1954	Jan. 19, 1954	---	c1.37	Mar. 8, 1954	e2.7
	June 9, 1954	184	1.10		
1955	Dec. 9, 1954	---	c2.52	Apr. 6-30, 1955	14
	July 4, 1955	380	1.97		
1956	Nov. 3, 1955	---	c2.23	Mar. 1-31, 1956	17
	July 4, 1956	220	1.62		
1957	Nov. 2, 1956	---	c2.20	Mar. 17, 1957	f6.0
	June 7, 1957	342	1.90		
1958	Dec. 18, 1957	---	c3.09	Mar. 31, 1958	e8.0
	June 7, 1958	300	1.55		
1959	Nov. 16, 1958	---	c1.95	Mar. 15, 1959	12
	June 11-30, 1959	g230	---		
1960	Dec. 17, 1959	---	c2.94	Mar. 1-31, 1960	16
	May 25, 1960	395	1.71		
1961	Jan. 14, 1961	---	c3.35	Mar. 16-31, 1961	18
	May 15, 1961	315	1.60		
1962	June 21, 1962	h280	1.56	Feb. 16 to Mar. 31, 1962	20
1963	Dec. 3, 1962	---	c3.05	Mar. 22-29, 1963	18
	July 17, 1963	230	1.25		
1964	June 14, 1964	h470	---	Mar. 1-31, 1964	18
1965	Dec. 2, 1964	---	c2.57	Feb. 18 to Mar. 1, 1965	15
	July 13, 1965	292	1.25		
1966	Aug. 21, 1966	500	1.63	Apr. 5, 1966	f7.6
1967	September 1967	720	3.50		
1968	---	190	1.18		
1969	May 27, 1969	300	1.32		
1970	Oct. 9, 1969	1,500	12.73		
1971	June 1971	560	11.55		
1972	---	i400	---		
1973	---	i300	---		
1974	June 1974	210	10.72		
1975	July 1975	330	11.09		

a Period July to September.
b Gage height, 0.96 ft.
c Backwater from ice.
d Momentary minimum, gage height, 0.45 ft.
e Discharge measurement, caused by storage behind ice jam upstream.
f Momentary minimum, caused by storage behind ice jam upstream
g Maximum daily, estimated.
h Maximum daily.
i Estimated.

15254000 CRESCENT CREEK NEAR COOPER LANDING--Continued

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1949											102	101	
1950	89.7	109	54.5	29.9	16.8	14.4	15.2	46.7	148	111	63.5	117	68.0
1951	48.5	28.0	18.5	16.5	14.5	12.0	20.0	66.2	120	103	59.8	118	52.1
1952	58.0	44.0	18.4	12.5	12.0	12.0	10.5	33.2	132	126	81.9	64.7	50.5
1953	156	168	71.0	37.6	40.6	29.4	26.6	116	351	265	122	92.9	123
1954	99.4	46.1	26.0	15.0	17.0	13.0	17.7	86.5	138	107	100	58.5	60.6
1955	79.8	111	35.4	28.0	20.0	16.4	14.5	36.2	176	246	130	86.9	82.1
1956	42.8	30.6	25.0	24.0	22.0	17.0	20.0	64.3	153	165	116	75.3	63.0
1957	40.6	36.8	44.5	21.9	18.0	17.2	15.5	96.5	193	87.1	62.5	135	64.1
1958	116	124	55.0	46.0	23.0	18.6	27.6	89.4	205	133	113	94.4	87.4
1959	76.2	44.5	28.1	19.7	18.0	16.8	22.3	105	222	147	88.9	66.4	71.6
1960	54.7	51.5	29.9	21.0	18.0	16.0	19.5	160	188	155	140	119	81.2
1961	85.5	59.2	63.8	71.1	34.0	19.5	26.9	121	199	198	145	190	101
1962	118	49.2	31.4	26.5	20.5	20.0	28.5	45.9	185	148	69.5	66.3	67.6
1963	40.6	49.0	34.0	25.1	21.0	19.7	20.1	64.7	140	166	92.1	58.2	61.1
1964	56.4	33.9	28.0	25.0	20.0	18.0	59.5	193	367	199	133	89.5	102
1965	82.7	51.2	32.6	19.7	15.7	23.9	39.7	77.0	164	195	133	95.7	78.0
1966	60.9	29.3	25.0	24.0	20.0	19.9	33.7	65.3	195	117	131	179	75.2
MEAN	76.8	62.7	36.5	27.3	20.7	17.9	24.6	86.3	193	157	105	100	75.8
MONTHLY PERCENT	8	7	4	3	2	2	3	10	21	17	12	11	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1952-67.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1952		1955		1958		1960-cont		1962		1963-cont		1966	
12-16-51	1.0	10-18-54	4.5	4-28-58	5.0	4-11-60	0.0	10- 9-61	5.5	3- 5-63	2.5	2- 9-66	1.0
1953		11-29-54	0.5	6- 3-58	7.5	5- 9-60	3.0	12- 4-61	0.0	7-12-63	14.0	4- 7-66	1.5
11- 7-52	3.0	1-20-55	0.5	8- 8-58	11.5	7-20-60	24.5	2- 7-62	0.5	1964		6- 4-66	7.5
4-13-53	3.0	1956		1959		8-29-60	10.5	3-29-62	0.0	3-26-64	0.0	7-15-66	11.5
5-15-53	5.5	7-12-56	8.0	4-22-59	1.0	1961		5-15-62	2.5	1965		9-21-66	6.0
1954		8-15-56	11.5	5-12-59	2.5	10- 4-60	4.5	6-23-62	8.5	1-25-65	0.0	1967	
10- 3-53	5.0	9-11-56	11.0	5-16-59	4.0	4- 5-61	1.0	8- 8-62	11.5	3-16-65	0.5	11-10-66	2.5
4-19-54	3.0	1957		7-28-59	9.0	5- 9-61	5.5	8-29-62	11.5	4-25-65	4.5		
5-25-54	5.5	10-17-56	2.5	9-16-59	7.5	6-11-61	8.5	1963		6- 8-65	4.5		
7-14-54	12.0	6-13-57	11.0	1960		7-11-61	9.0	10-10-62	4.5	7-23-65	9.0		
		8-16-57	15.0	2- 2-60	0.0	8-22-61	10.0	11-28-62	0.0	9-24-65	7.5		

15258000 KENAI RIVER AT COOPER LANDING

LOCATION.--Lat 60°29'34", long 149°48'29", in SW¼ sec.28, T.5 N., R.3 W., Kenai Peninsula Borough, near center of span on upstream side of bridge on Sterling Highway, 0.9 mi (1.4 km) east (upstream) of Cooper Landing, Bean Creek, and Kenai Lake outlet.

BASIN CHARACTERISTICS.--Drainage area, 634 mi² (1,642 km²); main-channel slope, 26.8 ft/mi (5.08 m/km); stream length, 60 mi (97 km); area of lakes and ponds, 5 percent; mean elevation, 2,650 ft (808 km); glacier area, 10 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1947 to September 1975.

GAGE.--Nonrecording gage. Altitude of gage is 450 ft (131 m) from topographic map. Prior to Apr. 13, 1950, at site 0.8 mi (1.3 km) downstream at different datum. Apr. 14, 1950 to Apr. 6, 1964, at site 20 ft (6 m) upstream of present location at datum 3.3 ft (1.0 m) higher. Apr. 7, 1964 to Aug. 27, 1965, at site 130 ft (40 m) downstream and Aug. 28, 1965 to Jan. 21, 1974 at site 30 ft (9 m) downstream at present datum.

REMARKS.--Diversion from Cooper Lake to Kenai Lake above gage through Cooper Lake powerplant began May 1961. Table of Extremes, below, has not been adjusted for diversion. Table of Monthly and Annual Mean Discharge, next page, has been adjusted to exclude diversion beginning in 1965 water year. Average annual diversion for the water years 1961-75 are as follows:

Water year	Diversion ft³/s	Water year	Diversion ft³/s	Water year	Diversion ft³/s
1961a	25	1966	113	1971	136
1962	42	1967	18	1972	89
1963	123	1968	125	1973	69
1964	64	1969	66	1974	65
1965	129	1970	94	1975	84

a Period May to September.

COOPERATION.--Records of diversion furnished by Chugach Electric Association.

AVERAGE DISCHARGE.--28 years, 2,677 ft³/s (75.81 m³/s), 57.34 in/yr (1,456 mm/yr), 1,939,000 acre-ft/yr (2.39 km³/yr), adjusted to exclude diversion from Cooper Lake.

EXTREMES.--Maximum discharge during period of record, 23,100 ft³/s (654 m³/s) Sept. 21, 1974, gage height, 17.18 ft (5.236 m), result of release of stored water from glacier-dammed lake at head of unnamed glacier in the Snow River basin; no flow Mar. 27, 28, 1964 (caused by earthquake); minimum natural discharge (daily), 190 ft³/s (5.38 m³/s) Mar. 15-24, 1951.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge	Gage height
1947a	Aug. 1, 1947	9,180	12.8	May 1, 1947	b350	---
1948	July 10, 1948	10,400	13.2	Feb. 23 to April 11, 1948	220	5.9
1949	Sept. 7, 1949	9,480	12.98	Feb. 8-13, 1949	220	5.9
1950	Oct. 28, 1949	11,600	13.55	Apr. 13, 1950	c282	1.45
1951	Sept. 6, 1951	8,960	8.70	Mar. 15-24, 1951	190	---
1952	July 26, 27, 1952	7,980	8.29	Apr. 11-16, 1952	258	1.55
1953	June 29, 1953	20,600	12.36	Apr. 10,11, 1953	303	1.69
1954	Aug. 3, 1954	8,000	8.50	Apr. 17, 1954	265	1.38
1955	July 12, 1955	10,600	9.40	Mar. 25-27, 1955	260	---
1956	Aug. 20, 1956	9,000	8.79	Mar. 26-29, 1956	211	---
1957	Sept. 6, 1957	16,300	11.15	Mar. 29-31, 1957	260	---
1958	Nov. 4, 1957	12,400	10.01	Mar. 26, 27, 1958	352	1.65
1959	June 24, 1958	8,980	8.71	Mar. 31, 1959	265	1.29
1960	July 29, 1960	9,300	8.84	Apr. 4-6, 1960	260	---
1961	Sept. 14, 1961	10,300	9.50	Apr. 22, 1961	492	---
1962	Oct. 8, 1961	14,000	10.5	Mar. 22-26, 1962	320	---
1963	July 17, 1963	8,800	8.74	Apr. 16, 17, 19, 1963	516	2.15
1964	Sept. 24, 1964	14,200	14.30	Mar. 27, 28, 1964	d0	---
1965	Aug. 3, 1965	6,840	10.97	Mar. 19, 20, 1965	500	---
1966	Sept. 19, 1966	13,000	---	Mar. 19, 1966	333	---
1967	Sept. 1, 1967	21,500	16.25	Mar. 24, 1967	372	---
1968	Oct. 1, 1967	e8,500	11.80	Apr. 22, 1968	500	---
1969	June 19, 1969	8,980	12.04	Mar. 28, 29, 1969	360	4.80
1970	Oct. 14, 1969	17,500	15.10	Feb. 8, 9, 1970	900	5.92
1971	July 14, 1971	10,600	12.87	Apr. 1, 2, 1971	465	5.15
1972	Aug. 24, 1972	8,420	11.76	May 2, 1972	510	4.90
1973	July 31, 1973	6,650	11.00	Mar. 28, 1973	338	4.86
1974	Sept. 21, 1974	23,100	17.18	Mar. 16, 17, 1974	332	---
1975	July 15, 1975	9,630	12.22	Apr. 15, 16, 1975	400	---

a Period May to September.
b Estimated.
c Momentary minimum.
d Reverse flow observed, caused by earthquake.
e Stage falling, peak occurred Sept. 20, 1967; maximum peak discharge, 7,260 ft³/s July 10, 1968, gage height, 11.18 ft.

15258000 KENAI RIVER AT COOPER LANDING--Continued

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND
(ADJUSTED TO EXCLUDE DIVERSION FROM COOPER LAKE BEGINNING IN 1965 WATER YEAR)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1947								1209	5083	6510	5921	3725	
1948	3928	2104	2057	535	289	220	402	2175	5011	7880	5080	2998	2887
1949	3180	1638	671	328	251	315	337	1283	4966	6510	5272	6321	2601
1950	4715	3300	1481	684	371	331	306	746	1845	6349	6573	5326	2925
1951	1878	634	364	310	256	208	280	1239	3356	6894	5092	6852	2309
1952	1783	2623	781	347	311	291	262	658	3399	6610	5676	3045	2157
1953	4164	3199	1461	836	547	460	509	2972	10010	9653	7225	4570	3824
1954	3542	1192	1943	740	389	319	298	1823	4721	5611	6098	3267	2514
1955	2143	2205	826	612	438	312	284	802	3454	8173	5955	4263	2472
1956	1204	690	394	587	296	249	286	1300	3593	6074	6914	5855	2102
1957	2341	1663	992	420	303	506	364	1649	5831	5576	5752	9100	2864
1958	3786	4877	1149	703	515	384	631	1998	6600	7140	7310	2997	3189
1959	3596	1147	661	400	337	301	410	2196	7001	6125	5387	2780	2548
1960	1957	1548	768	481	441	324	518	3346	5748	7038	6399	5720	2683
a1961	1880	1459	1398	1578	1320	598	518	2703	5667	7377	6603	5465	3059
b1962	4567	1254	714	492	436	348	458	1181	4926	6547	4775	2928	2402
c1963	1620	2252	1100	836	647	719	559	1525	3860	7019	5506	4680	2539
d1964	2594	1066	869	795	556	582	665	1308	7378	7272	7153	6705	3091
1965	3389	1648	1215	642	523	452	776	1621	3246	4959	5619	4801	2421
1966	2695	867	534	484	362	266	314	1011	4823	5802	7911	7495	2729
1967	5882	1327	737	493	409	375	376	1395	5159	6249	8919	11160	3418
1968	3203	1149	940	629	667	775	541	2181	5053	6066	5556	2905	2594
1969	1464	863	521	365	295	315	343	1645	6435	5932	3587	2558	2035
1970	7743	2563	1995	1337	937	960	905	2185	5474	6859	7023	6107	3696
1971	1793	2781	880	542	449	441	353	760	4931	8348	7658	4351	2789
1972	2382	1001	612	422	295	228	271	784	3151	6403	6454	4999	2260
1973	2158	1218	669	455	390	316	318	1403	3669	5387	4857	3528	2042
1974	1592	830	525	431	300	269	362	1443	4465	5578	7706	9136	2474
1975	2613	2046	864	567	462	395	397	2376	4749	7491	5522	4046	2640
MEAN	2923	1777	970	606	457	388	422	1617	5086	6670	6117	4965	
MONTHLY PERCENT	6	5	3	2	1	1	1	5	16	21	19	15	

a Average diversion, period May to September 1961, 25 ft^3/s.
b Average annual diversion, 42 ft^3/s.
c Average annual diversion, 173 ft^3/s.
d Average annual diversion, 64 ft^3/s.

WATER TEMPERATURE RECORDS

PERIOD OF RECORD...Water years 1952-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1952		1958		1962		1965-cont		1968-cont		1971-cont		1973-cont	
12-14-51	1.0	4-30-58	5.0	10- 9-61	5.0	6- 9-65	6.5	8-22-68	12.0	7-13-71	6.0	5- 8-73	4.5
1953		7- 9-58	10.0	12- 6-61	0.5	8-25-65	9.0	1969		8-26-71	8.5	6-19-73	7.5
11- 6-52	4.0	8- 4-58	11.0	3-20-62	0.5	9-24-65	9.5	10-23-68	4.0	1972		7-26-73	12.0
4-14-53	1.0	1959		6-26-62	6.0	1966		1-16-69	1.0	11-17-71	3.0	9- 5-73	10.5
5-17-53	5.0	3-15-59	0.0	8- 8-62	11.0	11- 5-65	0.0	2-28-69	1.0	1- 6-72	1.0	1974	
1954		4-22-59	1.5	8-29-62	12.0	4- 7-66	1.5	6-25-69	9.0	1-25-72	0.5	10- 9-73	6.0
4-20-54	1.0	5-16-59	5.5	1963		1967		7- 3-69	10.0	2-23-72	0.0	11-27-73	2.0
7-17-54	10.0	7-28-59	12.0	10-14-62	7.5	11- 9-66	1.0	9-10-69	9.0	3-22-72	0.0	12-19-73	2.0
1955		1960		11-28-62	1.0	1-19-67	0.0	1970		4-24-72	2.0	3-19-74	1.0
10-20-54	5.5	2- 2-60	0.5	1964		3-30-67	1.0	1- 6-70	0.0	5-24-72	2.0	4-23-74	3.0
1956		3- 1-60	0.5	11-21-63	1.5	7-25-67	13.0	5- 3-70	1.0	7-10-72	6.5	9-21-74	11.5
8-15-56	10.5	4-12-60	0.5	2-11-64	1.0	9- 2-67	10.0	5- 7-70	5.5	8-28-72	10.0	1975	
9-11-56	10.5	5-10-60	4.5	3-24-64	0.0	1968		6-22-70	8.5	1973		10- 7-74	8.0
1957		1961		4-16-64	0.0	10-19-67	4.0	8- 7-70	10.0	10- 9-72	5.0	11-22-74	2.5
10-19-56	2.5	10- 3-60	6.5	1965		10-31-67	0.0	1971		11-21-72	2.0	3-11-75	1.0
8-16-57	16.0	4- 5-61	2.0	2- 3-65	0.5	2-15-68	1.0	12-20-70	2.0	2- 2-73	1.0	4- 7-75	2.0
9-26-57	8.5	6- 9-61	6.5	3-16-65	0.0	5-17-68	6.0	5-19-71	1.0	4- 4-73	3.0	6- 9-75	6.5
		8-23-61	9.5			6-21-68	7.5					8- 7-75	10.5

15260000 COOPER CREEK NEAR COOPER LANDING

LOCATION.--Lat 60°36'00", long 149°49'15", Kenai Peninsula Borough, on left bank 125 ft (38 m) downstream from Cooper Lake Outlet, 1.4 mi (2.3 km) upstream from Stetson Creek, and 4 mi (6 km) south of Cooper Landing.

BASIN CHARACTERISTICS.--Drainage area, 51.8 mi² (82.4 km²); main-channel slope, 194 ft/mi (36.7 m/km); stream length, 9.9 mi (15.9 km); area of lakes and ponds, 16 percent; mean elevation, 2,400 ft (732 m); glacier area, 6 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1949 to July 1959.

GAGE.--Water-stage recorder. Datum of gage is 1,165.5 ft (355.24 m) above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--9 years (water years 1950-58), 90.0 ft³/s (2.549 m³/s), 38.43 in/yr (976 mm/yr), 65,200 acre-ft/yr (80.4 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 729 ft³/s (20.6 m³/s) June 29, 1953, gage height, 4.02 ft (1.225 m); no flow July 31, 1959, due to construction of dam at lake outlet; minimum natural discharge (daily), about 8.0 ft³/s (0.23 m³/s) Mar. 26 to Apr. 15, 1950.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1949a	Sept. 27 or 28, 1949	232	2.33	Sept. 23, 1949	b84
1950	June 20, 21, 1950	298	2.59	Mar. 26 to Apr. 15, 1950	8.0
1951	Sept. 19, 1951	298	2.23	Mar. 1-26, 1951	13
1952	June 28, 1952	225	2.30	Apr. 1-15, 1952	11
1953	June 29, 1953	729	4.02	Apr. 14-16, 1953	c18
1954	June 27, 1954	224	2.36	Apr. 1-19, 1954	12
1955	July 11, 1955	366	2.89	Apr. 1-30, 1955	13
1956	July 18, 1956	285	2.54	Mar. 1-31, 1956	19
1957	Sept. 4, 1957	316	2.67	Mar. 21 to Apr. 30, 1957	19
1958	June 22, 1958	422	3.13	Mar. 1-31, 1958	18
1959d	June 22, 1959	269	3.48	July 31, 1959	0

a Period August to September.
b Momentary minimum, gage height, 1.63 ft.
c Gage height, 1.07 ft.
d Period October to July.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1949											129	131	
1950	102	130	44.5	21.6	12.1	9.15	12.0	58.7	188	182	154	155	87.9
1951	73.3	51.2	20.0	15.0	15.5	15.3	23.0	71.5	146	144	77.3	153	68.6
1952	66.6	55.0	22.2	25.5	13.0	12.5	21.5	54.9	138	181	107	69.3	60.5
1953	108	186	74.8	47.7	15.5	31.4	26.4	137	412	335	128	121	151
1954	132	36.9	32.2	22.0	27.2	17.0	22.7	96.8	196	169	136	72.8	80.7
1955	66.5	92.5	39.8	34.5	25.1	16.0	15.0	28.9	159	302	165	91.8	86.6
1956	35.3	30.0	23.0	22.0	21.0	19.0	20.0	61.5	174	236	181	101	76.4
1957	50.0	42.7	31.1	25.7	21.0	20.3	19.0	90.0	216	121	83.9	216	79.7
1958	156	190	36.7	34.0	21.0	18.0	32.0	325	289	144	150	108	122
1959	76.1	60.2	35.0	22.3	18.0	17.9	30.6	102	225	124			
MEAN	97.0	85.3	39.0	26.9	21.7	17.4	20.0	80.6	214	204	136	122	90.0
MONTHLY PERCENT	9	8	4	3	2	2	2	8	20	19	13	11	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1953-59.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1953		1955		1956-cont		1958	
11-5-52	3.0	10-21-54	0.5	8-16-56	12.0	5-27-58	7.5
4-14-53	1.5	1-20-55	0.5	9-13-56	10.5	8-4-58	11.5
1954		1956		1957		1959	
4-20-54	2.0	7-10-56	9.5	10-15-56	2.5	10-15-58	2.5
7-16-54	12.0			8-16-57	19.0	4-21-59	0.5

15260500 STITSON CREEK NEAR COOPER LANDING

LOCATION.--Lat 60°26'30", long 149°51'05", Kenai Peninsula Borough, on left bank 0.5 mi (0.8 km) upstream from mouth, and 3.4 mi (5.5 km) southwest of Cooper Landing.

BASIN CHARACTERISTICS.--Drainage area, 8.6 mi² (22.3 km²); main-channel slope, 159 ft/mi (86.0 m/km); stream length, 4.8 mi (7.7 km), area of lakes and ponds, 0 percent; mean elevation, 3,200 ft (975 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.- May 1958 to September 1963.

GAGE.--Water-stage recorder. Altitude of gage is 1,100 ft (335 m), from topographic map.

AVERAGE DISCHARGE.--5 years, 24.8 ft³/s (0.702 m³/s), 39.16 in/yr (995 mm/yr), 17,970 acre-ft/yr (22.2 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 291 ft³/s (8.24 m³/s) Sept. 12, 1961, gage height, 3.00 ft (0.914 m), from rating curve extended above 150 ft³/s (4.2 m³/s); maximum gage height, 3.13 ft (0.954 m) June 21, 1958; minimum daily discharge, 2.0 ft³/s (0.085 m³/s) Apr. 11, 12, 1960.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1958a	June 21, 1958	193	3.13	Sept. 18, 1958	b23
1959	June 18, 1959	150	2.75	Feb. 6-20, Mar. 9-28, 1959	5.0
1960	May 23, 1960	197	2.99	Apr. 11, 12, 1960	3.0
1961	Sept. 12, 1961	291	3.00	Mar. 16-31, 1961	5.0
1962	June 16, 1962	157	2.60	Feb. 1 to Apr. 4, 1962	5.0
1963	Mar. 11, 1963	---	c2.90	Mar. 12-28, 1963	4.0
	July 1, 1963	89	2.23		

a Period May to September.
b Gage height, 1.88 ft.
c Backwater from ice.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1958									98.6	52.8	37.7	27.0	
1959	19.1	11.4	7.58	6.00	5.46	5.55	6.80	30.8	51.2	43.3	32.1	27.6	23.4
1960	16.[illegible]	12.6	8.71	7.00	5.59	4.92	3.80	46.8	65.3	19.4	31.6	38.5	25.1
1961	21.0	12.5	15.5	14.5	9.43	5.[illegible]	6.40	45.6	[illegible]	70.1	16.5	60.5	34.2
1962	33.6	9.77	8.03	7.00	5.00	5.00	5.90	19.0	24.5	17.2	21.4	19.5	21.4
1963	15.1	10.4	7.90	[illegible]	5.60	4.[illegible]	5.17	29.4	31.1	54.8	21.8	15.2	19.7
MEAN	21.0	12.5	9.54	5.57	6.10	4.92	5.81	34.3	71.3	52.9	34.1	31.4	24.8
MONTHLY PERCENT	7	4	5	3	2	2	2	12	26	18	11	10	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1958-60.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP
1958		1959		1960	
5-24-58	0.0	10-16-58	1.5	12-16-59	0.0
7-[illegible]-58	5.0	1-21-59	0.5	3-3-60	0.5
5-[illegible]-58	8.5	3-14-59	0.0	4-14-60	0.5
8-14-58	3.5	5-17-59	4.5	5-12-60	8.5
		8-16-59	5.5		

15.81000 COOPER CREEK AT MOUTH, NEAR COOPER LANDING

LOCATION.--Lat 60°28'50", long 149°32'50", Kenai Peninsula Borough, on right bank 0.7 mi (1.1 km) upstream from mouth, 0.9 mi (1.4 km) downstream from unnamed tributary, 1.9 mi (3.0 km) west of Cooper Landing, and 4.5 mi (7.2 km) downstream from Cooper Lake Outlet.

BASIN CHARACTERISTICS.--Drainage area, 38.0 mi² (124.3 km²), main-channel slope, 74.1 ft/mi (14.03 m/km); stream length, 13.5 mi (21.7 km); area of lakes and ponds, 10 percent; mean elevation, 2,500 ft (762 m); glacier area, 1 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to January 1965.

GAGE.--Water-stage recorder. Altitude of gage is 450 ft (137 m), from topographic map. Prior to May 28, 1963, at site about 160 ft (49 m) upstream at datum 4.20 ft (1.280 m) higher.

REMARKS.--Since July 1959, entire flow from 31.8 mi² (82.4 km²) of drainage area has been controlled by dam at Cooper Lake Outlet. No spilling since 1959 except for period May 1961 to October 1962. Average diversions from Cooper Lake to Kenai Lake, through Cooper Lake powerplant are 25 ft³/s (0.71 m³/s) May to September 1961, 42 ft³/s (1.19 m³/s) 1962 water year, 123 ft³/s (3.48 m³/s) 1963 water year, 64 ft³/s (1.81 m³/s) 1964 water year, and 81 ft³/s (2.29 m³/s) October to January 1965.

COOPERATION.--Records of diversion furnished by Chugach Electric Association.

EXTREMES.--Maximum discharge during period of record, 841 ft³/s (23.8 m³/s) Sept. 21, 1961, gage height, 2.11 ft (0.643 m), caused by release of water behind log jam upstream (site and datum then in use); maximum gage height 4.7 ft (1.43 m) during winter period 1960-61, from floodmarks (ice jam), site and datum then in use; minimum discharge observed, 3.1 ft³/s (0.088 m³/s) Mar. 1, 1960 (discharge measurement), caused by temporary storage behind ice dam upstream.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1958	Dec. 21, 1957	---	a3.41	Feb. 16-28, 1958	27
	June 22, 1958	608	2.91		
1959	Dec. 9, 1958	---	a3.75	Mar. 15, 1959	23
	June 20, 1959	455	3.00		
1960	May 23, 1960	250	1.69	Mar. 1, 1960	b3.1
1961	During winter period	---	a4.7	Mar. 1-15, 1961	11
	Sept. 21, 1961	841	2.11		
1962	Oct. 2, 1961	540	0.36	Mar. 1-31, 1962	8.0
	June 22, 1962	---	3.02		
1963	Nov. 23, 1962	---	a1.83	Apr. 1-30, 1963	10
	June 22, 1963	126	1.67		
1964	Nov. 20, 1963	---	a2.40	Mar. 1-31, 1964	6.0
	June 2, 1964	260	2.01		
1965c	Oct. 7, 1964	77	1.47	Jan. 1-31, 1965	10
	Nov. 28, 1964	---	a3.20		

a Backwater from ice.
b Discharge measurement; caused by temporary storage behind ice dam upstream.
c Period October to January.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1958	261	285	82.0	[illegible]	52.4	28.0	32.3	134	412	309	225	151	174
1959	107	67.2	18.6	[illegible]	26.1	24.9	30.3	175	383	197	45.4	41.6	90.0
1960	29.3	23.5	14.5	[illegible]	[illegible]	[illegible]	[illegible]	90.1	87.2	68.1	54.3	58.2	38.4
1961	37.0	22.6	28.8	[illegible]	15.7	11.5	16.5	219	323	326	226	309	131
1962	177	37.0	17.0	[illegible]	11.0	8.00	[illegible]	58.3	212	228	79.8	52.1	76.0
1963	23.0	26.1	13.0	[illegible]	11.0	11.0	[illegible]	16.2	73.7	72.8	38.0	21.6	29.9
1964	20.7	11.2	10.0	[illegible]	[illegible]	6.00	[illegible]	42.6	152	75.8	52.5	33.5	36.4
1965	35.9	21.6	11.3	[illegible]									
MEAN	86.8	61.8	28.3	[illegible]	15.8	13.6	[illegible]	116	235	182	103	95.4	83.6
MONTHLY PERCENT	9	6	3	[illegible]	2	1	[illegible]	12	24	19	10	10	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1958-63

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1958		1959-cont		1960		1961		1962		1962-cont		1962-cont	
4-30-58	2.5	4-22-59	1.5	12-15-59	0.5	10- 3-60	3.0	10-12-61	1.5	12- 6-61	0.0	9- 8-62	11.5
6- 3-58	7.5	5-12-59	2.0	1- 2-60	0.0	4- 5-61	0.5	10-13-61	1.0	2- 7-62	0.5	8-29-62	11.5
8- 7-58	11.0	5-16-59	3.0	3- 1-60	0.0	5-10-61	2.5	10-15-61	4.0	3-29-62	0.0	1963	
1959		7-28-59	6.0	4-12-60	0.0	6-11-61	6.5	10-16-61	3.5	5-14-62	1.0	10-10-62	1.5
10-16-58	3.0	9-14-59	5.5	5-10-60	2.5	7-11-61	10.0	10-17-61	3.0	6-23-62	6.5	10-14-62	1.5
						8-22-61	10.0						

15264000 RUSSIAN RIVER NEAR COOPER LANDING

LOCATION.--Lat 60°27'10", long 149°59'05", Kenai Peninsula Borough, on right bank 50 ft (15 m) upstream from small unnamed tributary, 0.3 mi (0.5 km) downstream from Lower Russian Lake, 3.2 mi (5.1 km) upstream from mouth, and 6 mi (9.7 km) southwest of Cooper Landing.

BASIN CHARACTERISTICS.--Drainage area, 61.8 mi² (160.1 km²); main-channel slope, 116 ft/mi (22.0 m/km); stream length, 23.5 mi (37.8 km); area of lakes and ponds, 4 percent; mean elevation, 2,100 ft (640 m); glacier area, 12 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1947 to September 1954.

GAGE.--Water-stage recorder. Altitude of gage is 500 ft (150 m), from topographic map. Prior to June 12, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--7 years, 124 ft³/s (3.512 m³/s), 27.25 in/yr (692 mm/yr), 89,840 acre-ft/yr (111 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 1280 ft³/s (36.2 m³/s) Nov. 24, 1952, gage height, 4.75 ft (1.448 m) from rating curve extended above 650 ft³/s (18 m³/s); minimum daily, about 18 ft³/s (0.51 m³/s) Feb. 8-11, 1949, Mar. 1-31, 1951.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1947a	May 30, 1947	b414	2.05	May 1, 1947	50
1948	Nov. 28, 1947	b798	3.25	Apr. 6-8, 1948	50
1949	June 2, 1949	b254	1.85	Feb. 8-11, 1949	18
1950	Nov. 23 or 24, 1950	687	3.32	Apr. 9-11, 1950	24
1951	Sept. 20, 1951	271	1.89	Mar. 1-31, 1951	18
1952	June 21, 1952	261	1.88	Apr. 1-15, 1952	20
1953	Nov. 24, 1952	1,280	4.75	Apr. 1-13, 1953	38
1954	May 14, 1954	933	3.41	Apr. 1-19, 1954	24

a Period May to September.
b Maximum daily.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1947								191	216	138	95.5	80.0	
1948	137	281	172	59.9	51.2	35.6	51.2	223	224	166	91.4	47.1	128
1949	110	80.6	40.2	25.4	19.8	26.1	36.2	116	206	136	93.0	104	84.7
1950	131	275	110	45.6	30.2	28.2	30.8	135	256	157	92.7	167	132
1951	83.9	40.1	27.0	25.4	21.1	18.0	40.3	153	174	122	62.8	170	78.3
1952	84.6	98.5	36.3	24.0	23.0	21.8	20.5	62.2	214	188	96.7	80.8	78.4
1953	349	465	231	123	84.7	54.7	81.9	358	543	317	239	168	254
1954	236	79.8	49.1	37.5	38.6	26.0	32.9	340	267	155	150	86.1	126
MEAN	162	189	95.1	48.7	38.4	30.1	42.0	197	262	179	115	111	124
MONTHLY PERCENT	11	13	6	3	3	2	3	13	18	12	8	8	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1952-55.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1952		1953		1954		1955	
12-17-51	1.0	11- 5-52	4.5	4-20-54	0.5	10-21-54	5.0
		4-14-53	1.5	5-26-54	8.0		
		5-16-53	4.5	7-16-54	13.0		

15266000 RUSSIAN RIVER AT MOUTH NEAR COOPER LANDING

LOCATION.--Lat 60°29'10", long 149°59'50", Kenai Peninsula Borough, 0.1 mi (0.2 km) upstream from mouth, and 5.5 mi (8.8 km) west of Cooper Landing.

BASIN CHARACTERISTICS.--Drainage area 71.0 mi² (183.9 km²). See station 15264000.

PERIOD OF RECORD.--August to October 1913.

GAGE.--Nonrecording gage. Altitude of gage is 350 ft (107 m), from topographic map.

EXTREMES.--Maximum discharge observed during period of record, 510 ft³/s (14.4 m³/s) Sept. 26, 1913, gage height, 4.30 ft (1.311 m); minimum observed, 57 ft³/s (1.61 m³/s) Sept. 14-22, 1913, gage height, 3.36 ft (1.024 m).

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1913	---	---	---	---	---	---	---	---	---	---	---	121	---
1914	166	---	---	---	---	---	---	---	---	---	--	---	---

15266300 KENAI RIVER AT SOLDOTNA

LOCATION.--Lat 60°28'39", long 151°04'46", Kenai Peninsula Borough, near center of span on downstream side of bridge on Sterling Highway, 1.0 mi (1.6 km) southwest of Soldotna.

BASIN CHARACTERISTICS.--Drainage area, 1,[illegible] mi² (3,210 km²); main-channel slope, 10.7 ft/mi (2.03 m/km); stream length, 118 mi (190 km); area of lakes and ponds, 5 percent; mean elevation, 1,750 ft (533 m); glacier area, 11 percent.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--May 1965 to September 1975.

GAGE.--Nonrecording gage. Datum of gage is 55.34 ft (10.772 m) above mean sea level.

AVERAGE DISCHARGE.--10 years, 5,365 ft³/s (151.9 m³/s), 50.25 in/yr (1221 mm/yr), 3,887,000 acre-ft/yr (4.79 km³/yr).

EXTREMES.--Maximum discharge during period of record, 30,000 ft³/s (850 m³/s) Oct. 15, 1969, gage height, 12.20 ft (3.718 m); maximum gage height, 22.62 ft (6.895 m) Jan. 18, 1969, backwater from ice; minimum daily discharge, 770 ft³/s (21.8 m³/s) Apr. 1-4, 1966.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1965a	Sept. 21, 1965	16,200	9.79	May 8, 1965	b2,280
1966	Sept. 19, 1966	24,000	---	Apr. 1-4, 1966	770
1967	Sept. 21, 1967	24,900	11.48	Feb. 1 to Apr. 30, 1967	1,100
1968	Oct. 1, 1967	18,[illegible]	c10.41	Apr. 13, 1968	1,180
1969	Jan 18, 1969	---	d22.62	Jan. 11-17, 1969	1,200
	July 6, 1969	15,[illegible]	9.03		
1970	Oct. 15, 1969	30,6[illegible]	12.20	Apr. 9, 1970	1,410
1971	Dec. 6, 1970	--	d11.96	Mar. 11 to Apr. 15, 1971	1,100
	Sept. 12, 1971	24,200	11.60		
1972	Aug. 24, 1972	16,[illegible]	10.20	Mar. 26 to Apr. 27, 1972	800
1973	Aug. 6, 1973	12,600	9.30	Mar. 21-30, 1973	800
1974	Sept. 23,24,1974	26,900	e12.13	Mar. 1-21, 1974	850
1975	July 15, 1975	17,200	10.43	Mar. 10 to Apr. 20, 1975	1,000

a Period May to September.
b Gage height, 5.84 ft.
c Stage falling, peak occurred Sept. 21, 1967; maximum peak discharge, 15,100 ft³/s Aug. 15, 1968, gage height, 9.88 ft.
d Backwater from ice.
e Result of release of stored water from glacier-dammed lake at head of unnamed glacier in the Snow River basin.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1965								2550	6535	10780	11440	11540	
1966	6505	2133	1500	1200	1000	830	859	1995	6[illegible]	10920	18070	17140	5834
1967	5538	2776	1548	1235	1100	1100	1100	2134	6524	13620	18970	20840	6812
1968	7522	2922	2161	1674	2616	1781	1512	5361	8457	11910	13110	6273	5198
1969	2861	1641	1313	2842	2517	1507	1486	2223	10220	13290	8706	5873	4562
1970	11570	4507	2828	2331	1752	1763	1708	1754	7983	11620	13560	9739	6284
1971	4110	4432	2234	1735	1250	1148	1150	1962	6760	15240	17950	13100	5958
1972	1807	2325	1629	1245	969	848	812	2375	1940	11410	14310	11470	4783
1973	1536	2458	1574	1197	854	942	998	1950	3458	9696	10530	7546	4002
1974	5504	1631	1190	1068	913	869	1535	2259	6804	11140	11390	16570	4902
1975	8590	5375	1640	1310	1116	1045	1087	3751	7351	13850	12150	8075	5317
MEAN	6495	2820	1772	1587	1512	1184	1205	2488	7255	12130	13940	11650	5365
MONTHLY PERCENT	10	4	3	2	2	2	2	4	11	19	22	18	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1965-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1965		1969		1969-cont		1970-cont		1971-cont		1973		1974-cont	
7-22-65	12.0	10-22-67	4.0	1-24-69	0.0	11- 7-69	2.0	3-24-71	0.0	10- 6-72	5.5	6-19-74	10.5
9-24-65	12.0	11- 2-67	4.0	2-27-69	0.0	1- 7-70	0.0	8-26-71	10.0	11-22-72	2.0	1975	
1966		3-11-68	0.5	3-19-69	0.0	3- 5-70	0.0	1972		3-31-73	0.0	10- 8-74	6.5
11- 5-65	1.5	4- 2-68	1.0	5- 5-69	5.0	5- 6-70	6.5	11- 9-71	0.0	5- 9-73	6.0	1-31-75	0.0
2-11-66	0.5	5-17-68	7.5	6-25-69	8.5	6-24-70	9.0	2-16-72	0.0	7-25-73	10.5	5- 6-75	0.0
1967		6-19-68	10.0	7-31-69	13.0	8- 9-70	10.0	3-23-72	0.0	9- 5-73	10.5	6-10-75	7.0
11-10-66	0.5	8-21-68	11.0	9- 9-69	9.0	1971		5-24-72	6.0	1974		7- 8-75	8.5
3-29-67	0.5	1969		1970		1-28-71	0.0	7- 5-72	9.5	10- 9-73	6.0	8- 5-75	12.0
6-14-67	8.0	10-23-68	2.0	10-14-69	5.0	1-29-71	0.0	8-29-72	10.5	4-27-74	4.5		
9- 2-67	11.5	1-15-69	0.0										

15266500 BEAVER CREEK NEAR KENAI

LOCATION.--Lat 60°33'50", long 151°07'25", in SE¼ sec.36, T.5 N., R.11 W., Kenai Peninsula Borough, on right bank 25 ft (8 m) upstream from culvert on Kenai-Soldotna Road, 2.0 mi (3.2 km) upstream from mouth, and 4.5 mi (7.2 km) east of Kenai.

BASIN CHARACTERISTICS.--Drainage area, 51 mi² (132 km²), main-channel slope, 4.25 ft/mi (0.900 m/km); stream length, 13.6 mi (21.7 km); area of lakes and ponds, 15 percent; mean elevation, 140 ft (43 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1975.

GAGE.--Water-stage recorder and culvert control. Altitude of gage is 48 ft (15 m), from topographic map.

AVERAGE DISCHARGE.--8 years, 26.6 ft³/s (0.753 m³/s), 7.08 in/yr (180 mm/yr), 19,270 acre-ft/yr (23.8 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 598 ft³/s (16.9 m³/s) May 8, 1972, gage height, 10.55 ft (3.216 m); minimum, 8.2 ft³/s (0.23 m³/s) Oct. 23, 1969, temporary ice storage upstream.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1968	a	570	---	Sept. 8, 1968	c17
1969	Oct. 8, 1968	38	5.22	Dec. 21, 1968 to Jan. 31, 1969	13
1970	Mar. 19, 1970	---	d6.78	Oct. 23, 1969	e8.2
	May 16, 1970	54	5.68		
1971	May 4, 1971	226	8.36	Feb. 16 to Apr. 17, 1971	10
1972	May 8, 1972	598	10.55	Feb. 3 to Apr. 23, 1972	13
1973	Oct. 18, 1972	128	7.21	Feb. 23 to Mar. 23, July 22-27, 1973	13
1974	Mar. 28, 1974	---	d7.34	Jan. 14 to Mar. 14, 1974	12
	Apr. 24, 1974	130	7.25		
1975	May 10, 1975	278	8.75	Mar. 13-25, 1975	11

a Apr. 28 to May 3, 1968.
b Maximum daily.
c Momentary minimum, gage height, 1.52 ft.
d Backwater from ice.
e Momentary minimum, temporary ice storage upstream.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1968	35.4	49.7	33.3	26.5	26.0	29.5	58.0	58.5	38.9	25.6	20.5	19.2	33.4
1969	25.5	18.2	14.0	13.0	13.6	17.9	30.1	35.6	21.4	18.7	16.4	17.4	19.5
1970	20.1	16.8	14.0	13.0	13.5	22.3	32.8	30.0	22.6	21.6	23.1	25.8	21.4
1971	26.7	26.3	17.2	15.5	16.5	22.5	12.0	79.0	26.9	35.1	44.9	52.4	27.2
1972	37.1	22.5	17.4	15.0	13.1	13.0	13.5	111	55.7	19.6	18.0	31.1	29.1
1973	32.4	26.3	18.6	15.5	14.1	15.2	44.8	37.8	26.6	16.3	33.4	22.5	26.6
1974	32.0	17.0	14.5	12.6	12.0	23.8	84.6	36.5	20.0	16.5	16.4	20.5	25.4
1975	35.6	23.1	19.7	15.9	14.3	23.6	20.4	126	29.8	17.1	13.7	26.8	29.8
MEAN MONTHLY PERCENT	31	8	6	5	5	9	12	19	9	6	7	8	

WATER TEMPERATURE RECORDS

PERIOD OF DAILY RECORD.--July to September 1968, April 1969 to July 1972, May to July 1973, October 1973 to August 1974, October 1974 to September 1975.

REMARKS.--Continuous water-temperature recorder.

EXTREMES.--Maximum recorded during period of daily record, 16.5°C June 14, 1969, minimum, 0.0°C on most days during winter period.

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1968	Max	---	---	---	---	---	---	---	---	---	a	12.0	8.5
	Min	---	---	---	---	---	---	---	---	---	a	7.0	a
1969	Max	---	---	---	---	---	---	3.5	14.5	16.5	14.5	14.5	9.0
	Min	---	---	---	---	---	---	0.0	1.0	4.0	7.0	4.5	3.0
1970	Max	5.0	0.0	0.0	0.0	0.0	0.0	4.5	10.5	14.5	13.5	11.5	9.0
	Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	5.5	7.5	6.5	2.5
1971	Max	4.5	0.5	0.0	0.0	0.0	0.0	0.5	6.5	13.5	14.5	14.0	8.5
	Min	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	4.0	6.0	7.0	3.0
1972	Max	5.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	11.5	a	---	---
	Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	a	---	---
1973	Max	---	---	---	---	---	---	---	11.5	14.0	a	---	---
	Min	---	---	---	---	---	---	---	0	3.5	a	---	---
1974	Max	a	0.5	0.0	0.0	0.0	0.0	5.5	11.5	14.0	14.5	a	---
	Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	9.0	11.0	a	---
1975	Max	2.0	1.5	0.5	0.5	a	0.5	1.5	9.0	13.0	14.0	12.5	a
	Min	1.0	0.5	0.0	0.0	0.0	0.0	0.0	1.0	8.5	9.5	7.0	a

a Data insufficient to compute monthly maximum or minimum.

15267900 RESURRECTION CREEK NEAR HOPE

LOCATION.--Lat 60°53'40", long 149°35'15", Kenai Peninsula Borough, on right bank, 2.1 mi (3.4 km) upstream from mouth on south shore of Turnagain Arm, and 1.9 mi (3.0 km) south of Hope.

BASIN CHARACTERISTICS.--Drainage area, 149 mi² (386 km²); main-channel slope, 126 ft/mi (23.9 m/km); stream length, 19.8 mi (31.9 km); area of lakes and ponds, 0 percent; mean elevation, 2,750 ft (838 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1975.

GAGE. Water-stage recorder. Altitude of gage is 180 ft (55 m), from topographic map.

AVERAGE DISCHARGE.--8 years, 248 ft³/s (7.023 m³/s), 22.60 in/yr (574 mm/yr), 179,700 acre-ft/yr (222 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 2,700 ft³/s (76.5 m³/s) Oct. 6, 1969, gage height, 8.10 ft (2.469 m); minimum daily, about 40 ft³/s (1.50 m³/s) Mar. 26 to Apr. 13, 1975.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Monetary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1968	June 15, 1968	1,020	7.20	Apr. 20-22, 1968	62
1969	June 16, 1969	939	7.11	Mar. 1-25, 1969	60
1970	Oct. 6, 1969	2,700	8.40	Feb. 16 to Apr. 15, 1970	65
1971	Aug. 9, 1971	2,300	8.26	Apr. 1-17, 1971	70
1972	June 16, 1972	1,050	7.21	Apr. 29, 1972	50
1973	Oct. 16, 1972	964	6.74	Mar. 23 to Apr. 5, 1973	62
	June 22, 1973	---	6.76		
1974	June 12, 1974	731	6.87	Feb. 26 to Apr. 13, 1974	60
1975	June 30, 1975	1,250	7.77	Mar. 26 to Apr. 13, 1975	40

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1968	363	235	170	125	110	126	73.6	122	683	384	221	164	256
1969	131	98.2	77.1	65.	65.0	61.5	91.9	299	602	334	225	139	182
1970	636	216	194	125	70.2	65.0	75.1	367	780	703	478	265	336
1971	183	226	253	[illegible]	84.5	73.5	76.5	175	715	954	765	429	329
1972	293	158	108	75.5	67.0	61.0	57.5	264	589	590	309	302	241
1973	384	179	115	98.5	79.5	65.3	70.2	220	130	405	289	229	213
1974	165	113	94.1	71.7	64.0	60.0	67.1	265	517	353	186	130	176
1975	213	155	84.5	70.5	63.0	52.3	70.0	557	671	654	530	274	247
MEAN	299	172	132	92.5	74.5	70.8	72.6	296	625	544	350	244	248
MONTHLY PERCENT	10	6	4	3	3	2	2	10	21	18	12	8	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1968-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1968		1969-cont		1970-cont		1971-cont		1972-cont		1973-cont		1974-cont	
4-18-68	1.0	1-23-69	0.0	11- 6-69	2.0	5-13-71	0.5	9- 1-72	7.5	9- 4-73	6.5	9- 6-74	0.0
5- 1-68	0.5	3-24-69	0.0	1- [illegible]-70	0.5	1972		1973		1974		1975	
5-27-68	2.5	5-12-69	5.5	4-23-70	4.0	10- 6-71	3.0	10- 5-72	3.5	10- 5-73	1.0	10-10-74	2.0
6-25-68	8.0	5-22-69	5.0	4-30-70	5.5	2- 3-72	0.0	11-21-72	1.0	11-26-73	0.0	10-29-74	1.0
8- 4-68	7.0	8- 1-69	10.5	8-11-70	6.5	3-31-72	0.0	5- 7-73	4.0	1-21-74	0.0	4- 9-75	1.0
8-18-68	7.0	9-12-69	6.0	1971		4-28-72	1.0	6- 9-73	6.0	4-22-74	2.0	5-15-75	3.0
1969		1970		10-29-70	0.0	6- 1-72	5.0	7-23-73	10.5	6-18-74	5.0	5-22-75	4.0
10-25-68	1.0	10- 9-69	4.5	4- 5-71	0.0	7-13-72	8.0						

15268000 RESURRECTION CREEK AT HOPE

LOCATION.--Lat 60°55'15", long 149°38'40", Kenai Peninsula Borough, near right bank on downstream side of bridge pier at Hope 0.3 mi (0.5 km) downstream from Cripple Creek, 0.3 mi (0.5 km) upstream from mouth, and 2.0 mi (3.2 km) downstream from Wildhorse Creek.

BASIN CHARACTERISTICS.--Drainage area, 162 mi² (420 km²). See station 15267900.

PERIOD OF RECORD.--October 1949 to September 1951.

GAGE.--Nonrecording gage. Altitude of gage is 50 ft (15 m), from topographic map.

EXTREMES.--Maximum discharge observed during period of record, 2,140 ft³/s (60.6 m³/s) June 20, 1950, gage height, 2.80 ft (0.853 m), from rating curve extended above 810 ft³/s (23 m³/s); minimum daily, about 57 ft³/s (1.06 m³/s) Mar. 1-31, 1951.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum Date	Discharge	Gage height	Minimum daily Date	Discharge
1950	June 20, 1950	2,140	2.80	Apr. 7-10, 1950	54
1951	June 6, 1951	1,330	2.22	Mar. 1-31, 1951	37

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1950	207	304	86.3	68.0	63.0	59.1	94.9	339	1362	689	235	154	305
1951	112	79.3	60.7	49.4	45.0	37.5	58.2	259	782	392	282	512	222

15270000 MILLS CREEK NEAR GILPATRICKS

LOCATION.--Lat 60°40', long 149°25', Kenai Peninsula Borough, 1.2 mi (1.9 km) upstream from Juneau Creek, 2 mi (3 km) upstream from mouth, and 6 mi (10 km) northeast of Gilpatricks

BASIN CHARACTERISTICS.--Drainage area, 25 mi² (65 km²), approximately.

PERIOD OF RECORD.--August to November 1913.

GAGE.--Nonrecording gage. Altitude of gage is 1,500 ft (460 m), from topographic map.

EXTREMES.--Maximum discharge observed during period of record, 203 ft³/s (5.75 m³/s) Sept. 25, 1913, gage height, 3.90 ft (1.189 m); minimum observed, 43 ft³/s (1.22 m³/s) Nov. 2, 1913, gage height, 2.70 ft (0.823 m).

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1913	---	---	---	---	---	---	---	---	---	---	---	82.1	---
1914	60.1	---	---	---	---	---	---	---	---	---	---	---	---

15272000 SIXMILE CREEK AT SUNRISE

LOCATION.--Lat 60°54', long 149°25', Kenai Peninsula Borough, at Sunrise, and 0.5 mi (0.8 km) upstream from mouth.

BASIN CHARACTERISTICS.--Drainage area, 263 mi² (681 km²).

PERIOD OF RECORD.--August to November 1913.

GAGE.--Nonrecording gage. Altitude of gage is 10 ft (3 m), from topographic map.

EXTREMES.--Maximum discharge observed during period of record, 6,150 ft³/s (174 m³/s) Sept. 25, 1913, gage height, 6.95 ft (2.118 m), discharge measurement; minimum daily, 400 ft³/s (11.3 m³/s) Nov. 28-30, 1913.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1913	---	---	---	---	---	---	---	---	---	---	---	897	---
1914	661	514	---	---	---	---	---	---	---	---	---	---	---

15272550 GLACIER CREEK AT GIRDWOOD

LOCATION.--Lat 60°56'29", long 149°09'44", in SE¼ sec.19, T.10 N., R.2 E., Municipality of Anchorage, on left downstream wingwall of railroad bridge, 0.2 mi (0.3 km) upstream from mouth, and 0.2 mi (0.3 km) southeast of Girdwood.

BASIN CHARACTERISTICS.--Drainage area, 62.0 mi² (160.6 km²); main-channel slope, 455 ft/mi (86.2 m/km); stream length, 11 mi (18 km); area of lakes and ponds, 0 percent; mean elevation, 2,610 ft (796 m); glacier area, 11 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1965 to September 1975.

GAGE.--Water-stage recorder. Datum of gage is 18.99 ft (5.788 m) above mean sea level (levels by Corps of Engineers, post-earthquake datum of October 1964). Prior to July 23, 1973, gage was on right downstream wingwall of railroad bridge.

AVERAGE DISCHARGE.--10 years, 251 ft³/s (7.158 m³/s), 54.98 in/yr (1,396 mm/yr), 181,800 acre-ft/yr (224 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 7,710 ft³/s (218 m³/s) Sept. 18, 1967, gage height, 7.90 ft (2.408 m) from floodmarks, from rating curve extended above 1,500 ft³/s (42 m³/s); maximum gage height, 8.34 ft (2.542 m) Oct. 6, 1969, from outside floodmark; minimum daily discharge, 13 ft³/s (0.37 m³/s) on several occasions.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1965a	b	1,230	4.96	Sept. 3, 1965	244
1966	Aug. 8, 1966	4,950	c7.31	Feb. 21 to Mar. 31, 1966	20
1967	Sept. 18, 1967	7,710	7.90	Mar. 14 to Apr. 9, 1967	18
1968	Oct. 5, 1967	---	d5.33	Feb. 3-7, 1968	34
	June 29, 1968	1,110	4.83		
1969	June 16, 1969	2,820	5.90	Mar. 17, 18, 1969	16
1970	Oct. 6, 1969	7,370	8.34	Apr. 8-12, 1970	50
1971	Aug. 8, 1971	4,310	6.50	Mar. 13-17, Apr. 1, 1971	18
1972	Oct. 3, 1971	---	d4.82	Mar. 23, 24, Mar. 28 to Apr. 26, 1972	13
	Oct. 8, 1971	1,250	4.38		
1973	May 15, 1973	1,350	4.41	Mar. 21, 1973	e13
1974	Sept. 15, 1974	1,170	4.14	Feb. 23-25, Mar. 16-22, 1974	13
1975	July 12, 1975	1,260	4.46	Apr. 3, 4, 1975	f16
	Sept. 7, 1975	---	d4.56		

a Period August to September.
b On or about Aug. 14, 1965.
c May have been greater.
d Backwater from tide.
e Gage height, 1.84 ft.
f May have been loss during period of ice affect.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1965											455	486	
1966	190	65.7	40.4	69.2	21.4	20.0	52.0	257	631	531	647	785	271
1967	219	121	39.7	30.0	22.6	19.2	35.6	339	560	393	564	476	244
1968	224	131	58.6	47.5	23.2	65.6	77.0	430	683	547	404	167	245
1969	117	103	35.2	24.6	34.9	19.0	45.3	453	850	564	274	285	238
1970	217	209	309	140	45	47.3	75.5	493	630	562	576	268	355
1971	219	295	74.7	38.3	43.2	22.3	47.9	298	837	883	400	329	326
1972	298	59.9	40.2	25.2	19.2	14.5	13.8	292	385	539	388	339	203
1973	265	71.7	45.4	29.7	23.4	17.9	69.5	330	464	477	312	182	193
1974	94.5	31.5	38.3	21.3	15.7	16.3	38.9	152	451	422	330	379	162
1975	211	137	55.5	38.4	27.6	24.4	44.7	304	518	521	378	379	228
MEAN	265	124	73.2	41.6	39.2	31.8	54.9	307	600	586	476	410	251
MONTHLY PERCENT	9	4	2	1	2	1	2	10	20	20	16	14	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1965-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1965		1967-cont		1969-cont		1970-cont		1972-cont		1973-cont		1974-cont	
8-31-65	5.5	8-17-67	6.0	1-23-69	1.0	6-10-70	7.5	12- 3-71	0.0	11-21-72	1.0	8-21-74	8.0
1966		9-19-67	6.5	2-18-69	1.0	7-22-70	5.5	12-15-71	0.0	1-11-73	0.5	9- 6-74	9.5
11-10-65	0.5	9-21-67	6.0	4- 1-69	1.0	7-31-70	5.5	1- 5-72	0.0	5-12-73	3.5	1975	
2-11-66	1.0	1968		5-23-69	4.0	8-31-70	7.0	1-25-72	0.0	6- 9-73	6.0	10-11-74	2.5
6- 9-66	6.5	10-12-67	3.5	7- 9-69	9.0	1971		2-23-72	0.0	7-23-73	6.0	10-29-74	4.0
6-19-66	8.5	11-13-67	2.5	8-27-69	9.0	10-15-70	1.5	3-22-72	0.0	9- 4-73	6.0	11-22-74	1.5
8-22-66	5.5	1- 4-68	0.0	1970		10-31-70	2.5	4-19-72	1.0	1974		3-14-75	1.5
1967		3-29-68	0.5	10- 8-69	5.5	11- 1-70	2.0	5-18-72	3.0	10- 5-73	5.5	3-26-75	1.0
11-12-66	1.0	5- 8-68	3.0	10- 9-69	4.5	12- 1-70	0.0	6-30-72	5.0	12- 3-73	0.0	4-14-75	2.0
1-20-67	0.0	6- 6-68	6.0	10-11-69	5.0	6-30-71	3.0	7- 9-72	10.0	12-27-73	1.0	4-23-75	3.0
4-17-67	3.5	8- 4-68	11.0	11- 5-69	2.0	8- 6-71	5.5	7-31-72	7.0	1-26-74	1.0	5-15-75	5.0
5- 4-67	3.5	1969		12-17-69	0.0	8- 9-71	5.5	9- 1-72	7.5	2-20-74	0.0	6-12-75	5.5
6-21-67	9.0	10- 3-68	4.0	3- 5-70	1.5	9-15-71	5.0	1973-		5- 2-74	4.0	7-11-75	8.0
7-11-67	10.5	12- 3-68	0.0	4-14-70	2.0	1972		10-20-72	5.5	6-17-74	7.0	8- 8-75	8.0
						11-26-71	0.0					9-12-75	7.5

15273900 SOUTH FORK CAMPBELL CREEK AT CANYON MOUTH NEAR ANCHORAGE

LOCATION.--Lat 61°08'52", long 149°43'12", in NW¼ sec.12, T.12 N., R.3 W., Municipality of Anchorage, on right bank 1.9 mi (3.1 km) upstream from ford on Campbell Airstrip road crossing, and 7.5 mi (12.1 km) southeast of Anchorage Post Office.

BASIN CHARACTERISTICS.--Drainage area, 25.2 mi² (65.3 km²), main-channel slope, 255 ft/mi (48.3 m/km), stream length, 9.2 mi (14.8 km); area of lakes and ponds, 1 percent; mean elevation, 2,760 ft (841 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 520 ft (158 m), from topographic map.

AVERAGE DISCHARGE.--9 years, 38.4 ft³/s (1.087 m³/s), 20.70 in/yr (526 mm/yr), 27,820 acre-ft/yr (34.3 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 300 ft³/s (8.50 m³/s) Aug. 8, 1971, gage height, 3.77 ft (1.149 m), maximum gage height observed, 8.0 ft (2.44 m) winter 1970-71 (backwater from ice); minimum daily discharge, 8.0 ft³/s (0.23 m³/s) Feb. 5, 1969.

EXTREMES. DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1967	Nov. 15, 1966	---	a6.80	Apr. 13-17, 23-28, 1967	10
	July 20, 1967	244	3.73		
1968	Nov. 10, 1967	---	a4.60	Feb. 5, Mar. 20, 21, 1968	9.0
	May 29, 1968	164	3.44		
1969	May 27, 1969	---	3.19	Feb. 5, 1969	8.0
	July 29, 1969	140	3.16		
1970	(winter period)	---	a5.90	Apr. 6-10, 1970	9.5
	Aug. 7, 1970	279	3.72		
1971	(winter period)	---	a8.0	Apr. 1-10, 1971	9.0
	Aug. 8, 1971	300	3.77		
1972	Sept. 30, 1972	251	3.62	Apr. 16 to May 2, 1972	10
1973	Oct. 14, 1972	147	3.27	Mar. 21 to Apr. 26, 1973	10
1974	May 31, 1974	119	3.07	Mar. 16 to Apr. 10, 1974	9.0
1975	Sept. 11, 1975	292	3.84	Mar. 25 to Apr. 1, Apr. 6-9, 1975	10

a Backwater from ice.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1967	40.0	20.3	19.4	17.5	15.2	13.0	10.7	51.9	93.0	56.1	75.2	112	34.2
1968	48.8	32.2	19.8	14.8	13.0	11.5	12.9	69.5	112	78.8	47.2	54.3	41.1
1969	27.2	22.1	17.1	13.6	9.52	9.58	11.5	37.8	86.0	31.1	37.9	21.1	27.5
1970	49.9	27.0	23.1	16.6	13.1	11.2	11.7	55.0	76.0	55.1	90.2	30.5	39.9
1971	34.4	30.6	18.7	12.7	13.0	10.3	9.03	15.6	93.0	58.2	108	53.1	41.0
1972	45.0	28.1	21.5	17.1	14.2	12.6	10.7	24.3	111	131	16.4	66.5	42.5
1973	34.1	36.9	28.9	21.4	14.6	11.1	10.2	23.5	67.7	53.6	49.0	41.0	30.5
1974	32.1	17.9	16.3	15.8	21.0	9.18	10.1	39.5	70.4	81.7	10.6	57.8	30.0
1975	40.3	27.0	23.2	20.2	16.1	11.5	19.0	58.7	80.3	51.0	39.8	85.4	41.1
MEAN	43.5	26.9	20.9	16.4	13.2	11.1	11.0	34.9	87.4	75.5	60.3	55.9	38.4
MONTHLY PERCENT	9	6	5	4	3	2	2	8	19	[illegible]	13	12	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1967-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1967		1968-cont		1969-cont		1970-cont		1972		1973-cont		1974-cont	
1- 5-67	0.0	11-15-67	0.5	12- 5-68	0.0	8-19-70	6.0	10- 4-71	1.5	8-21-73	5.5	6-27-74	11.5
2- 7-67	0.5	1- 3-68	0.0	3-29-69	0.0	1971		12-28-71	1.0	9-19-73	6.0	8-15-74	12.0
3-20-67	0.5	3-29-68	0.0	6-10-69	6.0	10-12-70	1.5	2-25-72	0.0	1974		1975	
4-18-67	1.0	4-30-68	2.0	7-18-69	9.0	2- 5-71	0.0	3-29-72	0.0	10- 1-73	3.0	10-10-74	2.0
5- 1-67	5.0	5-13-68	4.5	8-28-69	7.0	4-20-71	1.5	6- 7-72	2.5	11- 7-73	0.0	3-21-75	4.5
6- 5-67	5.5	6- 5-68	4.0	1970		5-18-71	2.0	8- 1-72	8.0	12-13-73	0.5	4-14-75	1.5
7-10-67	11.0	6-28-68	6.0	12-19-69	1.0	7- 1-71	6.0	1973		1- 4-74	0.5	6-13-75	5.5
8-15-67	10.0	9-13-68	5.0	3- 5-70	0.0	7-13-71	9.5	12-13-72	0.5	3-28-74	1.0	6-26-75	7.5
1968		1969		3-25-70	3.0	8- 9-71	9.0	2- 5-73	0.5	4- 9-74	1.0	7-11-75	11.0
10- 3-67	0.5	10- 4-68	2.0	6- 3-70	5.0	8-14-71	10.0	5- 7-73	3.5	5-29-74	6.0	9- 2-75	6.5
				7-17-70	6.0								

15271000 SOUTH FORK CAMPBELL CREEK NEAR ANCHORAGE

LOCATION.--Lat 61°09'57", long 149°46'15", in NW¼ sec.2, T.11 N., R.3 W., Municipality of Anchorage, on right bank 3.2 mi (5.3 km) downstream from ford on road leading to Campbell Airstrip, 3.0 mi (5.2 km) upstream from confluence with North Fork, and 5.5 mi (8.8 km) southeast of Anchorage Post Office.

BASIN CHARACTERISTICS.--Drainage area, 30.4 mi² (78.7 km²); main-channel slope, 246 ft/mi (46.6 m/km); stream length, 11.5 mi (18.5 km); area of lakes and ponds, 1 percent; mean elevation, 2,530 ft (771 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1947 to September 1971. Annual maximum, water year 1972.

GAGE.--Water-stage recorder. Altitude of gage is 260 ft (79 m), from topographic map. Prior to Aug. 20, 1952, water-stage recorder at site 0.2 mi (0.3 km) upstream at different datum. Aug. 20, 1952 to July 15, 1958, water-stage recorder at site 70 ft (21 m) downstream from previous site at different datum.

AVERAGE DISCHARGE.--24 years, 38.3 ft³/s (1.085 m³/s), 17.11 in/yr (435 mm/yr), 27,750 acre-ft/yr (34.2 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 891 ft³/s (25.2 m³/s) June 21, 1949, gage height, 3.30 ft (1.006 m), site and datum then in use, from rating curve extended above 110 ft³/s (3.1 m³/s); maximum gage height observed, 6.40 ft (1.951 m) Nov. 10, 1965 (backwater from ice); no flow part of Oct. 12, 1958, caused by temporary storage behind snowslide upstream.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1947a	Sept. 25, 1947	263	2.03	Aug. 18, 19, 1947	b33
1948	Sept. 16, 1948	205	1.77	Apr. 24, 1948	c7.9
	Sept. 17, 1948	---	1.81		
1949	June 21, 1949	891	3.30	Feb. 16-25, Apr. 3,4,9,10, 1949	6.0
1950	June 19, 1950	d140	---	Feb. 16-28, Apr. 2-10, 30, 1950	8.0
1951	Nov. 20, 1950	---	e2.10	Apr. 11-15, 1951	4.0
	June 24, 1951	255	2.00		
1952	Sept. 1, 1952	213	2.14	Apr. 1-30, 1952	7.0
	Sept. 1, 1952	---	2.19		
1953	May 31, 1953	---	1.65	Apr. 1-15, 1953	8.0
	June 4, 1953	200	1.57		
1954	Nov. 24, 1953	---	e2.47	Apr. 1-15, 1954	8.0
	Aug. 1, 1954	162	1.50		
1955	July 3, 1955	131	2.10	Feb. 21-28, 1955	5.0
1956	July 31, 1956	356	2.25	Mar. 1 to Apr. 15, 1956	8.0
1957	Dec. 21, 1956	---	e2.70	Jan. 22-25, Mar. 6-12, 1957	6.0
	Sept. 19, 1957	181	1.85		
1958	Dec. 25, 1957	---	e1.88	Mar. 15-16, 22-24, Mar. 26 to Apr 2, 1958	9.0
	June 7, 1958	160	1.62		
1959	Nov. 18, 1958	---	e5.30	Mar. 22-27, 1959	6.0
	Aug. 25, 1959	173	2.54		
1960	Oct. 23, 1959	---	e4.78	Apr. 1-15, 1960	6.0
	May 23, 1960	228	2.68		
1961	Dec. 9, 1960	---	e4.58	Apr. 1-15, 1961	9.0
	Sept. 30, 1961	227	2.46		
1962	Nov. 16, 1961	---	e5.44	Mar. 1-31, 1962	8.0
	June 13, 1962	470	3.20		
1963	Nov. 21, 1962	---	e3.84	Mar. 10 to Apr. 1, Apr. 9-20, 1963	5.0
	July 17, 1963	359	3.03		
1964	Apr. 3, 1964	---	e5.60	Mar. 28-30, 1964	2.0
	June 13, 1964	172	2.34		
1965	Nov. 12, 1964	---	e5.70	Jan. 13, 1965	3.8
	Aug. 14, 1965	159	2.28		
1966	Nov. 10, 1965	---	e6.40	Mar. 1 to Apr. 5, 1966	4.0
	Sept. 19, 1966	117	2.28		
1967	Sept. 7, 1967	228	2.56	Jan. 26 to Feb. 18, 1967	6.5
1968	fMay 20, 1968	131	2.21	Mar. 19-21, 1968	3.5
1969	May 27, 1969	199	2.14	Feb. 5, 6, 22, 24, Mar. 15, 1969	3.0
1970	Aug. 7, 1970	210	2.51	Apr. 6-9, 1970	2.8
1971	Aug. 8, 1971	275	2.70	Apr. 1-10, 1971	3.0
1972	June 1972	g200	---		

a Period July to September.
b Momentary minimum, gage height, 0.90 ft.
c Momentary minimum, discharge measurement
d Maximum daily, estimated.
e Backwater from ice.
f Also June 13, 1968.
g Estimated.

15274000 SOUTH FORK CAMPBELL CREEK NEAR ANCHORAGE--Continued

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1947										61.5	49.1	81.4	
1948	55.7	34.3	24.5	22.3	15.7	10.9	9.87	43.1	84.6	80.6	72.7	66.5	43.8
1949	48.7	22.3	13.0	9.48	6.82	7.39	7.30	48.1	162	119	94.3	69.9	50.9
1950	53.7	30.4	19.9	13.0	8.54	9.48	8.97	21.5	85.6	57.0	36.2	30.9	31.4
1951	19.3	11.5	11.0	9.32	7.46	5.48	6.50	25.8	92.8	64.4	49.5	96.3	32.8
1952	35.7	27.0	19.0	12.0	9.00	8.00	7.00	18.3	73.8	84.3	57.5	79.7	36.0
1953	73.7	56.2	19.9	15.0	11.1	9.00	10.2	49.9	133	73.5	70.1	76.8	49.9
1954	48.8	27.0	19.0	13.0	10.0	9.00	9.00	36.2	49.2	37.8	56.4	38.0	29.6
1955	38.4	32.6	11.2	14.0	5.71	6.00	6.00	18.7	103	139	81.3	65.3	43.6
1956	30.7	18.7	17.0	12.0	10.0	8.00	9.73	27.9	75.6	75.3	64.8	41.0	32.6
1957	24.2	18.4	15.3	9.94	9.00	7.39	8.97	48.4	81.7	48.2	39.5	71.6	31.9
1958	52.3	34.5	21.0	15.0	13.1	9.97	11.2	34.3	101	53.1	66.8	36.1	37.4
1959	40.1	25.1	13.0	10.5	9.50	8.16	7.40	43.3	114	75.7	65.6	64.1	39.8
1960	40.3	25.9	16.6	13.5	11.5	9.52	7.33	62.8	83.4	68.7	91.9	122	46.2
1961	68.8	36.0	31.1	33.3	17.1	12.0	15.5	52.2	99.6	79.1	70.8	92.7	50.8
1962	83.7	38.7	20.6	14.0	12.0	8.00	10.2	32.6	166	92.4	47.0	41.4	47.3
1963	28.2	24.0	20.1	13.6	9.82	6.48	6.47	58.4	106	151	89.2	48.0	47.0
1964	30.8	21.9	18.2	11.5	9.69	5.77	20.3	20.5	132	79.2	49.6	34.2	36.1
1965	31.2	16.9	12.6	5.99	5.91	9.81	11.0	26.0	62.8	68.0	54.6	75.4	31.8
1966	71.4	34.8	19.0	11.7	6.04	4.00	5.13	20.8	93.0	58.2	60.1	71.1	38.1
1967	50.6	18.8	12.4	10.0	6.68	7.00	7.50	35.3	90.1	81.8	62.8	102	40.6
1968	44.8	28.1	17.5	12.5	7.76	5.39	9.95	50.0	95.0	70.3	39.9	27.1	33.8
1969	20.4	15.1	10.6	7.61	4.02	4.05	4.17	29.5	56.1	40.1	31.8	21.1	20.5
1970	46.1	21.1	17.1	10.5	7.10	3.44	5.10	27.3	69.6	62.8	86.4	49.9	34.1
1971	28.7	23.8	11.8	6.10	5.75	3.77	3.70	10.5	85.9	89.4	86.3	44.0	33.5
MEAN	44.4	26.8	17.1	12.8	9.14	7.42	8.52	35.1	95.6	76.4	63.0	61.6	38.3
MONTHLY PERCENT	16	6	4	3	2	2	2	8	21	17	14	13	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1951-55, 1957-65, 1967-72

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1951		1955		1959-cont		1960-cont		1962-cont		1964-cont		1968-cont	
3-22-51	0.0	12-10-54	0.0	4-28-59	3.0	7- 6-60	9.0	5- 7-62	4.0	12- 5-63	0.0	11-15-67	0.5
9-14-51	4.5	1-28-55	0.0	5- 7-59	3.5	7-25-60	9.0	5-16-62	4.0	1-20-64	0.5	1- 3-68	0.0
1952		1957		5-19-59	5.5	8-12-60	11.5	5-28-62	5.0	3-23-64	0.0	4-30-68	2.0
11-30-51	0.0	6-21-57	8.5	6-10-59	10.0	8-19-60	8.5	7-30-62	11.0	4- 3-64	0.0	5-13-68	5.0
1- 5-52	0.0	7- 3-57	10.5	7- 7-59	12.0	9-20-60	5.0	8- 9-62	11.0	4- 5-64	1.0	6- 5-68	5.5
2- 9-52	1.0	1958		7-21-59	8.0	1961		8-13-62	10.0	4-10-64	1.0	8-12-68	10.0
4-14-52	1.0	10- 4-57	2.0	7-31-59	5.5	11-10-60	0.0	9-11-62	5.5	8- 6-64	8.0	1969	
5- 6-52	0.5	10-27-57	5.5	8-25-59	9.0	11-16-60	0.0	1963		1965		10- 4-68	3.0
5- 9-52	0.5	4-29-58	4.5	9-29-59	7.0	11-29-60	5.0	10-17-62	3.0	10- 2-64	3.0	12- 5-68	0.0
6-13-52	8.0	5-13-58	5.5	1960		12- 9-60	0.0	10-29-62	0.0	10-22-64	2.0	5-27-69	6.0
1953		6- 5-58	11.5	10-12-59	1.0	1- 4-61	0.0	12-11-62	0.0	11- 2-64	0.5	7-18-69	10.0
11-19-52	0.5	6- 6-58	9.5	10-21-59	0.0	2-16-61	0.0	1-10-63	0.0	4-22-65	3.5	8-28-69	8.0
5- 8-53	3.5	6-23-58	9.0	11- 2-59	1.0	2-23-61	0.0	1-21-63	0.5	5-24-65	7.0	1970	
6- 4-53	5.5	7- 8-58	10.5	11-30-59	0.0	4-10-61	1.5	2-21-63	0.0	6-18-65	7.0	12-18-69	0.0
1954		8-13-58	9.5	12-14-59	0.0	4-14-61	0.5	3- 1-63	1.0	8-31-65	6.5	3- 4-70	0.0
10- 2-53	0.5	8-22-58	9.5	12-22-59	0.0	5-19-61	4.5	4- 3-63	0.0	1967		5-12-70	8.0
3-16-54	1.0	9- 4-58	8.0	12-31-59	0.0	5-19-61	4.5	4-25-63	1.0	10- 4-66	6.5	5-13-70	6.5
5- 3-54	3.5	9-12-58	8.0	1-28-60	0.0	6-27-61	13.0	5-16-63	7.0	11-14-66	0.0	5-20-70	5.5
5-12-54	3.0	1959		2- 9-60	0.0	8-16-61	9.5	5-31-63	4.0	1- 3-67	0.0	6- 8-70	5.5
6- 4-54	9.5	10-10-58	1.0	2-18-60	0.5	1962		7- 5-63	14.5	2- 7-67	0.5	7-17-70	6.0
6-18-54	10.5	11-18-58	0.5	2-26-60	0.0	10- 5-61	2.0	7-22-63	9.5	3-20-67	0.5	8-19-70	7.0
6-25-54	12.0	1-12-59	0.0	3-10-60	0.0	11- 7-61	0.0	8- 6-63	7.0	5- 1-67	5.5	1971	
7-21-54	11.0	2-21-59	0.0	3-22-60	0.5	12-14-61	0.0	8-26-63	9.5	6- 5-67	6.5	10-12-70	1.5
8- 2-54	6.0	2-26-59	0.5	3-31-60	0.0	1-16-62	0.0	9-24-63	4.5	7-10-67	14.0	5-18-71	2.5
8-19-54	12.0	3-10-59	0.0	4-19-60	1.5	1-26-62	0.0	1964		8-15-67	11.5	7- 1-71	6.0
9-30-54	8.0	3-27-59	0.0	5-11-60	2.0	2-16-62	0.5	10- 7-63	5.0	9- 6-67	6.5	9- 2-71	8.0
		4-20-59	1.0	6-22-60	12.0	3- 8-62	0.0	11- 6-63	0.0	1968		1972	
								11-19-63	0.0	10- 3-67	3.5	10- 4-71	1.5

15274300 NORTH FORK CAMPBELL CREEK NEAR ANCHORAGE

LOCATION.--Lat 61°10'10", long 149°45'45", in SW¼ sec.35, T.13 N., R.3 W., Municipality of Anchorage, on right bank 40 ft (12 m) upstream from Campbell Airstrip road, 2.5 mi (4.0 km) upstream from confluence with South Fork, and 5.5 mi (8.8 km) southeast of Anchorage post Office.

BASIN CHARACTERISTICS.--Drainage area, 13.4 mi² (34.7 km²); main-channel slope, 389 ft/mi (73.7 m/km); stream length, 10.6 mi (17.1 km); area of lakes and ponds, 2 percent; mean elevation, 2,670 ft (814 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum, water years 1967-74. June 1974 to September 1975.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 300 ft (91 m), from topographic map. May 7, 1967 to June 5, 1974, crest-stage gage located 25 ft (7.6 m) downstream at same datum.

EXTREMES.--Maximum discharge during period of record, 107 ft³/s (3.03 m³/s) Aug. 9, 1971, gage height, 12.18 ft (3.712 m); minimum daily, about 2.0 ft³/s (0.057 m³/s) Feb. 2-22 and Apr. 1-15, 1975.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1967	Sept. 17 or 18, 1967	61	11.45		
1968	June 15, 1968	55	11.02		
1969	June 16, 1969	48	10.89		
1970	Aug. 7, 1970	51	11.31		
1971	Aug. 9, 1971	107	12.18		
1972	June 15, 1972	91	11.95		
1973	June 1973	39	11.18		
1974	June 24, 1974	56	10.81	Sept. 13, 1974	a9.8
1975	Sept. 12, 1975	68	11.48	Feb. 2-22, Apr. 1-15, 1975	2.0

a Period June to September; momentary minimum, gage height, 10.11 ft.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1974	---	---	---	---	---	--	---	---	23.7	23.9	15.4	12.9	--
1975	11.5	6.07	4.39	4.00	2.25	3.00	2.95	9.50	28.8	38.2	22.8	29.8	13.7

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1967-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1967		1968		1968-cont		1970		1971-cont		1973-cont		1975	
5- 1-67	5.5	1- 3-68	0.0	9-13-68	5.5	10-14-69	5.0	8- 9-71	9.5	9-11-73	4.0	10-18-74	2.0
6- 5-67	7.0	4- 1-68	0.5	1969		6- 8-70	6.0	1972		1974		1-13-75	0.0
7-10-67	10.0	5-13-68	8.0	10- 4-68	2.0	1971		6- 8-72	4.5	10- 4-73	3.5	6-13-75	5.0
7-20-67	9.0	6- 5-68	5.0	6-10-69	8.0	10-12-70	2.0	1973		6-21-74	8.5	6-16-75	7.0
8-15-67	11.0	6-28-68	8.0	7-18-69	9.0	5-18-71	5.5	5- 7-73	7.5	6- 6-74	7.5	6-25-75	8.0
		8-12-68	8.0			5-26-71	5.5	8- 1-73	9.0	7- 9-74	9.0	7- 1-75	8.5
						7-13-71	10.5			8-14-74	12.0	7-11-75	10.5

15274600 CAMPBELL CREEK NEAR SPENARD

LOCATION.--Lat 61°08'17", long 149°55'20", on line between sec.11 and 14, T.12 N., R.4 W., Municipality of Anchorage, on upstream right winewall of bridge at Dimond Blvd. crossing, 2.0 mi (3.2 km) upstream from mouth, and 4.3 mi (6.9 km) south of Spenard.

BASIN CHARACTERISTICS.--Drainage area, 69.7 mi² (180.5 km²); main-channel slope, 162 ft/mi (30.7 m/km); stream length, 19.2 mi (30.9 km); area of lakes and ponds, 1 percent; mean elevation, 1,680 ft (512 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1966 to September 1975.

GAGE.--Water-stage recorder. Datum of gage is 18.04 ft (5.499 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 57.7 ft³/s (1.631 m³/s), 11.21 in/yr (285 mm/yr), 41,800 acre-ft/yr (51.5 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 421 ft³/s (11.9 m³/s) Aug. 9, 1971, gage height, 3.63 ft (1.106 m); maximum gage height observed, 4.90 ft (1.494 m) Mar. 5, 1970 (backwater from ice); minimum daily discharge, 2.2 ft³/s (0.062 m³/s) Feb. 5, 1969.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum Date	Discharge	Gage height	Minimum daily Date	Discharge
1966a	Sept. 19, 1966	196	2.24	Sept. 11, 1966	b65
1967	Apr. 13, 1967	---	c3.00	Feb. 7 to Mar. 25, 1967	17
	Sept. 6, 1967	275	2.95		
1968	Apr. 18, 1968	---	c3.25	Mar. 20-22, 1968	15
	May 31, 1968	208	2.29		
1969	Feb. 4, 1969	---	c3.50	Feb. 5, 1969	2.2
	July 25, 1969	173	1.87		
1970	Mar. 5, 1970	---	c4.90	Apr. 1-10, 1970	16
	Aug. 7, 1970	262	2.82		
1971	Feb. 5, 1971	---	c3.70	Mar. 2-10, 1971	5.5
	Aug. 9, 1971	421	3.63		
1972	May 8, 1972	---	c3.60	Mar.1 to Apr. 20, 1972	12
	Sept. 30, 1972	271	2.55		
1973	Oct. 1, 1972	202	d2.11	Feb. 24 to Mar. 23, 1973	14
1974	Apr. 29, 1974	---	c3.45	Jan. 28 to Feb. 5, 1974	4.0
	June 13, 1974	145	1.55		
1975	Sept. 11, 1975	e350	---	Feb. 9-19, 1975	5.0

a Period June to September.
b Momentary minimum, gage height, 1.03 ft.
c Backwater from ice.
d Stage falling, peak occurred Sept. 30, 1972; maximum peak discharge, 188 ft³/s Oct. 17, 1972, gage height, 2.00 ft.
e Estimated, based on runoff comparison with station 15273900.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1966										101	95.5	112	
1967	[illegible]	[illegible]	[illegible]	24.7	17.3	17.2	24.7	41.9	142	177	122	159	71.0
1968	[illegible]	[illegible]	[illegible]	16.[illegible]	21.4	19.1	44.7	48.3	162	124	76.9	52.0	44.1
1969	[illegible]	[illegible]	[illegible]	14.[illegible]	[illegible]	14.7	24.4	53.2	87.5	70.0	57.0	35.2	38.2
1970	[illegible]	[illegible]	[illegible]	20.[illegible]	[illegible]	18.4	14.7	44.1	100	102	124	73.3	50.9
1971	[illegible]	[illegible]	[illegible]	12.7	[illegible]	[illegible]	[illegible]	27.0	124	144	194	96.2	42.4
1972	[illegible]	[illegible]	[illegible]	14.[illegible]	14.7	12.0	12.7	50.2	135	144	75.0	99.1	52.0
1973	134	[illegible]	[illegible]	15.5	[illegible]	14.5	24.7	41.5	103	92.8	90.2	68.4	51.8
1974	50.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.1	21.5	50.1	106	90.2	55.4	51.8	41.1
1975	57.5	21.1	15.[illegible]	16.4	[illegible]	12.8	34.4	85.0	132	136	83.5	135	52.9
MEAN	70.7	42.2	30.0	20.0	15.2	13.9	24.2	55.9	121	115	76.5	88.3	57.7
MONTHLY PERCENT	10	6	4	3	2	2	3	8	18	17	14	13	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1967-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1967		1967-cont		1969-cont		1970-cont		1972		1974		1975-cont	
10- 6-66	3.0	8- 5-67	13.0	2- 4-69	0.0	3-17-70	10.0	10- 5-71	2.0	10- 4-73	3.0	4-29-75	0.5
10-11-66	1.0	9- 7-67	7.5	3-28-69	0.0	8-19-70	9.5	1- 5-72	0.0	5- 2-74	2.5	5- 1-75	0.5
11-14-66	0.0	1968		5-22-69	6.5	1971		2-24-72	0.0	5-21-74	9.5	5- 8-75	0.5
2- 5-67	0.0	10- 3-67	3.5	7-18-69	13.0	10-12-70	3.5	7-31-72	13.0	7-12-74	9.0	5-19-75	6.5
2- 7-67	0.5	11-15-67	0.0	8-28-69	9.0	11-30-70	0.0	1973		8-15-74	15.0	5-29-75	6.0
3-21-67	0.0	4-30-68	0.5	1970		5-18-71	1.5	10-31-72	0.0	9-13-74	2.5	6-13-75	8.5
5- 1-67	0.5	6- 5-68	8.0	12-16-69	0.0	7- 1-71	9.0	12-12-72	0.0	1975		6-26-75	11.5
5-15-67	6.0	6-28-68	13.0	3- 3-70	0.0	7-14-71	11.5	5- 7-73	3.5	10-18-74	2.5	7-11-75	13.0
6- 1-67	10.5	8-13-68	9.0	5-13-70	6.0	8-10-71	10.0	6-21-73	12.0	11-18-74	3.0	8-11-75	9.0
6-21-67	12.5	1969		5-20-70	6.5	9- 2-71	7.0	8- 2-73	10.5	1-10-75	3.0	9- 2-75	10.5
7-11-67	15.0	10- 4-68	3.5	6- 3-70	8.0			9-11-73	6.0	4-28-75	7.5	9-11-75	7.5

15[illegible]700 SAND LAKE NEAR SPENARD

LOCATION.--Lat 61°09'03", long 149°58'25", in NW¼ sec.10, T.12 N., R.4 W., Municipality of Anchorage, at west end of lake, 4.0 mi (6.4 km) southwest of Spenard.

PERIOD OF RECORD.--Water years 1967-75.

PERIOD OF DAILY RECORD.--May 1967 to June 1975 (open water period only).

GAGE.--Nonrecording gage. Datum of gage is at mean sea level. Prior to Oct. 1, 1968, at datum 85.12 ft (25.944 m) higher.

REMARKS.--Lake level fluctuations are due to changes in ground-water level rather than surface inflow.

EXTREMES.--Maximum observed elevation during period of record, 87.02 ft (26.524 m), present datum, June 1, 2, 1968; minimum 83.62 ft (25.487 m) Sept. 10, 1972, but may have been less during the periods of no gage-height record September 1974 to January 1975.

PERIODIC ELEVATION, IN FEET

DATE	ELEV	DATE	ELEV	DATE	ELEV	DATE	ELEV
1974		1974-cont		1975		1975-cont	
7- 9-74	84.04	8-15-74	83.79	2- 4-75	83.94	6-13-75	84.91
7-16-74	84.02	8-30-74	83.69	2-11-75	83.94	7-22-75	84.50
7-18-74	84.00	9-10-74	83.62	2-21-75	83.92	8-22-75	84.11
7-24-74	83.94	9-19-74	83.63	2-27-75	83.96	8-26-75	84.38
7-26-74	83.90	9-25-74	83.71	3- 9-75	84.91	9- 8-75	84.30
8- 4-74	83.80	9-30-74	83.68	5-23-75	84.98	9-19-75	84.66
8- 6-74	83.80			5-30-75	85.04		

MONTHLY MAXIMUM AND MINIMUM ELEVATION, IN FEET

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1967	Max	---	---	---	---	---	---	---	a	86.92	86.74	86.58	86.78
	Min	---	---	---	---	---	---	---	a	86.72	86.57	86.51	86.56
1968	Max	86.72	---	---	---	---	---	---	a	87.02	86.76	86.43	86.17
	Min	86.58	---	---	---	---	---	---	a	86.76	86.44	86.18	85.95
1969	Max	86.05	---	---	---	---	---	a	85.90	85.76	85.42	85.28	84.93
	Min	a	---	---	---	---	---	a	85.78	85.43	85.14	84.94	84.78
1970	Max	84.79	a	---	---	---	---	a	84.78	84.54	84.23	84.12	84.09
	Min	84.68	a	---	---	---	---	a	84.55	84.24	84.04	84.05	83.92
1971	Max	a	---	---	---	---	---	---	84.86	84.84	84.62	84.78	84.76
	Min	a	---	---	---	---	---	---	a	84.63	84.44	84.60	84.68
1972	Max	a	---	---	---	---	---	---	85.52	85.52	85.29	84.91	84.88
	Min	84.76	---	---	---	---	---	---	a	85.29	84.92	84.72	84.71
1973	Max	a	---	---	---	---	---	85.26	85.32	85.09	84.87	84.52	84.48
	Min	84.88	---	---	---	---	---	a	85.11	84.88	84.44	84.38	84.35
1974	Max	a	---	---	---	---	---	---	84.48	84.25	---	---	---
	Min	84.39	---	---	---	---	---	---	84.27	83.93	---	---	---

a Data insufficient to compute monthly maximum or minimum.

15275000 CHESTER CREEK AT ANCHORAGE

LOCATION.--Lat 61°11'50", long 149°50'07", in SW¼ sec.21, T.13 N., R.3 W., Municipality of Anchorage, on right bank 10 ft (3 m) upstream from culverts on Lake Otis Parkway, 2.3 mi (3.7 km) southeast of Anchorage Post Office, and 3.2 mi (5.1 km) upstream from mouth.

BASIN CHARACTERISTICS.--Drainage area, 20.0 mi² (51.8 km²); main-channel slope, 226 ft/mi (42.8 m/km); stream length, 11.4 mi (18.3 km); area of lakes and ponds, 1 percent; mean elevation, 800 ft (244 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1958 to September 1975.

GAGE.--Water-stage recorder and culvert control. Datum of gage is 88.8 ft (27.07 m) above mean sea level. Prior to June 25, 1968, nonrecording gage, and June 25, 1968 to June 8, 1971, nonrecording gage and crest-stage gage.

AVERAGE DISCHARGE.--17 years, 18.7 ft³/s (0.530 m³/s), 12.70 in/yr (323 mm/yr), 13,550 acre-ft/yr (16.7 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 95 ft³/s (2.69 m³/s) Apr. 29, 1963, gage height, 2.40 ft (0.732 m) from graph based on gage readings; maximum gage height observed, 3.8 ft (1.16 m) Nov. 29, 1961 (backwater from ice); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Mar. 4-7, 1971.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1958a	Aug. 3, 1958	b42	2.16	July 7, 15, 1958	c18
1959	Apr. 27, 1959	94	2.73	Mar. 17-22, 1959	10
1960	Apr. 28, 1960	---	2.22	Mar. 12-14, 1960	11
	Sept. 13, 1960	72	2.16		
1961	Nov. 25, 1960	---	d3.06	Mar. 13-15, 1961	14
	Sept. 30, 1961	82	2.13		
1962	Nov. 29, 1961	---	d3.8	Mar. 28, 29, 31, 1962	15
	June 15, 1962	89	2.31		
1963	Dec. 7,29,30,1962	---	d2.99	Many days, January to March, 1963	13
	Apr. 29, 1963	95	2.40		
1964	Jan. 19, 1964	---	d2.45	Mar. 28-31, 1964	4.0
	Apr. 25, 1964	b32	1.38		
1965	Nov. 1, 1964	---	d1.92	Feb. 14-21, 1965	7.0
	Sept. 27, 1965	b48	1.70		
1966	Apr. 21, 1966	b50	d1.96	Mar. 16-29, 1966	12
1967	Nov. 14, 1966	---	d2.39	Mar. 13, 14, 20, 1967	8.7
	Sept. 5, 1967	b57	1.78		
1968	Dec. 22, 1967	---	d2.94	Feb. 4-7, 1968	11
	Jan. 13, 1968	---	d2.94		
	May 31, 1968	b42	1.56		
1969	Jan. 31, 1969	---	d2.38	Mar. 13-19, 1969	7.0
	July 24, 1969	60	2.28		
1970	Mar. 2, 1970	---	d2.54	Jan. 29-31, 1970	6.3
	Aug. 10, 1970	69	2.00		
1971	Feb. 3, 1971	---	d3.20	Mar. 4-7, 1971	1.0
	Aug. 9, 1971	62	1.90		
1972	May 3, 1972	87	e3.14	Mar. 21-28, 1972	7.1
1973	Oct. 18, 1972	45	1.64	Mar. 6-20, 1973	8.0
	Nov. 3, 1972	---	d1.9		
1974	Sept. 23, 1974	32	1.36	Jan. 30, 1974	4.0
1975	Sept. 11, 1975	80	2.17	Feb. 11-14, 1975	2.5

a Period July to September.
b Maximum daily.
c Gage height, 1.54 ft.
d Backwater from ice.
e Backwater from debris.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1958										24.1	29.6	23.2	
1959	23.2	18.0	14.9	12.3	13.1	11.8	26.2	36.6	27.7	27.4	28.9	35.1	23.0
1960	29.8	24.9	20.0	17.7	16.4	14.1	26.3	30.6	24.3	23.6	28.3	48.0	25.3
1961	42.9	28.6	26.4	23.4	19.2	17.3	29.0	26.3	25.6	27.2	27.6	35.7	27.5
1962	49.2	35.5	29.3	20.5	19.1	17.0	34.9	35.5	47.3	38.8	31.2	27.2	32.2
1963	22.2	19.8	18.8	15.7	13.7	15.6	27.3	35.4	27.0	27.6	34.7	30.4	24.1
1964	23.0	14.7	12.7	11.9	10.2	9.74	18.7	22.0	23.3	21.9	21.3	18.0	17.3
1965	22.3	14.1	11.2	8.39	7.75	19.1	20.9	16.6	19.2	21.5	22.7	29.6	17.8
1966	34.1	21.7	20.1	18.3	15.1	12.7	27.7	27.8	23.2	20.2	20.0	22.5	22.0
1967	22.1	16.0	13.0	12.0	11.5	9.37	16.9	16.9	16.5	16.5	20.2	32.7	17.0
1968	22.7	19.7	16.6	16.1	12.6	13.9	19.8	23.4	28.1	21.2	18.7	19.9	19.4
1969	13.3	10.7	10.5	9.03	7.80	7.88	15.5	15.0	13.0	15.0	12.0	14.0	12.0
1970	13.4	9.03	8.82	6.80	7.01	8.59	8.86	9.01	8.08	8.44	13.9	9.58	9.32
1971	8.31	6.22	3.39	2.09	1.71	2.33	8.76	14.3	14.0	15.7	29.7	25.6	11.0
1972	26.2	14.6	12.8	10.5	9.00	8.04	12.3	27.8	22.8	18.1	16.8	20.8	16.7
1973	30.0	15.8	14.3	11.0	9.36	9.10	17.7	14.9	14.0	11.1	19.7	16.0	15.3
1974	18.4	11.9	10.6	7.81	6.21	9.55	13.9	10.8	10.5	11.4	11.8	13.3	11.4
1975	14.7	11.7	6.27	7.27	4.96	6.60	18.6	25.8	19.1	25.1	20.0	34.7	16.3
MEAN	24.4	17.2	14.7	12.4	10.9	11.3	20.2	22.9	21.4	20.8	22.6	25.3	18.7
MONTHLY PERCENT	11	8	7	6	5	5	9	10	10	9	10	11	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1966-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1958		1959-cont		1960-cont		1967-cont		1969-cont		1972-cont		1974-cont	
4-29-58	8.0	5- 7-59	5.0	3-22-60	1.5	9- 7-67	7.0	8-27-69	10.0	2-23-72	0.5	7- 1-74	16.0
5-13-58	9.0	6-10-59	10.5	3-31-60	0.5	1968		1970		3-23-72	1.0	7- 9-74	12.5
6- 6-58	14.5	7- 7-59	10.0	4-19-60	2.0	10- 3-67	3.0	10-14-69	6.0	8- 1-72	13.0	7-11-74	11.0
7- 8-58	10.5	7-21-59	5.5	4-26-60	3.0	11-14-67	1.5	12-15-69	0.0	9-29-72	4.5	8-12-74	12.0
8-13-58	9.5	7-31-59	5.5	5-17-60	9.0	1- 2-68	1.0	3- 2-70	0.5	1973		9-12-74	10.5
8-22-58	9.5	8-25-59	9.0	5-31-60	7.0	1-10-68	0.0	5-12-70	7.0	10-30-72	2.0	1975	
9- 4-58	6.5	1960		6-22-60	12.0	2-13-68	1.0	6- 9-70	8.0	11-29-72	0.5	10-21-74	3.0
9-12-58	8.0	10-12-59	2.0	7- 6-60	9.5	3-28-68	1.0	7-16-70	11.0	12-11-72	1.0	11-15-74	0.5
9-25-58	1.5	10-21-59	3.5	8-12-60	11.5	4-29-68	2.0	7-21-70	10.0	2- 1-73	0.0	3-19-75	1.0
1959		11- 2-59	2.0	9-20-60	5.0	5-14-68	6.0	8-18-70	8.0	5- 4-73	4.0	4- 7-75	2.0
10-10-58	3.5	11-10-59	1.0	1966		6- 6-68	5.0	1971		5- 8-73	9.0	4-15-75	1.5
10-29-58	1.5	11-30-59	0.0	1-12-66	0.0	7- 1-68	9.0	10- 9-70	3.0	6-21-73	11.0	5- 1-75	3.0
11-18-58	1.0	12-14-59	0.0	1967		8- 8-68	9.0	12- 1-70	0.0	9-10-73	7.0	5- 2-75	3.0
2- 2-59	0.0	12-22-59	1.0	10- 6-66	3.5	9-12-68	7.5	5- 7-71	3.0	1974		5-15-75	6.0
2-21-59	1.0	12-31-59	0.5	11-14-66	1.0	1969		6-29-71	12.5	10- 4-73	4.0	5-29-75	7.0
2-26-59	1.0	1-28-60	1.0	1- 3-67	0.0	12-02-68	0.0	7-21-71	6.5	1- 3-74	0.5	6-26-75	9.5
3-27-59	1.0	2- 9-60	0.0	3- 3-67	4.5	4- 2-69	1.0	1972		3-26-74	1.0	8- 4-75	9.5
4-20-59	2.0	2-18-60	0.5	5-31-67	6.5	5- 9-69	5.0	10- 5-71	4.0	5- 3-74	6.5	9- 3-75	7.0
4-27-59	0.5	2-26-60	0.0	7-10-67	14.0	6- 9-69	7.0	11- 3-71	0.5	5-20-74	11.5	9-10-75	7.0
4-30-59	11.5	3-10-60	0.0	8-16-67	10.0	7-14-69	10.0	12-29-71	1.0	6-24-74	12.0	9-11-75	8.0

15275100 CHESTER CREEK AT ARCTIC BOULEVARD AT ANCHORAGE

LOCATION.--Lat 61°12'19", long 149°53'13", on line between sec.19, R 3 W., and sec.24, R.4 W., T.13 N., Municipality of Anchorage, on upstream right bank winewall of bridge on Arctic Boulevard at Anchorage.

BASIN CHARACTERISTICS.--Drainage area, 27.2 mi² (70.4 km²), main-channel slope, 160 ft/mi (32.0 m/km); stream length, 12.8 mi (20.6 km); area of lakes and ponds, 1 percent; mean elevation, 780 ft (238 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1966 to September 1975.

GAGE.--Water stage recorder and culvert control. Datum of gage is 16.02 ft (4.883 m) above mean sea level (from USC & GS, datum of 1963).

AVERAGE DISCHARGE.--9 years, 16.8 ft³/s (0.476 m³/s), 8.50 in/yr (215 mm/yr), 12,170 acre-ft/yr (15.0 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 175 ft³/s (4.96 m³/s) Sept. 11, 1975, gage height, 4.37 ft (1.332 m); minimum daily, about 1.6 ft³/s (0.045 m³/s) Feb. 12-14, 1975.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1966[a]	June 21, 1966	44	2.00	June 25, 26, 1966	b18
1967	Apr. 7, 1967	---	c2.68	Jan. 1 to Feb. 20, 1967	12
	Sept. 4, 1967	87	2.52		
1968	Mar. 18, 1968	---	c2.53	Feb. 1-6, 1968	15
	May 30, 1968	85	2.43		
1969	Jan. 31, 1969	-	c4.07	Mar. 15-18, 1969	7.5
	July 24, 1969	30	2.70		
1970	Aug. 10, 1970	89	2.88	Jan. 29-31, 1970	7.2
1971	Feb. 3, 1971	---	c4.25	Mar. 4-7, 1971	2.0
	Aug. 8, 1971	95	2.97		
1972	Sept. 29, 1972	89	2.89	Mar. 10-19, 1972	3.5
1973	Oct. 11, 1972	69	2.59	June 29, 1973	d9.4
	Nov. 5, 1972	---	c2.97		
1974	Sept. 25, 1974	80	2.76	Jan. 30, 1974	6.0
1975	Sept. 11, 1975	175	4.37	Feb. 12-14, 1975	1.6

a Period June to September.
b Momentary minimum, gage height, 1.11 ft.
c Backwater from ice.
d Momentary minimum, gage height, 1.44 ft.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1966									15.3	25.2	25.0	27.5	
1967	20.1	16.9	15.0	12.0	11.3	14.2	21.2	20.0	18.8	29.0	25.1	26.0	19.9
1968	22.7	21.1	17.5	11.5	15.0	15.0	24.8	27.6	32.5	21.0	26.2	25.8	22.0
1969	13.5	11.6	11.5	10.2	5.57	8.28	20.2	17.1	15.5	29.0	16.1	26.1	17.4
1970	17.0	11.0	10.1	7.70	8.61	10.1	10.6	11.0	10.1	11.6	17.1	12.5	11.5
1971	19.7	9.07	7.05	5.27	7.0	4.18	11.5	10.4	17.9	19.2	52.1	26.9	16.9
1972	28.9	16.2	11.1	11.0	8.82	5.52	14.2	31.3	24.0	18.7	18.4	24.5	18.3
1973	51.4	20.0	18.5	14.3	11.1	12.6	25.3	16.5	14.8	13.6	19.5	18.7	17.9
1974	28.0	12.7	14.1	10.0	5.17	12.7	16.3	12.4	11.5	15.1	14.7	17.7	13.6
1975	19.3	11.6	7.09	8.43	5.20	7.79	21.2	27.0	22.8	29.0	25.5	31.7	19.4
MEAN	21.5	12.8	12.2	10.7	8.96	10.4	18.2	20.4	18.1	19.5	21.5	24.5	16.8
MONTHLY PERCENT	11	7	6	5	4	5	13	10	9	10	11	12	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1967-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1967		1968		1969-cont		1970-cont		1972		1973-cont		1974-cont	
1-[illegible]-66	3.5	10-[illegible]-67	3.5	3-20-69	7.0	5-12-70	2.0	10-[illegible]-71	4.0	9-10-73	7.5	9-12-74	10.0
11-11-66	0.5	11-14-67	2.5	4-2-69	1.0	6-9-70	9.0	12-29-71	0.0	1974		1975	
2-11-67	0.0	1-2-68	2.5	5-9-69	7.0	8-18-70	8.0	2-23-72	0.0	10-4-73	2.0	10-28-74	3.5
3-21-67	0.0	3-28-68	1.5	7-14-69	10.0	9-10-70	15.5	3-27-72	1.0	11-7-73	0.5	10-21-74	4.0
4-21-67	1.0	4-25-68	3.5	7-25-69	11.5	9-21-70	11.5	5-9-72	6.5	1-8-74	0.5	10-25-74	4.5
5-5-67	2.5	6-6-68	7.0	8-28-69	8.5	8-18-70	10.0	8-1-72	13.0	2-11-74	0.0	11-15-74	0.5
6-13-67	6.5	8-7-68	9.0	1970		1971		1973		4-2-74	2.5	1-8-75	0.0
7-31-67	8.0	9-12-68	9.0	10-14-69	6.0	10-9-70	5.5	10-30-72	2.0	4-9-74	2.0	4-15-75	3.0
7-11-67	19.0	1969		11-30-69	0.0	12-2-70	0.5	11-29-72	0.5	5-3-74	5.5	5-29-75	9.0
7-24-67	11.0	10-1-68	4.0	12-15-69	0.0	2-3-71	0.0	12-12-72	0.5	5-21-74	23.5	6-10-75	13.0
8-16-67	11.0	12-2-68	0.0	3-2-70	0.5	3-17-71	0.5	2-1-73	0.0	7-9-74	22.0	6-26-75	15.5
9-6-67	7.5	3-14-69	1.0	3-25-70	3.0	6-30-71	9.5	5-4-73	9.0	7-31-74	20.0	9-3-75	10.5
						7-21-71	11.0	6-21-73	18.0	8-13-74	22.5	9-10-75	9.0

15276000 SHIP CREEK NEAR ANCHORAGE

LOCATION.--Lat 61°13'25", long 149°53'55", in NW¼ sec.16, T.13 N., R.2 W., Municipality of Anchorage, in Fort Richardson Military Reservation, at diversion dam and Fort Richardson water-supply intake building, 3.1 mi (5.0 km) upstream from North Fork Ship Creek, and 3.5 mi (5.7 km) east of Anchorage.

BASIN CHARACTERISTICS.--Drainage area, 90.5 mi² (234.1 km²); main-channel slope, 119 ft/mi (22.5 m/km); stream length, 19.0 mi (30.6 km); area of lakes and ponds, 1 percent; mean elevation, 3,100 ft (945 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to September 1975.

GAGE.--Water-stage recorder and masonry dam. Datum of gage is 530 ft (161.5 m) above mean sea level (levels by Corps of Engineers). Oct. 1, 1946 to Apr. 27, 1947, nonrecording gage, and May 1, 1947 to Apr. 19, 1954, water-stage recorder, at site 0.2 mi (0.3 km) downstream at different datum. June 18, 1953 to Sept. 30, 1954, supplemental water-stage recorder at site 2.7 mi (4.3 km) downstream at different datum.

REMARKS.--Diversion for water supply to Fort Richardson, Elmendorf Air Force Base, and Municipality of Anchorage began in 1914. Monthly and annual mean diversions since October 1946 are shown on the next page. Table of monthly and annual mean discharge on next page represents combined flow. Discharge data in table of EXTREMES represent net flow remaining after diversion.

COOPERATION.--Gage inspected and records of diversion furnished by Office of Post Engineers, Fort Richardson.

AVERAGE DISCHARGE.--29 years, 158 ft³/s (4.475 m³/s), 23.71 in/yr (602 mm/yr), 114,500 acre-ft/yr (141 hm³/yr). Adjusted to include diversion.

EXTREMES.--Maximum discharge during period of record, 1,860 ft³/s (52.7 m³/s), June 21, 1949, gage height, 3.44 ft (1.049 m), site and datum then in use; maximum gage height, 5.03 ft (1.533 m) Nov. 20, 1974 (backwater from ice); no flow at times due to diversion.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum			Minimum daily	
	Date	Discharge	Gage height	Date	Discharge
1947	May 31, 1947	780	1.05	Apr. 1, 1947	24
1948	June 14, 1948	662	1.75	Apr. 6, 1948	a26
1949	June 21, 1949	1,860	3.44	Feb. 20, 1949	20
1950	June 18, 1950	857	1.01	Feb. 17, 18, 1950	24
1951	Sept. 4, 1951	b983	2.19	Apr. 13, 1951	12
1952	June 20, 1952	734	1.69	Apr. 1-15, 1952	c13
1953	June 4, 1953	999	2.07	Apr. 1-15, 1953	10
1954	Oct. 6, 1953	488	1.35	Apr. 22, 1954	d1.0
1955	July 4, 1955	1,070	2.11	Apr. 25, 1955	d2.5
1956	July 31, 1956	685	1.10	Jan. 2,4,12-15, Feb. 11-13, 1956	0.0
1957	June 4, 1957	712	1.99	Apr. 5,8, 1957	d4.0
1958	June 7, 1958	874	2.41	Mar. 17, 1958	d10
1959	Dec. 31, 1958	---	e2.99	Mar. 19,20, 1959	d7.0
	June 3, 1959	670	1.85		
1960	May 25, 1960	966	3.58	Mar. 7,15, 1960	0.0
1961	Jan. 21, 1961	---	e3.55	Mar. 23, 1961	f21
	June 20, 1961	750	1.05		
1962	June 13, 1962	g1,200	---	Jan. 6, 1962	d8.0
1963	June 22, 1963	960	3.41	Mar. 20-29, 1963	d10
1964	June 13, 1964	1,140	3.74	Mar. 28, 1964	10
1965	Sept. 20, 1965	591	1.49	Feb. 19-21, 1965	14
1966	June 7, 1966	926	3.29	Apr. 5, 1966	11
1967	Sept. 18, 1967	1,340	2.29	Mar. 13-15, 1967	11
1968	May 29, 1968	806	3.09	Mar. 26,30, 1968	d4.5
1969	May 27, 1969	516	2.19	Mar. 16, 1969	h0.0
1970	Oct. 7, 1969	850	3.25	Mar. 9, 1970	d3.5
1971	Aug. 8, 1971	1,580	3.58	Mar. 4,5, 1971	0.0
1972	June 15, 1972	1,040	3.45	Apr. 21, 1972	d5.0
1973	June 21, 1973	548	2.57	Mar. 17-20, 1973	5.0
1974	Jan. 3, 1974	---	e4.21	Mar 4-10, 1974	3.0
	June 2, 1974	i500	2.45		
1975	Nov. 20, 1974	---	e5.03	Mar. 17 to Apr. 5, 1975	7.0
	June 30, 1975	650	2.81		

a Momentary minimum, 0.2 ft³/s Apr. 23, 1948, gage height, 0.03 ft, result of ice jam above gage.
b Caused by failure of cofferdam upstream.
c No flow for several hours on Mar. 16, 17, 19, 1952, caused by temporary obstruction upstream.
d No flow for parts of several days.
e Backwater from ice.
f No flow for part of each day Mar. 23, 24, 1961.
g Maximum daily.
h Also no flow part of some days Dec. 11, 1968 to Mar. 27, 1969.
i May have been greater during the period of no gage height record May 27-31, 1974.

15276000 SHIP CREEK NEAR ANCHORAGE--Continued

DIVERSION FOR WATER SUPPLY
MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1947	4.4	4.7	4.7	4.6	4.7	4.5	4.3	4.3	4.3	5.0	4.7	4.6	4.6
1948	4.4	4.4	4.7	4.5	4.5	4.6	4.5	4.6	4.3	4.4	4.6	4.2	4.5
1949	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
1950	4.5	4.1	4.4	4.3	4.2	5.0	4.8	4.7	4.9	6.3	5.1	4.7	4.8
1951	5.0	4.8	10.7	10.8	11.1	11.4	11.1	11.8	11.0	11.4	10.3	10.6	10.0
1952	11.0	10.7	11.1	13.8	14.7	17.5	11.6	17.0	15.5	18.0	18.0	18.0	15.0
1953	19.0	20.0	20.0	20.0	21.0	21.0	21.0	22.0	22.0	23.0	23.0	22.0	21.2
1954	21.0	23.0	25.0	23.0	24.0	28.0	25.0	21.0	22.0	23.0	23.0	22.0	23.0
1955	21.0	24.0	26.0	26.0	26.0	26.0	24.0	21.0	22.0	23.0	24.0	24.0	24.0
1956	22.2	23.0	23.8	25.1	27.6	27.2	23.4	22.4	23.5	23.6	22.4	21.8	24.0
1957	22.1	21.9	22.9	23.4	20.9	20.7	20.6	22.8	23.7	22.3	22.3	21.6	22.1
1958	21.6	20.6	20.4	19.0	18.1	18.3	17.0	20.0	17.8	19.6	18.6	20.5	19.3
1959	19.6	16.1	16.2	18.0	17.9	18.0	16.9	14.5	20.3	18.9	17.9	17.9	17.7
1960	15.8	11.1	12.9	16.5	16.5	14.4	12.2	12.4	19.8	19.7	18.7	17.6	15.6
1961	18.8	17.2	15.7	15.5	14.0	15.6	13.1	14.1	18.9	19.0	18.0	18.9	16.6
1962	15.0	12.0	12.0	16.9	15.9	16.8	15.6	18.4	16.9	18.0	19.0	17.1	16.2
1963	17.7	16.5	17.7	17.7	16.6	15.6	14.7	14.1	18.8	21.0	18.2	18.5	17.3
1964	17.3	17.4	16.1	16.2	14.5	16.0	16.2	16.7	18.6	18.1	17.7	18.3	16.9
1965	15.5	15.8	18.9	18.4	18.4	19.1	17.5	19.0	20.5	16.1	20.3	19.3	18.2
1966	18.8	19.4	19.9	17.5	17.1	18.6	18.4	17.9	22.0	21.6	19.6	17.4	18.9
1967	16.7	14.4	18.6	18.9	18.6	19.0	19.4	20.0	19.6	19.3	19.0	19.8	18.6
1968	21.1	20.5	18.6	22.2	22.5	19.1	19.0	17.2	18.2	21.0	23.0	22.4	20.4
1969	21.8	22.5	22.1	19.4	17.8	15.1	14.1	16.4	21.6	21.2	22.4	23.6	19.7
1970	23.2	23.9	25.4	22.9	22.5	19.4	15.1	20.5	23.1	24.3	23.7	24.0	22.4
1971	22.6	18.0	22.3	24.3	23.1	23.9	22.8	17.0	17.8	18.9	19.5	20.8	20.9
1972	19.2	16.1	20.3	21.8	22.6	23.1	19.3	16.4	16.9	23.4	24.1	22.4	20.5
1973	21.2	19.6	21.6	22.6	23.5	23.3	20.9	21.6	22.4	23.8	23.1	22.4	22.2
1974	21.0	21.8	21.7	23.3	22.2	21.9	17.4	20.3	23.2	24.9	23.9	23.1	22.2
1975	23.8	23.0	21.0	22.4	21.0	21.4	19.8	20.6	22.0	22.7	20.1	17.1	21.1

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND
(ADJUSTED TO INCLUDE DIVERSION FOR WATER SUPPLY)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1947	100	73.4	53.8	42.3	43.3	46.6	44.9	167	360	232	188	336	141
1948	273	143	112	77.4	45.9	38.3	36.5	197	428	298	272	251	180
1949	190	86.6	63.6	45.2	33.3	31.2	34.5	193	604	483	361	268	200
1950	190	103	67.2	49.6	34.7	37.1	35.2	69.1	440	276	151	111	130
1951	67.0	41.1	43.7	59.8	34.4	29.9	33.4	130	425	280	192	435	146
1952	169	94.8	59.5	42.2	30.7	31.5	28.1	105	394	329	246	274	150
1953	267	197	66.2	56.1	44.9	32.0	41.5	270	695	500	248	261	207
1954	182	87.1	70.6	46.6	38.4	34.0	29.8	174	246	151	224	160	120
1955	127	107	51.7	45.5	33.0	31.6	30.6	87.4	483	662	315	228	185
1956	103	70.8	40.6	32.2	33.5	30.8	37.9	126	394	311	236	170	133
1957	90.9	69.2	56.5	42.9	35.1	28.2	36.6	243	400	184	149	256	133
1958	194	127	79.6	59.8	43.8	38.2	48.9	180	481	243	259	140	158
1959	144	79.5	54.9	35.5	35.0	29.8	39.2	230	558	262	253	123	163
1960	116	81.1	59.4	52.4	37.3	26.5	36.5	353	452	291	275	358	179
1961	220	117	106	94.8	68.6	51.5	59.4	241	439	364	277	312	201
1962	277	104	60.5	46.7	40.8	35.4	40.2	152	687	367	169	152	178
1963	102	83.2	65.5	53.0	41.4	28.3	32.1	251	565	622	412	198	205
1964	121	52.1	56.0	41.4	37.8	33.2	65.6	90.6	761	380	210	148	166
1965	124	77.9	64.7	41.5	56.0	42.7	55.8	124	362	354	272	347	159
1966	255	125	79.1	50.8	39.9	31.9	37.6	92.4	461	269	246	311	167
1967	211	101	60.1	46.6	35.6	31.0	34.0	174	414	321	299	491	186
1968	170	95.2	58.4	43.3	40.5	33.7	53.6	291	511	506	165	107	155
1969	70.5	46.8	36.0	35.4	28.0	23.4	27.3	142	286	150	117	79.4	87.0
1970	216	73.1	60.1	58.2	33.2	30.6	32.7	132	386	344	264	150	147
1971	93.2	111	62.7	46.0	37.5	25.2	29.8	56.9	407	440	324	189	170
1972	145	82.9	55.8	42.4	33.3	32.8	26.8	85.6	447	428	175	216	148
1973	256	118	77.0	46.0	38.0	30.4	32.2	83.6	299	254	201	135	132
1974	96.4	64.1	48.2	37.9	30.9	28.2	33.7	170	333	210	125	113	108
1975	102	76.6	59.6	50.9	41.2	30.0	20.7	154	411	357	167	220	142
MEAN	161	92.7	63.3	47.7	38.2	33.0	37.4	164	453	326	241	228	158
MONTHLY PERCENT	9	5	3	3	2	2	2	9	24	18	13	12	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water year 1949-50, 1952-73.

PERIOD OF DAILY RECORD.--May 1949 to May 1950, July to September 1950.

REMARKS.--Once-daily readings by observer for period of daily record.

EXTREMES.--Maximum observed during period of daily record, 13.0°C August 14, 15, 1950; minimum, 0.0°C most days during winter period.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1952		1958		1959-cont		1961-cont		1963-cont		1968		1971-cont	
12- 3-51	0.5	10- 4-57	1.0	8-25-59	7.0	2- 3-61	0.5	8-26-63	6.5	10- 4-67	3.5	2- 2-71	0.0
1- 5-52	0.0	10-21-57	5.0	9-29-59	8.5	2-16-61	0.5	9-10-63	9.5	11-13-67	1.0	3-17-71	0.5
5- 6-52	0.0	10- 2-57	3.0	1960		2-23-61	0.0	9-24-63	5.5	1- 2-68	0.0	5-17-71	2.0
6-13-52	9.0	11- 5-57	3.5	10-12-59	1.0	3-10-61	2.0	1964		2-13-68	0.0	7-13-71	7.5
1953		12-10-57	1.0	11- 2-59	0.5	3-13-61	1.0	10- 7-63	4.0	3-28-68	0.0	1972	
11-19-52	0.0	3-26-58	0.5	11-16-59	0.0	3-19-61	4.0	10-22-63	2.0	4-29-68	2.0	10- 6-71	1.0
5- 4-53	4.5	4-29-58	1.0	11-30-59	0.0	6-27-61	9.5	12- 3-63	0.0	6- 4-68	6.0	1- 5-72	0.0
5- 8-53	3.5	5-13-58	3.0	12-15-59	0.5	8-16-61	8.5	3-25-64	0.0	6-13-68	6.0	2-23-72	0.0
6- 6-53	5.5	6- 5-58	7.0	12-22-59	0.0	9- 6-61	6.0	4- 8-64	0.5	7- 1-68	6.0	3-24-72	0.0
6-29-53	7.0	6-26-58	10.5	12-31-59	0.0	1962		4-10-64	1.0	9- 3-68	4.0	5-24-72	3.0
7-21-53	7.0	7- 8-58	11.0	2-11-60	0.5	10- 5-61	3.0	8- 7-64	10.5	1969		1973	
1954		8-13-58	8.0	2-28-60	0.5	12-14-61	0.0	1965		10- 1-68	2.0	10-30-72	1.0
10- 2-53	1.0	8-22-58	8.5	3- 9-60	0.0	1-16-62	0.0	10- 3-64	2.0	11-29-68	0.0	12-11-72	0.5
3-16-54	1.0	9- 4-58	8.0	3-18-60	0.5	1-26-62	0.0	10-22-64	3.5	3-26-69	0.0	8- 1-73	7.0
4- 5-54	0.5	9-12-58	6.5	3-26-60	0.5	2- 7-62	0.0	11- 2-64	0.5	4- 7-69	1.0	9-12-73	5.0
5- 4-54	3.5	9-25-58	2.0	3-30-60	0.0	2-16-62	1.0	12-17-64	0.0	5-27-69	6.0	1974	
6- 4-54	6.5	1959		3-22-60	0.5	3- 8-62	0.0	1- 6-65	0.0	7- 2-69	8.0	11- 6-73	0.0
6-18-54	13.0	10-10-58	1.0	3-31-60	0.5	3-28-62	0.0	2- 8-65	0.0	7-14-69	9.0	1- 7-74	0.5
6-25-54	10.0	10-29-58	1.5	4-19-60	0.5	5- 7-62	4.0	4-22-65	1.5	8-20-69	5.0	2-11-74	1.0
7-22-54	9.5	11-18-58	0.5	4-26-60	1.0	5-16-62	4.0	5- 6-65	1.0	1970		3-28-74	1.0
8- 2-54	9.5	2-12-59	0.5	5-11-60	1.0	5-28-62	5.0	5-24-65	4.5	10- 7-69	4.5	5- 6-74	3.0
8-20-54	9.5	2-20-59	0.5	5-31-60	5.5	8- 9-62	8.0	8-31-65	7.0	10-23-69	0.5	5-20-74	4.0
9-30-54	7.0	2-26-59	0.0	6-22-60	9.0	8-23-62	8.0	1966		12-18-69	0.0	7- 1-74	9.0
1955		3-10-59	0.5	7- 6-60	7.0	1963		2-25-66	1.0	1- 8-70	0.0	8-12-74	7.0
12-10-54	0.0	3-27-59	0.5	8-12-60	10.0	10-17-62	3.0	7-11-66	8.0	1- 9-70	0.0	9-12-74	8.0
1956		4-20-59	1.0	8-19-60	8.0	10-29-62	0.5	1967		3- 2-70	1.5	1975	
6-27-56	6.5	4-27-59	2.0	9-20-60	5.5	1-10-63	0.0	10- 4-66	4.0	4- 3-70	1.5	10-18-74	2.0
7-12-56	6.0	5- 7-59	2.0	1961		3- 1-63	0.5	11- 1-66	2.0	6- 9-70	5.5	1-13-75	0.0
9- 5-56	8.0	5-19-59	2.0	11-10-60	0.0	5-16-63	7.0	2-16-67	0.0	7-27-70	10.5	3-20-75	0.5
1957		6-10-59	5.0	11-16-60	0.0	5-31-63	4.0	3-21-67	0.0	8-18-70	7.0	4-10-75	0.5
5-23-57	4.0	7- 7-59	9.5	12- 9-60	0.5	6-26-63	6.5	5- 3-67	3.5	1971		4-23-75	1.5
5-23-57	4.5	7-21-59	5.0	12-28-60	0.0	7- 5-63	13.5	5-31-67	5.0	10- 9-70	2.5	5-16-75	3.0
6-21-57	8.0	7-31-59	3.5	1- 4-61	0.0	7-22-63	7.0	7-15-67	7.5	10-16-70	2.0		
7- 3-57	8.5					8- 6-63	8.0	8-16-67	9.0				

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1949	Max	---	---	---	---	---	---	---	a	8.0	10.0	10.0	9.0
	Min	---	---	---	---	---	---	---	a	4.5	6.0	7.0	5.0
1950	Max	4.5	2.0	0.0	0.0	0.0	1.5	3.5	8.5	---	12.0	13.0	8.5
	Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	---	4.5	5.5	5.5

a Data insufficient to compute monthly maximum or minimum.

15276900 SHIP CREEK AT ELMENDORF AIR FORCE BASE

LOCATION.--Lat 61°14'20", long 149°47'24", in NE¼ sec.10, T.13 N., R.3 W., Municipality of Anchorage, near right bank on downstream side of bridge at Elmendorf Air Force Base, 3.7 mi (6.0 km) northeast of Anchorage Post Office, and 4.9 mi (7.9 km) above mouth.

BASIN CHARACTERISTICS.--Drainage area, 113 mi² (293 km²); main-channel slope 121 ft/mi (22.9 m/km); stream length, 23.0 mi (37.0 km); area of lakes and ponds, 1 percent; mean elevation, 2,600 ft (792 m); glacier area, 0 percent.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--May 1963 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 142.82 ft (43.532 m) above mean sea level, from levels of Sept. 3, 1968 to USC & GS benchmark, adjusted 1966. Prior to July 9, 1965, nonrecording gage at datum 1.0 ft (0.3 m) higher.

REMARKS.--Diversion above station for water supply to Fort Richardson, Elmendorf Air Force Base, and Municipality of Anchorage (see station 15276000).

AVERAGE DISCHARGE.--8 years, 113 ft³/s (3.200 m³/s), 81,870 acre-ft/yr (101 hm³/yr), unadjusted for diversion.

EXTREMES.--Maximum discharge during period of record, 1,610 ft³/s (45.6 m³/s) Aug. 9, 1971, gage height, 4.89 ft (1.490 m); minimum daily, 0.36 ft³/s (0.010 m³/s) Apr. 13,14, 1970.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1963a	June 23, 1963	758	2.90	May 1, 1963	37
	July 17, 1963	---	3.00		
1964	June 8, 1964	766	2.87	Mar. 28-31, 1964	2.0
1965	Sept. 20, 1965	597	3.72	Feb. 19-22, 1965	2.7
1966	June 8, 1966	626	4.19	Mar. 30, 1966	2.2
1967	Sept. 18, 1967	875	4.74	Mar. 10,20,21,23,26,30, Apr. 1, 1967	2.5
1968	May 29, 1968	601	3.86	Mar. 30, Apr. 10, 1968	2.5
1969	May 27, 1969	452	3.33	Mar. 15 to Apr. 9, Apr. 23, 1969	3.2
1970	Oct. 7, 1969	637	3.92	Apr. 13,14, 1970	0.36
1971	Aug. 9, 1971	1,610	4.89	Apr. 14, 1971	0.60

a Period May to September.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1963								200	192	508	[illegible]	159	
1964	98.3	18.3	31.2	14.7	12.0	7.94	32.3	57.5	594	313	[illegible]	102	120
1965	50.6	39.7	30.8	9.23	4.62	15.4	23.3	84.3	286	369	[illegible]	264	111
1966	183	51.2	28.5	18.2	8.42	2.80	12.3	72.9	390	243	[illegible]	236	124
1967	127	66.2	33.6	14.4	3.96	2.92	5.22	146	334	260	[illegible]	390	144
1968	139	30.4	26.2	17.3	7.84	7.41	9.84	227	417	263	[illegible]	84.2	113
1969	58.0	9.97	1.27	1.73	1.35	1.25	3.88	108	245	118	[illegible]	39.6	54.2
1970	176	32.0	13.5	2.17	1.35	1.70	1.26	100	335	295	[illegible]	111	109
1971	56.3	76.1	19.5	4.69	1.78	1.31	1.36	20.3	354	403	[illegible]	150	130
MEAN	110	44.2	22.5	10.3	5.16	5.09	11.2	113	384	299	132	171	113
MONTHLY PERCENT	8	3	2	1	0	0	1	8	27	21	[illegible]	12	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1963-71.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1963		1965		1967-cont		1968-cont		1969		1970		1971	
7-22-63	10.0	10-22-64	1.0	2-16-67	0.5	1-10-68	0.0	10- 1-68	4.0	10-16-69	[illegible]	10- 0-70	4.0
8- 6-63	8.0	1- 6-65	0.0	3-21-67	0.0	2-13-68	1.0	11- 8-68	0.5	10-23-69	[illegible]	12- 2-70	1.0
9-10-63	9.5	2- 8-65	1.0	5- 3-67	9.0	3- 6-68	1.5	11-29-68	2.0	12-17-69	[illegible]	2- 2-71	2.5
1964		5-24-65	2.0	6- 1-67	6.0	3-28-68	1.5	12-27-68	2.5	3- 2-70	[illegible]	5-17-71	4.0
10- 7-63	5.5	6- 8-65	7.0	7- 5-67	9.5	4-10-68	4.0	1- 3-69	1.5	4- 3-70	3.5	6-23-71	10.0
12- 3-63	0.0	8-31-65	8.5	8-16-67	10.0	4-29-68	5.5	3-26-69	3.0	5-13-70	[illegible]	9- 8-71	5.5
2- 3-64	1.0	1966		1968		6- 4-68	6.0	6- 9-69	7.0	5-21-70	[illegible]		
3- 6-64	2.0	5-25-66	10.0	10- 4-67	4.5	7- 1-68	7.0	7- 9-69	10.0	6- 3-70	[illegible]		
4- 3-64	1.0	1967		11-15-67	1.0	8- 8-68	10.0	8-20-69	9.0	7-27-70	[illegible]		
8- 7-64	11.0	10- 3-66	3.5	1- 2-68	0.5					8-18-70	[illegible]		

13276570 SHIP CREEK BELOW POWER PLANT AT ELMENDORF AIR FORCE BASE

LOCATION.--Lat 61°13'29", long 149°50'40", Sec. 8, T 13 N., R. 3 W., Municipality of Anchorage, on left bank 0.3 mi (0.8 km) downstream from southeast corner of Elmendorf Air Force Base, 500 ft (150 m) downstream from North Sitka Street, and 2.[illegible] mi (3.2 km) upstream from mouth.

BASIN CHARACTERISTICS.--Drainage area, 115 mi² (297 km²); main-channel slope, 110 ft/mi (20.8 m/km); stream length, 25.0 mi (40.2 km); area of lakes and ponds, 1 percent; mean elevation, 2,400 ft (730 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 80 ft (24 m), from topographic map. Prior to Aug. 7, 1972, gage was located 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Diversion above station for water supply to Fort Richardson, Elmendorf Air Force Base, and Municipality of Anchorage (see station 13276000). Water also diverted for cooling of power plants and fish hatchery operation and returned to stream above this station.

AVERAGE DISCHARGE.--5 years, 112 ft³/s (3.[illegible] m³/s), 58,390 acre-ft/yr (109 hm³/yr), unadjusted for diversion.

EXTREMES.--Maximum discharge during period of record, 1,000 ft³/s (45.3 m³/s) Aug. 9, 1971 (estimated from records at station 13276500); minimum, 5.8 ft³/s (.16 m³/s) Apr. 14, 1971.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Momentary minimum: Date	Discharge	Gage height
1971	Aug. 9, 1971	a1,000	- -	Apr. 14, 1971	5.8	4.91
1972	June 16, 1972	1999	---	Apr. 16-20, 1972	c12	---
1973	June 22, 1973	487	3.38	Mar. 19, 1973	d17	---
1974	May 31, 1974	509	3.65	Mar. 22, 1974	17	1.39
1975	June 20, 1975	616	3.99	Apr. 8, 1975	13	1.64

a Estimated from records at station 13276500.
b Maximum daily.
c Minimum daily.
d May have been less during period of ice affect Mar. 16-25, 1973.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1971	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.0	[illegible]	[illegible]	[illegible]	[illegible]	177	[illegible]
1972	--	[illegible]	[illegible]	21.[illegible]	[illegible]	15.[illegible]	13.7	65.2	611	111	151	204	131
1973	--	91.[illegible]	[illegible]	[illegible]	[illegible]	21.0	36.2	75.2	275	237	179	118	11[illegible]
1974	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	135	325	301	[illegible]	98.9	[illegible]
1975	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.7	23.2	146	463	484	134	203	125
MEAN	127	73.9	14.1	24.2	1.3	18.6	18.7	89.8	370	319	192	158	122
MONTHLY PERCENT	9	5	3	2	1	1	1	6	25	22	14	11	

WATER TEMPERATURE RECORDS

PERIOD OF DAILY RECORD.--May to August 1971, December 1971, May 1972 to September 1975.

REMARKS.--Continuous water-temperature recorder. Water temperatures at low flow are significantly increased by power plant effluent located 0.9 mi (1.4 km) upstream. Prior to August 1972, sampling site was 0.5 mi (0.8 km) upstream.

EXTREMES.--Maximum recorded during period of daily record, 18.0°C Aug. 15, 16, 1974; minimum, 0.0°C Jan. 13, 14, 1974.

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1971	Max	---	---	---	---	---	---	- -	a	15.5	11.0	a	---
	Min	---	---	---	--	---	---	---	a	4.0	4.5	a	---
1972	Max	---	---	7.5	---	---	---	--	a	a	---	14.5	13.0
	Min	---	---	4.0	---	--	- -	---	a	a	---	10.5	3.0
1973	Max	5.5	5.5	6.5	5.0	11.0	13.5	14.5	15.5	13.5	15.0	14.5	11.0
	Min	1.5	1.0	2.5	1.5	3.5	1.5	7.0	7.0	5.0	8.5	7.5	4.5
1974	Max	8.0	7.0	7.5	4.5	10.0	10.0	10.5	11.5	12.5	15.5	18.0	15.5
	Min	0.5	1.5	1.5	.0	3.5	3.0	5.0	5.5	3.5	8.0	11.0	5.5
1975	Max	7.0	6.5	6.0	5.5	10.5	12.0	13.5	11.0	12.0	13.5	14.0	13.0
	Min	3.0	3.5	3.0	2.	5.5	5.5	8.0	4.0	4.5	6.5	9.0	5.5

a Data insufficient to compute monthly maximum or minimum.

15276650 DITCH ON ELMENDORF AIR FORCE BASE

LOCATION.--Lat 61°14'25", long 149°51'30", in SW¼ sec.5, T.13 N., R.3 W., Municipality of Anchorage, on right bank 100 ft (30 m) downstream from Acacia Drive on Elmendorf Air Force Base, and 0.9 mi (1.4 km) upstream from mouth.

BASIN CHARACTERISTICS.--Drainage area, 3.73 mi^2 (9.66 km^2).

PERIOD OF RECORD.--April 1973 to July 1975.

GAGE.--Water-stage recorder. Altitude of gage is 130 ft (40 m), from topographic map.

EXTREMES.--Maximum discharge during period of record, 195 ft^3/s (5.52 m^3/s) Apr. 28, 1975, gage height, 4.3 ft (1.31 m), from floodmarks, from rating extended above 35 ft^3/s (0.99 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.27 ft^3/s (0.008 m^3/s) Apr. 15, 1974.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum			Minimum daily	
	Date	Discharge	Gage height	Date	Discharge
1973a	Aug. 21, 1973	26	1.87	June 28, 1973	0.57
1974	bJuly 9, 1974	34	2.33	Apr. 15, 1974	c0.27
1975d	Apr. 28, 1975	195	4.3	Feb. 13-16, 1975	0.37

a Period April to September.
b Also Sept. 23, 1974.
c Momentary minimum.
d Period October to July.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1973	---	---	---	---	---	---	2.02	1.71	1.28	1.88	1.59	1.15	--
1974	1.23	0.96	1.24	0.95	0.73	2.06	0.57	0.74	1.13	1.75	1.07	1.55	1.22
1975	1.54	1.27	0.86	0.79	0.59	0.72	13.1	3.14	2.08	---	---	---	---

15277100 EAGLE RIVER AT EAGLE RIVER

LOCATION.--Lat 61°18'28", long 149°33'32", in NW¼ sec.13, T.14 N., R.2 W., Municipality of Anchorage, on right bank 300 ft (240 m) upstream from Eagle River campground, 0.6 mi (1.0 km) upstream from Glenn Highway crossing, and 1.0 mi (1.6 km) south of Eagle River.

BASIN CHARACTERISTICS.--Drainage area, 192 mi² (497 km²); main-channel slope, 112 ft/mi (21.2 m/km); stream length, 33.5 mi (53.9 km); area of lakes and ponds, 1 percent; mean elevation, 3,120 ft (951 m); glacier area, 13 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 25[illegible] ft (76 m), from topographic map.

AVERAGE DISCHARGE.--10 years, 498 ft³/s (14.10 m³/s), 35.22 in/yr (895 mm/yr), 360,800 acre-ft/yr (445 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 6,240 ft³/s (177 m³/s) Sept. 18, 1967, gage height, 9.49 ft (2.893 m); minimum daily, about 24 ft³/s (0.68 m³/s) Jan. 29 to Feb. 5, 1974.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum Date	Discharge	Gage height	Minimum daily Date	Discharge
1966	Aug. 8, 1966	3,650	7.52	Jan. 8 to Apr. 25, 1966	50
1967	Sept. 18, 1967	6,240	9.49	Feb. 8 to Mar. 15, 1967	50
1968	Aug. 8, 1968	2,560	[illegible]	Mar. 11 to Apr. 20, 1968	60
1969	June 17, 1969	2,530	[illegible]	Jan. 29 to Feb. 10, 1969	30
1970	Oct. 7, 1969	3,150	[illegible]	Apr. 16-25, 1970	75
1971	Aug. 9, 1971	4,750	8.53	Apr. 16-30, 1971	35
1972	Sept. 13, 1972	2,700	[illegible]	Feb. 20 to Mar. 20, 1972	33
1973	Aug. 22, 1973	2,570	[illegible]	Mar. 6 to Apr. 5, 1973	44
1974	Aug. 30, 1974	2,920	[illegible]	Jan. 29 to Feb. 5, 1974	24
1975	July 11, 1975	2,710	[illegible]	Feb. 8 to Mar. 26, 1975	44

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1966	125	162	82.6	51.5	50.0	[illegible]	51.0	255	1150	1858	1958	1177	608
1967	542	103	77.4	66.9	51.2	52.6	75.0	255	1507	2116	2221	1593	709
1968	258	133	81.9	71.6	63.6	[illegible]	63.0	356	961	1775	1450	476	485
1969	155	107	70.0	38.7	31.9	31.6	78.5	522	1252	1564	874	457	418
1970	707	174	119	99.4	90.0	51.8	78.4	218	759	1303	1241	588	457
1971	181	103	74.8	57.2	52.0	[illegible]	35.7	82.1	725	1772	2002	552	478
1972	191	100	90.2	65.2	39.0	[illegible]	59.0	145	689	1747	1589	970	479
1973	418	143	123	73.5	48.4	24.3	71.4	160	662	1290	1227	430	394
1974	267	85.7	53.5	39.0	26.1	[illegible]	77.0	272	921	1472	1489	1141	493
1975	231	123	81.1	18.1	44.5	24.5	77.0	313	746	1652	1307	756	456
MEAN	321	123	85.4	61.1	49.7	49.5	66.6	236	935	1655	1536	814	498
MONTHLY PERCENT	3	2	1	1	1	1	1	4	16	28	26	14	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1966-75.

PERIOD OF DAILY RECORD.--November 1967 to September 1969, June to July 1971.

REMARKS.--Once-daily readings by observer on most days during period of daily record.

EXTREMES.--Maximum observed during period of daily record, 14.0°C July 19, 22, 1968, June 14, 1969; minimum, 0.0°C most days during winter period.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1966		1967-cont		1968-cont		1970		1971-cont		1972-cont		1974-cont	
1-11-66	0.0	5- 4-67	4.0	5- 6-68	4.0	10- 7-69	4.0	12- 8-70	0.0	6- 9-72	9.0	5- 3-74	1.5
2-15-66	0.5	5-12-67	9.5	6- 3-68	7.0	10-26-69	0.0	3-10-71	0.0	8- 3-72	6.5	5- 8-74	6.0
2-17-66	0.5	6- 5-67	7.0	7- 3-68	8.0	12-16-69	0.0	5-19-71	4.0	1973		7-12-74	8.0
3- 4-66	0.0	6-29-67	6.5	8-13-68	7.0	3- 3-70	0.0	5-27-71	7.0	12-13-72	0.5	8-13-74	7.0
3- 9-66	0.0	8-17-67	8.0	1969		4-29-70	4.5	6- 1-71	5.5	2- 5-73	0.0	1975	
3-14-66	0.0	9-19-67	4.5	10- 3-68	4.0	5-21-70	8.0	6-21-71	6.5	5- 8-73	7.0	10-17-74	2.0
9-15-66	5.0	9-21-67	4.5	11-27-68	0.0	6-16-70	8.0	7-14-71	6.0	6-27-73	7.0	10-25-74	3.0
1967		1968		5-27-69	7.0	7-22-70	8.0	8-14-71	6.0	9-12-73	5.5	1-14-75	0.0
11-16-66	0.0	10- 4-67	2.0	7-15-69	6.0	8-28-70	6.0	1972		1974		5- 3-75	0.0
2-16-67	0.0	11- 7-67	0.0	8-20-69	7.0	1971		10- 4-71	3.0	10- 2-73	4.0	5- 8-75	6.5
3-20-67	0.0	1-18-68	0.0			10-15-70	0.5	12-28-71	0.0	12- 2-73	0.0	5-29-75	8.5
								3-30-72	0.0	1-29-74	0.0	8- 8-75	7.5

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1968	Max	---	a	0.0	0.0	0.0	0.0	0.0	9.0	13.0	14.0	13.0	9.0
	Min	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	8.0	8.0	3.0
1969	Max	4.0	0.0	0.0	0.0	0.0	0.0	2.0	13.0	14.0	12.0	12.0	8.0
	Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	8.0	7.0	7.0	6.0
1971	Max	---	---	---	---	---	---	---	---	12.0	a	---	---
	Min	---	---	---	---	---	---	---	---	a	a	---	---

a Data insufficient to compute monthly maximum or minimum.

15277410 PETERS CREEK NEAR BIRCHWOOD

LOCATION.--Lat 61° 25'28", long 149°29'20", in NW¼SW¼ sec.5, T.15 N., R.1 W., Municipality of Anchorage, on left bank upstream from Alaska Railroad bridge, 0.5 mi (0.8 km) downstream from unnamed tributary, 0.8 mi (1.2 km) upstream from mouth, and 1.0 mi (1.6 km) north of Birchwood.

BASIN CHARACTERISTICS.--Drainage area, 87.8 mi² (227.4 km²); slope, 133 ft/mi (25.2 m/km); stream length, 21.[illegible] mi (35.8 km); area of lakes and ponds, 0 percent; mean elevation, 3,150 ft (960 m); glacier area, 2 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 75 ft (22.9 m), from topographic map.

EXTREMES.--Maximum discharge during period of record, 564 ft³/s (16.0 m³/s) June 30, 1975, gage height, 5.75 ft (1.753 m), maximum gage height, 6.37 ft (1.942 m) Dec. 30, 1974, backwater from ice; minimum daily discharge, 18 ft³/s (0.51 m³/s) Jan. 5, 6, 1975.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1973a	Aug. 22, 1973	332	5.61	Sept. 29, 1973	6105
1974	Aug. 28, 1974	400	5.39	Mar. 27 to Apr. 10, 1974	24
1975	Dec. 30, 1974	---	c6.37	Jan. 5,6, 1975	18
	June 30, 1975	564	5.75		

a Period August to September
b Momentary minimum, gage height, 4.65 ft.
c Backwater from ice.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1973	---	---	---	---	--	---	---	---	---	---	[illegible]	129	---
1974	93.6	54.1	48.1	47.0	44.6	51.9	26.5	48.6	157	230	[illegible]	153	94.5
1975	69.3	41.7	34.4	32.1	25.5	25.3	25.0	84.0	221	349	181	169	104

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1973-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1973		1974-cont		1974-cont		1975-cont		1975-cont	
8- 6-73	6.5	11- 6-73	0.5	8-12-74	7.0	1-14-75	0.0	5- 8-75	4.5
8-10-73	7.0	1- 3-74	1.0	1975		2-18-75	0.0	5-29-75	[illegible]
9-12-73	4.5	4-25-74	5.5	1974		3-19-75	0.5	6-16-75	[illegible]
1974		5-23-74	9.5	10-17-74	2.5	4- 2-75	1.0	7- 8-75	[illegible]
10-10-73	1.5	7- 2-74	6.5	10-31-74	2.5	4-29-75	3.5	7-10-75	[illegible]
				11-29-74	0.0			9- 9-75	[illegible]

15277600 EAST FORK EKLUTNA CREEK NEAR PALMER

LOCATION.--Lat 61°18'40", long 148°57'05", Municipality of Anchorage, on left bank 2.2 mi (3.5 km) upstream from confluence with West Fork, 3 mi (5 km) upstream from Eklutna Lake, and 21 mi (34 km) south of Palmer.

BASIN CHARACTERISTICS.--Drainage area, 38 mi² (98 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1960 to September 1962.

GAGE.--Water-stage recorder. Altitude of gage is 1,100 ft (335 m), from topographic map.

EXTREMES.--Maximum discharge during period of record, 1,320 ft³/s (37.4 m³/s) Sept. 12, 1961, gage height, 3.86 ft (1.177 m); minimum daily, about 13 ft³/s (0.37 m³/s) Mar. 1 to Apr. 15, 1962.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1960a	Sept. 11, 1960	770	3.22	Sept. 26, 1960	692
1961	Sept. 12, 1961	1,320	3.86	Mar. 1 to Apr. 30, 1961	30
1962	Aug. 29, 1962	1,270	2.39	Mar. 1 to Apr. 15, 1962	13

a Period June to September.
b Momentary minimum, gage height, 1.38 ft.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1960	---	---	---	---	--	---	---	---	316	402	321	166	---
1961	95.3	54.5	39.9	37.0	34.0	30.0	30.0	127	327	450	443	205	157
1962	88.5	39.6	27.0	21.0	16.0	13.0	15.5	71.9	423	464	404	190	149

15277600 EAST FORK EKLUTNA CREEK NEAR PALMER--Continued

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water year 1960-62

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP
1960		1961-cont		1961-cont	
6-[illegible]-60	[illegible]	12-16-60	0.0	8-[illegible]-61	6.0
7-20-60	5.5	4-[illegible]-61	0.0	8-22-61	5.0
9-26-60	2.0	5-16-61	1.5	9-28-61	4.0
1961		5-24-61	7.5	1962	
10-26-60	1.0	6-26-61	6.5	8-23-62	1.5

15277800 WEST FORK EKLUTNA CREEK NEAR PALMER

LOCATION.--Lat 61°18'00", long 148°58'15", Municipality of Anchorage, on right bank 2.3 mi (3.7 km) upstream from confluence with East Fork, 3 mi (5 km) upstream from Eklutna Lake, and 22 mi (35 km) south of Palmer.

BASIN CHARACTERISTICS.--Drainage area, 26 mi² (67 km²), approximately; main-channel slope, 580 ft/mi (109.9 m/km); stream length, 9.0 mi (14.5 km); area of lakes and ponds, 0 percent; mean elevation, 4,800 ft (1,460 m); glacier area, 32 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1960 to September 1962.

GAGE.--Water-stage recorder. Altitude of gage is 1,020 ft (311 m), from topographic map.

EXTREMES.--Maximum discharge during period of record, 1,470 ft³/s (41.6 m³/s) Aug. 29, 1962, gage height, 3.84 ft (1.170 m), no flow for part of winter periods.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1960a	July 24, 1960	850	3.08	Sept. 27, 1960	b28
	Aug. 6, 1960	---	c3.12		
1961	Sept. 12, 1961	1,300	3.68	Mar. 1 to Apr. 30, 1961	0.0
1962	Aug. 29, 1962	1,470	3.84	Jan. 11 to Apr. 15, 1962	0.0

a Period June to September.
b Momentary minimum.
c Backwater from debris.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1960	---	---	---	---	---	---	---	---	271	198	169	186	---
1961	18.2	7.00	4.00	2.00	[illegible]	[illegible]	[illegible]	32.1	186	492	293	229	123
1962	23.2	3.00	1.00	0.32	[illegible]	[illegible]	[illegible]	18.0	382	599	193	175	131

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1961, 1962.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP
1961		1961-cont	
12-25-61	0.0	9-[illegible]-61	1.0
12-14-61	0.0	9-28-61	1.0
5-16-61	3.5	1962	
5-24-61	7.5	10-16-61	1.0
6-26-61	1.5	8-23-62	0.5

15280000 EKLUTNA CREEK NEAR PALMER

LOCATION.--Lat 61°24'05", long 149°09'00", in SW¼ sec.8, T.15 N., R.2 E., Municipality of Anchorage, on right bank 200 ft (60 m) downstream from dam at outlet of Eklutna Lake, 8 mi (13 km) upstream from abandoned Eklutna power diversion dam, 11 mi (18 km) upstream from mouth, and 14 mi (23 km) south of Palmer.

BASIN CHARACTERISTICS.--Drainage area, 119 mi² (308 km²); main-channel slope, 265 ft/mi (50.2 m/km); stream length, 18 mi (29 km); area of lakes and ponds, 3 percent; mean elevation, 3,700 ft (1,130 m); glacier area, 17 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to September 1962.

GAGE.--Water-stage recorder. Datum of gage is 856.53 ft (261.070 m) above mean sea level (Corps of Engineers benchmark). Prior to Aug. 31, 1948, nonrecording gage at site 100 ft (30 m) upstream and prior to Oct. 1, 1953, at datum 1.96 ft (0.597 m) higher.

REMARKS.--Flow regulated by Eklutna Lake reservoir, usable capacity, 180,000 acre-ft (197 hm³). Since December 1954, entire flow, except for periods of spilling, diverted from Eklutna Lake into Knik River basin by Eklutna power plant. Records of spill and diversion for water years 1955-62 are published in WSP 1740 and 1936.

AVERAGE DISCHARGE.--8 years (water years 1947-54), 346 ft³/s (9.799 m³/s), 39.48 in/yr (1,003 mm/yr), 250,700 acre-ft/yr (309 hm³/yr), unadjusted.

EXTREMES.--Maximum discharge during period of record, 2,530 ft³/s (71.6 m³/s) Sept. 18, 1951, gage height, 6.10 ft (1.859 m) in gage well, datum then in use; minimum daily during period October 1946 to September 1954, 3.0 ft³/s (0.085 m³/s) Nov. 3,5,6, 1946; no flow for long periods since 1954.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1947	July 31, 1947	a1,680	5.8	Nov. 3,5,6, 1946	3.0
1948	Aug. 18, 1948	a1,470	5.40	Oct. 23, 1947	98
1949	Sept. 6, 1949	1,810	5.9	May 7, 1949	50
1950	Aug. 25, 1950	1,420	5.5	Sept. 24, 1950	74
1951	Sept. 18, 1951	2,530	b6.5	Oct. 17,18, 1950	25
1952	July 31, 1952	1,420	4.61	May 13, 1952	c34
1953	June 27, 1953	2,460	5.41	Aug. 23,26, Sept. 5,14-17, 1953	7.0
1954	Aug. 3, 1954	1,430	5.18	Mar. 27,28, 1954	65
1955	Aug. 1, 1955	1,070	4.39		
1956	Aug. 16, 1956	1,220	4.68		
1957	Sept. 5, 1957	1,250	4.74		
1958	Aug. 12, 1958	910	3.99		
1959	Aug. 30,31, 1959	162	1.57		
1960	d				

a Maximum observed.
b Outside gage; 6.10 ft in gage well.
c Momentary minimum, gage height, 0.82 ft.
d No flow during water years 1960 62.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1947	175	146	143	96.4	96.4	90.2	86.2	77.3	462	1095	593	348	314
1948	224	143	136	123	144	127	120	144	503	958	871	157	311
1949	132	131	134	119	112	75.0	87.4	112	427	833	935	713	319
1950	135	121	134	133	125	120	111	93.4	501	979	998	409	320
1951	72.9	126	125	122	85.5	56.5	46.9	99.8	373	1361	989	1047	375
1952	131	135	141	162	122	135	61.0	45.5	296	959	831	365	290
1953	254	201	120	131	126	129	121	133	897	1672	1402	608	495
1954	205	137	141	140	115	94.0	99.1	139	554	985	1025	495	345
MEAN	201	142	134	129	113	102	94.2	105	502	1098	980	528	346
MONTHLY PERCENT	5	3	3	3	3	2	2	3	12	27	24	13	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1950, 1952-56, 1958-59.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1950		1950-cont		1950-cont		1950-cont		1950-cont		1950-cont		1954-cont	
10- 3-49	7.0	11-28-49	3.0	1-27-50	0.0	4-28-50	4.5	7- 8-50	13.0	9- 8-50	10.0	5-21-54	5.5
10- 5-49	6.5	12- 2-49	3.5	1-30-50	0.0	5- 1-50	4.5	7-10-50	8.5	9-11-50	9.0	6-11-54	8.0
10-10-49	6.5	12- 5-49	3.5	2- 3-50	0.0	5- 5-50	6.0	7-14-50	11.5	9-15-50	8.0	6-23-54	9.0
10-14-49	6.5	12- 9-49	1.5	2- 7-50	0.0	5- 9-50	4.5	7-17-50	9.0	9-18-50	8.0	7-20-54	12.0
10-17-49	5.0	12-12-49	1.5	2-10-50	0.0	5-12-50	5.5	7-21-50	12.0	9-22-50	8.0	8-19-54	13.5
10-20-49	5.5	12-16-49	1.5	2-13-50	0.0	5-15-50	5.5	7-24-50	10.5	9-25-50	9.0	1955	
10-21-49	5.5	12-19-49	2.0	2-17-50	0.0	5-19-50	5.5	7-28-50	11.0	1952		5- 1-55	9.0
10-24-49	5.5	12-23-49	1.5	2-24-50	1.5	5-22-50	5.5	7-31-50	10.0	12- 5-51	1.5	6-27-55	1.5
10-28-49	5.5	12-26-49	1.5	3-27-50	1.0	5-26-50	6.5	8- 4-50	10.5	1- 4-52	1.0	1956	
10-31-49	5.5	12-30-49	1.5	3-31-50	1.5	5-29-50	6.5	8-11-50	16.0	1953		3-17-56	13.5
11- 4-49	5.5	1- 3-50	1.0	4- 3-50	1.5	6- 2-50	5.5	8-14-50	14.5	11-20-52	4.0	1958	
11- 7-49	5.5	1- 6-50	1.0	4- 7-50	1.5	6- 6-50	5.5	8-19-50	13.5	3-11-53	6.0	10-10-57	6.0
11-11-49	4.5	1- 9-50	0.5	4-10-50	1.5	6-10-50	6.5	8-21-50	14.0	6- 4-53	8.5	8-25-58	11.0
11-14-49	4.5	1-13-50	0.5	4-14-50	2.0	6-12-50	9.5	8-25-50	12.0	9- 9-53	6.5	9- 2-58	9.5
11-18-49	4.0	1-16-50	0.5	4-17-50	2.0	6-30-50	9.5	8-28-50	11.5	1954		1959	
11-21-49	3.5	1-20-50	0.5	4-21-50	4.5	7- 3-50	9.0	9- 1-50	10.0	3-18-54	3.0	3-31-59	8.0
11-25-49	4.5	1-23-50	0.0	4-25-50	4.5	7- 7-50	8.5	9- 4-50	10.0	4-20-54	4.5	9- 2-59	9.5
												9-15-59	8.0

15281000 KNIK RIVER NEAR PALMER

LOCATION.--Lat 61°30'20", long 149°01'11", in NE¼ SW¼ sec.1, T.16 N., R.2 E., Matanuska-Susitna Borough, on left bank 0.4 mi (0.6 km) upstream from bridge on old Glenn Highway, and 7 mi (11 km) south of Palmer.

BASIN CHARACTERISTICS.--Drainage area, 1,180 mi² (3,060 km²); main-channel slope, 185 ft/mi (34.7 m/km); stream length, 43.0 mi (69.2 km); area of lakes and ponds, 1 percent; mean elevation, 4,000 ft (1,220 m); glacier area 54 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum, water years, 1948-58, October 1959 to September 1975.

GAGE.--Nonrecording gage read twice daily and crest-stage gage. Altitude of gage is 50 ft (15 m), from topographic map. Prior to June 27, 1960, nonrecording gage, and June 27, 1960 to Apr. 25, 1974, water-stage recorder at bridge 0.4 mi (0.6 km) downstream at different datum.

AVERAGE DISCHARGE.--16 years, 6,783 ft³/s (192.1 m³/s), 78.06 in/yr (1,983 mm/yr), 4,914,000 acre-ft/yr (6.06 km³/yr).

EXTREMES.--Maximum discharge since at least 1948, 359,000 ft³/s (10,200 m³/s) July 18, 1958, gage height 25.3 ft (7.71 m), site and datum then in use, caused by release of stored water (Lake George) behind Knik Glacier, minimum daily discharge (water years 1960-75), about 260 ft³/s (7.4 m³/s) Mar. 1-31, 1962.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1948	Aug. 5, 1948	a198,000	19.86		
1949	Aug. 22, 1949	a193,000	19.68		
1950	Aug. 3, 1950	a178,000	19.07		
1951	July 27, 1951	a189,000	19.54		
1952	Aug. 8, 1952	a200,000	19.97		
1953	July 23, 1953	a262,000	22.20		
1954	July 26, 1954	a260,000	22.15		
1955	Aug. 9, 1955	a265,000	22.3		
1956	Aug. 8, 1956	a260,000	22.15		
1957	July 18, 1957	a333,000	24.5		
1958	July 18, 1958	a359,000	25.3		
1959	July 1, 1959	a223,000	20.81		
1960	July 17, 1960	a328,000	24.35	Mar. 1-15, 1960	300
1961	July 26, 1961	a355,000	24.5	Mar. 16-31, 1961	310
1962	June 29, 1962	a165,000	18.50	Mar. 1-31, 1962	260
1963	Aug. 26, 1963	41,500	11.25	Apr. 1-15, 1963	540
1964	July 1, 1964	a216,000	20.05	Feb. 16-29, Mar. 16-31, 1964	460
1965	July 11, 1965	a236,000	21.35	Mar. 30 to Apr. 1, 1965	450
1966	June 24, 1966	a144,000	17.95	Jan. 16 to Apr. 25, 1966	450
1967	Sept. 19, 1967	35,900	11.58	Mar. 21 to Apr. 15, 1967	380
1968	Aug. 9, 1968	32,700	11.04	Apr. 8-14, 1968	460
1969	July 7, 1969	31,000	10.65	Jan. 1 to Feb. 28, 1969	430
1970	July 30, 1970	24,700	10.04	Apr. 6, 1970	600
1971	Aug. 10, 1971	45,800	12.52	Mar. 1-26, 1971	440
1972	Aug. 23, 1972	31,600	11.06	Apr. 8-26, 1972	340
1973	Aug. 21, 1973	27,500	10.62	Mar. 8-30, 1973	500
1974	Aug. 31, 1974	31,300	9.82	Dec. 1, 1973 to Mar. 31, 1974	500
1975	Aug. 16, 1975	35,400	9.93	Jan. 5, 1975	350

a Caused by release of stored water (Lake George) behind Knik Glacier.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1960	3822	2208	478	527	361	331	537	2550	5396	37450	20900	9916	7148
1961	3195	1350	1478	1401	1378	358	565	1891	4920	34040	21580	11720	7062
1962	3305	1658	871	607	338	260	404	1226	15780	23740	20130	9688	6547
1963	3106	2106	945	456	714	778	470	4135	11380	22940	23340	14400	7150
1964	4272	1282	1197	837	538	475	1177	1129	11620	26930	14230	9864	8500
1965	6364	4844	1004	630	671	539	458	1039	2598	27350	17400	16910	4721
1966	5052	1241	570	474	450	450	466	1164	15320	21770	23680	13670	7072
1967	4781	1040	787	635	473	401	507	4251	16630	23500	24570	16260	7872
1968	4666	1757	756	565	514	490	497	4446	12420	23430	21790	8461	6708
1969	2295	637	516	480	480	523	1048	7223	19960	24510	15260	9153	6883
1970	9419	2420	1529	860	704	765	901	4493	11370	17440	16430	8880	6317
1971	3219	2587	745	514	460	446	615	1726	10520	24180	25100	10090	6743
1972	4281	1168	679	505	419	375	348	2831	10070	23280	24040	13460	6829
1973	4238	1773	710	469	363	315	793	3357	10060	19340	17620	7454	5590
1974	2087	683	500	500	500	500	955	5145	16060	20410	19360	16960	7041
1975	2685	1459	687	595	473	471	527	3954	12048	21130	19690	11680	6745
MEAN	4174	1783	872	641	552	467	680	3160	11630	24490	20570	11800	6783
MONTHLY PERCENT	5	2	1	1	1	1	1	4	14	30	25	15	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1957, 1960, 1963, 1965-75.

PERIOD OF DAILY RECORD.--May to September 1963, April to September 1965.

REMARKS.--Once-daily readings by observer on most days during period of daily record.

EXTREMES.--Maximum observed during period of daily record, 13.0°C May 18, 1965.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1957		1966		1968-cont		1969-cont		1971		1972-cont		1974-cont	
2-18-57	1.5	12-28-65	0.0	1-19-68	2.5	7-29-69	5.0	10-13-70	3.0	6-29-72	4.5	5-14-74	5.0
7-22-57	4.0	7-28-66	3.5	7-10-68	4.0	8- 2-69	6.0	12-11-70	0.0	8- 7-72	7.5	6-28-74	5.5
1960		1967		1969		1970		3- 9-71	0.0	9-11-72	6.0	7-25-74	4.0
12-18-59	0.0	11-17-66	0.0	10-29-68	0.0	10-23-69	0.0	5-26-71	4.0	1975		1975	
1-29-60	2.0	5- 2-67	7.5	11-26-68	0.0	1-30-70	0.0	9- 9-71	3.5	10- 3-72	1.0	3-27-75	0.0
2-23-60	2.0	5-29-67	10.0	1-24-69	0.5	4- 1-70	4.5	1972		12-27-72	0.0	5- 2-75	1.0
5- 4-60	3.0	8-27-67	5.5	3-27-69	0.0	6-17-70	5.0	12- 2-71	0.0	2-15-73	0.0	7- 1-75	
8-11-60	6.0	9-29-67	3.5	4-18-69	0.0	7-24-70	7.5	2-24-72	0.0	8- 9-73	6.5	7-14-75	6.5
9-21-60	6.5	1968		6-12-69	8.0	9- 4-70	5.5	5-31-72	8.0	1974		9-23-75	4.5
		11- 7-67	0.0							4-25-74	2.0		

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1963	Max	---	---	---	---	---	---	---	8.0	7.0	8.0	5.5	6.0
	Min	---	---	---	---	---	---	---	2.0	2.0	3.0	3.0	1.5
1965	Max	---	---	---	---	---	---	8.0	13.0	12.0	10.5	a	a
	Min	---	---	---	---	---	---	0.0	3.5	8.0	4.0	a	a

a Data insufficient to compute monthly maximum or minimum.

15282000 CARIBOU CREEK NEAR SUTTON

LOCATION.--Lat 61°48'12", long 147°40'57", in SE¼ sec. [illegible], T. 20 N., R. 1[illegible] E., Matanuska-Susitna Borough, on left pier of bridge on Glenn Highway, 1.1 mi (1.8 km) downstream from Dan Creek, 1.8 mi (2.[illegible] km) upstream from mouth, and [illegible] mi (64 km) east of Sutton.

BASIN CHARACTERISTICS.--Drainage area, 280 mi² (725 km²); main-channel slope, 91.1 ft/mi (17.3 m/km), stream length, [illegible].0 mi (48.3 km), area of lakes and ponds, 0 percent; mean elevation, 2,190 ft ([illegible] m), glacier area, [illegible] percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1955 to September 1975.

GAGE.--Water-stage recorder. Datum of gage is 1,797 ft (548.0 m) above mean sea level.

AVERAGE DISCHARGE.--20 years, 302 ft³/s (8.553 m³/s), 24.19 in/yr (614 mm/yr), 218,[illegible] acre-ft/yr (270 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 5,720 ft³/s (247 m³/s) June 13, 1973, gage height, 7.18 ft (2.188 m); no flow Mar. 16 to Apr. 10, 1966 and Mar. 10-18, 1971.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1955a	June 18, 1955	5,060	5.22	May 1, 1955	44
1956	June 8, 1956	4,800	5.59	Mar. 1-15, 1956	13.0
1957	June 2, 1957	e5,700	5.37	Apr. 6-8, 1957	22
1958	June 1, 1958	5,420	5.25	Feb. 1-15, 1958	d27
1959	June 2, 1959	5,950	[illegible]	Jan. 1 to 31, 1959	14
1960	May 29, 1960	e5,000	---	Mar. 16-31, 1960	24
1961	June 24, 1961	e5,800		Mar. 1 to 31, 1961	13
1962	June 10, 1962	5,670	6.69	Mar. 1-31, 1962	28
1963	May 21, 1963	4,630	4.86	Apr. 1-15, 1963	26
1964	May 31, 1964	5,860	6.35	Jan. 1 to Mar. 31, 1964	f1.0
1965	July 13, 1965	5,580	5.82	Jan. 1-31, 1965	14
1966	July 28, 1966	2,170	4.72	Mar. 16 to Apr. 10, 1966	0.0
1967	June 11, 1967	5,000	5.22	Feb. 1 to Mar. 31, 1967	32
1968	June 15, 1968	5,400	5.56	Feb. 18 to Apr. 24, 1968	32
1969	May 24, 1969	5,920	5.90	Jan. 10-14, 1969	14
1970	June 28, 1970	4,360	6.12	Jan. 25 to Feb. 9, 1970	5.0
1971	June 9, 1971	5,060	5.[illegible]	Mar. 10-18, 1971	0.0
1972	June 16, 1972	1,700	3.16	Apr. 16-26, 1972	22
1973	June 15, 1973	8,720	7.18	Feb. 1 to Mar. 5, 1973	5.0
1974	Apr. 26, 1974	---	5.33	Feb. 24 to Mar. 20, 1974	10
	May 30, 1974	3,100	5.10		
1975	July 15, 1975	8,600	[illegible]	Mar. 22 to Apr. 5, 1975	15

a Period May to September.
b Momentary minimum, 0.23 ft³/s Mar. 9, 1956, discharge measurement, caused by temporary storage upstream.
c May have been greater during period of no gage-height record.
d Minimum observed, 17 ft³/s Feb. 11, 1958, discharge measurement.
e Maximum daily.
f Minimum observed, 0.62 ft³/s Feb. 24, 1964, discharge measurement.
g Backwater from ice.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1955								299	1193	531	269	242	
1956	86.1	31.5	12.4	9.00	8.03	5.68	81.3	634	1501	1064	466	352	355
1957	112	55.3	44.9	33.4	26.0	27.4	33.2	921	1269	695	314	291	320
1958	145	75.5	60.5	38.5	30.2	29.5	67.0	377	433	134	411	195	167
1959	102	57.0	34.9	15.9	19.4	19.4	18.5	671	1246	690	930	443	356
1960	131	66.0	53.4	41.3	29.5	25.0	31.0	1639	1126	770	500	655	424
1961	173	56.0	43.9	47.7	17.7	13.5	19.0	563	2118	566	337	220	348
1962	113	67.0	52.0	43.0	35.0	28.0	29.0	513	2620	942	785	482	476
1963	185	60.5	40.8	38.1	32.2	29.0	28.5	990	875	859	220	190	298
1964	118	18.0	3.97	1.48	1.00	1.00	52.3	332	2130	766	879	248	379
1965	136	94.0	44.0	14.0	16.0	29.0	36.0	378	897	745	288	287	232
1966	159	68.0	38.2	9.35	2.00	0.48	2.33	214	961	322	315	285	198
1967	116	52.0	40.0	34.0	32.0	32.0	39.7	656	876	457	514	742	300
1968	142	68.0	42.2	36.8	33.2	32.0	33.2	802	1588	663	347	305	341
1969	134	43.2	17.7	15.4	18.1	25.5	51.9	469	283	351	167	140	144
1970	79.4	29.5	12.1	5.77	5.86	6.84	21.2	551	939	829	299	250	254
1971	103	52.4	26.1	14.9	7.93	1.97	13.0	105	1308	474	799	460	261
1972	210	116	56.5	42.6	34.7	29.4	23.9	636	1320	640	366	300	315
1973	121	50.4	28.6	8.26	3.00	5.23	28.1	286	1539	379	444	240	261
1974	84.8	23.9	12.6	11.8	10.8	10.9	50.8	680	643	431	299	162	203
1975	76.5	40.0	26.7	20.4	18.4	16.0	23.3	378	1307	1275	885	613	392
MEAN	126	56.2	34.6	24.1	19.1	18.4	34.2	576	1237	647	468	338	302
MONTHLY PERCENT	4	2	1	1	1	1	1	16	35	18	13	9	

15282000 CARIBOU CREEK NEAR SUTTON--Continued

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1957-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1957		1959-cont		1961-cont		1965		1968-cont		1971-cont		1973-cont	
10-23-56	0.0	5- 5-59	0.0	8- 1-61	11.0	10-12-64	9.5	9-30-68	1.0	7- 7-71	12.0	10-10-73	9.0
5-13-57	3.5	5-15-59	1.0	9-11-61	3.5	11-30-64	0.0	1969		8-26-71	8.0	5-20-73	11.5
5-23-57	5.0	6- 5-59	6.0	1962		5-19-65	1.0	12-16-68	0.0	9-30-71	2.0	1974	
7- 4-57	10.0	6-19-59	8.0	10- 9-61	0.0	8- 1-65	14.0	4-10-69	0.0	1972		4- 2-73	0.5
8- 3-57	12.5	7-27-59	5.5	12-14-61	0.0	1966		5-20-69	3.0	12-13-71	0.0	6-17-74	8.0
9- 2-57	10.5	9-28-59	1.0	4-23-62	0.0	10- 5-65	1.0	5-24-69	1.0	2-18-72	0.0	7-24-74	9.0
9-16-57	5.5	1960		1963		6-28-66	11.5	5-25-69	1.0	4-28-72	0.5	8-27-74	8.0
1958		12- 7-59	0.0	10-23-62	0.0	9-29-66	3.0	7- 8-69	11.0	7- 9-72	8.0	9-21-74	3.5
10- 1-57	6.0	1-18-60	0.0	7- 3-63	9.0	1967		8-15-69	8.0	8-14-72	12.0	1975	
10-12-57	1.0	2-29-60	0.0	7-12-63	6.5	1-16-67	0.0	1970		9-30-72	2.0	2- 5-75	0.0
12-27-57	0.0	5- 4-60	1.0	7-26-63	10.5	6-14-67	8.0	4- 8-70	0.0	1973		3-21-75	0.0
5-13-58	8.5	5- 5-60	3.5	1964		9-23-67	3.0	5-12-70	0.5	12-19-72	0.0	4-10-75	0.5
6-10-58	11.5	5- 9-60	4.0	10-17-63	1.0	1968		5-13-70	2.5	2-23-73	0.0	4-16-75	0.5
7-22-58	13.0	1961		11-20-63	0.0	3- 5-68	0.0	7- 6-70	8.0	4- 3-73	0.5	1-30-75	0.0
1959		10-19-60	0.0	2-24-64	0.0	5-26-68	4.0	8-17-70	7.0	5- 3-73	0.0	5-21-75	3.0
3- 2-59	0.0	5- 9-61	0.0	5-18-64	1.0	7- 7-68	12.0	1971		5-21-73	0.5	6-24-75	4.5
4- 2-59	0.0	7-20-61	10.0	8-17-64	4.0	8-19-68	9.0	12-13-70	0.0	6-18-73	8.0	9- 2-75	6.0
												9-30-75	1.0

15282800 CHICKALOON RIVER NEAR SUTTON

LOCATION.--Lat 61°47'12", long 148°27'05", in NE¼ sec.36, T.20N., R.5 E., Matanuska-Susitna Borough, at bridge on Glenn Highway, 0.2 mi (0.3 km) upstream from mouth, and 15 mi (24 km) east of Sutton.

WATER TEMPERATURE RECORDS

PERIOD OF DAILY RECORD.--October 1952 to September 1954.

REMARKS.--Once-daily readings by observer.

EXTREMES.--Maximum observed during period of daily record, 15.0°C June 26, 27, July 24, 25, 1953; minimum, 0.0°C on most days during winter period.

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1953	Max	5.5	0.0	0.0	0.0	0.0	0.0	3.0	11.0	15.0	15.0	11.0	7.0
	Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	9.0	9.0	4.5	0.0
1954	Max	3.0	0.0	0.0	0.0	0.0	0.0	0.5	4.5	7.0	11.5	9.5	9.0
	Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	4.0	4.5	4.0	1.5

15284000 MATANUSKA RIVER AT PALMER

LOCATION.--Lat 61°36'34", long 149°04'16", in N½ sec.34, T.18 N., R.2 E., Matanuska-Susitna Borough, on left bank 100 ft (30 m) downstream from bridge on old Glenn Highway, and 1 mi (1.6 km) east of Palmer.

BASIN CHARACTERISTICS.--Drainage area, 2,070 mi² (5,360 km²); main-channel slope, 79.7 ft/mi (15.10 m/km); stream length, 77 mi (124 km); area of lakes and ponds, 0 percent; mean elevation, 4,000 ft (1,220 m); glacier area, 12 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1949 to September 1973. Annual maximum, water year 1974.

GAGE.--Water-stage recorder. Datum of gage is 170.92 ft (52.096 m) above mean sea level (Alaska Road Commission bench mark). Prior to Nov. 2, 1950, nonrecording gage at bridge 120 ft (37 m) upstream at same datum. Nov. 2, 1950 to Apr. 30, 1952 nonrecording gage at bridge 100 ft (30 m) upstream at same datum.

AVERAGE DISCHARGE.--24 years, 3,857 ft³/s (109.2 m³/s), 25.30 in/yr (643 mm/yr), 2,794,000 acre-ft/yr (3.45 km³/yr).

EXTREMES.--Maximum discharge during period of record, 82,100 ft³/s (2,330 m³/s) Aug. 10, 1971, gage height, 13.60 ft (4.145 m), from rating curve extended above 34,000 ft³/s (960 m³/s) on basis of velocity-area study; minimum daily, 234 ft³/s (6.63 m³/s) Apr. 25, 1956.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum Date	Discharge	Gage height	Minimum daily Date	Discharge
1949a	July 11, 1949	23,600	12.03	May 5, 1949	346
1950	July 25, 1950	21,200	11.18	Feb. 16-20, 1950	410
1951	June 8, 1951	21,400	11.00	Mar. 1-15, 1951	380
1952	July 30, 1952	23,400	9.95	Mar. 16,17, 1952	390
	July 31, 1952	---	10.00		
1953	June 28, 1953	22,200	10.40	Feb. 1 to Mar. 31, 1953	460
1954	July 31, 1954	21,500	8.71	Apr. 7-9, 1954	410
1955	Aug. 27, 1955	24,000	9.96	Mar. 12, 1955	400
1956	July 31, 1956	21,400	10.50	Apr. 25, 1956	234
1957	June 20, 1957	25,900	10.90	Mar. 11-20, 1957	440
1958	June 8, 1958	---	9.60	Mar. 20-25, 1958	450
	July 5, 1958	17,500	9.05		
1959	Aug. 24, 1959	37,300	10.82	Jan. 16-31, 1959	510
1960	May 26, 1960	22,600	10.05	April 11, 1960	408
1961	Jan. 11, 1961	---	b10.44	Apr. 15, 1961	460
	June 21, 1961	18,000	9.90		
1962	June 18, 1962	28,400	10.58	Mar. 1-31, 1962	490
	Aug. 29, 1962	---	12.00		
1963	Aug. 23, 1963	23,200	11.40	Mar. 14, 1963	440
1964	June 8, 1964	40,100	11.45	Nov. 16-30, 1963	480
1965	July 13, 1965	28,600	10.38	Feb. 20 to Mar. 1, 1965	480
1966	June 7, 1966	---	10.34	Mar. 1-31, 1966	490
	July 29, 1966	25,300	10.01		
1967	June 12, 1967	25,500	9.66	Mar. 20-25, 1967	340
	Aug. 14, 1967	---	10.09		
1968	June 15, 1968	28,300	10.47	Apr. 11-22, 1968	500
1969	Aug. 5, 1969	17,200	10.15	Nov. 24, 1968 to Apr. 5, 1969	440
1970	June 27, 1970	25,600	10.08	Mar. 26 to Apr. 5, 1970	430
1971	Aug. 10, 1971	c82,100	13.60	Feb. 16 to Mar. 31, 1971	360
1972	June 14, 1972	34,000	11.05	Apr. 9-25, 1972	440
1973	June 15, 1973	28,600	10.67	Mar. 11 to Apr. 2, 1973	460
1974	September 1974	12,900	8.68		

a Period April to September.
b Backwater from ice.
c Result of breach of embankment at outlet of lake in Granite Creek basin.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1949								4369	11300	16310	12290	6368	
1950	2335	1168	807	601	485	495	599	1628	8896	14050	11100	4378	3908
1951	1300	660	580	500	450	401	796	3575	11290	13940	9185	8966	4323
1952	2923	1255	944	793	500	438	533	1597	8456	13360	9854	3309	3684
1953	2361	1304	820	560	460	460	817	3788	14110	14230	11390	4360	4582
1954	1569	790	620	570	450	420	599	3166	9376	12820	12770	6111	4134
1955	2445	1066	770	680	525	437	482	1782	6949	13830	10470	4988	3732
1956	1554	717	579	520	456	400	502	2611	7673	15620	10750	5961	3966
1957	1626	690	651	660	588	521	723	4235	15860	14000	10940	7042	4815
1958	2355	1148	645	660	533	487	891	2120	10410	10670	9029	3186	3531
1959	1451	568	474	349	441	400	568	2816	11580	10650	11270	4259	3757
1960	1793	975	715	669	580	563	702	6019	8886	11840	9020	5537	3959
1961	2492	1059	836	821	628	480	696	2641	9502	10840	9051	4664	3664
1962	2014	1100	860	760	570	490	714	2445	14040	14410	11760	5042	4542
1963	1729	869	627	601	577	495	526	3788	6698	13630	11220	4886	3837
1964	2013	616	629	553	530	530	985	1624	17250	12490	11210	4105	4384
1965	1764	1132	722	756	548	572	831	1526	5415	12790	9388	7809	3628
1966	1932	946	863	651	554	490	649	1007	9105	13400	7607	3814	3439
1967	1554	734	634	563	476	364	558	3157	10670	11690	10880	5742	3941
1968	1921	1097	755	705	617	550	531	3719	11500	13450	9355	2964	3947
1969	1317	573	440	440	440	440	526	2148	6747	10340	4992	2123	2562
1970	1170	745	589	502	457	440	475	2842	8207	11200	6726	3183	3065
1971	1652	1317	894	554	381	360	491	1016	10730	11890	15730	4996	4196
1972	2884	1793	1024	687	578	494	465	3204	8512	14380	9667	4926	4072
1973	2009	900	540	500	494	466	698	1713	7653	9206	8045	2452	2909
MEAN	1923	968	709	611	513	466	640	2741	10030	12840	10150	4847	3857
MONTHLY PERCENT	4	2	2	1	1	1	1	6	22	28	22	10	

15284000 MATANUSKA RIVER AT PALMER--Continued

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1952-73.

PERIOD OF DAILY RECORD.--March 1952 to September 1953 (seasonal), April 1959 to October 1967 (seasonal).

REMARKS.--Once-daily readings by observer on most days during open water season for period of daily record.

EXTREMES.--Maximum observed during period of daily record, 14.5°C August 23, 1964 and July 17, 1966; minimum, [illegible] on most days during winter period.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1954		1955		1957--cont		1967		1968--cont		1970--cont		1972	
3-12-54	7.5	10- 1-54	5.5	7-22-57	14.0	4-10-67	0.5	4-19-68	1.0	1-30-70	0.0	1-13-72	0.0
4- 2-54	7.0	1956		8-20-57	3.5	5- 2-67	2.0	7- 3-68	6.0	4- 1-70	0.0	3-28-72	0.0
4-14-54	9.5	6-26-56	11.0	1958		5-29-67	9.0	1969		6-16-70	7.0	5-31-72	3.5
4-29-54	1.0	7-10-56	5.5	4-30-58	1.0	6-30-67	6.5	10- 2-68	3.0	7-24-70	8.0	6-28-72	4.0
5-24-54	8.0	9-18-56	9.0	5-14-58	8.0	7- 6-67	7.5	10-29-68	0.0	9- 4-70	6.0	8- 2-72	9.5
6- 3-54	9.0	1957		5-26-58	7.5	8-24-67	6.0	11-26-68	0.0	1971		9-11-72	8.0
6-23-54	8.0	10-10-56	2.5	6-12-58	7.5	1968		3-27-69	0.0	10-13-70	2.5	1973	
7-20-54	7.5	10-24-56	0.0	6-28-58	10.5	10- 6-67	3.5	6-11-69	9.0	12-14-70	0.0	1[illegible]-3-72	1.5
8- 2-54	5.0	5-21-57	6.0	7- 7-58	10.5	11-16-67	0.0	7-17-69	9.0	2- 4-71	0.0	2-15-73	0.0
8-18-54	8.0	6- 3-57	7.0	7-17-58	9.0	1-15-68	0.0	9- 2-69	7.0	4-30-71	1.5	3-27-73	0.5
8-31-54	7.5	6-29-57	10.5	8-19-58	9.0	3- 5-68	0.5	1970		7-26-71	7.0	4-[illegible]-73	1.5
				9- 5-58	9.5	4- 2-68	0.0	10-23-69	0.0	8- 9-71	7.0		

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1952	Max	---	---	---	---	---	1.5	4.5	9.5	12.0	a	a	---
	Min	---	---	---	---	---	0.0	0.5	3.0	5.5	a	a	---
1953	Max	---	---	---	---	---	---	2.0	9.5	12.0	a	a	a
	Min	---	---	---	---	---	---	0.0	1.0	6.5	a	a	a
1959	Max	---	---	---	---	---	---	2.0	11.0	13.5	11.0	12.0	9.0
	Min	---	---	---	---	---	---	a	1.5	7.0	2.0	4.0	4.5
1960	Max	5.5	a	---	---	---		---	11.5	12.0	12.0	9.5	6.0
	Min	0.0	0.0	---	---	---	---	---	a	7.0	6.5	5.0	2.0
1961	Max	a	---	---	---	---	---	1.5	10.5	13.0	11.5	11.[illegible]	7.0
	Min	a	---	---	---	---	---	a	0.5	5.5	6.0	1.5	2.0
1962	Max	4.5	---	---	---	---	---	a	10.0	11.0	10.5	10.0	a
	Min	0.0	---	---	---	---	---	0.0	0.0	5.5	6.0	2.5	a
1963	Max	a	---	---	---	---	---	a	9.0	11.0	11.0	a	a
	Min	a	---	---	---	---	---	0.0	0.0	5.0	5.5	a	a
1964	Max	---	---	---	---	---	---	a	9.5	13.0	13.5	11.5	10.0
	Min	---	---	---	---	---	---	a	1.0	6.5	7.0	7.0	3.0
1965	Max	---	---	---	---	---	---	5.0	11.0	10.0	13.0	11.5	a
	Min	---	---	---	---	---	---	0.0	1.0	2.0	4.5	3.5	a
1966	Max	---	---	---	---	---	---	---	9.0	13.5	14.5	11.0	10.0
	Min	---	---	---	---	---		---	a	2.0	6.0	1.5	3.0
1967	Max	a	---	---	---	---	---	---	---	---	---	---	---
	Min	0.0	---	---	---	---	---	---	---	---	---	---	---

a Data insufficient to compute monthly maximum or minimum.

15286000 COTTONWOOD CREEK NEAR WASILLA

LOCATION.--Lat 61°34'30", long 149°24'55", in SW¼ sec.11, T.17 N., R.1 W., Matanuska-Susitna borough, near center of span on downstream side of highway bridge on Wasilla-Palmer road, 0.8 mi (1.3 km) downstream from Wasilla Lake and 1.1 mi (1.8 km) southwest of Wasilla.

BASIN CHARACTERISTICS.--Drainage area, 28.5 mi² (73.8 km²); main-channel slope, 11 ft/mi (8.2 m/km); stream length, 11.4 mi (18.3 km); area of lakes and ponds, 0 percent; mean elevation, 500 ft (152 m); glacier area, 0 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1949 to September 1954.

Gage.--Nonrecording gage. Datum of gage is 309 ft (94.2 m) above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--5 years, 15.9 ft³/s (0.450 m³/s), 7.58 in/yr (193 mm/yr), 11,520 acre-ft/yr (14.2 hm³/yr).

EXTREMES.--Maximum daily discharge during period of record, 55 ft³/s (1.56 m³/s) July 5 and 6, 1949; maximum gage height observed, 4.07 ft (1.241 m) Jan. 26, 1950 (backwater from ice); minimum discharge, 3.5 ft³/s (0.099 m³/s) Sept. 2, 1954, discharge measurement, caused by temporary storage upstream.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1949a	July 5, 6, 1949	b55	---	Sept. 23, 24, 1949	13
1950	Oct. 4, 1949	b40	1.03	Sept. 25, 26, 28-30, 1950	10
	Jan. 26, 1950	---	c4.07		
1951	Dec. 22, 1950	---	c2.77	Mar. 1-31, Aug. 18, 21-28, 1951	10
	Apr. 23-24, 1951	b24	0.94		
1952	Jan. 2, 1952	---	c2.35	July 23, 24, Aug. 13, 14, 24, 25, 1952	7.0
	July 1, 1952	54	1.16		
1953	d	b33	---	June 6, 1953.	e6.9
1954	Jan. 27, 1954	---	c2.30	May 25, 27, June 1, 1954	f3.5
	Aug. 6-8, 1954	b20	0.92		

a Period July to September.
b Maximum daily.
c Backwater from ice.
d Nov. 10-15, 20, 22-28, 1952.
e Momentary minimum, gage height, 0.56 ft.
f Momentary minimum, 3.5 ft³/s Sept. 2, 1954, discharge measurement, caused by temporary storage upstream.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1948										[illegible]	44.6	37.4	
1949	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	18.4	15.0	13.0	18.4	13.7	11.3	[illegible]
1951	[illegible]	[illegible]	11.5	11.0	11.5	[illegible]	17.5	16.9	15.0	14.3	12.5	10.4	[illegible]
1952	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13.5	[illegible]	17.2	11.0	19.7	12.1	17.6	[illegible]
1953	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19.0	15.2	4.20	3.90	12.4	17.0	[illegible]
1954	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19.7	12.3	12.2	14.0	17.2	11.7	[illegible]
MEAN	20.5	20.6	15.2	13.6	13.2	14.6	18.4	15.5	13.3	19.8	18.8	18.6	15.9
MONTHLY PERCENT	10	10	8	8	[illegible]	[illegible]	8	8	6	10	9	9	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1952-54.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1952		1953-cont		1954-cont		1954-cont	
1- 3-52	0.5	6- 7-53	5.5	4- 2-54	1.5	6-24-54	11.0
5- 2-52	1.5	6- 8-53	[illegible]	4-14-54	4.0	7-23-54	16.5
6- 9-52	18.5	9-29-53	[illegible]	4-28-54	6.5	8- 2-54	16.5
1953		1954		5-19-54	15.0	8-18-54	17.0
10-29-52	1.5	10-19-53	[illegible]	6- 4-54	18.0	9-29-54	9.5
11-21-52	1.0	1-22-54	[illegible]				

15290000 LITTLE SUSITNA RIVER NEAR PALMER

LOCATION.--Lat 61°42'52", long 149°13'56", in NE¼ sec.26, T.19 N., R.1 E., Matanuska-Susitna Borough, on right bank 40 ft (12 m) downstream from highway bridge on Nasilla-Fishhook Road, 1.5 mi (2.4 km) north of road junction, 1.8 mi (2.9 km) downstream from unnamed tributary, and 8 mi (13 km) northwest of Palmer.

BASIN CHARACTERISTICS.--Drainage area, 61.9 mi² (160.3 km²); main-channel slope, 187 ft/mi (35.4 m/km); stream length, 14.9 mi (24.0 km); area of lakes and ponds, 0 percent; mean elevation, 3,700 ft (1,130 m); glacier area, 5 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1948 to September 1975.

GAGE.--water-stage recorder. Datum of gage is 918.6 ft (279.99 m) above mean sea level (river-profile survey). Prior to Aug. 16, 1948, nonrecording gage and Aug. 16, 1948 to May 15, 1972, water-stage recorder on left bank. Prior to Oct. 1, 1974, at datum 2.00 ft (0.610 m) higher.

REMARKS.--During water years 1950-62 winter discharge measurements were made at a site 3.5 mi (5.6 km) downstream from the gage location. There is a channel loss of about 6 ft³/s (0.2 m³/s) in the 3.5 mi (5.6 km) reach.

AVERAGE DISCHARGE.--27 years, 203 ft³/s (5.749 m³/s), 44.54 in/yr (1,131 mm/yr), 147,100 acre-ft/yr (181 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 7,840 ft³/s (222 m³/s) Aug. 10, 1971, gage height, 9.84 ft (2.999 m) in gage well, 12.30 ft (3.749 m), top of needle peak in gage well, about 13 ft (4.0 km) from floodmarks, present datum, from rating curve extended above 4,600 ft³/s (130 m³/s) on basis of slope-area measurement of peak flow; minimum daily, about 8.0 ft³/s (0.23 m³/s) Apr. 1-20, 1956 and Mar. 11 and 12, 1957.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1948a	Aug. 16, 1948	2,500	5.82	Sept. 15, 1948	b181
1949	June 21, 1949	3,070	6.33	Feb. 21, Apr. 4,8, 1949	16
1950	June 17, 1950	1,170	4.25	Feb. 16-28, Mar. 25,26,29, Apr.1-5,1950	c13
1951	June 8, 1951	1,900	5.25	Apr. 4-9, 1951	11
1952	July 27, 1952	2,300	5.66	Mar. 1 to Apr. 3, 1952	13
1953	Aug. 22, 1953	1,840	5.56	Apr. 1-15, 1953	12
1954	July 31, 1954	1,850	5.58	Apr. 1-13, 1954	d12
1955	Aug. 27, 1955	2,320	6.13	Mar. 21-31, 1955	9.0
1956	July 31, 1956	2,340	5.60	Apr. 1-20, 1956	8.0
1957	Sept. 19, 1957	2,510	6.11	Mar. 11,12, 1957	8.0
1958	May 31, 1958	1,280	4.95	Mar. 16-31, 1958	e13
1959	Aug. 24, 1959	3,160	7.39	Mar. 16-31, 1959	13
1960	May 25, 1960	1,600	5.15	Mar. 1 to Apr. 3, 1960	13
1961	Aug. 3, 1961	1,420	4.84	Apr. 1-15, 1961	16
1962	Aug. 29, 1962	3,890	6.60	Dec. 26-29, 1961	9.0
1963	Aug. 23, 1963	3,550	6.32	Mar. 2, 1963	19
1964	June 25, 1964	1,850	5.33	Mar. 19-24, 1964	18
1965	Aug. 14, 1965	1,870	5.35	Mar. 13, 15-17, 1965	22
1966	June 7, 1966	1,200	4.72	Mar. 16 to Apr. 3, 1966	30
1967	July 20, 1967	2,630	5.90	Apr. 16-23, 1967	20
1968	June 15, 1968	1,680	4.99	Apr. 18-21, 1968	23
1969	May 25, 1969	909	4.27	Mar. 27 to Apr. 3, 1969	16
1970	Aug. 5, 1970	946	4.42	Feb. 21 to Mar. 10, Apr. 16-27, 1970	19
1971	Aug. 10, 1971	7,840	f7.84	Mar. 8-17, 1971	17
1972	Sept. 12, 1972	2,560	5.61	Apr. 6-12, 1972	16
1973	Aug. 21, 1973	2,340	5.47	Apr. 25-28, 1973	20
1974	Aug. 27, 1974	2,930	5.20	Mar. 21 to Apr. 15, 1974	18
1975	Sept. 11, 1975	1,360	5.82	Apr. 24, 25, 1975	g18

a Period July to September.
b Momentary minimum.
c Momentary minimum, 9.4 ft³/s Feb. 16, 1950, discharge measurement.
d Momentary minimum, 6.6 ft³/s Apr. 12, 1954, discharge measurement.
e Momentary minimum, 9.6 ft³/s Mar. 27, 1958, discharge measurement.
f Maximum outside gage height, about 11 ft, from floodmarks.
g Momentary minimum. 15 ft³/s Apr. 17, 1975, result of ice jam.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1948										558	661	280	
1949	137	60.0	43.9	30.9	21.7	20.4	23.5	315	1176	940	681	321	316
1950	135	50.8	30.8	25.0	16.6	17.8	17.8	57.4	519	358	296	154	140
1951	67.9	35.0	31.0	27.0	21.0	16.5	22.1	214	708	489	446	543	219
1952	139	50.3	36.0	23.1	14.0	13.0	15.0	152	967	697	428	387	243
1953	134	80.4	38.5	31.0	20.7	16.0	22.3	268	642	278	444	246	186
1954	83.0	47.0	31.0	21.0	16.0	13.0	18.0	202	297	381	500	298	160
1955	127	56.2	17.4	19.6	15.9	11.3	10.0	88.4	666	806	556	280	222
1956	85.2	37.7	27.0	20.0	16.0	10.0	17.0	129	577	610	398	305	186
1957	86.6	56.3	32.9	24.1	19.4	10.5	17.7	348	702	310	218	540	197
1958	170	81.4	43.1	24.4	20.7	14.5	20.0	158	398	240	305	125	134
1959	111	44.5	31.9	17.5	15.5	14.5	16.5	212	797	459	736	305	231
1960	111	54.0	30.9	29.5	19.6	13.0	19.1	382	398	367	361	351	179
1961	129	60.7	44.1	54.1	25.0	17.5	20.5	186	606	506	456	349	205
1962	186	65.2	33.1	36.4	27.4	24.8	25.6	142	994	569	534	345	247
1963	98.7	47.9	37.3	33.2	24.7	22.3	23.9	320	856	1047	825	202	297
1964	168	59.6	38.1	27.4	22.9	19.8	24.5	72.2	932	456	294	178	191
1965	123	62.5	41.9	31.0	26.3	25.6	34.1	121	482	497	451	606	209
1966	181	70.3	47.4	30.5	25.1	21.0	23.0	83.5	546	361	402	223	168
1967	110	69.2	42.5	27.3	23.1	21.4	23.2	248	790	633	524	312	236
1968	88.3	46.5	33.3	29.8	24.0	27.6	26.7	374	920	601	231	115	210
1969	51.3	24.5	19.8	24.0	22.5	18.1	21.4	179	289	242	169	82.2	95.8
1970	76.3	45.9	33.0	25.9	20.4	19.7	19.7	194	406	419	422	199	158
1971	118	71.6	43.0	30.5	24.5	18.2	18.3	52.9	675	622	909	177	232
1972	92.3	63.9	35.2	31.2	25.9	19.6	18.0	117	884	743	297	409	228
1973	210	80.2	44.2	31.6	27.7	25.0	24.0	187	671	374	392	165	184
1974	90.4	50.8	36.3	32.4	27.7	19.8	21.0	396	643	407	259	178	181
1975	96.2	56.3	36.1	30.0	25.6	21.4	20.6	135	731	720	348	522	229
MEAN	118	56.6	35.5	28.5	22.0	18.2	20.9	196	677	525	448	253	203
MONTHLY PERCENT	5	2	1	1	1	1	1	8	28	22	18	12	

15290000 LITTLE SUSITNA RIVER NEAR PALMER--Continued

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1952-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1952		1958		1961		1963 cont		1967		1970		1973	
1- 2-52	0.0	10- 3-57	3.0	12-29-60	0.0	4-26-63	1.0	10-28-66	0.0	11-25-69	0.0	10-26-72	1.0
4- 8-52	0.0	4-28-58	3.0	5- 3-61	4.0	5-23-63	0.5	11-29-66	0.0	12-29-69	1.0	11-27-72	0.5
5- 5-52	0.5	5-27-58	6.0	6- 5-61	6.0	6- 4-63	3.5	12-27-66	0.0	1-27-70	0.0	12-20-72	0.0
6- 9-52	0.5	6-12-58	8.0	6-20-61	5.0	6-18-63	5.0	2-24-67	0.0	2-19-70	1.0	1-26-73	0.0
1953		6-26-58	9.0	7- 5-61	6.0	6-27-63	3.5	3-30-67	0.5	3-26-70	3.0		
10-29-52	1.5	7- 7-58	10.0	8- 2-61	7.5	7-18-63	5.0	4-27-67	1.0	4-27-70	1.0	2-23-73	0.5
5- 6-53	2.5	7-17-58	8.5	8-29-61	7.5	7-29-63	9.0	5-26-67	6.0	5-26-70	4.0	4-23-73	1.0
6- 2-53	8.5	8- 7-58	8.0	9-13-61	5.5	8- 5-63	4.5	6-28-67	5.0	6-24-70	7.0	5-24-73	2.5
1954		8-18-58	6.5	9-25-61	3.5	8-12-63	3.5	7-25-67	9.0	7-27-70	9.5	8-27-73	7.5
4- 2-54	2.5	9- 9-58	5.5	1962		8-28-63	5.5	9-27-67	5.0	8-26-70	6.0	1974	
4-12-54	1.0	1959		10-11-61	0.0	9- 9-63	7.5	1968		9-24-70	2.0	10-25-73	0.5
4-13-54	1.0	11-12-58	0.0	11- 7-61	0.0	1964		10-27-67	0.0	1971		11-26-73	0.5
4-28-54	1.0	1-30-59	0.0	11-16-61	0.0	10- 4-63	2.0	11-27-67	0.0	10-26-70	0.0	4-25-74	0.0
5-19-54	8.0	2-17-59	0.5	11-27-61	0.0	10-22-63	1.0	12-27-67	0.5	11-23-70	0.0	4-30-74	1.5
6- 4-54	8.5	3-16-59	0.0	12-26-61	0.0	10-29-63	0.0	1-27-68	0.0	12-29-70	0.0	5-23-74	5.5
6-24-54	9.0	4- 8-59	0.5	1-15-62	0.0	11- 5-63	0.5	2-26-68	0.5	1-25-71	0.0	8-27-74	7.0
8- 2-54	8.0	4-24-59	1.0	3- 6-62	0.0	11-12-63	0.0	4-24-68	0.5	2-23-71	0.0	9-26-74	5.0
8-18-54	9.5	5- 7-59	2.5	3-27-62	0.0	11-21-63	0.0	5-23-68	3.0	3-25-71	0.5	1975	
9- 2-54	7.5	5-20-59	4.0	4- 6-62	0.5	1-15-64	0.5	5-27-68	0.0	4-26-71	1.0	10-17-74	1.5
9-29-54	5.5	7- 8-59	7.5	4-13-62	1.5	3-11-64	0.0	7-25-68	9.0	5-24-71	2.5	10-23-74	1.5
1955		7-30-59	2.5	5- 8-62	2.5	3-26-64	0.0	8-27-68	7.0	6-25-71	8.5	11-25-74	0.0
10-15-54	3.5	8-18-59	7.5	6- 4-62	4.0	1965		1969		7-26-71	6.0	11-29-74	0.0
1956		1960		8-21-62	9.0	10-26-64	0.0	10-25-68	0.0	8-24-71	7.5	12-12-74	0.0
6-26-56	5.5	10-30-59	1.5	8-28-62	8.0	12-14-64	0.0	11-25-68	0.0	1972		12-23-74	0.0
7-10-56	5.0	12- 3-59	0.0	1963		12-28-64	0.0	12-27-68	0.0	10-22-71	0.5	1-27-75	0.0
8- 1-56	5.5	12-22-59	0.5	10- 9-62	2.0	3-26-65	1.5	1-27-69	0.0	11-26-71	0.0	2-24-75	0.0
8-13-56	9.5	2-19-60	0.0	10-26-62	0.0	4-27-65	1.0	2-25-69	0.0	12-22-71	0.0	3-26-75	0.0
9-20-56	2.5	3-30-60	0.5	11- 5-62	0.0	7-29-65	8.0	3-25-69	0.0	1-26-72	0.0	4-10-75	1.0
1957		5- 4-60	3.0	12-21-62	0.0	1966		4-28-69	2.0	2-24-72	0.0	4-16-75	1.0
10-10-56	2.5	6-10-60	3.5	12-28-62	0.0	12-28-65	0.0	5-26-69	5.0	3-28-72	0.0	4-24-75	0.5
5-22-57	4.5	8-10-60	9.5	1- 4-63	0.0	1-25-66	0.0	6-25-69	9.0	4-25-72	0.5	5-15-75	2.0
6-19-57	6.0	8-18-60	7.5	4- 5-63	1.0	2-24-66	1.0	7-25-69	8.0	7-25-72	7.0	5-27-75	4.0
7-22-57	9.0	9-29-60	3.0	4-12-63	0.0	3-27-66	8.0	8-26-69	5.0	8-28-72	6.0	6- 2-75	4.0
9-10-57	7.5			4-19-63	1.0	8-29-66	6.0	9-29-69	4.5	9-25-72	2.5	6-23-75	5.5
						9-28-66	4.5					7- 1-75	5.5
												7-14-75	8.0
												9-23-75	6.5

15291000 SUSITNA RIVER NEAR DENALI

LOCATION.--Lat 63°06'14", long 147°30'57", in NE¼ sec 10, T.23 S., R.1 E., Matanuska-Susitna Borough, on upstream right pier of bridge on Denali Highway, 0.2 mi (0.3 km) downstream from Windy Creek, 3.3 mi (5.3 km) upstream from Butte Creek, and 8.3 mi (8.5 km) southwest of Denali.

BASIN CHARACTERISTICS.--Drainage area, 950 mi² (2,460 km²); main-channel slope, 56.6 ft/mi (10.7 m/km); stream length, 51 mi (82 km); area of lakes and ponds, 1 percent; mean elevation, 4,510 ft (1,370 km); glacier area, 25 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1957 to September 1966, July 1968 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 2,140 ft (652 m), from topographic map. Prior to May 27, 1965, water-stage recorder at site 1.9 mi (3.1 km) downstream at different datum. May 27, 1965 to Sept. 30, 1966, nonrecording gage near right downstream end of bridge and July 4, 1968 to Aug. 28, 1974, water-stage recorder on left upstream wingwall, at present datum.

AVERAGE DISCHARGE.--10 years (water years 1958-66, 1969-75), 1,095 ft³/s (26.32 m³/s), 38.53 in/yr (970 mm/yr), 1,953,000 acre-ft/yr (2.41 km³/yr).

EXTREMES.--Maximum discharge during period of record, 38,200 ft³/s (1,080 m³/s) Aug. 10, 1971, gage height, 13.32 ft (4.060 m) from rating curve extended above 19,000 ft³/s (540 m³/s); maximum gage height, 13.58 ft (4.139 m) May 11, 1970, backwater from ice; minimum daily discharge, about 34 ft³/s (0.96 m³/s) Mar. 16-31, 1959. Flood of Aug. 14 or 15, 1967 reached a discharge of 28,200 ft³/s (798 m³/s), gage height, 12.7 ft (3.87 m) from flood-marks, from rating curve extended above 19,000 ft³/s (540 m³/s).

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

	Momentary maximum			Minimum daily	
Water year	Date	Discharge	Gage height	Date	Discharge
1957a	June 7, 1957	18,700	5.54	Sept. 23, 1957	1,[illegible]
1958	July 28, 1958	14,500	4.74	Mar. 1-31, 1958	[illegible]
1959	Aug. 25, 1959	14,300	4.45	Mar. 16-31, 1959	[illegible]
1960	July 20, 1960	22,900	5.15	Mar. 16 to Apr. 15, 1960	260
1961	Aug. 4,5,or 6,1961	18,300	4.94	Mar. 1-15, 1961	[illegible]
1962	July 30, 1962	15,500	4.48	Mar. 1-31, 1962	[illegible]
	Aug. 3, 1962	--	4.55		
1963	Aug. 18, 1963	[illegible],000	5.02	Mar. 1-31, 1963	[illegible]
1964	June 7, 1964	b16,000	-	Mar. 1-31, 1964	110
1965	Sept. 9, 1965	15,300	11.80	Feb. 1 to Mar. 25, 1965	200
1966	July 16-31, 1966	16,400	---	Feb. 1 to Mar. 31, 1966	200
1967	Aug. 14 or 15,1967	28,200	12.7		
1968c	July 27, 1968	19,000	12.6	Sept. 23, 1968	1,020
1969	June 22, 1969	14,900	11.73	Jan. 16 to Mar. 15, 1969	140
	July 15, 1969	14,900	11.69		
1970	May 11, 1970	--	d13.58	Mar. 10 to Apr. 5, 1970	320
	July 30, 1970	14,100	11.38		
1971	Aug. 10, 1971	38,200	13.32	Feb. 16 to Apr. 10, 1971	[illegible]
1972	Aug. 7, 1972	17,200	11.87	Apr. 1-22, 1972	200
1973	Aug. 23, 1973	14,100	11.81	Mar. 11 to Apr. 25, 1973	150
1974	July 18, 1974	---	11.94	Apr. 9-15, 1974	[illegible]
	Aug. 28, 1974	16,800	11.84		
1975	July 12, 1975	21,500	12.23	Feb. 1 to Apr. 30, 1975	[illegible]

a Period June to September.
b Maximum daily, estimated.
c Period July to September.
d Backwater from ice.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1957									12210	11170	9769	[illegible]	
1958	1277	510	288	219	150	120	219	1163	8367	9150	6530	[illegible]	2511
1959	939	320	170	119	81.0	41.7	25.0	1782	8891	8333	7882	[illegible]	2614
1960	1377	760	475	444	321	275	265	3349	5237	9039	7910	[illegible]	2896
1961	1781	560	185	331	271	281	315	2959	6412	8078	7263	[illegible]	2655
1962	1298	[illegible]	340	280	220	220	250	3197	9087	10320	9154	[illegible]	3191
1963	1079	520	510	250	230	200	210	3253	8763	10500	10210	[illegible]	3138
1964	925	290	185	140	140	110	134	910	11650	7577	6552	[illegible]	1604
1965	1468	[illegible]	270	220	200	208	[illegible]	2164	4947	6756	5704	[illegible]	2310
1966	920	[illegible]	240	210	200	200	240	1029	6850	8287	6442	[illegible]	2111
1968										11840	9825	[illegible]	
1969	700	[illegible]	172	145	130	145	[illegible]	1768	8146	9445	5019	[illegible]	2200
1970	1002	571	550	263	221	195	319	2210	6015	8454	6216	[illegible]	2245
1971	528	395	270	170	125	120	135	629	8099	10410	10400	[illegible]	2003
1972	1059	[illegible]	580	539	397	286	[illegible]	3468	6562	10450	9604	[illegible]	2937
1973	667	225	211	175	164	153	133	1042	5711	8346	7268	[illegible]	2232
1974	876	[illegible]	360	310	271	235	261	2541	5642	9547	9202	[illegible]	2960
1975	2135	[illegible]	581	300	200	200	200	1640	7040	12110	7295	[illegible]	3093
MEAN	1138	372	318	245	204	187	233	2063	7431	9428	7813	3513	2695
MONTHLY PERCENT	3	1	1	1	1	1	1	8	25	29	24	10	

15291000 SUSITNA RIVER NEAR DENALI--Continued

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1957-75.

PERIOD OF DAILY RECORD.--August to September 1974, May to September 1975.

REMARKS.--Continuous water-temperature recorder for period of daily record.

EXTREMES.--Maximum during period of daily record, 10.5°C June 15, 16, 1975

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1957		1959-cont		1961-cont		1963		1965		1969		1971	
7-10-57	11.5	7-19-59	4.5	8- 8-61	8.5	10-16-62	3.5	7-30-65	10.0	5-23-69	0.0	10-15-70	0.0
8-13-57	6.0	8- 3-59	6.0	8-23-61	5.5	7-25-63	7.0	1966		7-11-69	3.0	7-12-71	7.0
1958		9-30-59	3.5	9-15-61	4.0	1964		7- 3-66	5.5	8-13-69	5.0	8-20-71	7.0
7-29-58	7.5	1960		1962		10- 1-63	5.5	1967		1970		1972	
1959		11-20-59	0.0	11-28-61	0.0	12- 6-63	3.0	10- 1-66	3.5	10- 4-69	3.0	9-22-72	0.0
5-18-59	0.0	9- 9-60	5.5	1-21-62	0.0	3-12-64	2.0	8-17-67	6.5	5-15-70	0.0	1973	
4- 1-59	0.0	1961		2-13-62	0.5	6-19-64	4.0	1968		7-11-70	6.0	6- 9-73	5.0
6-16-59	9.0	1- 3-61	0.0	8-23-62	5.5	7-10-64	6.0	7- 4-68	7.0	8-21-70	5.5	8-13-73	7.5
								8-20-68	8.0				

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1974	Max	---	---	---	---	---	---	---	---	---	---	a	5.5
	Min	---	---	---	---	---	---	---	---	---	---	a	0.5
1975	Max	---	---	---	---	---	---	---	8.0	10.5	9.5	8.5	6.5
	Min	---	---	---	---	---	---	---	a	3.0	2.0	2.0	2.0

a Data insufficient to compute monthly maximum or minimum.

15291200 MACLAREN RIVER NEAR PAXSON

LOCATION.--Lat 63°07'10", long 146°31'45", Matanuska-Susitna Borough, near left bank on downstream side of bridge on Denali Highway, 1.5 mi (2.4 km) downstream from Boulder Creek, and 34 mi (55 km) west of Paxson.

BASIN CHARACTERISTICS.--Drainage area, 280 mi² (730 km²); main-channel slope, 133 ft/mi (25.2 m/km); stream length, 23 mi (37 km); area of lakes and ponds, 1 percent; mean elevation, 4,520 ft (1,380 m); glacier area, 19 percent

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1958 to September 1975.

GAGE.--Water-stage recorder. Datum of gage is 2,865.84 ft (873.508 m) above mean sea level (Alaska Department of Public Works bench mark). Prior to Sept. 20, 1961, at site 1,200 ft (400 m) downstream at same datum. Sept. 20, 1961 to June 7, 1964, at present site and datum; June 8, 1964 to Aug. 22, 1968, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--17 years, 976 ft³/s (27.64 m³/s), 47.34 in/yr (1,202 mm/yr), 707,100 acre-ft/yr (872 hm³/yr).

EXTREMES.--Maximum discharge during period of record, 9,260 ft³/s (262 m³/s) Aug. 11, 1971, gage height, 8.24 ft (2.512 m), from rating curve extended above 5,300 ft³/s (150 m³/s); maximum gage height, 9.10 ft (2.774 m) in May 1964, from floodmarks, backwater from ice; minimum daily discharge, about 40 ft³/s (1.1 m³/s) Mar. 1-25, 1965

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1958a	Aug. 4, 1958	5,770	5.64	Sept. 27, 1958	634
1959	June 22, 1959	4,410	5.02	Mar. 16-31, 1959	61
1960	Sept. 13, 1960	8,920	7.14	Apr. 1-15, 1960	58
1961	Aug. 5, 1961	6,540	6.05	Mar. 1-15, 1961	81
1962	June 14, 1962	6,540	6.85	Mar. 1-31, 1962	42
1963	July 18, 1963	7,300	7.27	Mar. 1-31, 1963	80
1964	May 1964	---	b9.10	Mar. 1-31, 1964	71
	June 7, 1964	c6,400	---		
1965	May 31, 1965	---	b7.95	Mar. 1-25, 1965	40
	July 14, 1965	4,840	6.00		
1966	June 7, 1966	4,310	5.65	Mar. 1-31, 1966	43
1967	Aug. 14, 1967	7,460	7.34	Apr. 1-20, 1967	50
1968	June 14, 1968	5,040	6.01	Jan. 16 to May 5, 1968	95
1969	June 16, 1969	4,140	5.45	Jan. 21 to Mar. 15, 1969	55
1970	Aug. 1, 1970	4,750	5.70	Feb. 3 to Mar. 14, 1970	50
1971	Aug. 11, 1971	9,260	8.24	Mar. 1 to Apr. 5, 1971	55
1972	June 16, 1972	7,070	7.14	Apr. 1-15, 1972	90
1973	June 15, 1973	5,140	6.21	Mar. 19 to Apr. 25, 1973	50
1974	May 31, 1974	4,440	5.70	Mar. 11 to Apr. 20, 1974	55
1975	Sept. 11, 1975	5,790	6.67	Mar. 1 to Apr. 24, 1975	100

a Period June to September.
b Backwater from ice.
c Maximum daily.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1958									3532	3525	2699	784	
1959	378	115	123	129	95.0	62.5	77.5	587	2879	2680	2083	856	843
1960	549	250	190	150	110	94.3	91.5	1742	2124	3359	3048	2439	1184
1961	687	195	149	110	93.9	96.0	145	1237	2679	3369	3299	1168	1111
1962	381	210	170	120	100	92.0	120	632	2916	3265	2927	1127	1011
1963	383	210	130	100	91.0	80.0	83.0	2131	3110	4649	3136	1213	1287
1964	416	140	98.0	85.0	88.0	71.0	72.0	386	4297	2764	2224	871	960
1965	379	147	49.3	44.0	42.0	41.0	62.0	984	2268	3223	2409	2098	985
1966	522	180	55.0	45.0	45.0	43.0	50.0	265	2990	2505	2095	954	816
1967	369	95.0	70.0	65.0	60.0	55.0	53.3	1023	3634	3255	3605	1416	1149
1968	417	130	100	97.4	95.0	95.0	95.0	208	3245	3427	2129	680	896
1969	265	121	68.5	58.2	55.0	57.6	95.3	849	2613	2692	974	470	697
1970	249	117	73.2	59.4	50.4	52.7	69.2	746	1751	2441	2367	773	735
1971	301	192	131	83.4	60.4	55.0	66.0	365	3414	3528	3659	1165	1092
1972	375	156	123	115	107	97.4	98.5	1218	3069	3255	2676	1366	1059
1973	550	243	136	87.4	65.2	53.4	51.2	576	2906	2856	2271	821	890
1974	307	123	82.6	68.5	61.8	56.6	56.7	649	2069	2634	2439	1543	846
1975	385	232	140	115	110	100	103	768	3178	3649	1982	1574	1033
MEAN	407	168	111	90.2	78.2	70.7	81.7	845	2926	3171	2557	1184	976
MONTHLY PERCENT	3	1	1	1	1	1	1	7	25	27	22	10	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1958-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1958		1960-cont		1962-cont		1964-cont		1968		1970		1974	
6-16-58	6.0	5-10-60	0.0	1-20-62	0.0	3-12-64	0.0	3-27-68	0.0	10- 4-69	3.0	3-30-74	3.5
7-28-58	6.5	6- 9-60	5.0	7-11-62	8.0	9-21-64	3.0	7- 4-68	10.0	5-16-70	0.0	6-21-74	6.0
1959		1961		7-14-62	6.5	1965		8-21-68	8.0	7-11-70	6.0	7-29-74	7.5
2-18-59	0.0	1- 3-61	0.0	8-22-62	7.3	7-30-65	7.0	8-22-68	8.0	8-20-70	5.5	8-30-74	9.0
4- 1-59	0.0	5-28-61	11.0	1963		1966		1969		1971		9-21-74	2.0
6-18-59	13.0	9-14-61	5.5	10-15-62	0.5	10- 2-65	1.5	10- 1-68	0.5	7-11-71	7.0	1975	
8- 3-59	6.5	9-22-61	2.0	1- 7-63	0.0	7- 3-66	5.5	4-16-69	0.0	8-20-71	6.5	6- 5-75	5.0
9- 6-59	2.5	1962		6- 8-63	4.0	8-24-66	6.0	5-23-69	3.0	1972		6-28-75	10.5
9-29-59	1.5	10-10-61	0.0	7-24-63	5.5	1967		7-10-69	9.0	10- 1-71	0.5	7-25-75	6.5
1960		11-26-61	0.0	1964		7-22-67	7.0	8-13-69	4.0	9-27-72	0.5	9- 5-75	6.0
11-19-59	0.0			12- 6-63	0.0	9-20-67	3.5			1973			
										6- 9-73	2.5		

15291500 SUSITNA RIVER NEAR CANTWELL

LOCATION.--Lat 62°41'57", long 147°52'10", Matanuska-Susitna borough, on right bank at lower end of gorge, 1.1 mi (1.8 km) downstream from small tributary, 13 mi (21 km) upstream from Jay Creek, and 65 mi (105 km) southeast of Cantwell

BASIN CHARACTERISTICS.--Drainage area, 4,140 mi² (10,720 km²); main-channel slope, 10.0 ft/mi (1.89 m/km); stream length, 107 mi (172 km); area of lakes and ponds, 2 percent; mean elevation, 3,500 ft (1,090 m); glacier area, 7 percent.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--May 1961 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 1,900 ft (580 m), from topographic map.

AVERAGE DISCHARGE. 11 years, 6,295 ft³/s (178.3 m³/s), 20.65 in/yr (525 mm/yr), 4,561,000 acre-ft/yr (5.62 km³/yr).

EXTREMES.--Maximum daily discharge during period of record, 55,000 ft³/s (1,560 m³/s) Aug. 10, 1971, on basis of discharge record at stations 15291000 and 15292000; minimum daily, about 400 ft³/s (11 m³/s) Mar. 16-31, 1964.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage Height	Minimum daily: Date	Discharge
1961a	June 23, 1961	50,400	6.42	May 1, 1961	2,000
1962	About June 15,1962	46,800	8.6	Mar. 1-31, 1962	940
1963	July 18, 1963	b32,000	---	Apr. 1-30, 1963	720
1964	June 8, 1964	31,200	8.35	Mar. 16-31, 1964	400
1965	July 13, 1965	b26,000	---	Feb. 1-28, 1965	680
1966	June 9-10, 1966	b27,000	---	Feb. 1 to Mar. 31, 1966	650
1967	Aug. 14, 1967	38,800	6.97	Apr. 1-25, 1967	500
1968	May 22, 1968	b25,000	--	Jan. 11 to Apr. 25, 1968	1,200
1969	July 15, 1969	19,300	4.45	Feb. 8 to Mar. 3, 1969	480
1970	Aug. 1, 1970	20,500	4.86	Jan. 16 to Feb. 20, 1970	420
1971	Aug. 10, 1971	c55,000	---	Mar. 16 to Apr. 6, 1971	460
1972	June 17, 1972	44,700	7.65	Mar. 20 to Apr. 21, 1972	850

a Period May to September.
b Maximum daily.
c Maximum daily, estimated on basis of discharge record at stations 15291000 and 15292000.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1961								9688	15710	14820	16700	6725	
1962	3281	1860	1400	1500	1000	940	1200	10000	25520	20890	16000	9410	7995
1963	4326	2200	1400	1000	850	760	720	11510	15000	22790	18190	9187	7372
1964	3848	1300	877	644	586	129	465	2806	34650	17040	11510	5352	6015
1965	3134	1911	931	760	680	709	1197	3819	16430	18350	13440	12910	6029
1966	3116	1000	750	700	650	650	575	4587	18500	12220	12680	6523	5100
1967	2522	750	720	680	640	560	535	9132	19620	16880	19190	10280	6843
1968	3084	1490	1532	1232	1200	1200	1225	9268	19500	17480	18940	5410	6131
1969	2406	1063	618	508	189	548	726	7471	12550	15510	6597	3356	4186
1970	1638	813	843	157	126	163	487	7550	9909	13900	14320	5211	4548
1971	2155	1530	1016	731	503	470	728	1915	21970	18130	22700	5500	6824
1972	4058	5850	1371	1068	922	851	576	3594	20000	16690	15670	6425	6907
MEAN	3035	1449	998	824	722	692	553	7701	19350	16890	14660	7800	6295
MONTHLY PERCENT	4	2	1	1	1	1	1	10	26	23	20	10	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1961, 1962, 1964, 1966-72.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1961		1963-cont		1964-cont		1967		1968		1970		1971	
6-29-61	10.5	1-20-62	0.0	9- 9-64	8.5	6- 7-67	3.5	6- 8-68	8.0	10- 5-69	2.5	7-12-71	3.5
9-18-61	5.0	1964		1966		8-11-67	7.5	7-24-68	13.0	3-23-70	0.0	8-17-71	10.0
1962		10- 5-65	3.0	8-27-66	9.5	6-20-67	9.5	1969		5-27-70	7.0	1972	
10-17-61	0.0	12-23-63	0.0	9-29-66	5.5	8-23-67	9.5	5-15-69	4.0	7-17-70	9.5	7- 7-72	12.0
10-20-61	0.0	3-12-64	0.0			9-28-67	4.0	7-29-69	8.0	9-18-70	5.5	8-10-72	10.5

15292000 SUSITNA RIVER AT GOLD CREEK

LOCATION.--Lat 62°46'04", long 149°41'28", in SW¼ sec.20, T.31 N., R.2 W., Matanuska-Susitna Borough, near left bank under Alaska Railroad bridge, 0.1 mi (0.2 km) downstream from Gold Creek, 0.9 mi (1.4 km) north of Gold Creek railroad station, and 2.0 mi (3.2 km) downstream from Indian River.

BASIN CHARACTERISTICS.--Drainage area, 6,160 mi² (15,950 km²); main-channel slope, 10.2 ft/mi (1.93 m/km); stream length, 189 mi (304 km); area of lakes and ponds, 1 percent; mean elevation, 3,420 ft (1,040 m); glacier area, 5 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1949 to September 1975.

GAGE.--Water-stage recorder. Datum of gage is 676.50 ft (206.197 m) above mean sea level. Prior to June 6, 1957, nonrecording gage at same site and datum. June 7, 1957 to June 2, 1964, water-stage recorder at site 0.3 mi (0.5 km) upstream at same datum.

AVERAGE DISCHARGE.--26 years, 9,707 ft³/s (274.9 m³/s), 21.40 in/yr (544 mm/yr), 7,033,000 acre-ft/yr (8.67 km³/yr).

EXTREMES.--Maximum discharge during period of record, 90,700 ft³/s (2,570 m³/s) June 7, 1964, gage height, 16.58 ft (5.054 m); maximum gage height observed, 24.48 ft (7.162 m) May 10, 1954, ice jam; minimum daily discharge, about 600 ft³/s (17.0 m³/s) Feb. 16-20, 1950.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum			Minimum daily	
	Date	Discharge	Gage height	Date	Discharge
1949a	Aug. 1, 1949	b35,000	---	Sept. 21, 1949	9,160
1950	June 21, 1950	b34,000	---	Feb. 16-20, 1950	600
1951	May 6, 1951	---	c16.20	Mar. 1 to Apr. 5, 1951	740
	June 8, 1951	d37,400	12.15		
1952	June 17, 1952	d44,700	12.90	Mar. 1-31, 1952	880
1953	Apr. 30, 1953	---	c15.25	Feb. 1 to Mar. 31, 1953	820
	June 7, 1953	d38,400	12.25		
1954	May 10, 1954	---	c24.48	Mar. 1-31, 1954	780
	Aug. 4, 1954	d42,400	12.85		
1955	May 18, 1955	---	c18.49	Mar. 1-31, 1955	1,100
	Aug. 26, 1955	d58,100	14.20		
1956	May 10, 1956	---	c17.10	Mar. 1-31, 1956	940
	June 9, 1956	51,700	13.42		
1957	June 8, 1957	42,200	13.68	Mar. 1 to Apr. 30, 1957	1,200
1958	Dec. 21, 1957	---	c14.91	Mar. 16 to Apr. 2, 1958	1,100
	Aug. 3, 1958	49,600	14.74		
1959	Aug. 25, 1959	62,300	15.42	Mar. 1-31, 1959	980
1960	(date unknown)	---	c18.23	Mar. 16 to Apr. 15, 1960	1,100
	Sept. 13, 1960	41,900	14.45		
1961	June 23, 1961	b54,000	--	Mar. 1-15, 1961	1,500
1962	June 15, 1962	80,600	18.30	Mar. 1-31, 1962	1,400
1963	July 18, 1963	b49,000	---	Apr. 1-30, 1963	830
1964	June 7, 1964	90,700	16.58	Mar. 16-31, 1964	660
1965	June 28, 1965	43,600	12.95	Feb. 1-28, 1965	860
1966	June 6, 1966	63,600	14.66	Feb. 1 to Mar. 31, 1966	1,300
1967	May 16, 1967	---	c20.78	Apr. 1-20, 1967	1,100
	Aug. 15, 1967	80,200	15.93		
1968	May 17, 1968	---	c14.08	Apr. 6-15, 1968	1,800
	May 22, 1968	41,800	12.75		
1969	Nov 25, 1969	28,400	11.17	Jan. 14 to Feb. 15, 1969	700
1970	June 30, 1970	33,400	11.80	Feb. 11 to Mar. 15, 1970	750
1971	Aug. 10, 1971	87,300	16.36	Mar. 1 to Apr. 5, 1971	950
1972	June 17, 1972	82,600	16.04	Apr. 17-24, 1972	1,600
1973	June 16, 1973	54,100	13.92	Mar. 1 to Apr. 25, 1973	1,000
1974	May 29, 1974	37,200	11.79	Mar. 16 to Apr. 10, 1974	700
1975	June 3, 1975	47,300	15.30	Feb. 21 to Apr. 13, 1975	1,100

a Period August to September.
b Maximum daily.
c Backwater from ice.
d Maximum observed.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1949											24250	15650	
1950	6338	2583	1439	1027	788	726	870	11510	19600	22600	19880	8301	8032
1951	3848	1300	1100	960	820	740	1617	14090	20790	22570	19670	21240	9106
1952	5571	2744	1900	1600	1000	880	920	5419	32370	26390	20920	14480	9529
1953	8202	3497	1700	1100	820	820	1615	19270	27320	20200	20610	15270	10090
1954	5604	2100	1500	1300	1000	780	1235	17280	25250	20360	26100	12920	9681
1955	5370	2760	2045	1794	1400	1100	1200	9319	29860	27560	25750	14290	10260
1956	4951	1900	1300	980	970	940	950	17660	33340	31090	24530	18330	11450
1957	5806	3050	2142	1700	1500	1200	1200	13750	30160	23310	20540	19800	10380
1958	8212	3954	3264	1965	1307	1148	1533	12900	25700	22880	22540	7550	9476
1959	4811	2150	1513	1448	1307	980	1250	15990	23320	25000	31180	16920	10560
1960	6558	2850	2200	1845	1452	1197	1300	15780	18530	22980	23590	20510	9690
1961	7794	3800	2694	2452	1754	1810	2650	17360	29450	24570	22100	13370	10810
1962	5916	2700	2100	1900	1500	1400	1700	12590	43270	25850	23550	15890	11570
1963	6723	2800	2000	1600	1500	1000	830	19030	26000	34400	23670	12320	11070
1964	6449	2250	1494	1048	966	713	745	4307	50580	22950	16440	9571	9774
1965	6291	2799	1211	960	860	900	1360	12990	25720	27840	21120	19350	10170
1966	7205	2098	1831	1400	1300	1300	1775	9645	32950	19860	21830	11750	9432
1967	4163	1600	1500	1500	1400	1200	1167	15480	29510	26800	32620	16870	11220
1968	4900	2353	2055	1981	1900	1900	1910	16180	31550	26420	17170	8816	9789
1969	3822	1630	882	724	723	816	1510	11050	15900	16100	8879	5093	5597
1970	3124	1215	866	824	766	776	1080	11380	18630	22660	19980	9121	7591
1971	5288	3407	2290	1442	1036	950	1082	3745	32930	23950	31910	14440	10250
1972	5847	3093	2510	2239	2028	1823	1710	21890	34430	22770	19290	12400	10860
1973	4826	2253	1465	1200	1200	1000	1027	8235	27800	18250	20290	9074	8087
1974	3733	1523	1034	874	777	724	992	16160	17870	18800	16220	12250	7630
1975	3739	1700	1603	1516	1471	1400	1593	15350	32310	27720	18090	16310	10280
MEAN	5530	2435	1748	1358	1213	1085	1339	15400	30150	23990	21950	13770	9707
MONTHLY PERCENT	5	2	2	1	1	1	1	12	24	21	19	12	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1952-54, 1956-75.

PERIOD OF DAILY RECORD.--June to September 1957, July to November 1973, May to September 1975.

REMARKS.--Once-daily readings by observer on most days June to September 1957; continuous water-temperature recorder remainder of period of daily record.

EXTREMES.--Maximum observed during period of daily record, 17.0°C July 13, 1957

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1952		1956		1959-cont		1962		1965		1969		1971	
4- 1-52	0.0	8- 7-56	10.5	7-16-59	5.5	10-15-61	0.5	10- 9-64	5.0	4-15-69	0.0	6-10-71	6.0
1953		8-21-56	10.5	9- 3-59	5.5	1963		1966		5-16-69	3.0	7- 3-71	9.0
5-28-53	5.5	1958		1960		10-11-62	0.5	4-23-66	9.0	6-21-69	12.0	8-12-71	13.0
6-26-53	15.5	8-29-58	9.0	10-14-59	0.5	5-30-63	3.5	5-29-66	5.5	1970		1972	
1954		1959		9- 7-60	5.5	1964		1967		10- 5-69	5.0	1-20-72	0.0
2-11-54	0.5	10- 7-58	0.0	1961		10-14-63	3.0	4- 8-67	0.0	4- 1-70	0.0	7- 7-72	15.0
3-30-54	0.0	2-19-59	0.0	1-18-61	0.0	12-23-63	1.0	6- 7-67	1.0	5-27-70	7.5	1973	
5- 7-54	8.5	4- 2-59	0.0	6-27-61	9.0	3-18-64	7.0	1968		7-16-70	2.5	2-13-73	0.0
		6-25-59	2.5	9-19-61	6.0	3-13-64	7.0	1-11-68	0.5	9-18-70	6.0	9-27-73	4.0
								3-22-68	3.0				

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1957	Max	---	---	---	---	---	---	---	---	15.0	17.0	15.0	a
	Min	---	---	---	---	---	---	---	---	9.0	9.0	9.0	a
1974	Max	---	---	---	---	---	---	---	---	---	a	13.5	10.5
	Min	---	---	---	---	---	---	---	---	---	a	5.5	5.5
1975	Max	6.5	2.5	---	---	---	---	---	a	---	---	a	9.5
	Min	1.0	a	---	---	---	---	---	a	---	---	a	3.5

a Data insufficient to compute monthly maximum or minimum.

15292400 CHULITNA RIVER NEAR TALKEETNA

LOCATION.--Lat 62°33'31", long 150°14'02", in SE¼ sec.32, T.29 N., R.5 W., Matanuska-Susitna Borough, on right bank 0.5 mi (0.8 km) downstream from Anchorage-Fairbanks Highway crossing, 4.5 mi (7.2 km) downstream from Troublesome Creek, 16 mi (26 km) northwest of Talkeetna, and 18 mi (29 km) upstream from mouth.

BASIN CHARACTERISTICS.--Drainage area, 2,570 mi² (6,660 km²); main-channel slope, 23 ft/mi (4.4 m/km); stream length, 87 mi (140 km); area of lakes and ponds, 1 percent; mean elevation, 3,760 ft (1,150 m); glacier area, 27 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1958 to September 1972. Annual maximum, water years 1973-75.

GAGE.--Water-stage recorder. Altitude of gage is 520 ft (158 m), from topographic map. Prior to July 29, 1964, at site 4 mi (6 km) downstream at different datum.

AVERAGE DISCHARGE.--14 years, 8,748 ft³/s (247.7 m³/s), 46.22 in/yr (1,174 mm/yr), 6,338,000 acre-ft/yr (7.81 km³/yr).

EXTREMES.--Maximum discharge during period of record, 75,900 ft³/s (2,150 m³/s) July 20, 1967, gage height, 22.48 ft (6.852 m); minimum daily, about 650 ft³/s (18.4 m³/s) Apr. 1-15, 1963.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1958a	Aug. 5, 1958	35,100	14.08	Mar. 16-31, 1958	900
1959	July 12, 1959	38,800	15.11	Mar. 16-31, 1959	690
1960	May 26, 1960	38,000	14.90	Mar. 16-31, 1960	880
1961	Aug. 5,6,or 7,1961	41,100	15.7	Mar. 1-15, 1961	950
1962	June 16, 1962	39,600	14.90	Mar. 1-31, 1962	930
1963	July 6-20, 1963	b34,000	---	Apr. 1-15, 1963	650
1964	June 1-10, 1964	b45,000	---	Mar. 1-31, 1964	770
1965	Sept. 7, 1965	42,100	15.44	Mar. 1-31, 1965	1,300
1966	Aug. 23, 1966	38,600	12.78	Feb. 1 to Mar. 31, 1966	1,100
1967	July 20, 1967	75,900	22.48	Apr. 4-21, 1967	900
1968	June 13, 1968	40,200	13.49	Mar. 16 to Apr. 2, 1968	1,100
1969	June 17, 1969	28,400	10.10	Mar. 16-31, 1969	800
1970	Aug. 2, 1970	36,400	12.40	Feb. 16 to Apr. 5, 1970	1,100
1971	Aug. 11, 1971	50,800	16.21	Mar. 16-25, 1971	900
1972	July 10, 1972	34,700	11.91	Apr. 7-25, 1972	850
1973	(date unknown)	56,700	12.49		
1974	Aug. 31, 1974	32,200	11.19		
1975	July 12, 1975	36,700	12.49		

a Period February to September.
b Maximum daily, estimated.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1958					1044	948	1220	10460	23170	25010	20760	8000	
1959	4197	1883	1262	1097	1049	738	890	7413	23660	25650	22100	9957	8376
1960	4723	2283	1700	1448	1103	933	1000	13890	17390	23650	19320	12420	8363
1961	5135	1950	1745	1452	1100	1079	1600	10100	20490	27420	24580	16030	9451
1962	5777	2400	1500	1300	1000	930	1170	7743	20620	27220	21980	13490	8818
1963	3506	1500	1552	1600	1300	846	700	11060	17750	28950	18390	11330	8268
1964	8062	2300	1000	1007	820	770	1133	2355	40330	24430	20250	9235	9312
1965	5642	2900	2100	1600	1400	1300	1400	7452	20070	23230	22550	22260	9365
1966	6071	1620	1350	1200	1100	1100	1300	3971	21740	23750	27720	12200	8648
1967	4682	1680	1500	1458	1257	1045	972	12400	25520	35570	33670	12510	11110
1968	3483	1660	1397	1235	1200	1148	1347	10940	29000	30140	20710	7375	9172
1969	2898	1480	1139	974	900	824	1333	6001	18560	20820	11300	6704	6110
1970	4578	1887	1316	1200	1154	1100	1437	9643	19670	26100	24660	11330	8736
1971	3826	2210	1403	1113	950	934	982	4468	22180	27280	23810	11080	8406
1972	5439	2157	1432	1174	1041	939	893	9765	17900	25770	20970	12120	8340
MEAN	4859	1994	1457	1276	1095	976	1158	8511	22540	26330	22190	11740	8748
MONTHLY PERCENT	5	2	1	1	1	1	1	8	22	25	21	11	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1966-73.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1958		1959-cont		1966		1968		1970		1971		1972	
8-30-58	6.5	3-31-59	0.0	5-31-66	7.5	3-26-68	0.0	3-31-70	0.0	1- 7-71	0.0	1-18-72	0.0
1959		6- 3-59	3.5	7-15-66	8.5	9-10-68	4.0	5-27-70	7.0	4- 1-71	0.0	4-17-72	0.0
10- 8-58	0.0	6-24-59	2.5	1967		1969		6-12-70	6.5	5-17-71	0.0	5-26-72	3.0
11-11-58	0.0	1960		4- 9-67	0.0	10- 2-68	2.0	7-15-70	8.5	7- 3-71	6.0	8- 9-72	9.5
2-17-59	0.0	11-16-59	0.0	7-22-67	7.5	4- 4-69	0.0	8-12-70	8.0	8-11-71	7.0	1973	
		3- 7-60	5.0	7-24-67	7.5	6-19-69	10.0	9-16-70	5.5	9-17-71	4.5	1-12-73	0.0
						7-25-69	6.0						

15292700 TALKEETNA RIVER NEAR TALKEETNA

LOCATION.--Lat 62°20'49", long 150°01'01", in NE¼ sec.16, T.26 N., R.4 W., Matanuska-Susitna Borough, on left bank 1.7 mi (2.7 km) downstream from Chunilna Creek, 3.5 mi (5.6 km) northeast of Talkeetna, and about 5 mi (8 km) upstream from mouth.

BASIN CHARACTERISTICS.--Drainage area, 2,000 mi² (5,196 km²), main-channel slope, 35 ft/mi (6.6 m/km); stream length, 90.3 mi (145.3 km); area of lakes and ponds, 0 percent; mean elevation, 3,630 ft (1,106 m); glacier area, 7 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1964 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 400 ft (120 m), from topographic map.

AVERAGE DISCHARGE.--11 years, 4,086 ft³/s (115.7 m³/s), 27.60 in/yr (703 mm/yr), 2,960,000 acre-ft/yr (3.65 km³/yr).

EXTREMES.--Maximum discharge during period of record, 67,400 ft³/s (1,910 m³/s) Aug. 10, 1971, gage height, 16.35 ft (4.983 m); minimum daily, about 380 ft³/s (10.8 m³/s) Feb. 23 to Apr. 10, 1969.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum Date	Discharge	Gage height	Minimum daily Date	Discharge
1964a	About June 1, 1964	33,200	12.30	Sept. 22, 1964	b3,060
1965	Sept. 27, 1965	25,900	11.03	Mar. 1-31, 1965	540
1966	June 7, 1966	28,000	11.33	Mar. 9-29, 1966	300
1967	July 20, 1967	59,400	15.75	Apr. 3-25, 1967	420
1968	June 13, 1968	25,000	10.89	Mar. 6 to Apr. 3, 1968	740
1969	May 25, 1969	16,800	9.30	Feb. 21 to Apr. 10, 1969	380
1970	June 28, 1970	23,300	10.62	Feb. 21 to Apr. 10, 1970	440
1971	Aug. 10, 1971	67,400	16.35	Feb. 23 to Mar. 23, 1971	400
1972	June 17, 1972	36,500	11.92	Apr. 1-7, 1972	400
1973	June 16, 1973	30,200	10.87	Apr. 1-10, 1973	500
1974	Aug. 28, 1974	24,500	10.11	Mar. 21 to Apr. 14, 1974	450
1975	July 12, 1975	22,200	9.74	Mar. 6 to Apr. 20, 1975	500

a Period June to September.
b Momentary minimum, gage height, 4.97 ft.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1964									17080	9820	8396	3815	
1965	3115	1568	1100	720	620	540	580	3474	11090	12180	11130	10610	4749
1966	4438	1460	876	711	526	495	422	2410	12970	10100	10730	5370	4221
1967	2388	897	750	637	546	471	427	4112	9286	12600	14160	6971	4470
1968	3029	1253	987	851	[illegible]	743	953	3840	14100	11230	7546	4120	4468
1969	1637	827	536	459	401	380	419	3869	5207	7080	5787	2070	2249
1970	1450	765	587	504	458	440	545	3950	7979	10320	8752	5993	3300
1971	2817	1647	1103	679	459	402	503	2145	10040	11760	16770	5990	5299
1972	2632	1310	845	727	628	481	519	3516	12700	12030	9576	8709	4479
1973	3610	1373	869	748	654	574	5[illegible]	3860	12210	7676	9927	3861	3851
1974	1807	960	745	645	559	482	5[illegible]5	5678	8030	7755	7704	4763	3525
1975	1967	1002	774	694	586	508	522	4084	13180	12070	8487	7060	4336
MEAN	3537	1187	838	571	565	492	557	4176	11910	10390	9749	5853	4086
MONTHLY PERCENT	5	2	2	1	1	1	1	9	24	21	20	12	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1954, 1966-75.

PERIOD OF DAILY RECORD.--May to September 1954.

REMARKS.--Once-daily readings by observer for period of daily record.

EXTREMES.--Maximum observed during period of daily record, 14.0°C June 27, 1954.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1966		1967-cont		1969		1970-cont		1971-cont		1973		1974-cont	
5-24-66	5.0	7-21-67	9.5	10- 1-68	2.0	7-16-70	9.5	8-12-71	7.5	1-11-73	0.0	8-14-74	13.0
6- 9-66	6.5	8-23-67	9.0	5- 1-69	2.0	8-10-70	9.5	9-14-71	7.0	3-28-73	0.0	9-18-74	7.5
7-13-66	9.5	9-20-67	9.5	6-20-69	12.0	9- 9-70	6.0	8-17-71	7.0	7- 3-73	9.0	1975	
8-25-66	9.5	1968		7-25-69	10.0	9-17-70	6.5	9-16-71	5.5	8-16-73	8.0	3-12-75	0.0
1967		1-10-68	0.5	8-28-69	8.0	1971		1972		9-28-73	4.0	5-19-75	3.5
10- 1-66	5.5	5-21-68	5.0	1970		3-31-71	0.5	5-25-72	3.5	1974		6-19-75	6.0
1-14-67	0.0	6-18-68	7.0	4- 1-70	0.0	7- 2-71	7.5	7- 5-72	12.0	1-11-74	0.0	7-16-75	10.0
5-24-67	3.5	7-22-68	12.0	5-26-70	7.0	8-10-71	8.5	8-11-72	12.5	5-16-74	4.5	8-19-75	6.5
		9- 9-68	9.0			8-11-71	9.5	9-28-72	1.0	7- 2-74	11.5		

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1954	Max	---	---	---	---	---	---	---	10.0	14.0	13.5	13.0	10.0
	Min	---	---	---	---	---	---	---	3.0	9.0	8.5	9.0	4.5

15294000 CRAIGIE CREEK NEAR WASILLA

LOCATION.--Lat 61°47'45", long 149°21'10". Matanuska-Susitna Borough, 4 mi (6 km) upstream from mouth, and 15 mi (24 km) north of Wasilla.

BASIN CHARACTERISTICS.--Drainage area, 2.8 mi² (7.3 km²), approximately.

PERIOD OF RECORD.--June to September 1913.

GAGE.--Nonrecording gage and Cippoletti weir. Altitude of gage is 3,100 ft (940 m), from topographic map.

EXTREMES.--Maximum discharge observed during period of record, 70 ft³/s (1.98 m³/s) June 15, 1913, gage height, 1.66 ft (0.506 m); minimum observed, 3.6 ft³/s (0.10 m³/s) Sept. 14, 21, 1913, gage height, 0.22 ft (0.067 m).

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1913	---	---	---	---	---	---	---	---	38.4	20.1	13.7	8.32	---

15294300 SKWENTNA RIVER NEAR SKWENTNA

LOCATION.--Lat 61°52'23", long 151°22'01", in NW¼ sec.31, T.21 N., R.11 W., Matanuska-Susitna Borough, on right bank 2 mi (3 km) downstream from Sholl Creek, 8 mi (13 km) southwest of Skwentna, and 13 mi (21 km) upstream from mouth.

BASIN CHARACTERISTICS.--Drainage area, 2,250 mi² (5,830 km²); main-channel slope, 30.6 ft/mi (5.80 m/km); stream length, 98 mi (158 km); area of lakes and ponds, 5 percent; mean elevation, 2,810 ft (856 m); glacier area, 16 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 200 ft (61 m), from topographic map.

AVERAGE DISCHARGE.--16 years, 6,177 ft³/s (174.9 m³/s), 37.28 in/yr (947 mm/yr), 4,475,000 acre-ft/yr (5.52 km³/yr).

EXTREMES.--Maximum discharge during period of record, 50,000 ft³/s (1,420 m³/s) June 25, 1971, gage height, 14.74 ft (4.493 m) from rating curve extended above 27,000 ft³/s (760 m³/s); minimum daily, about 600 ft³/s (17.0 m³/s) Mar. 1-31, 1964, Dec. 16, 1968 to Mar. 15, 1969, Mar. 9 to Apr. 26, 1971, and Mar. 5 to Apr. 5, 1973.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1960	Aug. 1, 1960	33,200	11.45	Apr. 1-15, 1960	780
1961	Sept. 11, 1961	36,800	11.90	Mar. 1-15, 1961	1,000
1962	April or May 1962	---	a14.65	Mar. 1-31, 1962	760
	June 16, 1962	b28,000	---		
1963	(date unknown)	---	a13.86	Apr. 1-30, 1963	650
	July 18, 1963	b30,000	---		
1964	June 8, 1964	38,300	12.91	Mar. 1-31, 1964	600
1965	Sept. 23, 1965	32,600	11.35	Apr. 1-15, 1965	720
1966	Aug. 8, 1966	42,400	12.55	Jan. 1 to Mar. 31, 1966	1,100
1967	Aug. 16, 1967	31,000	11.17	Feb. 1 to Mar. 31, 1967	650
1968	June 13, 1968	30,400	11.45	Mar. 1 to Apr. 14, 1968	950
1969	June 17, 1969	31,600	11.74	Dec. 16, 1968 to Mar. 15, 1969	600
1970	June 8, 1970	30,100	12.11	Mar. 1 to Apr. 20, 1970	650
1971	June 25, 1971	50,000	14.74	Mar. 9 to Apr. 26, 1971	600
1972	June 17, 1972	29,400	11.27	Apr. 15-26, 1972	700
1973	June 19, 1973	27,300	11.37	Mar. 5 to Apr. 5, 1973	600
1974	Sept. 1, 1974	20,800	9.75	Mar. 29 to Apr. 15, 1974	750
1975	June 30, 1975	33,200	12.49	Feb. 1 to Apr. 20, 1975	750

a Backwater from ice.
b Maximum daily.

15294300 SKWENTNA RIVER NEAR SKWENTNA--Continued

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1960	3532	1850	1400	1097	961	843	835	10480	13440	16650	15990	9171	6387
1961	5889	1600	1597	1403	1154	1155	1700	11210	20570	16450	13910	12020	7255
1962	4605	2220	1400	1200	860	760	1000	6613	15630	14830	12080	6723	5699
1963	2801	1230	1100	1000	810	700	630	7765	14050	20430	12020	7180	5854
1964	5355	1260	840	970	730	600	610	1635	22050	16480	12680	6224	6266
1965	4425	1730	1300	920	800	740	770	4810	17160	19370	14010	13090	6628
1966	4122	1575	1150	1100	1100	1100	1300	4502	19550	14180	17320	9812	6427
1967	5576	1400	900	720	650	650	780	1794	11430	14740	15760	9517	5607
1968	3832	1360	1181	1023	1000	950	1203	13460	20770	17450	10560	3855	6438
1969	1929	678	624	600	600	626	1437	11070	19580	13630	7471	3783	5199
1970	5654	1607	832	766	700	650	728	11710	22880	21120	13030	6665	7241
1971	2919	2005	1184	865	721	613	607	5963	25400	20600	15920	6024	6937
1972	3020	1327	1103	989	898	811	742	8045	15330	16840	13370	9256	5998
1973	4551	2340	1316	910	702	606	727	6349	15200	13850	9874	6164	5243
1974	3540	1700	1265	1023	902	811	1005	6765	10650	11670	10480	11800	5156
1975	4557	2328	919	800	750	750	767	7852	19060	19520	11710	8471	6491
MEAN	4019	1674	1132	962	835	773	952	7501	18190	16750	12890	8109	6177
MONTHLY PERCENT	5	3	2	1	1	1	1	10	25	23	18	11	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1959-66, 1968-75.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1959		1961-cont		1962-cont		1965-cont		1969		1971-cont		1974	
8-14-59	7.5	8-17-61	8.0	1-18-62	0.0	7-17-65	9.5	4- 1-69	0.0	6-18-71	5.0	10-30-73	1.0
9- 4-59	1.5	9-26-61	5.5	1963		7-24-65	11.0	6-12-69	8.0	8-25-71	8.0	7- 3-74	9.5
1960		1962		1- 2-63	0.0	1966		7-31-69	11.5	1972		9-19-74	5.5
11-18-59	0.0	10-25-61	0.0	1964		8-26-66	8.5	1970		1-19-72	0.0	1975	
4-21-60	0.0	11-14-61	0.0	11-27-63	0.0	1968		8-25-70	9.5	9-19-72	3.5	3-16-75	0.0
9-30-60	4.5	11-17-61	0.0	3-16-64	0.0	10-11-67	1.5	1971		1973		5-26-75	4.0
1961		11-20-61	0.0	1965		3-26-68	0.0	10-14-70	2.0	2-14-73	0.0	7- 7-75	12.0
1- 5-61	0.0			10-15-64	3.0			3-31-71	0.0			8- 6-75	7.5

15294350 SUSITNA RIVER AT SUSITNA STATION

LOCATION.--Lat 61°32'41", long 150°30'45", in SE¼ SE¼ sec.22, T.17 N., R.7 W., Matanuska-Susitna Borough, on left bank at Susitna Station, 1.5 mi (2.4 km) downstream from Yentna River, and 12.5 mi (20.1 km) upstream from Alexander Creek.

BASIN CHARACTERISTICS.--Drainage area, 19,400 mi² (50,200 km²); main-channel slope, 11 ft/mi (2.1 m/km); stream length, 289 mi (465 km); area of lakes and ponds, 2 percent; mean elevation, 3,200 ft (975 m); glacier area, 18 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (12 m), from topographic map.

EXTREMES.--Maximum discharge during period of record, 173,000 ft³/s (4,900 m³/s) July 1, 1975, gage height, 17.44 ft (5.316 m); minimum daily, about 6,500 ft³/s (184 m³/s) Apr. 5-21, 1975.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1975	19520	10400	9419	8597	7804	7048	6867	47540	128800	135700	91360	77740	46100

WATER TEMPERATURE RECORDS

PERIOD OF DAILY RECORD.--May to September 1975.

REMARKS.--Continuous water-temperature recorder.

EXTREMES.--Maximum during period of daily record, 14.0°C June 28, 29, 1975.

WATER TEMPERATURE, °C

WATER YEAR		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1975	Max	---	---	---	---	---	---	---	a	14.0	13.0	12.0	9.0
	Min	---	---	---	---	---	---	---	a	6.5	10.0	10.0	6.5

a Data insufficient to compute monthly maximum or minimum.

15294500 CHAKACHATNA RIVER NEAR TYONEK

LOCATION.--Lat 61°12'44", long 152°21'26", in SE¼ sec.17, T.13 N., R.17 W., Kenai Peninsula Borough, on right bank just downstream from outlet of Lake Chakachamna, opposite Barrier Glacier, 19 mi (31 km) upstream from Straight Creek, and 38 mi (61 km) northwest of Tyonek.

BASIN CHARACTERISTICS.--Drainage area, 1,120 mi² (2,900 km²); main-channel slope, 48.8 ft/mi (9.24 m/km); stream length, 54.5 mi (87.7 km); area of lakes and ponds, 4 percent; mean elevation, 3,900 ft (1,190 m); glacier area, 30 percent.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1959 to September 1972.

GAGE.--Water-stage recorder. Datum of gage is 1,125.1 ft (342.93 m) above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--13 years, 3,645 ft³/s (103.2 m³/s), 44.20 in/yr (1,123 mm/yr), 2,641,000 acre-ft/yr (3.26 km³/yr).

EXTREMES.--Maximum discharge during period of record, 470,000 ft³/s (13,300 m³/s) Aug. 11, 1971, gage height unknown, determined by field estimate at site 5 mi (8 km) below gaging station. Discharge was result of sudden release of stored water in Chakachamna Lake when portion of terminus of Barrier Glacier was eroded away; minimum daily, about 240 ft³/s (6.80 m³/s) Apr. 16-30, 1960.

EXTREMES, DISCHARGE IN CUBIC FEET PER SECOND, GAGE HEIGHT IN FEET

Water year	Momentary maximum: Date	Discharge	Gage height	Minimum daily: Date	Discharge
1959a	Aug. 28, 1959	17,400	22.53	Sept. 26-30, 1959	3,200
1960	July 27, 1960	13,400	21.22	Apr. 16-30, 1960	240
1961	July 31 or Aug.1, 1961	17,600	24.8	Apr. 24, 1961	b342
1962	Aug. 1-5, 1962	c14,000	---	Apr. 1 to May 15, 1962	470
1963	July 16, 1963	18,000	26.33	Apr. 20, 24, 1963	d315
1964	Aug. 26, 1964	e14,000	---	May 1-10, 1964	310
1965	Aug. 1-15, 1965	c15,500	---	Apr. 1-30, 1965	350
1966	Aug. 1-15, 1966	c12,000	---	Mar. 1 to Apr. 30, 1966	550
1967	Aug. 18, 1967	23,400	29.30	Apr. 1-15, 1967	360
1968	Aug. 11, 12, 1968	15,000	26.62	Mar. 16 to Apr. 15, 1968	480
1969	July 3-6, 1969	15,400	27.02	Mar. 1 to Apr. 10, 1969	500
1970	July 30, 1970	11,200	26.24	Feb. 11 to Apr. 10, 1970	550
1971	Aug. 11, 1971	f470,000	---	Feb. 11 to Mar. 22, 1971	460
1972	July 14, 1972	16,600	14.88	Mar. 11 to Apr. 5, 1972	440

a Period June to September.
b Momentary minimum, gage height, 7.21 ft.
c Maximum daily, estimate.
d Momentary minimum, gage height, 8.90 ft.
e Maximum daily.
f Result of sudden release of stored water in Chakachamna Lake.

MONTHLY AND ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1959									7685	10990	10960	5758	
1960	2022	992	698	504	381	325	250	1483	6368	10500	10300	4384	3196
1961	1800	1116	882	817	780	544	394	876	5673	12090	12330	6989	3717
1962	2638	1200	730	690	638	540	470	620	5222	13000	11060	6904	3669
1963	1827	1144	744	553	387	361	332	748	3441	12640	12240	7373	3513
1964	2768	1384	1007	618	436	424	370	471	6278	10590	12030	5654	3520
1965	2026	1090	852	620	449	360	350	525	2114	10020	13180	10260	3512
1966	4072	1180	650	480	400	350	350	615	5995	10040	10310	7145	3489
1967	3790	1100	820	600	500	430	380	935	6616	14380	16610	7333	4497
1968	2939	1565	947	626	535	490	511	1695	6190	12580	12170	4369	3741
1969	1552	939	723	639	530	500	533	1003	6548	13100	8416	3347	3179
1970	3098	1822	1006	705	568	550	625	1285	4893	9960	8884	3587	3106
1971	2201	1247	829	532	467	467	692	2381	10930	16470	16710	4513	4658
1972	1351	902	726	585	484	446	481	906	4294	12060	12750	6995	3586
MEAN	2168	1106	813	613	505	445	441	1042	5875	11950	12000	6042	3645
MONTHLY PERCENT	6	3	2	1	1	1	1	2	13	28	28	14	

WATER TEMPERATURE RECORDS

PERIOD OF RECORD.--Water years 1959, 1960, 1962-73.

PERIODIC WATER TEMPERATURE, °C

DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP	DATE	TEMP
1959		1962		1964		1967		1969-cont		1970-cont		1972	
6-16-59	0.0	8-28-62	8.0	2-13-64	0.0	8-31-67	11.5	6-12-69	2.0	7-23-70	7.0	6-20-72	4.2
7- 9-59	4.0	1963		1965		1968		7-31-69	6.0	8-25-70	7.0	7-17-72	5.2
1960		8-21-63	6.5	10-10-64	5.5	8-14-68	4.0	9- 8-69	7.0	1971		8-11-72	8.0
10-23-59	0.5	9-30-63	6.5	1966		1969		1970		3-30-71	1.0	1973	
				6- 8-66	2.5	4- 1-69	3.0	4-10-70	2.5	7- 6-71	3.5	10- 3-72	5.2
				8-26-66	7.5					7-29-71	5.0		

SECTION 2

MISCELLANEOUS DISCHARGE MEASUREMENTS

and

CREST-STAGE PARTIAL-RECORD STATION DATA

Stream	Location	Drainage area (mi²)	Measurements Date (Wtr yr)	Discharge (ft³/s)
English Bay River	Lat 59°20'30", long 151°54'45", about 0.5 mi upstream from mouth at English Bay, and 1 mi southeast of Alexandrovsk.	--	1968 3-12-68	99
Seldovia River	Lat 59°20'45", long 151°35'35", at outlet of Seldovia Lake, 7.5 mi southeast of Seldovia.	--	1954 10-7-53 3-6-54	160 a0.5
	Lat 59°23'20", long 151°40'40", in NW¼ sec.20, T.9 S., R.14 W., 0.2 mi upstream from mouth, and 3.2 mi southeast of Seldovia.	--	1967 7-25-67 1968 10-20-67	36 72
Fish Creek	Lat 59°26'10", long 151°42'05", in S½ sec.32, T.8 S., R.14 W., above dam 0.1 mi upstream from mouth, and 0.5 mi southeast of Seldovia.	3.83	(Listed below)	
1967 3-28-67 7-26-67 1968 10-20-67	2.7 1.5 5.8	1968-cont. 3-12-68 8-20-68 1970 7-28-70	9.7 2.0 4.0	1972 5-11-72 6-21-72 8-15-72	25 17 2.2	1973 10-8-72 11-30-72 3-8-73	4.2 5.1 0.98	1973-cont. 4-20-73 6-21-73	9.4 22
Seldovia Lagoon Tributary	Lat 59°26'30", long 151°41'05", in SW¼ sec.33, T.8 S., R.14 W., upstream from reservoir, 0.9 mi upstream from mouth, and 1.2 mi east of Seldovia.	0.93	(Listed below)	
1967 3-28-67 7-26-67	0.72 0.38	1968 10-20-67 5-12-68 8-20-68	1.3 2.2 0.17	1970 7-28-70	0.61	1972 5-12-72 6-21-72	8.3 4.2	1973 10-8-72 11-30-72	0.89 0.65
Kachemak Bay Tributary	Lat 59°27'33", long 151°41'46", in NE¼ sec.29, T.8 S., R.14 W., 0.4 mi upstream from mouth, and 1.5 mi north of Seldovia.	0.73	1972 5-11-72 6-22-72 8-15-72 1973 10-8-72 11-30-72	3.7 1.7 0.17 0.29 0.32					
	Lat 59°27'45", long 151°40'29", in SW¼ sec.21, T.8 S., R.14 W., 0.6 mi upstream from mouth, and 2 mi north of Seldovia.	1.35	1972 5-11-72 6-22-72 8-15-72 1973 10-8-72 11-30-72 3-8-73 4-20-73 6-21-73	8.0 7.1 1.0 2.0 0.93 0.34 0.89 9.4					
15239500 Fritz Creek	Lat 59°42'30", long 151°20'35", SW¼ sec.28, T.5 S., R.12 W., Kenai Peninsula Borough, on left bank 200 ft above culvert on east road, and 9 mi northeast of Homer.	10.4	(Listed below)						
1962 5-2-62 5-18-62 1963 7-13-63 8-23-63 1964 10-2-63 6-5-64 6-19-64 -- 1965 7-22-65 9-19-65 1966 10-2-65	 20 34 12 †107 9.6 32 18 †99 9.4 †37 †60	1966-cont 6-1-66 7-12-66 8-16-66 9-19-66 1967 3-27-67 5-23-67 -- 6-13-67 7-26-67 9-3-67 1968 -- 10-21-67 3-14-68	 26 24 7.0 36 3.3 12 †18 14 4.0 7.6 †19 9.4 2.2	1968-cont 8-1-68 8-20-68 1969 10-22-68 1-13-69 3-19-69 5-7-69 -- 6-23-69 7-31-69 9-8-69 1970 10-6-69 10-12-69 3-4-70 3-19-70	2.3 4.6 3.3 0.95 9.4 28 †35 7.2 4.8 2.7 †181 47 6.8 28	1970-cont 6-25-70 7-29-70 8-8-70 9-29-70 1971 11-1-70 11-12-70 3-22-71 7-16-71 8-28-71 1972 4-1-72 5-10-72 -- 5-26-72 7-7-72	6.8 4.9 0.2 4.7 †349 10 3.2 13 7.8 1.8 61 †135 35 6.2	1972-cont 8-15-72 1973 10-7-72 5-10-73 5-15-73 6-20-73 1974 10-10-73 -- 6-21-74 1975 10-9-74 5-14-75 -- 6-11-75 9-11-75	10 23 29 †309 12 22 †61 6.8 12 76 †150 31 32			
Palmer Creek	Lat 59°39'54", long 151°28'00", in SE¼ sec.10, T.6 S., R.13 W., 3.3 mi northeast of Homer		1970 3-20-70	2.5

a Estimated
† Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi²)	Measurements Date (Mo Yr)	Discharge (ft³/s)
15339800 Diamond Creek	Lat 59°40'10", long 151°40'00", in SE¼ sec.9, T.6 S., R.14 W., Kenai Peninsula Borough, on right upstream wingwall of culvert on Sterling Highway, 1.5 mi upstream from mouth at Cook Inlet, and 4.6 mi northwest of Homer.	5.35	(Listed below)	
1962	1966	1968-cont	1970-cont	1972-cont
5-4-62 21	-- *80	-- *57	6-25-70 2.4	5-25-72 21
5-18-62 16	6-1-66 15	6-19-68 5.1	7-29-70 2.2	7-5-72 5.1
1963	7-13-66 8.6	8-1-68 1.3	8-8-70 1.7	8-15-72 5.4
5-8-63 36	8-17-66 4.0	1969	9-29-70 5.0	1973
7-13-63 3.8	9-20-66 24	10-22-68 1.8	1971	10-8-72 5.9
8-23-63 *36	1967	5-8-69 26	11-1-70 *91	5-11-73 28
1964	-- *76	-- *36	11-12-70 14	5-15-73 †147
10-2-63 8.0	5-23-67 7.6	6-24-69 2.9	5-23-71 1.2	6-20-73 5.0
6-5-64 18	6-13-67 12	7-31-69 1.5	5-4-71 2.9	1974
6-19-64 6.4	7-27-67 2.1	9-8-69 1.1	6-25-71 6.5	10-11-73 13
-- *40	9-3-67 5.5	1970	7-16-71 7.4	*46
1965	1968	-- *52	8-28-71 2.0	6-21-74 2.9
4-24-65 13	10-21-67 4.0	10-12-69 19	1972	1975
7-21-65 4.0	3-14-68 2.0	3-4-70 5.4	4-1-72 0.56	5-14-75 47
9-19-65 *58	5-16-68 17	3-20-70 13	5-9-72 *86	-- *83
9-27-65 20			5-10-72 63	9-10-75 14
Beaver Creek	Lat 59°44'44", long 151°27'20", in SW¼ sec.14, T.5 S., R.13 W., 2 mi upstream from mouth, and 7.8 mi northeast of Homer.	--	1970 7-29-70	8.9
Bridge Creek	Lat 59°40'46", long 151°32'45", in SE¼ sec.6, T.6 S., R.13 W., 3.2 mi upstream from mouth and 2.5 mi north of Homer.	--	(Listed below)	
1970	1971	1972-cont	1973	
3-20-70 2.4	8-28-71 1.8	6-24-72 3.6	10-7-72 4.2	
7-29-70 1.5	1972	7-6-72 3.0	12-1-72 0.50	
9-29-70 2.5	5-26-72 16			
Anchor River	Lat 59°46'22", long 151°49'48", in SE¼ sec.4, T.5 S., R.15 W., at Anchor Point just upstream from North Fork Anchor River	--	1951 7-28-51 8-23-51	76 94
North Fork Anchor River	Lat 59°46'24", long 151°49'52", in SE¼ sec.4, T.5 S., R.15 W., at mouth at Anchor Point.	--	1951 8-23-51 1952 3-5-52	26 19
Stariski Creek	Lat 59°51'09", long 151°47'17", on line between secs. 1 and 12, T.4 S., R.15 W., at bridge on Sterling Highway, 6 mi north of Anchor Point.	--	1951 7-27-51 1952 3-5-52	17 14
15240500 Cook Inlet Tributary	Lat 59°58'45", long 151°43'20", Kenai Peninsula Borough, on left upstream culvert wingwall on Sterling Highway, 0.2 mi upstream from mouth at Cook Inlet, and 3.4 mi southwest of Ninilchik.	1.69	(Listed below)	
1966	1968	1969-cont	1971-cont	1973-cont
-- *73	10-21-67 3.2	7-30-69 1.1	11-11-70 4.9	5-10-73 4.2
6-2-66 14	4-3-68 0.82	9-8-69 0.76	8-27-71 3.7	1974
7-14-66 4.8	5-16-68 8.8	1970	1972	10-10-73 8.0
9-20-66 12	-- *49	3-4-70 1.7	5-25-72 14	4-26-74 96
1967	8-1-68 0.82	-- *51	7-6-72 2.0	4-26-74 *67
3-29-67 0.86	1969	6-25-70 2.1	8-29-72 2.1	4-27-74 34
6-14-67 3.9	10-22-68 1.4	8-8-70 2.5	9-9-72 *47	1975
7-28-67 1.2	5-8-69 3.5	9-28-70 2.4	1973	10-10-74 7.5
-- *25	6-24-69 1.4	1971	10-6-72 5.9	5-12-75 *30
9-3-67 3.2	-- *40	11-1-70 *65	-- *49	5-14-75 25
Deep Creek	Lat 60°01'50", long 151°40'50", on line between sec.3 and 4, T.2 S., R.14 W., at bridge on Sterling Highway, 1 mi upstream from mouth, and 1.5 mi southwest of Ninilchik.	--	(Listed below)	
1951	1959	1961	1965-cont	1966-cont
7-27-51 128	7-22-59 316	4-28-61 1480	8-27-65 153	7-13-66 249
8-23-51 132	8-20-59 116	6-19-61 186	9-25-65 318	8-17-66 151
1952	9-20-59 137	8-3-61 150	1966	9-20-66 631
3-6-52 150	1960	1965	11-3-65 117	1967
1954	5-10-60 1130	4-25-65 277	2-8-66 57	3-30-67 131
3-7-54 112	7-8-60 158	6-10-65 498	4-7-66 140	1968
	8-25-60 138	7-22-65 276	6-2-66 975	10-21-67 191
				3-14-68 43

†Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi²)	Measurements Date (Wtr yr)	Discharge (ft³/s)
Crooked Creek	Lat 60°17'50", long 151°16'20", in NW¼ sec.1, T.2 N., R.12 W., at culvert on the Old Sterling Highway, 1.8 mi upstream from mouth and 6.5 mi southeast of Kasilof.	53.8	(Listed below)	
1951	1952	1974	1974-cont	1975
7-30-51 37	3-7-52 29	1-23-74 20	3-22-74 25	2-1-75 40
8-22-51 45	1973	2-21-74 18	8-3-74 53	3-13-75 22
	8-3-73 50			
Coal Creek	Lat 60°20'59", long 151°15'38", in NW¼ sec.18, T.3 N., R.11 W., at culvert on Kasilof road, 0.8 mi upstream from mouth and 2.7 mi southeast of Kasilof.	32.0	1973 8-3-73	4.5
Snow River	Lat 60°20'00", long 149°21'00", at bridge on Seward-Anchorage Highway, 0.3 mi upstream from mouth and 5 mi south of Lawing.	--	(Listed below)	
	1959	1960		
	7-21-59 221	5-10-60 347		
	8-19-59 1510	7-8-60 1080		
	9-20-59 455	8-24-60 1040		
15243050 Porcupine Creek	Lat 60°20'30", 149°22'15", Kenai Peninsula Borough, on right bank at 18-mi campground road, 0.2 mi upstream from mouth at Kenai Lake, and 0.6 mi west of Primrose.	16.8	(Listed below)	
1963	1966-cont	1969-cont	1972	1974
5-30-63 †298	9-23-66 103	5-22-69 247	5-23-72 14	10-8-73 29
1964	1967	-- †660	7-10-72 190	6-10-74 102
6-3-64 286	6-15-67 226	7-29-69 64	8-30-72 62	9-3-74 40
-- †560	8-3-67 86	9-10-69 23	9-3-72 †970	9-18-74 228
1965	9-9-67 162	1970	9-27-72 27	9-20-74 †859
7-24-65 119	-- †1100	10-13-69 †1400	1973	1975
-- †760	1968	6-22-70 299	10-16-72 †680	7-7-75 245
9-29-65 96	10-18-67 54	8-10-70 117	5-7-73 7.6	9-8-75 †530
1966	-- †350	1971	6-18-73 312	
7-16-66 110	1969	10-31-70 †640	7-24-73 98	
8-21-66 †1200	10-24-68 22	7-2 -71 179		
Carter Creek	Lat 60°29'40", long 149°27'20", at Carter Lake Outlet, 3 mi west of Moose Pass.	2.28	1955 8-13-55	14
15250000 Falls Creek	Lat 60°25'50", long 149°22'10", at mi 25 on Seward-Anchorage Highway, and 2 mi north of Lawing.	11.8	(Listed below)	
1948	1964	1966-cont	1967-cont	1969
8-10-48 60	6-3-64 115	7-15-66 86	9-8-67 180	-- †300
1963	-- †130	8-20-66 66	-- †450	7-29-69 57
6-1-63 64	1965	9-15-66 †693	1968	9-10-69 50
7-12-63 †110	-- †120	9-23-66 68	10-19-67 14	1970
9-30-63 38	7-23-65 86	1967	-- †210	10-6-69 †491
	1966	6-15-67 125	6-21-68 99	10-8-69 192
	6-9-66 108		8-3-68 52	6-22-70 77
15251800 Quartz Creek	Lat 60°35'45", long 149°32'35", on right bank at mi 42 on Seward-Anchorage Highway, and 0.4 mi south of Gilpatricks.	9.41	(Listed below)	
1963	1965	1967	1969	1969-cont
6-1-63 69	6-8-65 47	6-16-67 73	10-25-68 9.5	9-11-69 20
7-11-63 86	-- †110	9-4-67 34	5-12-69 6.1	1970
-- †112	7-24-65 54	-- †350	5-27-69 91	10-6-69 †633
9-30-63 19	1966	1968	-- †175	10-8-69 163
1964	6-4-66 65	-- †88	8-1-69 28	6-22-70 92
6-2-64 60	7-19-66 73	6-21-68 72		
-- †112	-- †165			
	Lat 60°30'05", long 159°41'20", 0.2 mi upstream from Crescent Creek and 5 mi east of Cooper Landing.	--	1957 12-20-56	58
15253000 Crescent Creek	Lat 60°28'45", long 149°34'25", at Crescent Lake Outlet, 7 mi west of Moose Pass.	21.4	1955 7-25-55 8-12-55	151 88
15254000 Crescent Creek	Lat 60°29'49", long 149°40'38", Kenai Peninsula Borough, on left bank at bridge on old Seward-Kenai Highway, 0.3 mi upstream from mouth, and 5.3 mi east of Cooper Landing.	31.7	(Listed below)	
1967	1969	1970-cont	1972-cont	1973-cont
11-10-66 80	10-23-68 32	5-7-70 14	5-4-72 55	7-26-73 97
9-4-67 96	5-13-69 33	6-26-70 217	8-30-72 72	1974
1968	9-10-69 51	1971	1973	10-8-73 52
8-2-68 97	1970	11-11-70 114	10-5-72 67	6-19-74 123
	10-9-69 467	1972	5-8-73 23	1975
	10-13-69 841	11-12-71 40	6-19-73 160	9-12-75 104

†Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi²)	Measurements Date (Wtr yr)	Discharge (ft³/s)
Quartz Creek	Lat 60°28'50", long 149°43'05", at old highway bridge, about 3.3 mi upstream from mouth and about 4 mi east of Cooper Landing.	--	(Listed below)	
1947	1949	1950	1957-cont	1958-cont
8-24-47 342	10-9-48 526	10-22-49 194	6-13-57 632	2-3-58 53
1948	3-10-49 49	12-17-49 112	7-24-57 223	4-28-58 211
11-3-47 203	4-13-49 19	3-16-50 34	8-26-57 179	1959
4-20-48 118	5-19-49 293	1957	1958	12-17-58 104
6-22-48 730		3-13-57 57	10-23-57 588	4-22-59 72
8-14-48 533		5-2-57 117	12-6-57 180	
Juneau Creek	Lat 60°30'30", long 149°53'30", 1.5 mi upstream from mouth and 2.5 mi northwest of Cooper Landing.	--	1955 7-14-55 8-11-55	 289 115
	Lat 60°29'20", long 149°52'30", at mouth, 1.5 mi west of Cooper Landing.	53.4	1955 5-4-55	 15
15260000 Cooper Creek	Lat 60°26'00", long 149°49'15", 125 ft downstream from Cooper Lake Outlet, 1.4 mi upstream from Stetson Creek and 4 mi south of Cooper Landing.	31.8	1962 10-15-61	 67
Cooper Creek	Lat 60°27'00", long 149°51'00", 15 ft upstream from Stetson Creek and 3 mi south of Cooper Landing.	--	1958 2-4-58 4-30-58	 31 57
	Lat 60°29'05", long 149°52'40", at bridge on Sterling Highway, just upstream from mouth, 1.5 mi west of Cooper Landing.	--	1956 12-28-55 1-11-56 2-10-56 3-30-56 4-25-56 5-29-56 7-11-56	 29 32 26 23 40 182 312
Jean Creek	Lat 60°29'04", long 150°06'55", at culvert on Skilak Lake Road, 0.3 mi from Sterling Highway Junction, and 10 mi southwest of Cooper Landing.	11.7	1974 1-22-74 2-22-74 3-19-74 8-1-74 1975 1-30-75 3-11-75	 1.9 1.0 1.8 3.3 2.3 2.0
Hidden Creek	Lat 60°27'30", long 150°11'47", at culvert on Skilak Lake Road, 0.7 mi downstream from Hidden Lake, and 13 mi southwest of Cooper Landing.	b 25	1973 7-23-73 1974 1-22-74 2-22-74 3-19-74 8-1-74 1975 1-30-75 3-11-75	 5.5 7.8 7.4 6.3 2.7 6.3 7.9
Kenai River	Lat 60°28'00", long 150°36'00", in SW¼ sec.1, T.4 N., R.8 W., 3 mi downstream from Skilak Lake, and 7 mi southeast of Sterling.	--	1968 11-2-67	 3250
Killey River	Lat 60°28'55", long 150°37'40", in NE¼ sec.35, T.5 N., R.8 W., at mouth at Kenai River and 6 mi southeast of Sterling.	--	1968 11-2-67	 433
Kenai River	Lat 60°40'55", long 150°41'55", in NW¼ sec.23, T.5 N., R.8 W., at Rings Landing, and 2.5 mi southeast of Sterling.	--	1968 11-2-67	 3150
Moose River	Lat 60°32'15", long 150°45'10", in SW¼ sec.7, T.5 N., R.8 W., at Sterling Highway, 300 ft upstream from mouth at Kenai River at Sterling.	--	1951 7-26-51 8-22-51 1952 3-10-52 1968 11-1-67 4-4-68	 79 128 62 126 88

b Estimated; drainage area boundary is difficult to determine.

Stream	Location	Drainage area (mi²)	Measurements Date (Wtr yr)	Discharge (ft³/s)
Funny River	Lat 60°29'25", long 150°51'30", in SE¼ sec.28, T.5 N., R.9 W., at Funny River Road, 11 mi east of Soldotna.	--	1968 11-1-67 4-2-68 1969 2-27-69 1970 3-5-70	 107 49 30 34
Soldotna Creek	Lat 60°29'20", long 151°02'40", in T.5 N., R.10 W., 0.4 mi east of Soldotna, and 0.5 mi upstream from mouth at Kenai River.	40.4	(Listed below)	
1968 4-2-68 8-8-68	16 11	1969 2-28-69 7-15-69	11 8.8	1970 3-6-70 1971 8-28-71	12 14
Slikok Creek	Lat 60°28'25", long 151°08'17", in sec.2, T.5 N., R.11 W., 0.8 mi upstream from mouth at Kenai River, and 3 mi southwest of Soldotna.	--	1968 8-8-68 1969 2-27-69 7-16-69 1971 8-28-71	 4.3 No flow 5.8 9.3
Beaver Creek Tributary	Lat 60°33'39", long 151°07'35", in SE¼ sec.36, T.6 N., R.11 W., at Beaver Loop Road, 4.5 mi east of Kenai.	--	1969 7-15-69	 0.53
Kenai River Tributary	Lat 60°33'13", long 151°13'42", in NW¼ sec.4, T.5 N., R.11 W., at Beaver Loop Road, 0.1 mi upstream from mouth at Kenai River.	--	1968 8-9-68 1969 2-27-69 7-15-69	 1.0 No flow 0.63
Kenai River Tributary	Lat 60°33'20", long 151°14'42", in NE¼ sec.5, T.5 N., R.11 W., at Kenai Road, 0.1 mi upstream from mouth at Kenai River.	--	1968 8-9-68 1969 2-26-69 7-15-69	 No flow No flow No flow
Cook Inlet Tributary	Lat 60°33'28", long 151°15'48", in NE¼ sec.6, T.5 N., R.11 W., at Kenai Road, 0.5 mi upstream from mouth at Cook Inlet.	--	1968 8-9-68	 0.95
Cook Inlet Tributary	Lat 60°33'38", long 151°16'12", in SE¼ sec.31, T.6 N., R.11 W., at Kenai Road, 0.5 mi upstream from mouth at Cook Inlet.	--	1968 8-9-68	 0.80
Salamatof Creek	Lat 60°37'20", long 151°19'50", in SE¼ sec.11, T.6 N., R.12 W., at North Kenai Road, 0.5 mi upstream from mouth at Cook Inlet, and 5 mi northwest of Kenai.	--	(Listed below)	
1968 4-3-68 9-25-68	2.7 No flow	1969 2-26-69 7-15-69	No flow No flow	1970 9-30-70	No flow
Bernice Creek	Lat 60°41'30", long 151°22'50", in SE¼ sec.16, T.17 N., R.12 W., at North Kenai Road, 500 ft downstream from Bernice Lake, and 11 mi northwest of Kenai.	--	(Listed below)	
1968 4-3-68 8-8-68	1.3 0.12	1969 2-26-69 7-15-69	No flow No flow	1970 9-30-70	No flow
Bishop Creek	Lat 60°46'35", long 151°05'45", in NW¼ NE¼ sec.19, T.8 N., R.10 W., at North Kenai Road, 1.4 mi upstream from mouth at Cook Inlet, and 10 mi northwest of Kenai.	33.9	(Listed below)	
1968 10-31-67 4-1-68 8-8-68	 30 12 16	1969 10-23-68 2-27-69	 20 14	1969-cont 7-15-69 8-20-69	 7.7 4.2	1970 3-5-70 9-30-70	 12 15	1971 3-25-71 1972 7-26-72	 17 14
15267050 Swanson River	Lat 60°44'40", long 150°50'55", in NW¼ sec.34, T.8 N., R.9 W., at Swanson River Road, and 19 mi northeast of Kenai.	--	(Listed below)	
1968 11-1-67 7-24-68 8-9-68	 98 48 35	1969 2-28-69 7-16-69 8-20-69	 32 34 22	1970 3-6-70	 36				

Station	Stream	Location	Drainage area (mi²)	Measurements Date (Mo-Yr)	Discharge (ft³/s)
15267080	Swanson River	Lat 60°42'48", long 150°55'53", in NW¼ sec.7, T.7 N., R.9 W., 22 mi upstream from mouth at Cook Inlet and 15.5 mi northeast of Kenai.	--	1968 7-24-68	55
15267100	Swanson River	Lat 60°41'22", long 150°58'16", in SE¼ sec.25, T.7 N., R.10 W., 12 mi upstream from mouth at Cook Inlet and 13.5 mi northeast of Kenai.	--	1968 7-24-68	62
15267130	Swanson River	Lat 60°42'52", long 150°59'23", in NW¼ sec.11, T.7 N., R.10 W., 7 mi upstream from mouth at Cook Inlet and 14.5 mi northeast of Kenai.	--	1968 7-24-68	62
15267160	Swanson River	Lat 60°17'15", long 151°00'30", in NE¼ sec.15, T.8 N., R.10 W., 1 mi upstream from mouth at Cook Inlet and 18 mi northeast of Kenai.	--	1968 7-23-68 1970 5-31-70 9-30-70	72 49 65
15268000	Resurrection Creek	Lat 60°55'15", long 149°38'40", at bridge at Hope, 0.5 mi upstream from mouth.	162	1959 8-19-59 9-19-59	409 384
15269500	Granite Creek	Lat 60°43'40", long 149°17'00", Kenai Peninsula Borough, on upstream side of center pier of bridge on Seward-Anchorage Highway, and 12 mi southwest of Portage.	28.2	(Listed below)	
1967 9-4-67 -- 1968 -- 5-27-68 6-24-68 8-4-68	 130 +1940 +730 531 283 107	1969 10-25-68 5-12-69 5-22-69 -- 9-12-69 1970 10-6-69 1970-cont 10-10-69 1971 11-10-70 -- 1972 10-6-71 6-1-72 -- 1972-cont 7-11-72 9-1-72 1973 10-10-72 8-12-73 6-18-73 7-26-73 --	 52 90 811 *1150 150 +2040 110 115 *960 79 200 *550 272 149 56 92 401 242 *811	1974 10-5-73 -- 6-17-74 1975 -- 5-15-75 7-11-75	 70 *640 574 *640 258 489
15270100	Fresno Creek	Lat 60°40'15", long 149°28'35", on right bank at mi 18 on Seward-Anchorage Highway, and 0.6 mi south of Shield.	6.03	(Listed below)	
1963 -- 7-11-63 1964 6-2-64 -- 1965 --	 +78 43 58 +84 +42	1965-cont 7-24-65 9-29-65 1966 6-3-66 -- 7-19-66 1967 -- 6-16-67 9-4-67 1968 -- 6-21-68 1968-cont 9-1-68 1969 10-28-68 -- 3-12-69 5-27-69	 54 24 40 +80 36 +72 55 26 +82 50 17 4.8 +135 7.1 65	1969-cont 4-1-69 9-11-69 1970 10-6-69 10-8-69 6-22-70 11-13-70	 16 10 +85 58 39 8.9
15270400	Donaldson Creek	Lat 60°45'40", long 149°27'20", on left bank at mi 54.5 on Seward-Anchorage Highway, and 1.5 mi north of Wibel.	4.07	(Listed below)	
1963 -- 7-11-63 1964 6-2-64 -- 1965 7-24-65	 +60 27 24 +60 +22	1965-cont 9-29-65 1966 6-3-66 7-19-66 1967 7-16-67 9-4-67 1967-cont -- 1968 -- 6-21-68 8-4-68 1969 10-25-68	 10 *42 25 51 12 +170 *60 44 9.3 5.8	1969-cont 5-12-69 -- 5-31-69 9-11-69 1970 10-8-69 10-13-69 6-22-70	 4.6 +70 14 6.4 24 +70 25	1971 11-13-70 7-1-71 -- 1972 -- 6-1-72 7-13-72 8-31-72	 8.7 32 +130 +90 10 29 6.9
Canyon Creek		Lat 60°46'49", long 149°25'37", in SWNSE¼ sec.15, T.8 N., R.1 W., at bridge on Anchorage-Seward Highway, about 16 mi southwest of Portage.	--	1948 8-15-48	434
15271900	Cub Creek	Lat 60°52'12", long 149°26'02", Kenai Peninsula Borough, on right wingwall of culvert, on Hope Highway, 0.1 mi upstream from mouth of Sixmile Creek, and 7.7 mi southeast of Hope.	1.80	(Listed below)	
1965 -- 8-18-65 9-29-65 1966 6-4-66 -- 7-19-66 1967 9-4-67	 +16 9.7 8.9 13 +21 13 8.0	1967-cont -- 1968 5-27-68 8-4-68 1969 10-25-68 -- 9-11-69 1970 10-6-69 1971 11-13-70 1-6-71 -- 1972 10-6-71 6-1-72 1972-cont 7-13-72 -- 9-1-72 1973 10-5-72 8-7-73 -- 7-23-73	 *54 +9.1 5.8 1.3 *25 2.7 *37 *37 5.0 10 10 *27 3.6 6.6 0.71 *28 8.5	1974 10-5-73 -- 6-17-74 1975 10-6-74 10-10-74 7-11-75 9-12-75	 3.4 +28 9.9 +23 1.9 20 6.5

*Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi^2)	Measurements Date (Wtr yr)	Discharge (ft^3/s)
15272200 Placer River	Lat 60°49'05", long 148°59'15", in NE¼ sec.6, T.8 N., R.3 E., at bridge on Seward Highway, 0.3 mi upstream from mouth, and 1.5 mi south of Portage.	--	1965	
			7-25-65	3520
			9-22-65	4930
			1966	
			12-21-65	27
			2-18-66	53
Portage Creek	Lat 60°47'20", long 148°51'05", in NW¼ sec.13, T.8 N., R.3 E., 400 ft west of railroad tunnel, 0.6 mi downstream from Portage Lake outlet, and 5.5 mi southeast of Portage.	--	1965	
			4-22-65	114
15272300 Portage Creek	Lat 60°49'15", long 148°58'25", in SE¼ sec.31, T.9 N., R.3 E., at bridge on Seward Highway, 0.3 mi upstream from mouth and 1.0 mi south of Portage.	--	1965	
			7-26-65	1470
15272500 Turnagain Arm tributary	Lat 60°55'27", long 149°07'10", in SE¼ sec.29, T.10 N., R.2 E., on left bank 5 ft upstream from culvert at the Alaska Railroad, and 1.9 mi southeast of Girdwood.	0.44	1966	
			6-9-66	5.2
			--	*19
			1967	
			9-18-67	*69
			1968	
			8-4-68	0
15272530 California Creek	Lat 60°57'53", long 149°08'02", at culverts on Alyeska Highway, 0.2 mi west of Girdwood Post Office, and 2.0 mi northeast of Seward-Anchorage Highway.	6.96	(Listed below)	

1967		1970		1971-cont		1972-cont		1974	
9-8-67	*593	10-6-69	*600	5-26-71	21	9-1-72	21	10-5-73	14
1968		10-8-69	125	6-30-71	92	9-8-72	20	--	*78
7-2-68	*72	10-11-69	157	8-8-71	*350	1973		6-17-74	43
8-4-68	25	6-10-70	61	1972		10-20-72	29	1975	
1969		1971		--	*200	5-12-73	14	5-12-75	71
5-12-69	19	10-31-70	229	5-19-72	18	--	*240	--	*175
6-16-69	*125	11-1-70	95	6-30-72	41	7-23-73	50	7-11-75	109
8-27-69	12			7-31-72	40				

Bird Creek	Lat 60°58'20", long 149°27'51", 100 ft upstream from mouth and Seward Highway bridge.	--	1969		
			4-1-69	17	
			1970		
			3-5-70	45	
15272800 Rainbow Creek	Lat 61°00'03", long 149°38'57", in NW¼ sec.33, T.11 N., R.2 W., on right bank at Seward-Anchorage Highway, and 19.4 mi southeast of Anchorage.	4.18	(Listed below)		

1965		1966		1967	
--	*41	6-9-66	30	--	*130
8-15-65	26	6-19-66	10		
8-24-65	12	--	*80		

Little Rabbit Creek	Lat 61°04'57", long 149°44'50", in SE¼ sec.35, T.12 N., R.3 W., at bridge crossing 10.0 mi south of Anchorage.	--	1971		
			9-10-71	8.1	
	Lat 61°04'40", long 149°48'35", in NE¼ sec.4, T.11 N., R.3 W., at Seward Highway, 10.0 mi south of Anchorage.	--	(Listed below)		

1968		1969		1971	
7-2-68	8.2	12-3-68	1.6	9-10-71	8.6
8-7-68	4.7	7-15-69	3.0	1972	
9-30-68	3.5			4-6-72	1.2

Rabbit Creek	Lat 61°05'51", long 149°44'10", in SW¼ sec.25, T.12 N., R.3 W., near Hillside Road crossing, 9.5 mi south of Anchorage.	--	1971	
			9-10-71	24
			1972	
			4-6-72	4.5
	Lat 61°05'42", long 149°46'59", in SE¼ sec.27, at Canyon Road crossing, 9.5 mi south of Anchorage.	--	1971	
			9-10-71	23
	Lat 61°05'05", long 149°49'25", in SW¼ sec.33, T.12 N., R.3 W., at Seward Highway 9.5 mi south of Anchorage.	--	(Listed below)	

1968		1969		1971	
7-2-68	34	12-3-68	8.4	9-10-71	25
8-7-68	14	4-1-69	5.2	1972	
9-30-68	12	7-15-69	10	4-6-72	4.8

* Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi²)	Measurements Date (Wtr yr)	Discharge (ft³/s)
Furrow Creek	Lat 61°06'25", long 149°52'40", in NW¼ sec.30, T.12 N., R.3 W., at Johns Road, 7.8 mi south of Anchorage.	--	1968	
			7-2-68	0.2
			8-7-68	0.1
			9-30-68	0.2
			1969	
			12-3-68	0.1
South Fork Campbell Creek	Lat 61°09'25", long 149°15'25", in N½ sec.2, T.12 N., R.3 W., 0.5 mi above bridge on gravel road, 3 mi upstream from confluence with North Fork, and 6 mi southeast of Anchorage Post Office.	--	(Listed below)	
	1958		1959	
	6-23-58	91	4-28-59	10
	1960		1961	
	4-25-60	12	10-25-60	56
			4-14-61	10
North Fork Campbell Creek	Lat 61°10'20", long 149°42'30", in SW¼ sec.31, T.13 N., R.2 W., 5 mi upstream from confluence with South Fork, and 7 mi southeast of Anchorage Post Office.	--	(Listed below)	
1958	1959		1960	
6-24-58	32	4-28-59	4.1	4-25-60
	1961		1968	
	3.7	10-25-60	20	9-13-68
				14
15274300 North Fork Campbell Creek	Lat 61°10'10", long 149°45'43", in SW¼ sec.35, T.13 N., R.3 W., at old Campbell Airstrip road crossing. 2.5 mi upstream from confluence with South Fork Campbell Creek, and 5.5 mi southeast of Anchorage Post Office.	13.4	(Listed below)	
1947	1949-cont		1960	
8-11-47	19	6-17-49	35	4-25-60
1948		7-18-49	52	1961
10-31-47	19	1950		10-25-60
2-13-48	7.9	10-12-49	20	4-14-61
4-13-48	8.3	1952		1967
4-24-48	6.3	12-3-51	17	5-1-67
6-17-48	43	2-21-52	6.2	6-5-67
7-28-48	25	3-22-52	5.6	7-10-67
8-20-48	33	1954		7-20-67
9-10-48	26	7-21-54	13	8-15-67
1949		1955		9-6-67
11-3-48	15	7-11-55	72	1968
12-1-48	6.4	1958		1-3-68
3-24-49	4.2	6-24-58	31	4-1-68
4-26-49	7.9	1959		
5-25-49	15	4-28-59	12	
	1968-cont		1970	
	5-13-68	8.1	5-18-70	5.3
	6-5-68	32	5-26-70	5.7
	6-28-68	10	7-15-70	68
	8-12-68	32	7-16-70	35
	9-13-68	16	1971	
	1969		10-12-70	15
	10-4-68	12	8-9-71	100
	5-8-69	5.2	1972	
	6-8-69	21	6-8-72	12
	6-10-69	21	1973	
	7-18-69	15	4-19-73	8.8
	1970		5-7-73	6.0
	10-14-69	16	8-1-73	22
			9-11-73	18
North Fork Campbell Creek	Lat 61°10'35", long 149°47'00", in NE¼ sec.34, T.13 N., R.3 W., 1.5 mi upstream from confluence with South Fork, and 4.5 mi southeast of Anchorage Post Office.	--	(Listed below)	
	1958		1959	
	6-24-58	30	4-28-59	23
	1960		1961	
	4-25-60	15	10-25-60	24
			4-13-61	7.2
	Lat 61°10'30", long 149°49'05", in NW¼ sec.33, T.13 N., R.3 W., 600 ft upstream from confluence with South Fork, and 4 mi southeast of Anchorage Post Office.	--	(Listed below)	
	1958		1959	
	6-24-58	35	4-28-59	28
	1960		1961	
	4-25-60	18	10-25-60	25
			4-14-61	8.4
Campbell Creek	Lat 61°10'35", long 149°49'20", in NW¼ sec.33, T.13 N., R.3 W., 400 ft downstream from confluence of North Fork and South Fork, 0.8 mi upstream from bridge on Lake Otis Road, and 3.8 mi southeast of Anchorage Post Office.	--	(Listed below)	
	1958		1959	
	6-23-58	114	4-28-59	55
	6-24-58	110		
	1960		1961	
	4-25-60	72	10-25-60	91
			4-14-61	20

Stream	Location	Drainage area (mi^2)	Measurements Date (Wtr yr)	Discharge (ft^3/s)
Campbell Creek	Lat 61°10'40", long 149°50'10", on line between secs.32 and 33, T.13 N., R.3 W., at bridge on Lake Otis Road, 3.5 mi southeast of Anchorage Post Office.	46.4	(Listed below)	
1958	1960	1961-cont	1967-cont	1968-cont
3-26-58	17	4-25-60	36	4-14-61	22	2-7-27	17	9-13-68	49
1959		1961		1967		1968		1972	
4-28-59	47	10-25-60	86	10-11-66	71	5-13-68	41	3-28-72	14
		4-13-61	25					6-7-72	62
15274400 Campbell Creek	Lat 61°10'25", long 149°52'00", on line between secs.31 and 32, T.13 N., R.3 W., at bridge on Old Seward-Anchorage Highway, and 3.5 mi southeast of Anchorage Post Office.	--	1961	
			10-25-60	85
			4-14-61	25
			1967	
			10-11-66	75
Little Campbell Creek	Lat 61°09'10", long 149°52'20", in SE¼ sec.6, T.12 N., R.3 W., 0.2 mi upstream from mouth and 4.5 mi south of Anchorage.	--	(Listed below)	
1968	1968-cont	1968-cont	1969	1971
5-13-68	11	7-10-68	3.6	9-13-68	2.4	12-6-68	0.57	11-13-70	0.47
6-5-68	14	8-12-68	3.5					11-13-70	0.64
Campbell Creek	Lat 61°08'45", long 149°53'25", on line between sec.7, T.12 N., R.3 W., and sec.12, T.12 N., R.4 W., at bridge on Campbell Road, and 5 mi south of Anchorage Post Office.	--	1961	
			10-25-60	90
15274600 Campbell Creek	Lat 61°08'17", long 149°55'20", on line between secs.11 and 14, T.12 N., R.3 W., at bridge on Dimond Blvd., and 2.0 mi upstream from mouth.	69.7	1961	
			10-25-60	106
			11-29-60	47
			12-9-60	59
			12-20-60	30
			3-28-61	27
15274770 Hood Creek at Northern Lights Boulevard	Lat 61°12'05", long 149°57'04", in SE¼ sec.22, T.13 N., R.4 W., at mouth, near Susitna View Parkway, and 2.5 mi southwest of Anchorage Post Office.	--	1961	
			8-1-61	0.35
Fish Creek	Lat 61°11'45", long 149°55'30", in SW¼ sec.24, T.13 N., R.4 W., at Northern Lights Blvd., crossing at Anchorage.	--	1968	
			4-18-68	13
			7-10-68	1.0
			8-7-68	1.0
			9-30-68	1.0
			1969	
			12-2-68	0.51
	Lat 61°12'00", long 149°55'40", in SE¼ sec.23, T.13 N., R.4 W., at culvert on Northward Drive, 2 mi southwest of Anchorage Post Office.	--	1961	
			8-1-61	6.2
			8-1-61	3.2
15274800 South Branch of South Fork Chester Creek	Lat 61°12'37", long 149°43'57", on line between secs. 13 and 24, T.13 N., R.3 W., at Muldoon Road crossing, 5.4 mi east of Anchorage.	10.8	(Listed below)	
1960	1967-cont	1968-cont	1970	1972
4-26-60	23	5-9-67	5.2	6-15-68	†27	10-5-69	†8.7	3-28-72	2.2
1961		5-31-67	6.3	8-7-68	8.3	10-14-69	6.1	9-29-72	†37
10-27-60	13	9-6-67	26	9-12-68	6.6	6-8-70	4.1	1973	
4-13-61	6.5	9-18-67	†34	1969		1971		--	†11
1967		1968		12-2-68	4.7	5-19-71	6.2	1974	
10-10-66	21	10-5-67	10	5-7-69	4.7	8-9-71	†44	10-3-73	8.4
2-14-67	3.8	4-1-68	4.4	7-24-69	†20	8-10-71	32	5-21-74	5.0
		5-14-68	5.6	9-3-69	6.4			1975	
								5-1-75	22
								5-2-75	†37
								5-2-75	34
Middle Branch South Fork Chester Creek	Lat 61°13'10", long 149°41'20", in NE¼ sec.18, T.13 N., R.2 W., at tank trail, 6.5 mi east of Anchorage.	--	1967	
			10-10-66	1.3
			1968	
			9-12-68	0.85
	Lat 61°12'55", long 149°43'50", in S½ sec.13, T.13 N., R.3 W., at Muldoon Road, 5 mi east of Anchorage.	--	1968	
			9-12-68	1.6
	Lat 61°11'45", long 149°47'25", on line between secs. 22 and 27, T.13 N., R.3 W., at East Northern Lights Blvd., 3.3 mi southeast of Anchorage.	--	1960	
			4-26-60	2.0
			1961	
			10-27-60	5.8
			4-13-61	1.7
			1968	
			5-14-68	0.05

† Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi²)	Measurements Date (Mo-Dy-Yr)	Discharge (ft³/s)
South Fork Chester Creek	Lat 61°11'00", long 149°48'20", on line between secs. 27 and 28, T.13 N., R.3 W., at the City of Anchorage pipeline station off Tudor Road, 4 mi southeast of Anchorage Post Office.	-	1967 2-11-67	5.7
15275080 Russian Jack Springs	Lat 61°12'25", long 149°46'55", in NW sec.22, T.13 N., R.3 W., 5.5 mi east of Anchorage Post Office.	-	(listed below)	
1948	1955-cont	1959-cont	1962	1965-cont
7-28-48	5.4	1-13-55	5.8	1-19-59	5.8	1-16-62	8.2	3-25-65	4.7
9-10-48	5.1	2-25-55	5.0	2-2-59	6.3	2-27-62	5.4	4-22-65	4.8
1949		5-4-55	6.5	3-5-59	4.8	3-28-62	5.3	7-27-65	4.8
12-1-48	4.4	7-19-55	3.9	7-21-59	6.9	4-18-62	5.6	1967	
1952		1956		7-31-59	6.0	5-16-62	6.9	3-21-67	3.2
11-30-51	5.6	4-20-56	4.2	8-13-59	7.4	6-26-62	7.0	5-3-67	4.5
2-9-52	4.2	4-30-56	4.2	9-16-59	7.3	8-9-62	7.1	6-8-67	3.9
1953		6-6-56	5.8	1960		9-24-62	7.3	1968	
2-4-53	6.4	7-12-56	5.0	10-12-59	8.0	1963		10-3-67	4.8
2-10-53	5.7	9-11-56	7.5	11-16-59	6.9	11-23-62	16.6	11-14-67	4.8
2-16-53	6.1	1957		12-15-59	7.0	1-3-63	6.0	1-2-68	5.3
2-25-53	5.6	10-3-56	4.0	12-31-59	6.9	2-11-63	4.9	2-13-68	4.3
3-4-53	5.4	12-27-56	5.1	1-11-60	6.4	3-1-63	4.7	3-28-68	5.9
3-13-53	5.8	3-27-57	4.8	2-9-60	5.4	1-3-63	4.9	4-30-68	4.4
3-26-53	5.0	4-26-57	6.3	3-10-60	4.8	3-20-63	6.2	5-14-68	4.4
4-21-53	5.9	7-3-57	5.5	4-12-60	4.6	5-11-63	6.1	6-6-68	5.2
4-28-53	5.8	1958		4-26-60	5.5	7-22-63	5.6	8-16-68	4.8
5-8-53	6.1	11-8-57	6.8	5-11-60	5.2	8-26-63	5.9	9-12-68	5.5
6-4-53	5.5	12-10-57	6.5	6-14-60	5.2	9-24-63	6.0	1969	
6-16-53	5.4	1-24-58	5.6	6-22-60	5.6	1964		4-2-69	2.8
6-29-53	5.2	2-26-58	4.8	7-25-60	5.8	10-22-63	5.5	5-7-69	2.8
7-21-53	5.7	3-11-58	5.0	8-19-60	6.2	11-19-63	5.6	6-10-69	2.4
8-20-53	6.3	4-1-58	4.1	9-20-60	6	12-13-63	7.0	7-15-69	1.8
9-11-53	6.8	4-29-58	5.2	1961		1-14-64	5.4	9-3-69	2.5
1954		7-1-58	5.3	10-4-60	8.9	2-13-64	4.7	1970	
10-2-53	6.4	7-29-58	4.7	10-27-60	7.8	3-25-64	3.5	3-6-70	1.3
11-24-53	5.4	8-13-58	6.8	12-9-60	7.3	3-31-64	5.9	5-12-70	1.3
12-29-53	5.6	8-22-58	6.8	12-28-60	7.1	4-5-64	5.7	6-18-70	1.0
1-14-54	5.1	9-25-58	5.9	1-16-61	7.0	4-6-64	4.1	7-23-70	0.94
2-24-54	4.5	1959		2-1-61	7.2	4-8-64	4.6	9-17-70	1.6
3-16-54	4.0	10-10-58	5.9	3-17-61	6.0	4-10-64	4.1	1971	
4-5-54	4.4	11-6-58	5.7	4-13-61	5.9	5-6-64	5.6	12-1-70	1.4
5-4-54	4.2	12-11-58	5.6	5-19-61	5.9	5-25-64	1.2	5-17-71	1.5
6-4-54	3.7	12-30-58	5.3	6-6-61	5.3	5-6-64	5.0	1972	
6-11-54	3.7	2-3-59	4.4	7-13-61	4.6	9-1-64	4.9	10-5-71	3.2
6-25-54	4.0	2-21-59	4.2	9-6-61	6.2	1965		2-23-72	2.9
7-21-54	3.8	3-10-59	4.0	9-18-61	6.1	10-2-64	5.1	6-8-72	3.8
8-19-54	3.7	3-21-59	4.6	9-28-61	6.7	11-2-64	4.4	1973	
9-17-54	5.9	4-20-59	4.7	1961		12-2-64	4.6	11-29-72	4.1
1955		4-27-59	5.9	10-24-61	7.7	1-4-65	4.6	1974	
11-4-54	4.4			11-30-61	7.0	2-10-65	3.4	10-5-73	3.8
North Fork Chester Creek	Lat 61°12'54", long 149°49'17", in SW4 sec.16, T.13 N., R.3 W., at Airport Heights Road, at Anchorage.	-	1972 3-27-72 1974 6-7-74	0.59 0.72
	Lat 61°12'10", long 149°50'40", in SE4 sec.20, T.13 N., R.3 W., at mouth, 1.5 mi southeast of Anchorage Post Office.	--	1968 5-14-68 9-12-68	1.2 1.3
15275050 Chester Creek	Lat 61°12'10", long 149°52'00", on line between secs.19 and 20, T.13 N., R.3 W., at culvert on Seward-Anchorage Highway at Anchorage, 2.2 mi upstream from mouth.	--	(listed below)	
1947	1948-cont	1949-cont	1952	1959
8-11-47	17	4-24-48	25	3-25-49	13	12-3-51	20	4-27-59	102
1948		6-17-48	18	4-25-49	59	12-15-51	14	1960	
10-31-47	24	7-28-48	20	5-27-49	44	2-9-52	13	10-27-59	40
2-13-48	19	8-20-48	26	6-30-49	67	3-22-52	12	4-26-60	56
3-1-48	19	9-10-48	24	7-20-49	40	1954		1961	
4-5-48	19	1949		1950		7-21-54	14	4-13-61	22
4-13-48	46	11-3-48	28	10-13-49	37	1955			
		2-28-49	9.9			7-19-55	29		
15275150 Chester Creek	Lat 61°12'20", long 149°54'10", in NE4 sec.24, T.13 N., R.3 W., at culvert on Spenard Road, at Anchorage, 1 mi upstream from mouth.	--	(Listed below						
1947		1959		1960		1961	
7-27-47	17	4-27-59	92	4-26-60	62	10-27-60	37
						4-13-61	26

Stream	Location	Drainage area (mi^2)	Measurements Date (Wtr yr)	Discharge (ft^3/s)
15276200 Ship Creek	Lat 61°14'14", long 149°41'20", on line between secs.6 and 7, T.13 N., R.2 W., at bridge on Glenn Highway and 6.5 mi east of Anchorage Post Office.	--	(Listed below)	
	1958 5-26-58 5.1		1959 4-27-59 28	
	1960 4-13-60 29 4-26-60 27		1967 5-16-67 172	
15276300 Ship Creek	Lat 61°14'40", long 149°43'20", in SE¼ sec.1, T.13 N., R.3 W., 0.2 mi downstream from North Fork and 6 mi east of Anchorage Post Office.	--	(Listed below)	
	1959 4-27-59 30		1960 4-26-60 23	
	1961 10-26-60 178			
15276400 Ship Creek	Lat 61°14'17", long 149°46'40", on line between secs. 10 and 11, T.13 N., R.3 W., at bridge on Glenn (Davis) Highway, and 4 mi northeast of Anchorage Post Office.	--	(Listed below)	
	1959 4-27-59 28		1960 4-26-60 20	
	1961 10-26-60 172			
15276500 Ship Creek	Lat 61°14'20", long 149°47'24", in NE¼ sec.10, T.13 N., R.3 W., near right bank on downstream side of bridge at Elmendorf Air Force Base, 3.7 mi northeast of Anchorage Post Office, and 4.9 mi upstream from mouth.	113	(Listed below)	
1972 2-23-72 2.4	1973 1-31-73 4.7		1974 1-7-74 3.1	
	1975 1-8-75 5.7 2-12-75 2.4		1975-cont 3-20-75 1.7 4-10-75 11.56	
15276600 Ship Creek	Lat 61°13'25", long 149°51'25", in NW¼ sec.17, T.13 N., R.3 W., at bridge on Post Road at Anchorage and 1.5 mi upstream from mouth.	--	(Listed below)	
1959 4-27-59 81 1960 4-26-60 45	1961 10-26-60 186 1967 5-26-67 20		1967-cont 5-3-67 47 1969 11-8-68 42	
	1969-cont 11-15-68 24 1-3-69 21 1-30-69 23		1969-cont 3-26-69 20 5-7-69 33 1970 4-3-70 21	
Ship Creek	50 ft downstream from Glenn highway bridge.	--	1968 9-10-68 98	
	Lat 61°14'35", long 149°42'27", in SW¼ sec.6, T.13 N., R.2 W., 200 ft upstream from Fort Richardson power plant.	--	1975 11-20-74 25	
	Downstream from power plant.	--	1967 5-16-67 133	
	Lat 61°13'25", long 149°52'50", in NE¼ sec.18, T.13 N., R.3 W., just downstream from City of Anchorage dam at Anchorage, and 0.8 mi upstream from mouth.	--	(Listed below)	
	1960 4-26-60 45		1961 10-26-60 193 4-13-61 41	
	1967 5-16-67 191			
	At "C" Street Bridge.	--	1968 9-10-68 100	
	250 ft upstream from Post Road culvert.	--	1968 9-10-68 97	
	150 ft downstream from Weir at Cooling Road.	--	1968 9-10-68 83	
Sixmile Lake Outlet	Lat 61°17'31", long 149°48'44", at outlet of lake, on loop road, 0.8 mi upstream from mouth on Elmendorf Air Force Base, 5.7 mi north of Anchorage.	--	1970 4-29-70 2.0	
South Fork Eagle River	Lat 61°18'00", long 149°28'00", 0.2 mi upstream from mouth and 15 mi northeast of Anchorage.	--	1952 10-3-51 80 12-29-51 15 3-8-52 13	
15277200 Meadow Creek	Lat 61°19'14", long 149°32'11", in NW¼ sec.7, T.14 N., on left bank at Eagle Loop Road, and 1 mi east of Eagle River.	7.43	(Listed below)	
1965 8-4-65 10 9-28-65 22 -- †22	1966 6-28-66 16 -- †30		1967 6-5-67 18 -- †30	
	1968 -- †20		1969 -- †20	
	1970 8-7-70 †16		1971 8-9-71 124 8-9-71 †184	
	1972 6-9-72 17 -- †36		1973 6-26-73 †21 8-21-73 †21	
	1974 10-3-73 6.4			

†Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi²)	Measurements Date (Mo Yr)	Discharge (ft³/s)
Eagle River	In SE¼ sec.11, T.14 N., R.2 W., at bridge on Glenn Highway, 7 mi upstream from mouth, and 15 mi northeast of Anchorage.	--	(Listed below)	
1949	1950-cont	1952-cont	1952-cont	1954-cont
6-29-49 1,830	8-26-50 1,880	1-6-52 62	8-20-52 1,240	8-20-54 3,670
7-21-49 1,290	1951	2-3-52 49	9-30-52 693	1955
9-20-49 510	7-24-51 1,840	3-1-52 60	1954	7-21-55 1,460
1950	1952	3-22-52 55	7-21-54 1,060	8-18-55 707
10-25-49 241	12-4-51 99	4-4-52 41		
Otter Lake Outlet	Lat 61°17'44", long 149°43'34", at loop road crossing, 0.2 mi downstream from lake on Fort Richardson military reservation, 7.7 mi northeast of Anchorage.	--	1970 4-29-70	1.9
Upper Fire Lake Inlet	Lat 61°22'20", long 149°31'25", in SW¼ sec.30, T.15 N., R.1 W., at inlet to Lake, 2.7 mi northeast of Eagle River.	--	1968 5-9-68	0.81
Upper Fire Lake Outlet	Lat 61°21'00", long 149°32'05", in NW¼ sec.31, T.15 N., R.1 W., at lake outlet, 2.2 mi northeast of Eagle River.	--	(Listed below)	
	1968	1968--cont	1969	
	6-4-68 11	8-15-68 1.1	11-26-68 1.3	
	7-18-68 2.2	9-30-68 0.94		
15277300 Fire Creek	Lat 61°21'10", long 149°32'45", in NE¼ sec.36, T.15 N., R.2 W., at road crossing at lake outlet, 2.0 mi north of Eagle River.	--	(Listed below)	
	1968	1968-cont	1969	
	5-9-68 1.0	7-18-68 2.6	11-26-68 0.48	
	6-4-68 11	8-15-68 1.8		
		9-30-68 1.0		
Peters Creek	Lat 61°24'00", long 149°27'00", at bridge on Glenn Highway just upstream from Little Peters Creek, 20 mi northeast of Anchorage.	--	1952 12-31-51 34	
			2-22-52 28	
			3-2-52 24	
			4-26-52 22	
15277600 East Fork Eklutna Creek	Lat 61°18'40", long 148°57'05", 2.2 mi upstream from confluence with West Fork, 3 mi upstream from Eklutna Lake, and 21 mi south of Palmer.	58	1963 10-8-62	58
15277800 West Fork Eklutna Creek	Lat 61°18'00", long 148°58'25", 2.3 mi upstream from confluence with East Fork, 3 mi upstream from Eklutna Lake, and 22 mi south of Palmer.	26	1963 10-8-62	14
Eklutna Creek	Lat 61°20'00", long 149°00'00", just upstream from Eklutna Lake, 14 mi southeast of Eklutna.	--	1953 10-6-52	582
15280000 Eklutna Creek	Lat 61°24'05", long 149°09'00", in SW¼ sec.8, T.15 N., R.2 E., 200 ft downstream from dam at outlet of Eklutna Lake, 8 mi upstream from abandoned Eklutna power diversion dam, 11 mi upstream from mouth, and 14 mi south of Palmer.	119	1963 9-3-63	15
			9-4-63	15
			9-11-63	16
			1964 7-23-64	207
			8-3-64	784
Eklutna Creek	Lat 61°27'00", long 149°18'00", 1.8 mi upstream from Thunder Bird Creek, 7 mi downstream from Eklutna Lake, and 13 mi southwest of Palmer.	-	(Listed below)	
	1955	1956	1956-cont	
	7-5-55 14	6-26-56 8.4	7-26-56 0.6	
		7-9-56 7.0	8-3-56 11	
		7-13-56 6.8		
	Lat 61°27'00", long 149°21'00", just upstream from Thunder Bird Creek, 2 mi upstream from mouth, 9 mi downstream from Eklutna Lake, and 13 mi southwest of Palmer.	--	1955 11-24-54	17
			7-5-55	16
Thunder Bird Creek	Lat 61°18'20", long 149°12'30", in SE¼ sec.14, T.15 N., R.1 E., at altitude 1,950 ft, 6.9 mi upstream from mouth, and 14.9 mi south of Palmer.	--	1964 10-22-63	19
	Lat 61°24'00", long 149°14'10", in SW¼ sec.11, T.15 N., R.1 E., at altitude 1,700 ft, 5.8 mi upstream from mouth, and 10.4 mi south of Palmer.	--	1964 10-22-63	21
Goat Creek	Lat 61°29'00", long 149°06'00", at bridge on Glenn Highway, 8.3 mi south of Palmer.	--	1955 7-19-55	60
Palmer Creek	Lat 61°33'40", long 149°02'15", 1 mi north of Bodenburg Butte and 5.5 mi southeast of Palmer.	--	1959 12-23-58	40
15281500 Camp Creek	Lat 61°50'20", long 147°24'31", on left bank at Glenn Highway, and 3.5 mi northeast of Sheep Mountain.	1.09	(Listed below)	
1966	1967	1968	1969	1971
8-27-66 0.72	6-14-67 3.9	5-20-68 12	-- *39	8-10-71 430
		-- *26		

* Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi^2)	Measurements Date (Wtr yr)	Discharge (ft^3/s)
15282200 Dicks Creek	Lat 61°47'40", long 147°56'00", on left bank at mi 96.4 Glenn Highway and 31.9 mi northeast of Sutton.	47.7	(Listed below)	
	1963 7-5-63 128 1964 10-17-63 27 5-15-64 494 1964-cont 6-26-64 186 -- *1,200			
15282300 Pinochle Creek	Lat 61°47'37", long 147°55'46", on left bank at mi 96.7 Glenn Highway and 35.8 mi east of Sutton.	7.99	(Listed below)	
	1966 5-27-66 *5.8 9-29-66 3.8 1967 5-8-67 *8.7 1968 5-26-68 *17 1969 - *17 1971 -- *20			
15282400 Purritan Creek	Lat 61°48'42", long 148°08'01", in NW¼ sec.23, T.20 N., R.7 E., Matanuska-Susitna Borough, on right bank downstream from bridge at mi 89.3 Glenn Highway, and 25.2 mi northeast of Sutton.	8.51	(Listed below)	
	1963 7-3-63 7.2 -- *11 1964 6-26-64 22 -- *35 1965 8-1-65 8.4 9-7-65 *13 1966 5-19-66 8.0 6-28-66 *12 8-16-66 8.3 1967 -- *28 6-14-67 6.5 1968 5-20-68 *19 1969 5-20-69 5.0 -- *6 8-12-69 2.2 1970 5-12-70 *17 7-6-70 6.4 1971 7-7-71 15 8-10-71 *41 1971-cont 9-30-71 10 1972 5-9-72 *85 5-10-72 57 7-28-72 38 8-14-72 6.9 9-30-72 10 1973 6-5-73 9.7 6-16-73 43 1973-cont 6-16-73 *45 7-10-73 9.5 1974 5-9-74 25 5-11-74 21 -- *46 1975 5-14-75 33 -- *39 7-21-75 28			
Chickaloon River	Lat 61°47'11", long 148°27'08", in NE¼ sec.36, T.20 N., R.5 E., at bridge on Glenn Highway, 15 mi northeast of Sutton.	--	(Listed below)	
	1948 7-13-48 2,150 9-5-48 778 1949 10-1-48 498 11-9-48 184 1949-cont 5-15-49 218 8-8-49 2,090 1950 10-5-49 480 1955 7-20-55 1,930 8-19-55 770			
Kings River	Lat 61°43'58", long 148°44'52", in SW¼ sec.16, T.19 N., R.4 E., at bridge at milepost 67 on Glenn Highway, and 5 mi east of Sutton.	151	(Listed below)	
	1948 7-13-48 789 9-5-48 461 1949 10-1-48 233 11-9-48 101 4-19-49 41 1949-cont 5-15-49 118 8-19-49 637 1950 10-5-49 219 1955 7-19-55 976 1955-cont 8-19-55 333 1971 8-20-71 c 9,800			
Granite Creek	Lat 61°46'46", long 148°50'12", center sec.36, (projected), T.20 N., R.3 E., 3 mi upstream from mouth at Matanuska River, and 5 mi north of Sutton.	52.5	1971 8-10-71 c58,600	
	At Glenn Highway bridge, about 1.5 mi east of Sutton.	--	1949 7-6-49 925	
15283500 Eska Creek	Lat 61°43'44", long 148°54'31", in NE¼ sec.21, T.19 N., R.3 E., on right bank at culverts on Eska-Jonesville road, and 1.5 miles northeast of Sutton.	13.4	(Listed below)	
	1965 8-4-65 24 1966 5-19-66 7.8 6-28-66 34 -- *86 1966-cont 8-27-66 24 9-29-66 11 1967 5-20-67 29 7-25-67 67 1971 8-10-71 c 1,680 1972 5-5-72 106 8-14-72 17 9-29-72 *180 9-30-72 58 1973 6-5-73 18 6-16-73 94 -- *140 7-17-73 26 1974 5-11-74 18 -- *80 1975 5-12-75 46 5-19-75 34 6-23-75 60 7-21-75 59 9-2-75 17 9-11-75 112 9-11-75 *117			
Moose Creek	Lat 61°43'32", long 149°03'00", in NW¼ sec.23, T.19 N., R.2 E., 0.3 mi upstream from Buffalo Mine, 5 mi west of Sutton, 5.3 mi upstream from mouth at Matanuska River, and 9 mi northeast of Palmer.	40.7	1971 8-10-71 c 18,000	
Moose Creek	In NW¼ sec.2, T.18 N., R.2 E., at bridge on Glenn Highway, 0.2 mi upstream from mouth and 6 mi northeast of Palmer.	--	(Listed below)	
	1947 8-18-47 164 1948- 7-11-48 215 9-5-48 130 1949 4-19-49 14 7-6-49 71 1950 10-6-49 121 1955 7-19-55 373 8-19-55 108			
Wasilla Creek	Lat 61°38'47", long 149°11'45", in SW¼ sec.13, T.18 N., R.1 E., at culvert on Fishhook Road, and 4.1 mi northwest of Palmer.	19.3	(Listed below)	
	1954 5-23-54 4.0 1955 12-8-54 4.8 1971 8-10-71 c 700			

c Measurement of peak flow.
* Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi²)	Measurements Date (Wtr yr)	Discharge (ft³/s)
Wasilla Creek	Lat 61°36'52", long 149°14'24", in SE¼ sec.27, T.18 N., R.1 E., at bridge on Bogard Road, 1 mi north of Four Corners and 4 mi west of Palmer.	--	1948 7-14-48 1955 12-8-54	 16 7.2
Wasilla Creek	Lat 61°34'08", long 149°18'51", in NW¼ sec.17, T.17 N., R.1 E., at bridge on Wasilla-Matanuska Road, 1 mi northwest of Matanuska and 4 mi southeast of Wasilla.	--	(Listed below)	
1947 7-17-47 5-18-47	7.0 13	1948 11-7-47 4-26-48 7-14-48	 9.0 10 19	1948-cont 3-28-48 1949 5-19-49	 17 168	1949-cont 7-21-49 3-1-49	 61 76	1949-cont 9-30-49 1955 7-20-55	 71 30
Little Meadow Creek	Lat 61°34'28", long 149°40'50", in SW¼ sec.8, T.17 N., R.2 W., at outlet of Blodgett Lake, 8.1 mi southeast of Houston.	--	1975 3-13-75	 2.0
	Lat 61°34'38", long 149°43'33", in SE¼ sec.12, T.17 N., R.3 W., 190 ft downstream from former Parks Highway crossing, 2.4 mi upstream from Lucile Creek, and 5.5 mi southeast of Houston.	17	(Listed below)	
1974 1-10-74 2-8-74	 8.2 7.5	1974-cont 3-5-74 4-1-74	 6.3 17	1974-cont 7-3-74 8-22-74	 7.1 6.4	1975 12-11-74	 8.3	1975-cont 1-15-75 3-13-75	 7.5 4.4
Meadow Creek	Lat 61°33'49", long 149°39'22", in SE¼ sec.16, T.17 N., R.3 W., at crossing of road to Beaver Lake, 1.8 mi downstream from confluence of Little Meadow Creek and Lucile Creek, and 3.2 mi upstream from Big Lake.	b 41	(Listed below)	
	1974 1-10-74 2-8-74	 7.9 2.2	1974-cont 3-5-74 8-22-74	 8.8 11	1975 12-11-74 1-15-75	 13 4.1	1975-cont 3-13-75 8-6-75	 12 51
Fish Creek	Lat 61°32'03", long 149°39'30", in SE¼ sec.28, T.17 N., R.3 W., at outlet of Big Lake, and 13 mi west of Wasilla.	b 68	(Listed below)	
1971 6-29-71 1974 1-10-74	 11 26	1974-cont 2-8-74 3-5-74	 20 20	1974-cont 4-1-74 7-3-74	 19 21	1974-cont 4-22-74 1975 12-11-74	 19 29	1975-cont 1-15-75 3-13-75 8-6-75	 22 20 38
	Lat 61°26'21", long 149°47'04", in NE¼ sec.34, T.16 N., R.3 W., 150 ft upstream from bridge on Goose Bay Road, and 2.2 mi southwest of Knik.	b 100	(Listed below)	
	1974 1-10-74 2-8-74 3-5-74	 27 16 17	1974-cont 4-1-74 8-22-74	 33 27	1975 12-11-74 1-15-75 3-13-75	 43 24 27		
15289800 Fishhook Creek	Lat 61°45'05", long 149°13'40", on left bank on Fishhook Road, and 12 mi north of Palmer.	8.52	(Listed below)	
1963 6-5-63	 85	1963-cont 6-18-63 7-2-63	 70 265	1963-cont 8-5-63 8-23-63	 109 †960	1964 6-11-64 --	 111 †600	1965 -- 9-27-65	 †380 153
15291100 Raft Creek	Lat 63°03'04", long 147°16'22", in SE¼ sec.36, T.21 S., R.2 E., Matanuska-Susitna Borough, on right bank above culverts at mile 69.2 Denali Highway, and 10.7 mi southeast of Denali.	3.33	(Listed below)	
1963 -- 7-25-63 1964 10-1-63 -- 1965 -- 7-30-65	 †178 3.2 3.9 †133 †128 11	1965-cont 9-6-65 1966 10-2-65 -- 7-5-66 8-26-66 1967 6-17-67	 29 6.2 †119 10 30 23	1967-cont -- 7-22-67 8-16-67 1968 -- 1969 -- 1970	 †103 29 28 †66 †73 	1970 -- 1971 -- 1972 -- 8-23-72 1973 -- 1974	 †98 †132 †123 22 †51 	1973-cont 6-9-73 1974 6-21-74 -- 1975 6-28-75 9-5-75 9-11-75	 28 14 †69 60 5.8 †115
Susitna River	Lat 62°37'05", long 150°00'40", in SW¼ sec.10, T.29 N., R.4 W., at Curry.	--	1948 8-3-48 9-22-48	 18,000 9,790
Talkeetna River	Lat 62°19'38", long 150°06'54", in SW¼ sec.24, T.26 N., R.5 W., at Alaska Railroad bridge, 1 mi north of Talkeetna.	--	1949 8-5-49 9-21-49	 10,300 3,860
Susitna River	Lat 62°10'35", long 150°10'18", in NW¼ sec.15, T.24 N., R.5 W., at bridge on Anchorage-Fairbanks Highway, 1.5 mi downstream from Sunshine Creek, and 3 mi west of Sunshine.	b 11,500	1965 6-1-65 1971 5-27-71 7-2-71 8-10-71 8-11-71	 80,200 37,400 74,600 200,000 171,000

b Estimated; drainage area boundary is difficult to determine.
† Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi²)	Measurements Date (Wtr yr)	Discharge (ft³/s)
15292800 Montana Creek	Lat 62°06'32", long 150°03'12", in SW¼ sec.5, T.23 N., R.4 W., on right bank on Anchorage-Fairbanks Highway, and 2.1 mi north of Montana.	164	(Listed below)	
1963	1965	1967	1969-cont	1971-cont
-- †3,700	9-8-65 †3,300	6-30-67 2,860	7-25-69 504	8-9-71 5,550
6-4-63 1,450	9-14-65 599	7-19-67 †4,600	7-25-69 †820	8-10-71 †6,070
7-9-63 724	1966	7-21-67 3,500	1970	9-17-71 376
7-31-63 427	10-15-65 221	1968	6-11-70 420	1972
8-23-63 2,840	6-3-66 1,150	-- †3,500	6-29-70 987	5-23-72 637
9-26-63 181	7-13-66 754	7-24-68 200	9-12-70 †2,600	5-31-72 †2,600
1964	-- †2,200	9-11-68 199	9-18-70 478	8-11-72 182
5-28-64 572	8-22-66 613	1969	1971	9-26-72 606
6-2-64 †3,600	9-27-66 289	5-14-69 382	7-1-71 2,280	1973
6-10-64 2,140				1-12-73 169
15292900 Goose Creek	Lat 62°03'42", long 150°03'20", in NW¼ sec.29, T.23 N., R.4 W., on Anchorage-Fairbanks Highway, and 1.5 mi south of Montana.	14.5	(Listed below)	
1963	1964	1966-cont	1967-cont	1970
6-4-63 153	5-28-64 243	9-27-66 44	8-21-67 170	6-29-70 66
7-9-63 70	-- †530	1967	1968	-- †150
7-16-63 †385	6-10-64 189	5-24-67 240	-- †500	1971
7-31-63 62	1965	6-30-67 434	9-11-68 19	5-18-71 130
9-26-63 39	-- †350	-- †495	1969	7-1-71 274
	1966	7-21-67 384	7-25-69 †80	8-9-71 509
	6-3-66 109		7-25-69 67	8-10-71 †3,270
	-- †230			9-30-71 336
	9-22-66 107			
15293000 Caswell Creek	Lat 61°56'55", long 150°03'14", in SW¼ sec.32, T.22 N., R.4 W., Matanuska-Susitna Borough, upstream from culvert on Anchorage-Fairbanks Highway, and 2.3 mi south of Caswell.	19.6	(Listed below)	
1963	1965	1967	1970-cont	1973
6-5-63 55	-- †107	5-24-67 58	6-29-70 13	-- †140
7-9-63 39	9-14-65 31	6-30-67 83	-- †34	5-24-73 34
-- †85	1966	-- †105	9-16-70 32	1974
7-31-63 42	-- †120	8-21-67 66	1971	4-30-74 †46
9-26-63 28	6-3-66 44	1968	5-17-71 70	1975
1964	7-11-66 29	-- †120	7-1-71 73	5-13-75 41
5-28-64 83	8-22-66 36	9-11-68 57	8-10-71 †135	5-15-75 75
-- †107	9-27-66 24	1969	9-16-71 35	5-19-75 †155
		-- †42	1972	5-20-75 124
		7-24-69 11	5-23-72 †132	
		1970	8-9-72 23	
		3-31-70 7.7	9-26-72 31	
Deception Creek	Lat 61°45'55", long 150°02'10", in sec.5, T.19 N., R.4 W., at bridge, 0.5 mi upstream from mouth and 1.3 mi north of Willow.	--	1957 7-5-57	42
Willow Creek	Lat 61°45'55", long 150°02'50", in sec.5, T.19 N., R.4 W., at Alaska Railroad bridge, 1.3 mi north of Willow.	--	1948 7-15-48	763
			1957 7-5-57	951
	Lat 61°46'01", long 150°03'52", in NE¼ sec.6, T.19 N., R.4 W., at highway crossing, 1 mi downstream from Deception Creek, and 1.8 mi southeast of Willow.	--	1969 7-24-69	249
15294025 Moose Creek	Lat 62°19'00", long 150°26'30", Matanuska-Susitna Borough, at bridge on Petersville Road, and 10.5 mi west of Talkeetna.	52.3	(Listed below)	
1972	1973	1974	1975-cont	1975-cont
6-23-72 82	-- †1,400	4-30-74 393	5-15-75 784	6-4-75 299
8-9-72 17	8-14-73 49	-- †700	-- †1,100	6-18-75 61
8-22-72 †1,850	9-25-73 40	1975	5-20-75 579	7-18-75 46
9-26-72 171		5-13-75 620	5-22-75 572	9-23-75 259
9-30-72 1,290				
Peters Creek	Lat 62°31'57", long 150°48'27", in NE¼ sec.7, T.28 N., R.8 W., 0.1 mi downstream from Pioneer Gulch, and 3 mi northwest of Petersville.	25.4	1975 8-7-75	66
	Lat 62°23'00", long 150°43'53", in SE¼ sec.34, T.27 N., R.8 W., 0.7 mi upstream from Martin Creek and 0.7 mi northeast of Peters Creek.	53.1	1975 8-7-75	113
Beluga River	Near Lower Beluga Lake, about 60 mi west of Anchorage.	--	1950 10-2-49	5,830
	Lat 61°17'20", long 151°17'40", 3.5 mi downstream from Lower Beluga Lake.	--	1970 2-18-70	449
	Lat 61°12'32", long 151°09'36", 1.5 mi upstream from Coffee Creek.	--	1970 3-27-70	408
Capps Creek	Lat 61°19'46", long 151°37'26", in SW¼ sec.4, T.14 N., R.13 W., 0.5 mi upstream from mouth, and 24 mi northwest of Tyonek.	11.8	1975 8-14-75	49

† Maximum for year determined from high-water mark and rating analysis.

Stream	Location	Drainage area (mi^2)	Measurements Date (Wtr yr)	Measurements Discharge (ft^3/s)
Bishop Creek	Lat 61°18'23", long 151°30'27", in NW¼ sec.18, T.11 N., R.12 W., 3 mi west of Bishop Lake, and 21 mi northwest of Tyonek	10.9	1975 8-14-75	59
Chuitna River	Lat 61°11'52", long 151°39'20", in SW¼ sec.20, T.13 N., R.13 W., 0.2 mi downstream from Wolverine Fork, and 20 mi northwest of Tyonek.	19.5	1975 8-14-75	68
Chuit Creek	Lat 61°12'44", long 151°33'54", in SW¼ sec.14, T.13 N., R.13 W., 5.4 mi upstream from mouth and 17 mi northwest of Tyonek.	9.80	1975 8-14-75	35
Chuit Creek	Lat 61°10'19", long 151°31'12", in SE¼ sec.36, T.13 N., R.13 W., 1.6 mi upstream from mouth, and 15 mi northwest of Tyonek.	12.4	1975 8-14-75	75
15294450 Chuitna River	Lat 61°06'31", long 151°15'07", in NE¼ sec.29, T.12 N., R.11 W., 2.5 mi downstream from Lone Creek and 5 mi northwest of Tyonek.	131	1975 8-14-75	387
McArthur River	Lat 60°58'52", long 151°49'21", 5.5 mi upstream from mouth.	--	1970 2-25-70	1,500
Drift River	Lat 60°37'29", long 152°11'36", 3.5 mi upstream from mouth.	--	1970 2-25-70	320

SECTION 3

SEEPAGE INVESTIGATIONS

NORTH FORK CAMPBELL CREEK SEEPAGE INVESTIGATIONS

Two series of discharge measurements were made during the 1971 water year, on Nov. 17, 1970 and May 26, 1971, on the North Fork of Campbell Creek in the Anchorage bowl to study channel gains and losses. The reach is 3.5 mi (5.6 km) in length and extends from the mountain front to Campbell Field Road (Stuckagain Heights Road). The measurements were made during periods of constant flow. Indicated gains or losses may be substantially in error as affected by small inaccuracies in open-channel measurements.

DATE	MILES UPSTREAM FROM MOUTH	LOCATION	DISCHARGE, IN CUBIC FEET PER SECOND: MEAS. DISCH.	GAIN OR LOSS
11-17-70	6.0	SE¼ sec.31 in canyon at mountain front.....	13.7	---
11-17-70	5.0	SW¼ sec.31 at tank trail crossing.....	11.6	-2.1
11-17-70	4.2	SE¼ sec.36.....	7.01	-4.59
11-17-70	3.8	NW¼ sec.36.....	9.44	+2.43
		Overall net gain or loss		-4.26
5-26-71	6.0	SE¼ sec.31 in canyon at mountain front.....	4.28	---
5-26-71	5.0	SW¼ sec.31 at tank trail crossing.....	4.70	+.42
5-26-71	3.8	NW¼ sec.36.....	4.75	+.05
5-26-71	2.5	SW¼ sec.35 at Campbell Field road.....	5.71	+.96
		Overall net gain or loss		+1.43

SHIP CREEK SEEPAGE INVESTIGATIONS

Many series of discharge measurements were made during the water years 1960 to 1975 in the lower reaches of Ship Creek in the Anchorage bowl to study channel gains and losses. The entire reach is 10.3 mi (16.9 km) in length and extends from the gaging station Ship Creek near Anchorage (15276000) to the C Street bridge crossing 0.2 mi (0.3 km) upstream from the mouth. The measurements were made during periods of relatively constant flow. Indicated gains or losses may be substantially in error as affected by small inaccuracies in open-channel measurements.

SHIP CREEK MILE	LOCATION (abbreviated)	MEAS. DISCH. ft^3/s	GAIN OR LOSS	MEAS. DISCH. ft^3/s	GAIN OR LOSS	MEAS. DISCH. ft^3/s	GAIN OR LOSS	MEAS. DISCH. ft^3/s	GAIN OR LOSS	MEAS. DISCH. ft^3/s	GAIN OR LOSS
		Apr. 26, 1960		Oct. 26, 1960		Apr. 13, 1961		May 3, 1961		Sept. 10, 1968	
10.5	Gage: 15276000	26.8		179		28.4		38.1		92.0	
10.0	Brdg blw divr dam	---		---		---		---		---	
9.1	Golf driving rng	---		---		---		---		---	
9.0	Recharge divr	---		---		---		---		---	
8.1	Glenn Hwy brdg	26.8	0.0	---		28.9	+0.5	---		87.7	-4.3
7.7	2.8 mi dwnst	---		---		---		---		---	
7.4	Cooling Pd-Ft Rich	---		---		---		---		82.8	-4.9
7.2	¼ mi dwnst N Fk	22.7	-4.1	178	-1	---		---		---	
5.9	1 mi upst Boniface	---		172	-6	19.2	-9.7	---		---	
4.9	Old Glenn Hwy brdg	20.4	-2.3	---		---		26.7	-11.4	---	
4.3	Gage: 15276500	---		---		---		---		75.0	-7.8
3.0	Abv Pwr Plt divr	---		---		---		---		---	
2.8	200 ft dwnst dam	---		---		---		---		---	
1.9	Gage: 15276570	---		---		---		---		---	
1.5	Post Rd	44.6	+24.2	186	+14	---		47.3	+20.6	97.4	+22.4
1.0	250 ft dwnst ARR	---		---		---		---		---	
0.2	C Street	44.6	0.0	193	+7	40.8	+21.6	---		99.8	+2.4
		Nov. 8, 1968		Nov. 15, 1968		Jan. 3, 1969		Jan. 30, 1969		Mar. 26, 1969	
10.5	Gage: 15276000	a28		a19		a16		16.3		15.0	
10.0	Brdg blw divr dam	---		---		---		---		---	
9.1	Golf driving rng	---		---		---		---		---	
9.0	Recharge divr	---		---		---		---		---	
8.1	Glenn Hwy brdg	---		---		---		---		---	
7.7	2.8 mi dwnst	---		---		---		---		---	
7.4	Cooling Pd-Ft Rich	---		---		---		---		---	
7.2	¼ mi dwnst N Fk	---		---		---		---		---	
5.9	1 mi upst Boniface	---		---		---		---		---	
4.9	Old Glenn Hwy brdg	---		---		---		---		---	
4.3	Gage: 15276500	17.6	-10	2.75	-16	2.29	-14	1.41	-14.9	1.27	-11.7
3.0	Abv Pwr Plt divr	---		---		---		---		---	
2.8	200 ft dwnst dam	---		---		---		---		---	
1.9	Gage: 15276570	---		---		---		---		---	
1.5	Post Rd	41.6	+24.0	24.1	+21.8	21.3	+19.0	23.3	+21.9	19.9	+18.6
1.0	250 ft dwnst ARR	---		---		---		---		---	
0.2	C Street	---		---		---		---		---	
		May 7, 1969		Apr. 3, 1970		Feb. 23, 1972		May 18, 1972 (AM)		May 18, 1972 (PM)	
10.5	Gage: 15276000	18.8		10.9		9.71		50.9		53.0	
10.0	Brdg blw divr dam	---		---		---		50.1	-0.8	50.5	-2.5
9.1	Golf driving rng	---		---		---		50.9	+0.8	52.1	+1.6
9.0	Recharge divr	---		---		---		---		---	
8.1	Glenn Hwy brdg	---		---		---		49.6	-1.3	49.4	-2.7
7.7	2.8 mi dwnst	---		---		---		---		---	
7.4	Cooling Pd-Ft Rich	---		---		---		---		---	
7.2	¼ mi dwnst N Fk	---		---		---		---		---	
5.9	1 mi upst Boniface	---		---		---		---		---	
4.9	Old Glenn Hwy brdg	---		---		---		---		---	
4.3	Gage: 15276500	11.3	-7.5	1.35	-9.5	2.39	-7.32	---		37.5	-11.9
3.0	Abv Pwr Plt divr	---		---		---		---		---	
2.8	200 ft dwnst dam	---		---		---		---		---	
1.9	Gage: 15276570	---		---		---		---		---	
1.5	Post Rd	32.8	+21.5	20.7	+19.3	18.7	+16.3	---		---	
1.0	250 ft dwnst ARR	---		---		---		---		---	
0.2	C Street	---		---		---		---		---	

SHIP CREEK SEEPAGE INVESTIGATIONS - continued

SHIP CREEK MILE	LOCATION (abbreviated)	MEAS. DISCH. ft³/s	GAIN OR LOSS	MEAS. DISCH. ft³/s	GAIN OR LOSS	MEAS. DISCH. ft³/s	GAIN OR LOSS	MEAS. DISCH. ft³/s	GAIN OR LOSS
		May 24, 1972		Jan. 31, 1973		Jan. 7, 1974		May 6, 1974	
10.5	Gage: 15276000	70.3		a16		20.9		29.1	
10.0	Brdg blw divr dam	67.7	2.6	---		---		---	
9.1	Golf driving rng	67.3	-0.4	---		---		---	
9.0	Recharge divr	---		---		---		28.8	-0.3
8.1	Glenn Hwy brdg	65.4	-1.9	---		---		---	
7.7	2.8 mi dwnst	---		---		---		---	
7.4	Cooling Pd-Ft Rich	---		---		---		---	
7.2	¼ mi dwnst N Fk	---		---		---		---	
6.9	1 mi upst Boniface	---		---		---		---	
4.9	Old Glenn Hwy brdg	---		---		---		---	
4.5	Gage: 15276500	---		4.67	-11	5.96	17.8	13.9	-14.9
3.0	Abv Pwr Plt divr	---		---		---		---	
2.8	200 ft dwnst dam	---		---		---		---	
1.9	Gage: 15276570	---		28.6	+23.9	26.8	+22.9	55.8	+21.9
1.5	Post Rd	---		---		---		---	
1.0	250 ft dwnst ARR	---		---		---		---	
0.2	C Street	---		---		---		---	

a Mean daily discharge.

October 11, 1974

SHIP CREEK MILE	STREAM	LOCATION	MEAS. DISCH. INFLOW ft³/s	MEAS. DISCH. MAIN STEM ft³/s	GAIN OR LOSS ft³/s
10.5	Ship Creek	NW¼NE¼NE¼ sec.10, T.13 N., R.2 W., gaging station 15276000	---	76.4	---
9.0	diversion	NE¼NW¼SE¼ sec.8, T.13 N., R.2 W., diversion to recharge pit	-6.20	---	---
9.0	Ship Creek	NE¼NW¼SE¼ sec.8, T.13 N., R.2 W., 10 ft blw diversion to recharge pit	---	67.0	-3.2
7.7	....do....	SW¼NE¼SW¼ sec.6, T.13 N., R.2 W., 200 ft above fish hatchery dam at Fort Richardson power plant	---	60.1	-6.9
7.5	tributary	NW¼NW¼SW¼ sec.6, T.13 N., R.2 W., ground water pumped from wells at hatchery, discharged to stream	5.8	---	---
7.4	Ship Creek	NW¼NW¼SW¼ sec.6, T.13 N., R.2 W., 1,300 ft blw fish hatchery dam.	---	65.3	-0.6
5.9	....do....	NW¼SE¼SE¼ sec.2, T.13 N., R.3 W., 1.0 mi upstream from Boniface Parkway bridge	---	59.8	-5.5
4.5	....do....	NW¼NW¼NE¼ sec.10, T.13 N., R.3 W., discontinued gaging station 15276500	---	54.7	-5.1
4.2	tributary	SE¼NE¼NW¼ sec.10, T.13 N., R.3 W., 600 ft blw discontinued gaging station 15276500	e0.9	---	---
3.0	Ship Creek	SE¼SE¼NW¼ sec.9, T.13 N., R.3 W., 500 ft above Elmendorf AFB power plant dam	---	67.1	+11.5
3.0	tributary	SE¼SE¼NW¼ sec.9, T.13 N., R.3 W., 300 ft above Elmendorf AFB power plant dam	e0.2	---	---
2.8	Ship Creek	NW¼NE¼SW¼ sec.9, T.13 N., R.3 W., 200 ft blw Elmendorf AFB power plant dam	---	67.1	-0.2
2.8	tributary	NW¼NE¼SW¼ sec.9, T.13 N., R.3 W., 300 ft blw Elmendorf AFB power plant dam	e0.7	---	---
2.8	tributary	NW¼NE¼SW¼ sec.9, T.13 N., R.3 W., pipe discharging to stream 350 ft blw power plant dam	e0.5	---	---
2.2	tributary	SE¼SE¼SE¼ sec.8, T.13 N., R.3 W.	e0.3	---	---
2.0	Ship Creek	SE¼SW¼SE¼ sec.8, T.13 N., R.3 W., gaging station 15276570	---	73.4	+4.8
1.0	....do....	NW¼NW¼NW¼ sec.17, T.13 N., R.3 W., 250 ft blw Alaska Railroad bridge	---	80.3	+6.9

e Estimated

EAGLE RIVER SEEPAGE INVESTIGATIONS

Two series of discharge measurements were made on the Eagle River near Eagle River, Alaska to study channel gains and losses. The first series was made Apr. 29, 1970 in a reach 3.5 mi (5.6 km) in length extending from the gaging station Eagle River at Eagle River (15277100) to a road crossing 3.2 mi (5.1 km) upstream from the mouth. The second series was made May 8, 1974 in a reach 31.5 mi (50.7 km) in length extending from near the terminus of Eagle Glacier to a road crossing 3.2 mi (5.1 km) upstream from the mouth. The measurements were made during periods of constant flow. Indicated gains or losses may be substantially in error as affected by small inaccuracies in open-channel measurements.

DISCHARGE, IN CUBIC FEET PER SECOND

EAGLE RIVER MILE	STREAM	LOCATION	INFLOW	MAIN STEM	GAIN OR LOSS
Apr. 29, 1970					
6.5	Eagle River	SW¼NW¼NW¼ sec.13, T.14 N., R.2 W., gaging station 15277100.....	-	78.5	--
4.2	....do.....	SW¼SE¼NW¼ sec.10, T.14 N., R.2 W., b/w Alaska Railroad bridge...	---	76.4	-2.1
3.2	....do.....	NW¼NW¼NW¼ sec.17, T.14 N., R.2 W., at road crossing.....	---	79.1	+2.7
		Overall net gain or loss			+0.6
May 8, 1974					
34.7	Eagle River	SE¼NW¼NW¼ sec.15, T.12 N., R.2 E., lake outlet at terminus.....	--	24.1	---
33.5	tributary	SE¼NW¼NE¼ sec.9, T.12 N., R.2 E., at mouth.....	e4.5	---	---
33.0	tributary	NW¼SE¼SW¼ sec.4, T.12 N., R.2 E., at mouth.....	e.5	---	---
32.6	Raven Creek	NW¼NE¼NE¼ sec.8, T.12 N., R.2 E., at mouth.....	22.4	---	---
29.3	Eagle River	SW¼SE¼SW¼ sec.25, T.13 N., R.1 E.	---	63.1	+11.6
25.5	tributary	SW¼SW¼NW¼ sec.25, T.13 N., R.1 E., at mouth...	e1.0	---	---
24.2	Eagle River	SW¼SW¼NE¼ sec.16, T.13 N., R.1 E.	---	76.7	+12.6
19.0	....do.....	SE¼NW¼NW¼ sec.36, T.14 N., R.1 W.	-	75.7	-1.0
17.8	tributary	NW¼NE¼NE¼ sec.26, T.14 N., R.1 W., at mouth.....	7[illegible].8	---	---
13.2	South Fork	SW¼SW¼SW¼ sec.16, T.14 N., R.1 W., 500 ft above mouth.....	12.[illegible]	--	---
13.1	Eagle River	NW¼SW¼SW¼ sec.16, T.14 N., R.1 W., 130 ft above mouth S Fk... ..	---	156.6	-10.4
9.5	....do.....	SW¼NW¼NW¼ sec.13, T.14 N., R.2 W., gaging station 15277100.....	---	153.2	-3.4
7.9	Meadow Creek	NE¼NW¼NE¼ sec.14, T.14 N., R.2 W., at mouth.....	e1.5	---	---
6.2	Eagle River	SW¼SE¼NW¼ sec.10, T.14 N., R.2 W., b/w Alaska Railroad bridge...	---	136.8	+2.1
3.2	....do.....	NW¼NW¼NW¼ sec.17, T.14 N., R.2 W., at road crossing..	---	144.0	+7.2
		Overall net gain or loss			-18.5

e Estimated

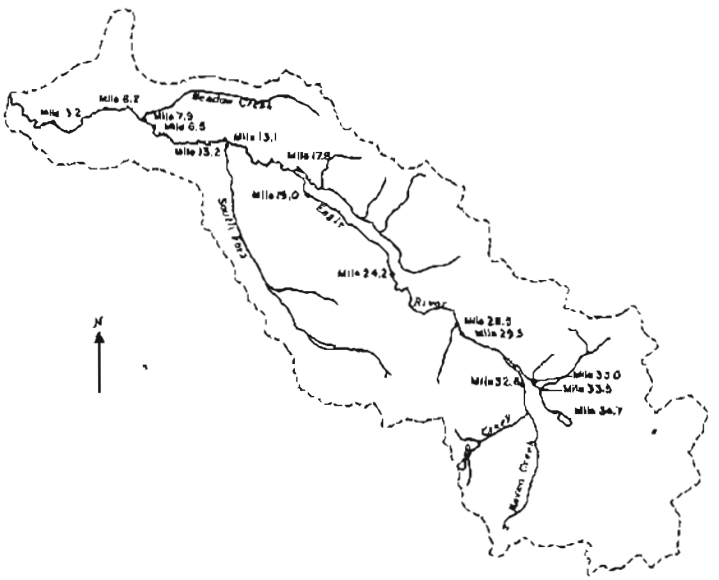


Figure 2.--Location of discharge measurement sites in the Eagle River Drainage Basin.

MEADOW CREEK SEEPAGE INVESTIGATION

Two discharge measurements were made on July 1, 1974 on Meadow Creek near Eagle River, Alaska to study channel gains and losses. The reach is 1.5 mi (2.4 km) in length and extends from near the apex of an alluvial fan at the mountain front to the mouth of Meadow Creek. The measurements were made during a period of constant flow. Indicated loss may be substantially in error as affected by small inaccuracies in open-channel measurements.

DISCHARGE, IN CUBIC FEET PER SECOND

MEADOW CREEK MILE	LOCATION	MEAS. DISCH.	GAIN OR LOSS
1.5	NE¼NW¼NW¼ sec.7, T.14 N., R.1 W., 1,000 ft above crest-stage gage 15277200....	8.75	---
0.04	SW¼SE¼SE¼ sec.31, T.14 N., R.2 W., 200 ft above mouth at Eagle River.....	6.87	-1.88