

Water-Data Report 2012

## 15514000 CHENA RIVER AT FAIRBANKS, AK

Tanana River Basin  
Chena River Subbasin

LOCATION.--Lat 64°50'45", long 147°42'04" referenced to North American Datum of 1927, in NW ¼ sec.11, T.1 S., R.1 W., Fairbanks North Star Borough, AK, Hydrologic Unit 19040506, (Fairbanks D-2 quad), on right bank 100 ft downstream from Steese Highway Bridge, 800 ft upstream from Wendell Street bridge, 0.3 mi upstream from Noyes Slough, 11 mi upstream from mouth, and 11 mi downstream from Chena Slough.

DRAINAGE AREA.--1,995 mi<sup>2</sup>.

### **SURFACE-WATER RECORDS**

PERIOD OF RECORD.--July 1947 to September 1948 (no winter records), October 1948 to current year.

GAGE.--Water-stage recorder and supplementary gage. Datum of gage is 428.02 ft NAVD88. Supplementary gage, Chena River at Lathrop Street (15514003), 1.6 mi downstream on left bank, used during winter period. See WSP 1936 and 2136 for history of changes prior to April 27, 1968.

REMARKS.--Records are good except for estimated daily discharges, which are fair. Regulation during high-flow periods began July 9, 1981 at Moose Creek Dam 31.8 mi upstream. Flows were not regulated this year. GOES satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods occurred in early May 1905 and 1911, late August 1930, and May 11-14, 1937. See WDR AK-90-1 for more information.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**  
**DAILY MEAN VALUES**  
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,980	e600	e540	e480	e360	e330	e280	2,810	3,680	1,490	1,510	1,830
2	1,930	e610	e540	e480	e350	e320	e290	2,610	3,060	1,500	1,450	1,750
3	1,890	e570	e530	e480	e340	e320	e290	2,320	3,250	1,490	1,400	1,740
4	1,840	e520	e530	e470	e340	e320	e290	1,990	3,440	1,570	1,360	1,760
5	1,800	e550	e520	e470	e340	e320	e290	1,800	3,010	1,670	1,360	1,720
6	1,770	e590	e520	e470	e330	e320	e290	1,670	2,910	1,780	1,370	1,690
7	1,720	e630	e530	e460	e330	e320	e300	1,610	2,780	1,850	1,360	1,680
8	1,680	e660	e530	e450	e330	e310	e300	1,680	2,660	1,780	1,330	1,760
9	1,630	e690	e530	e440	e330	e310	e310	1,810	2,560	1,720	1,300	1,880
10	1,580	e730	e540	e430	e330	e310	e310	1,910	2,550	1,610	1,270	1,860
11	1,550	e740	e540	e430	e330	e310	e320	1,870	2,630	1,510	1,230	1,800
12	1,500	e750	e550	e430	e330	e300	e330	1,830	2,590	1,440	1,210	1,740
13	1,440	e760	e560	e420	e330	e300	e350	1,840	2,440	1,410	1,170	1,680
14	e1,300	e770	e570	e420	e330	e300	e370	1,880	2,270	1,390	1,140	1,620
15	1,340	e750	e570	e420	e330	e300	e400	1,870	2,200	1,340	1,110	1,570
16	1,370	e720	e560	e410	e330	e300	e460	1,780	2,180	1,290	1,090	1,530
17	1,370	e690	e560	e410	e340	e300	e600	1,660	2,090	1,250	1,060	1,480
18	1,350	e660	e560	e410	e340	e300	e1,000	1,590	1,970	1,230	1,030	1,430
19	1,320	e650	e560	e410	e340	e300	e1,300	1,590	1,890	1,270	1,020	1,400
20	1,250	e640	e560	e410	e330	e300	e1,500	1,620	1,830	1,320	999	1,370
21	e1,040	e620	e560	e400	e330	e290	e1,900	1,630	1,740	1,820	984	1,360
22	e900	e630	e560	e400	e330	e290	e2,300	1,640	1,640	2,850	968	1,380
23	e790	e630	e560	e390	e330	e290	e2,800	1,680	1,560	2,650	987	1,410
24	e820	e620	e550	e390	e330	e290	e3,100	1,780	1,480	2,380	987	1,400
25	e840	e610	e540	e380	e330	e280	e3,700	2,030	1,440	2,220	985	1,380
26	e810	e600	e530	e380	e330	e280	3,340	2,430	1,420	2,130	1,010	1,370
27	e780	e590	e520	e380	e330	e280	3,210	5,430	1,380	2,010	1,090	1,360
28	e750	e580	e510	e370	e330	e280	3,060	5,470	1,370	1,880	1,270	1,340
29	e700	e560	e500	e370	e330	e280	2,910	6,380	1,370	1,760	1,760	1,320
30	e660	e550	e490	e370	---	e280	2,820	7,030	1,390	1,670	2,020	1,290
31	e610	---	e490	e370	---	e280	---	4,990	---	1,580	1,940	---
<b>Total</b>	40,310	19,270	16,710	13,000	9,680	9,310	38,720	78,230	66,780	52,860	38,770	46,900
<b>Mean</b>	1,300	642	539	419	334	300	1,291	2,524	2,226	1,705	1,251	1,563
<b>Max</b>	1,980	770	570	480	360	330	3,700	7,030	3,680	2,850	2,020	1,880
<b>Min</b>	610	520	490	370	330	280	280	1,590	1,370	1,230	968	1,290
<b>Med</b>	1,350	630	540	410	330	300	430	1,840	2,190	1,610	1,210	1,550
<b>Ac-ft</b>	79,950	38,220	33,140	25,790	19,200	18,470	76,800	155,200	132,500	104,800	76,900	93,030
<b>Cfsm</b>	0.65	0.32	0.27	0.21	0.17	0.15	0.65	1.26	1.12	0.85	0.63	0.78
<b>In.</b>	0.75	0.36	0.31	0.24	0.18	0.17	0.72	1.46	1.25	0.99	0.72	0.87

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2012, BY WATER YEAR (WY)#**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	1,191	596	452	344	285	261	497	3,477	2,454	2,039	2,432	2,144
<b>Max</b>	2,413	1,231	922	595	509	445	1,406	10,250	6,721	6,133	13,120	5,735
<b>(WY)</b>	(1962)	(1994)	(1994)	(1987)	(1968)	(1968)	(1993)	(1948)	(1949)	(1949)	(1967)	(1962)
<b>Min</b>	461	297	194	163	120	120	209	1,050	816	665	682	615
<b>(WY)</b>	(1967)	(1959)	(1977)	(1977)	(1953)	(1958)	(1977)	(1998)	(1969)	(1958)	(1957)	(1957)

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SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1948 - 2012 <sup>#</sup>	
<b>Annual total</b>	516,340		430,540			
<b>Annual mean</b>	1,415		1,176		1,336	
<b>Highest annual mean</b>					2,603	1962
<b>Lowest annual mean</b>					713	1958
<b>Highest daily mean</b>	7,840	Jul 6	7,030	May 30	64,600	Aug 15, 1967
<b>Lowest daily mean</b>	180	Mar 13	280	Mar 25	<sup>a</sup> 120	Feb 1, 1953
<b>Annual seven-day minimum</b>	180	Mar 13	280	Mar 25	120	Feb 1, 1953
<b>Maximum peak flow</b>			7,330	May 30	74,400	Aug 15, 1967
<b>Maximum peak stage</b>			7.20	May 30	<sup>b</sup> 18.82	Aug 15, 1967
<b>Annual runoff (ac-ft)</b>	1,024,000		854,000		967,600	
<b>Annual runoff (cfsm)</b>	0.709		0.590		0.669	
<b>Annual runoff (inches)</b>	9.63		8.03		9.10	
<b>10 percent exceeds</b>	3,140		2,210		3,000	
<b>50 percent exceeds</b>	780		987		725	
<b>90 percent exceeds</b>	200		320		240	

<sup>#</sup> See Period of Record; partial year used in monthly statistics

<sup>a</sup> Monthly means published for Feb. 1953 and Mar. 1958

<sup>b</sup> Site then in use

