

05385000 ROOT RIVER NEAR HOUSTON, MN

LOCATION.--43°46'07", long 91°34'11", in SW¹/₄NW¹/₄ sec. 33, T.104 N., R.6 W., Houston County, Hydrologic Unit 07040008, on right bank 0.2 mi north of Houston and 1.6 mi upstream from South Fork and 18.2 mi upstream from mouth.

DRAINAGE AREA.--1,250 mi².

PERIOD OF RECORD.--May 1909 to September 1917, May to November 1929, March 1930 to 1983, 1991 to September 2000, January 2004 to current year. Operated as high-flow partial-record station October 1983 to September 1990 and October 2000 to December 2003. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1508: 1911-12. WSP 1628: 1948(P).

GAGE.--Water-stage recorder. Datum of gage is 667.00 ft above sea level (NGVD of 1929). May 28, 1909 to Sept. 30, 1917, nonrecording gage at site 1.3 mi downstream at different datum. May 4, 1929 to Sept. 27, 1933, nonrecording gage and Sept. 28, 1933 to June 26, 1980, recording gage at site 0.9 mi upstream at datum 671.86 ft.

REMARKS.--Records good to fair except those for estimated daily discharges, which are fair to poor. Slight diurnal fluctuation at low flows caused by power plant upstream.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	857	746	694	e735	e600	668	2,350	995	919	851	969	617
2	876	780	678	e730	e620	631	1,870	975	878	811	882	582
3	862	785	695	e710	e700	611	1,580	931	852	756	827	555
4	818	799	693	e675	e800	631	1,400	903	833	734	780	585
5	787	816	692	e660	1,180	747	1,290	876	832	710	728	593
6	764	821	703	e630	5,100	1,140	1,220	874	817	681	689	580
7	747	806	710	e615	6,740	1,770	1,170	850	795	655	677	569
8	763	782	712	e600	2,310	1,420	1,130	847	825	642	664	560
9	740	760	721	e580	1,530	1,020	1,110	847	1,010	623	630	561
10	722	741	771	e575	1,220	867	1,080	834	967	608	663	551
11	708	730	817	e560	1,050	799	1,070	826	1,140	589	676	550
12	693	714	848	e550	970	736	1,070	838	1,360	577	813	558
13	682	698	864	e545	1,160	673	1,120	897	1,170	561	818	586
14	680	682	798	e540	5,160	639	1,220	941	1,090	552	763	659
15	676	679	759	e530	4,960	627	1,210	1,020	1,030	540	726	573
16	673	678	832	e510	3,130	609	1,140	1,050	984	544	678	559
17	666	679	851	e500	1,770	600	1,110	1,030	935	517	641	545
18	660	678	826	e490	1,290	622	1,090	1,010	882	521	639	530
19	653	691	713	e500	1,120	614	1,100	1,130	839	527	667	537
20	642	735	617	e510	1,060	595	1,390	1,390	799	533	702	551
21	634	728	e560	e520	961	585	1,710	1,510	788	606	695	515
22	628	737	e530	e540	873	574	1,660	1,410	784	678	704	501
23	634	748	e500	e540	817	565	1,500	1,320	740	708	705	486
24	628	757	e510	e540	777	570	1,370	1,250	723	693	658	480
25	620	749	e530	e540	752	593	1,290	1,190	723	625	628	952
26	616	737	e570	e540	739	671	1,230	1,140	736	2,000	626	3,230
27	622	756	e660	e540	708	1,010	1,170	1,110	779	2,550	679	5,220
28	620	769	e730	e545	689	3,400	1,110	1,080	776	1,850	707	2,900
29	648	756	e751	e550	---	8,170	1,060	1,040	906	1,460	725	2,190
30	707	732	e760	e560	---	7,770	1,020	1,000	898	1,220	699	1,910
31	753	---	e755	e570	---	3,960	---	958	---	1,050	654	---
TOTAL	21,779	22,269	21,850	17,730	48,786	43,887	38,840	32,072	26,810	25,972	22,112	29,785
MEAN	703	742	705	572	1,742	1,416	1,295	1,035	894	838	713	993
MAX	876	821	864	735	6,740	8,170	2,350	1,510	1,360	2,550	969	5,220
MIN	616	678	500	490	600	565	1,020	826	723	517	626	480
AC-FT	43,200	44,170	43,340	35,170	96,770	87,050	77,040	63,610	53,180	51,520	43,860	59,080
CFSM	0.56	0.59	0.56	0.46	1.39	1.13	1.04	0.83	0.71	0.67	0.57	0.79
IN.	0.65	0.66	0.65	0.53	1.45	1.31	1.16	0.95	0.80	0.77	0.66	0.89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2005, BY WATER YEAR (WY)

MEAN	524	523	439	415	516	1,396	1,193	848	970	841	668	601
MAX	1,465	1,494	1,671	1,152	1,742	3,512	4,963	2,440	4,389	3,252	2,257	2,105
(WY)	(1974)	(1983)	(1992)	(1973)	(2005)	(1961)	(1965)	(1973)	(2000)	(1978)	(1993)	(1938)
MIN	193	218	189	172	168	251	274	234	261	236	231	243
(WY)	(1934)	(1934)	(1934)	(1959)	(1959)	(1931)	(1931)	(1934)	(1934)	(1964)	(1958)	(1933)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1910 - 2005	
ANNUAL TOTAL	378,307		351,892		747	
ANNUAL MEAN	1,034		964		294	
HIGHEST ANNUAL MEAN					1,590	1993
LOWEST ANNUAL MEAN					294	1931
HIGHEST DAILY MEAN	17,800	Sep 17	8,170	Mar 29	31,100	Apr 1, 1952
LOWEST DAILY MEAN	285	Jan 30	480	Sep 24	82	Nov 28, 1937
ANNUAL SEVEN-DAY MINIMUM	299	Jan 29	509	Jan 15	113	Dec 25, 1933
MAXIMUM PEAK FLOW			9,770	Feb 6	37,000	Apr 1, 1952
MAXIMUM PEAK STAGE			13.34	Feb 6	a18.32	Mar 2, 1965
INSTANTANEOUS LOW FLOW			472	Sep 24	b65	Dec 26, 1933
ANNUAL RUNOFF (AC-FT)	750,400		698,000		541,400	
ANNUAL RUNOFF (CFSM)	0.827		0.771		0.598	
ANNUAL RUNOFF (INCHES)	11.26		10.47		8.12	
10 PERCENT EXCEEDS	1,750		1,340		1,340	
50 PERCENT EXCEEDS	692		739		480	
90 PERCENT EXCEEDS	360		551		264	

a Backwater from ice.
 b Also occurred Feb. 25, 1935.
 c Estimated.

