

**RED RIVER OF THE NORTH BASIN**

**05050000 BOIS DE SIOUX RIVER NEAR WHITE ROCK, SD**

LOCATION.--Lat 45° 51'45", long 96° 34'25", in SW¼SW¼ sec. 27, T.128 N., R.47 W., Roberts County, Hydrologic Unit 09020101, on Sisseton Indian Reservation, on left bank just downstream from Big Slough Outlet, 300 ft downstream from White Rock Dam, 4 mi south of White Rock, SD and 5 mi northwest of Wheaton.

DRAINAGE AREA.--1,160 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 960.00 ft, adjustment of 1912 (levels by U.S. Army Corps of Engineers). Prior to Jan. 14, 1943, nonrecording gage at same site at datum 0.11 ft lower. Jan. 15, 1943 to Sept. 30, 1963, water-stage recorder at same site at datum 0.11 ft lower.

REMARKS.--Records fair, except those for estimated period which are poor. Flow regulated by Lake Traverse-Bois de Sioux Flood Control and Water Conservation project..

**DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997**

**DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
1	.15	8.5	e8.8	e21	e64	e320	e440	e2490	1070
102	1.3	2.7							
2	.13	5.7	e9.2	e22	e65	e320	e520	e1980	971
108	1.9	2.6							
3	.19	4.3	e9.6	e23	e65	e315	e530	e1940	918
138	1.3	2.4							
4	.28	4.3	e9.8	e24	e66	e310	e540	e1840	1040
191	.86	2.3							
5	.49	4.1	e10	e25	e66	e300	e545	e1780	1030
190	.79	1.9							
6	.22	5.1	e10	e27	e67	e355	e550	e1750	1010
187	15	1.7							
7	.18	4.8	e10	e29	e67	e365	e560	e1720	995
165	15	1.2							
8	.16	4.3	e10	e29	e68	e365	e570	e1630	978
133	14	1.2							
9	.15	4.2	e10	e32	e68	e365	e580	e1560	960
104	6.1	.89							
10	.14	6.0	e10	e33	e69	e360	e2300	e1520	939
77	3.5	.65							

11	.25	4.1	e11	e35	e70	e350	e4560	e1480	918
56	2.8	.67							
12	.28	3.6	e11	e36	e71	e340	e5160	e1450	898
19	1.5	1.5							
13	.40	3.1	e11	e38	e72	e360	e5620	e1430	803
18	1.1	.39							
14	.41	3.0	e11	e40	e73	e400	e6280	e1430	696
18	.93	.23							
15	.34	2.9	e12	e41	e132	e415	e7220	1400	695
19	1.8	.52							
16	.29	3.1	e13	e44	e135	e410	e7710	1390	609
16	1.4	1.1							
17	1.3	3.5	e13	e45	e140	e405	e7630	1370	593
15	1.1	.99							
18	2.9	3.1	e14	e47	e140	e400	e7520	1370	453
13	1.7	.54							
19	3.0	3.6	e14	e48	e180	e395	e7450	1330	380
12	7.9	.54							
20	2.7	4.1	e14	e50	e185	e320	e7300	1340	372
14	17	.61							
21	2.3	4.8	e15	e51	e245	e325	e6550	1360	363
10	17	.61							
22	1.7	4.9	e15	e52	e250	e240	e5750	1280	334
5.0	15	.47							
23	1.5	5.6	e15	e53	e255	e240	e4830	1150	284
4.1	11	.55							
24	1.3	5.7	e16	e54	e260	e240	e4250	1130	238
2.9	8.2	.81							
25	1.2	6.1	e16	e55	e320	e240	e3740	1120	232
4.2	6.9	.42							
26	1.5	6.4	e17	e57	e320	e240	e3560	1110	165
4.3	3.4	.46							
27	3.6	6.4	e17	e58	e320	e240	e3240	1100	103
3.5	1.9	.55							
28	2.4	6.6	e18	e60	e320	e240	e3100	1090	104
3.0	2.2	.84							
29	3.6	7.1	e19	e61	---	e240	e3000	1090	104
2.3	3.3	.33							
30	16	e8.0	e20	e62	---	e350	e2820	1080	103
4.8	2.6	.21							
31	10	---	e20	e63	---	e340	---	1080	---
6.9	2.2	---							
TOTAL	59.06	147.0	409.4	1315	4153	10105	114425	44790	18358
1646.0	170.68	29.88							
MEAN	1.91	4.90	13.2	42.4	148	326	3814	1445	612
53.1	5.51	1.00							
MAX	16	8.5	20	63	320	415	7710	2490	1070
191	17	2.7							
MIN	.13	2.9	8.8	21	64	240	440	1080	103
2.3	.79	.21							
AC-FT	117	292	812	2610	8240	20040	227000	88840	36410

3260	339	59							
CFSM	.00	.00	.01	.04	.13	.28	3.29	1.25	.53
.05	.00	.00							
IN.	.00	.00	.01	.04	.13	.32	3.67	1.44	.59
.05	.01	.00							

- e Estimated

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1997, BY WATER YEAR (WY)**

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	30.5	16.9	5.40	3.45	6.16	48.0	310	307	249
161	71.2	35.2							
MAX	535	307	57.5	42.4	148	628	3814	1445	1103
1035	1182	1062							
(WY)	1994	1996	1985	1997	1997	1996	1997	1997	1986
1962	1993	1993							
MIN	.000	.000	.000	.000	.000	.000	.000	.23	.010
.000	.000	.000							
(WY)	1942	1942	1942	1942	1942	1942	1942	1977	1977
1961	1970	1960							

<i>SUMMARY STATISTICS</i>	<i>FOR 1996 CALENDAR YEAR</i>	<i>FOR 1997 WATER YEAR</i>	<i>WATER YEARS 1942 - 1997</i>
ANNUAL TOTAL	74450.27	195608.02	
ANNUAL MEAN	203	536	
104a			
HIGHEST ANNUAL MEAN			
536	1997		
LOWEST ANNUAL MEAN			
.38	1977		
HIGHEST DAILY MEAN	1210	May 18	7710 Apr 16
7710	Apr 16	1997	
LOWEST DAILY MEAN	.13	Oct 2	.13 Oct 2
.00b	Oct 1	1941	
ANNUAL SEVEN-DAY MIN	.19	Sep 27	.20 Oct 6
.00	Oct 1	1941	
INSTANTANEOUS PEAK FLOW			8750c Apr 20
8750c	Apr 20	1997	
INSTANTANEOUS PEAK STAGE			16.90c Apr 20
16.90c	Apr 20	1997	
INSTANTANEOUS LOW FLOW			.12 Oct 2
.00	Oct 1	1941	
ANNUAL RUNOFF (AC-FT)	147700		388000
75220			
ANNUAL RUNOFF (CFSM)	.18		.46
.090			
ANNUAL RUNOFF (INCHES)	2.39		6.27
1.22			

10 PERCENT EXCEEDS	727	1390	338
50 PERCENT EXCEEDS	9.6	33	2.6
90 PERCENT EXCEEDS	.42	.88	.00

- a Median of annual mean discharges is 56 ft<sup>3</sup>/s.

b Many days, several years.

c Discharge determined based on observer readings, which are 'fair'. Some evidence suggests peak occurred on Apr. 16 (discharge, 7930 ft<sup>3</sup>/s).