

## 05074500 RED LAKE RIVER NEAR RED LAKE, MN

LOCATION.--Lat 47°57'27", long 95°16'35", in SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T.152 N., R.36 W., Clearwater County, Hydrologic Unit 09020302, on Red Lake Indian Reservation, on left bank 50 ft downstream from dam outlet at outlet of Lower Red Lake, and 13 mi northwest of city of Red Lake.

DRAINAGE AREA.--1,950 mi<sup>2</sup> (approximately).

PERIOD OF RECORD.--May 1933 to September 1994 (monthly discharge only for May 1933, published in WSP 1308), October 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,100.00 ft above sea level, adjustment of 1912 (levels by U.S. Army Corps of Engineers). Prior to Sept. 7, 1934, nonrecording gage at site 50 ft upstream at datum 69.00 ft higher. Sept. 7, 1934 to Nov. 26, 1951, water-stage recorder at present site at datum 69.00 ft higher. Nov. 27, 1951 to Sept. 30, 1986, water-stage recorder at present site at datum 67.00 ft higher.

REMARKS.--Records poor. Flow completely regulated by outlet dam on Lower Red Lake.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	824	765	e405	e215	e145	e120	105	90	75	94	87	96
2	828	776	e405	e180	e144	e120	96	89	71	96	87	94
3	816	788	e405	e165	e144	e120	83	87	71	97	84	91
4	817	808	e405	e165	e143	e120	142	84	69	96	82	95
5	791	820	e405	e165	e143	e120	105	85	68	94	85	94
6	821	810	e405	e165	e143	e120	89	76	67	96	85	98
7	786	767	e405	e160	e143	e120	84	62	63	103	82	99
8	782	545	e405	e160	e142	e120	89	64	67	100	82	98
9	789	e530	e405	e160	e141	e120	93	65	70	100	82	95
10	792	e520	e405	e160	e140	e120	95	68	73	104	83	92
11	783	e505	e406	e160	e139	e120	93	73	69	107	78	78
12	729	495	e405	e160	e128	e120	88	72	66	105	76	83
13	714	e495	e405	e160	e126	e120	94	68	68	104	48	88
14	720	e500	e405	e160	e124	e120	96	68	66	106	37	80
15	722	e495	e405	e160	e123	e120	94	70	64	104	34	85
16	715	e495	e405	e160	e122	e122	81	70	64	99	37	88
17	715	e495	e405	e158	e122	e124	90	72	69	86	39	91
18	732	e495	e400	e155	e121	e126	89	72	72	76	58	96
19	744	e495	e400	e145	e121	e128	90	86	70	79	98	87
20	737	498	e390	e145	e121	e128	101	83	67	87	108	93
21	747	434	e380	e145	e121	e130	100	76	64	87	107	95
22	753	318	e340	e145	e121	e130	92	76	63	85	104	89
23	754	332	e290	e145	e120	e130	90	76	63	87	113	88
24	763	e400	e285	e145	e120	e123	90	76	67	82	108	77
25	768	e400	e280	e145	e120	116	87	79	95	82	110	76
26	781	e400	e280	e145	e120	99	90	81	98	86	112	80
27	783	e405	e285	e145	e120	99	116	84	90	84	113	82
28	794	e405	e285	e145	e120	104	106	86	89	85	109	84
29	810	e400	e280	e145	---	109	92	85	93	85	98	80
30	781	e405	e280	e145	---	102	93	85	94	88	95	74
31	778	---	e260	e145	---	103	---	81	---	87	90	---
TOTAL	23,869	15,996	11,321	4,853	3,637	3,673	2,853	2,389	2,185	2,871	2,611	2,646
MEAN	770	533	365	157	130	118	95.1	77.1	72.8	92.6	84.2	88.2
MAX	828	820	406	215	145	130	142	90	98	107	113	99
MIN	714	318	260	145	120	99	81	62	63	76	34	74
AC-FT	47,340	31,730	22,460	9,630	7,210	7,290	5,660	4,740	4,330	5,690	5,180	5,250
CFSM	0.39	0.27	0.19	0.08	0.07	0.06	0.05	0.04	0.04	0.05	0.04	0.05
IN.	0.46	0.31	0.22	0.09	0.07	0.07	0.05	0.05	0.04	0.05	0.05	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2003, BY WATER YEAR (WY)

MEAN	492	492	475	479	473	442	360	498	569	540	478	472
MAX	2,071	1,765	1,498	1,418	1,342	1,396	1,357	1,624	2,025	1,840	1,464	1,712
(WY)	(1951)	(2000)	(1951)	(1951)	(1951)	(1951)	(2000)	(1950)	(1950)	(1950)	(1975)	(1950)
MIN	5.10	3.57	0.95	0.35	0.40	0.60	4.00	0.60	2.15	4.63	2.73	1.61
(WY)	(1934)	(1934)	(1934)	(1934)	(1934)	(1936)	(1936)	(1933)	(1933)	(1934)	(1936)	(1934)

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1933 - 2003	
ANNUAL TOTAL	290,853		78,904			
ANNUAL MEAN	797		216		484	
HIGHEST ANNUAL MEAN					1,292	1951
LOWEST ANNUAL MEAN					5.55	1936
HIGHEST DAILY MEAN	1,290	Apr 21	828	Oct 2	2,240	Oct 6, 1950
LOWEST DAILY MEAN	150	Jul 11	34	Aug 15	a0.00	Sep 19, 1933
ANNUAL SEVEN-DAY MINIMUM	279	Dec 25	47	Aug 12	0.00	Sep 1, 1934
MAXIMUM PEAK FLOW			b858	Oct 1	3,600	Jun 25, 1950
MAXIMUM PEAK STAGE			b72.85	Oct 1	78.19	Jun 25, 1950
ANNUAL RUNOFF (AC-FT)	576,900		156,500		350,700	
ANNUAL RUNOFF (CFSM)	0.41		0.11		0.25	
ANNUAL RUNOFF (INCHES)	5.55		1.51		3.37	
10 PERCENT EXCEEDS	1,140		715		1,020	
50 PERCENT EXCEEDS	755		109		420	
90 PERCENT EXCEEDS	405		72		42	

a Many days in 1933, 1934 and 1936.  
 b Falling stage.  
 c Estimated.

