05316500 REDWOOD RIVER NEAR REDWOOD FALLS, MN

Minnesota Basin
Redwood Subbasin

LOCATION.--Lat 44°31′25″, long 95°10′20″ referenced to North American Datum of 1927, in SE ¼ NE ¼ sec.9, T.112 N., R.36 W., Redwood County, MN, Hydrologic Unit 07020006, on right bank 4 ft upstream from highway bridge, 3 mi west of town of Redwood Falls, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--629 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1909 to September 1914 (no winter records except 1911-12). August 1930 to September 1935 (no winter records), October 1935 to current year.

REVISED RECORDS.--WDR MN-89-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 972.33 ft above sea level (NGVD of 1929). July 1909 to September 1914, non-recording gage at bridge 20 ft downstream at datum 0.22 ft lower. August 1930 to Oct. 25, 1949, non-recording gage, at bridge 20 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair to poor. Natural discharge affected by unknown amount of interbasin flow between Yellow Medicine, Redwood, and Cottonwood River Basins during extreme floods.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar 24	0700	974	4.56

Minimum discharge, 7.6 ft³/s, Nov. 20, gage height, 1.41 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	25	44	49	e28	e26	e35	267	163	e54	75	26	12
2	22	41	47	e27	e26	e35	255	162	e51	67	25	11
3	19	42	44	e27	e25	e35	243	159	e50	61	28	11
4	17	42	e42	e27	e25	e37	233	147	e47	60	24	11
5	18	40	e39	e27	e25	e38	222	146	e46	61	21	11
6	18	44	e37	e27	e25	e40	215	145	e47	56	18	11
7	33	50	e35	e26	e25	e46	216	142	e53	53	21	11
8	84	73	e33	e26	e25	e69	205	140	e70	65	23	11
9	66	80	e31	e26	e26	e99	206	148	e94	115	24	10
10	50	68	e30	e26	e41	e101	199	171	e121	119	21	10
11	44	66	e29	e26	e63	e94	193	174	e141	144	18	10
12	39	64	e28	e26	e54	e82	187	174	e151	141	17	14
13	35	64	e30	e26	e54	e82	184	173	e155	125	17	18
14	32	67	e29	e26	e56	e94	177	161	e149	109	20	15
15	30	71	e29	e25	e56	e149	173	152	e125	97	e18	13
16	29	72	e29	e25	e59	e300	169	150	e117	86	e17	11
17	28	73	e29	e25	e56	e394	166	140	e115	78	e19	9.8
18	28	56	e29	e26	e54	e358	162	e135	e127	73	e21	9.1
19	27	72	e29	e26	e52	e353	163	e120	152	68	25	9.0
20	27	45	e29	e26	e49	e402	163	e105	167	61	30	8.9
21	24	52	e29	e25	e49	e463	162	e95	148	58	24	8.5
22	29	65	e28	e25	e51	e559	159	e91	132	55	25	8.5
23	43	63	e29	e24	e50	e728	150	e87	121	49	23	8.5
24	89	67	e28	e24	e44	926	146	e82	114	45	18	8.6
25	83	62	e29	e24	e41	767	139	e76	113	41	17	11
26	79	57	e29	e24	e38	615	134	e72	108	37	15	14
27	68	55	e29	e24	e36	488	141	e66	99	34	15	26
28	57	55	e28	e24	e35	399	143	e68	90	30	16	33
29	54	53	e28	e24	---	346	145	e67	84	27	14	32
30	53	54	e28	e24	---	310	159	e62	79	26	13	29
31	48	---	e27	e25	---	283	---	e57	---	26	13	---
Total	1,298	1,757	989	791	1,166	8,727	5,476	3,830	3,120	2,142	626	405.9
Mean	41.9	58.6	31.9	25.5	41.6	282	183	124	104	69.1	20.2	13.5
Max	89	80	49	28	63	926	267	174	167	144	30	33
Min	17	40	27	24	25	35	134	57	46	26	13	8.5
Ac-ft	2,570	3,490	1,960	1,570	2,310	17,310	10,860	7,600	6,190	4,250	1,240	805
Cfsm	0.07	0.09	0.05	0.04	0.07	0.45	0.29	0.20	0.17	0.11	0.03	0.02
In.	0.08	0.10	0.06	0.05	0.07	0.52	0.32	0.23	0.18	0.13	0.04	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	60.5	62.0	40.6	22.2	27.7	238	459	246	274	146	75.1	50.0
Max	509	541	245	222	250	1,289	2,880	1,530	2,724	1,994	934	673
(WY)	(1996)	(1980)	(1983)	(2006)	(2006)	(1983)	(1969)	(1993)	(1993)	(1993)	(1993)	(1986)
Min	0.84	0.96	0.46	0.19	0.20	1.54	14.6	2.75	1.01	0.44	0.51	0.31
(WY)	(1937)	(1936)	(1936)	(1940)	(1937)	(1965)	(1934)	(1934)	(1934)	(1934)	(1934)	(1976)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1909 - 2009	
Annual total	59,142		30,327.9			
Annual mean	162		83.1		[a]155	
Highest annual mean					789	1993
Lowest annual mean					10.8	1959
Highest daily mean	1,170	Jun 13	926	Mar 24	13,200	Apr 9, 1969
Lowest daily mean	15	Sep 24	[b]8.5	Sep 21	[c]0.00	Jan 17, 1940
Annual seven-day minimum	15	Sep 23	8.7	Sep 18	0.01	Jan 25, 1940
Maximum peak flow			[d]974	Mar 24	19,700	Jun 18, 1957
Maximum peak stage			[e]4.91	Mar 23	18.01	Mar 29, 1997
Instantaneous low flow			[f]7.6	Nov 20	[c]0.00	Jan 17, 1940
Annual runoff (ac-ft)	117,300		60,160		112,000	
Annual runoff (cfsm)	0.257		0.132		0.246	
Annual runoff (inches)	3.50		1.79		3.34	
10 percent exceeds	570		168		370	
50 percent exceeds	55		48		37	
90 percent exceeds	25		18		3.0	

[a] Median of annual mean discharges is 110 ft³/s.

[b] Also occurred Sept. 22 and Sept. 23.

[c] Many days in 1940 and 1959.

[d] Gage height, 4.56 ft.

[e] Backwater from ice.

[f] Result of freezeup.