Water-Data Report 2008

05425500 ROCK RIVER AT WATERTOWN, WI

Rock Basin
Upper Rock Subbasin

LOCATION.--Lat 43°11′17″, long 88°43′34″ referenced to North American Datum of 1927, in NE ¼ SW ¼ sec.4, T.8 N., R.15 E., Jefferson County, WI, Hydrologic Unit 07090001, on left bank, 700 ft downstream from Milwaukee Street bridge, 1.1 mi downstream from Silver Creek, at Watertown.

DRAINAGE AREA.--969 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1931 to September 1970, October 1976 to current year; June to September 1914, daily gage heights available only in District files. Several 1914 water year discharges published in WSP 385.

REVISED RECORDS.--WSP 1438: 1933,1935(M), 1937(M), 1938-39, 1945(M); WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 792.58 ft above NGVD of 1929. Prior to Sept. 26, 1933, nonrecording gage at site 700 ft upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow partly regulated by powerplant at Watertown. Gage-height telemeter at station.

05425500 ROCK RIVER AT WATERTOWN, WI—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	296	326	e220	e550	e960	e800	3,310	2,980	379	3,770	334	156
2	304	279	e210	e530	e910	e800	3,300	2,910	385	3,630	312	140
3	323	227	e210	e500	e860	e1,100	3,240	2,840	383	3,510	315	127
4	330	260	e210	e480	e830	e1,200	3,210	2,770	379	3,380	347	188
5	326	254	e210	e450	e780	e1,200	3,160	2,680	656	3,240	364	261
6	318	232	e210	e490	e740	e1,200	3,080	2,580	969	3,090	399	362
7	298	129	e210	e700	e700	e1,200	2,980	2,500	1,330	3,160	449	336
8	255	219	e220	e1,200	e710	e1,200	2,950	2,370	4,090	3,340	500	285
9	247	227	e220	e1,600	e720	e1,200	3,250	2,310	5,870	3,110	555	178
10	226	226	e230	1,750	e730	1,220	3,330	2,220	4,210	2,930	573	170
11	256	219	e230	1,730	e740	1,220	4,010	2,120	3,910	3,230	601	204
12	268	205	e230	1,830	e740	1,270	3,880	2,000	4,820	3,450	533	234
13	264	193	e230	e1,800	e740	1,450	3,710	1,860	7,250	3,260	498	296
14	242	203	e220	e1,800	e730	1,800	3,660	1,600	6,880	2,960	472	285
15	221	214	e220	e1,500	e720	1,960	3,670	1,540	6,880	2,740	417	333
16	302	220	e220	e1,400	e710	1,870	3,630	1,360	6,820	2,580	315	386
17	285	241	e220	e1,400	e720	1,870	3,550	1,180	6,700	2,430	301	457
18	426	230	e230	e1,300	e730	1,900	3,480	947	6,520	2,260	288	450
19	453	226	e240	e1,300	e750	2,030	3,380	838	6,290	2,130	325	402
20	469	221	e250	e1,300	e780	2,210	3,260	734	5,880	1,920	359	362
21	471	241	e250	e1,200	e820	2,430	3,150	661	5,640	1,770	324	303
22	460	247	e270	e1,200	e820	2,290	3,050	611	5,410	1,620	286	239
23	427	260	e400	e1,200	e820	2,430	2,940	570	5,200	1,450	243	227
24	444	255	e460	e1,100	e810	2,500	2,840	529	5,000	1,400	240	254
25	469	235	e500	e1,100	e810	2,560	3,190	483	4,790	1,310	239	279
26	460	208	e530	e1,100	e810	2,810	3,650	450	4,560	1,220	233	270
27	443	207	e550	e1,100	e810	2,890	3,360	420	4,360	1,120	235	252
28	431	227	e570	e1,000	e810	2,880	3,200	412	4,190	976	227	228
29	384	194	e570	e1,000	e810	2,880	3,120	396	4,040	778	198	186
30	368	e220	e570	e1,000	---	2,960	3,060	405	3,910	560	185	185
31	363	---	e570	e990	---	3,120	---	383	---	364	160	---
Total	10,829	6,845	9,680	35,600	22,620	58,450	99,600	45,659	127,701	72,688	10,827	8,035
Mean	349	228	312	1,148	780	1,885	3,320	1,473	4,257	2,345	349	268
Max	471	326	570	1,830	960	3,120	4,010	2,980	7,250	3,770	601	457
Min	221	129	210	450	700	800	2,840	383	379	364	160	127
Cfsm	0.36	0.24	0.32	1.19	0.80	1.95	3.43	1.52	4.39	2.42	0.36	0.28
In.	0.42	0.26	0.37	1.37	0.87	2.24	3.82	1.75	4.90	2.79	0.42	0.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2008, BY WATER YEAR (WY)

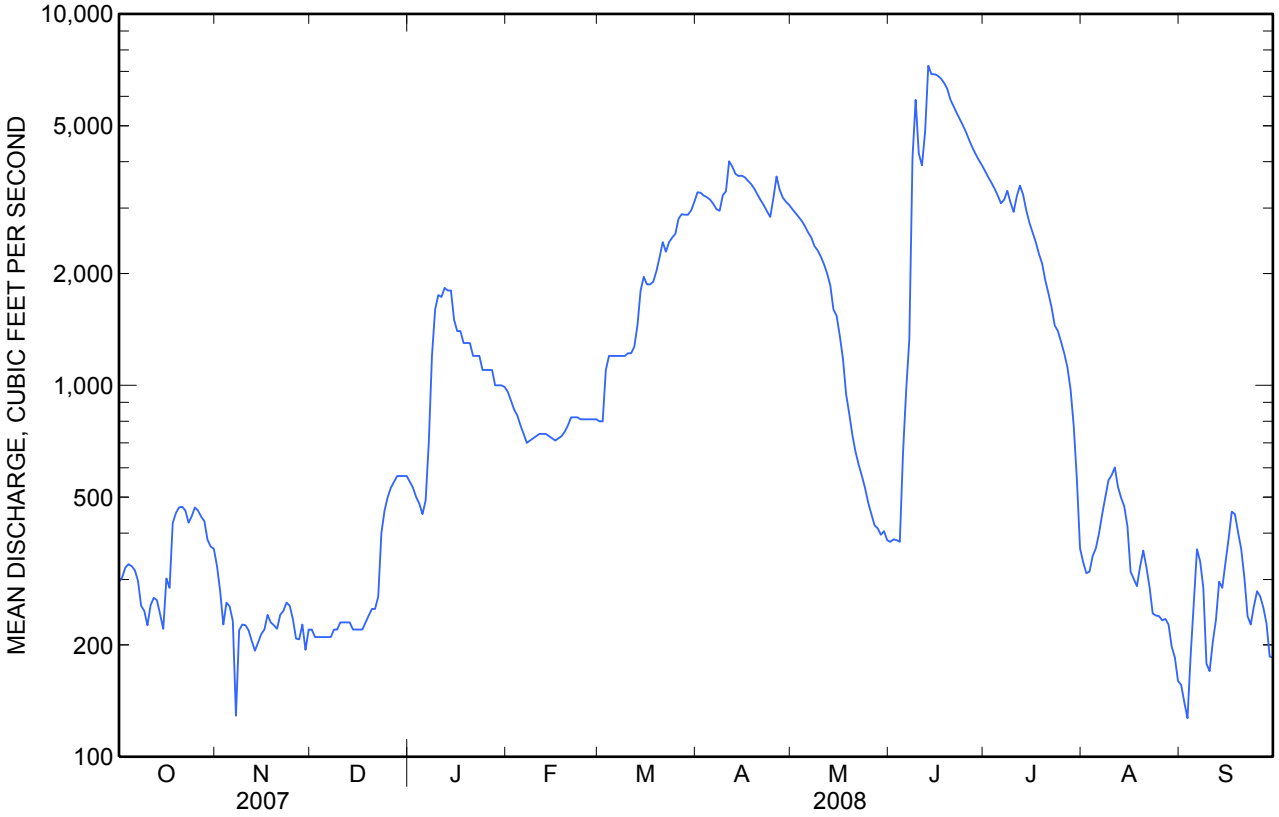
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	332	407	342	303	376	979	1,327	766	564	387	259	260
Max	2,981	2,034	1,148	1,148	1,627	2,448	3,875	2,634	4,257	2,345	1,540	1,552
(WY)	(1987)	(1986)	(1986)	(2008)	(1938)	(1985)	(1979)	(1993)	(2008)	(2008)	(1960)	(1986)
Min	11.6	27.2	22.3	20.4	29.8	114	192	58.2	23.6	19.4	8.42	3.60
(WY)	(1964)	(1964)	(1938)	(1940)	(1936)	(1964)	(1964)	(1958)	(1931)	(1936)	(1934)	(1932)

05425500 ROCK RIVER AT WATERTOWN, WI—Continued

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1931 - 2008	
Annual total	253,852		508,534			
Annual mean	695		1,389		527	
Highest annual mean					1,389	2008
Lowest annual mean					64.5	1964
Highest daily mean	3,200	Apr 4	7,250	Jun 13	7,250	Jun 13, 2008
Lowest daily mean	57	Jul 24	127	Sep 3	0.90	Oct 15, 1939[a]
Annual seven-day minimum	76	Jul 19	165	Aug 29	1.1	Sep 15, 1932
Maximum peak flow			7,600	Jun 13	7,600	Jun 13, 2008
Maximum peak stage			7.81	Jun 13	7.81	Jun 13, 2008
Annual runoff (cfsm)	0.718		1.43		0.544	
Annual runoff (inches)	9.75		19.52		7.39	
10 percent exceeds	1,980		3,400		1,370	
50 percent exceeds	304		720		279	
90 percent exceeds	150		220		42	

[a] Also occurred Sept. 9, 1944.



WATER-QUALITY RECORDS

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 7

[Remark codes: <, less than; M, presence verified but not quantified.]

Date	Time	Instantaneous discharge, ft3/s (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat unf by analysis, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L as P (00665)	1-Methylnaphthalene, water, unfltrd µg/L (81696)
Jun													
14...	1540	6,710	6.1	7.7	350	21.9	.054	.83	.063	1.89	.188	.321	<.2
30...	1515	3,890	6.1	7.1	478	22.8	.129	.09	.027	1.26	.277	.37	<.2

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 7

[Remark codes: <, less than; M, presence verified but not quantified.]

Date	2,6-Dimethylnaphthalene, water, unfltrd µg/L (62805)	2-Methylnaphthalene, water, unfltrd µg/L (30194)	3,4-Dichlorophenyl isocyanate wat unf µg/L (63145)	3-beta-Coprostanol, water, unfltrd µg/L (62806)	3-Methyl-1H-indole, water, unfltrd µg/L (62807)	3-tert-Butyl-4-hydroxyanisole wat unf µg/L (61702)	4-Cumylphenol, water, unfltrd µg/L (62808)	4-n-Octylphenol, water, unfltrd µg/L (62809)	4-Nonylphenol, all isomers wat unf µg/L (62829)	4-Nonylphenol diethoxylate, wat unf µg/L (61703)	4-Nonylphenol monoethoxylate, wat unf µg/L (61704)	4t-Octylphenol diethoxylate, wat flt µg/L (61705)	4t-Octylphenol monoethoxylate, wat flt µg/L (61706)
Jun													
14...	<.2	<.2	<2.0	<.8	<.2	<.2	<.2	<.2	<2	<3	<2.0	<.32	<1
30...	<.2	<.2	<2.0	<.8	<.2	<.2	<.2	<.2	<2	<3	<2.0	<.32	<1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 7

[Remark codes: <, less than; M, presence verified but not quantified.]

Date	4-tert-Octylphenol, water, unfltrd µg/L (62810)	5-Methyl-1H-benzotriazole, wat unf µg/L (61944)	Acetophenone water, unfltrd µg/L (62811)	AHTN, water, unfltrd µg/L (62812)	Anthracene, water, unfltrd µg/L (34220)	9,10-Anthraquinone water, unfltrd µg/L (62813)	Atrazine, water, unfltrd µg/L (39630)	BDE congenr 47, water, unfltrd µg/L (63147)	Benzo[a]pyrene, water, unfltrd µg/L (34247)	Benzophenone water, unfltrd µg/L (62814)	beta-Sitosterol, water, unfltrd µg/L (62815)	beta-Stigmastanol, water, unfltrd µg/L (61948)	Bis(2-ethylhexyl) phthalate, wat unf µg/L (39100)
Jun													
14...	<.2	<2	<.3	<.2	<.2	<.2	2.2	<.2	<.2	<.2	<2	<2	<2
30...	<.2	<2	<.3	<.2	<.2	<.2	1.6	<.2	<.2	<.2	<.8	<.8	<2

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 4 of 7
[Remark codes: <, less than; M, presence verified but not quantified.]

Date	Bisphenol A, water, unfltrd µg/L (62816)	Bisphenol A -d3, surrog, water, unfltrd % recvy (62839)	Bromacil, water, unfltrd µg/L (30234)	Caffeine, water, unfltrd µg/L (81436)	Caffeine -13C, surrog, water, unfltrd % recvy (62840)	Camphor water, unfltrd µg/L (62817)	Carbaryl, water, unfltrd µg/L (39750)	Carbazole, water, unfltrd µg/L (77571)	Chlorpyrifos water, unfltrd µg/L (38932)	Cholesterol, water, unfltrd µg/L (62818)	Cotinine, water, unfltrd µg/L (61945)	Decafluorobiphenyl, surrog, wat unf % recvy (62841)	DEET, water, unfltrd µg/L (61947)
Jun													
14...	<.4	77.6	<.2	<.2	54.6	<.2	<.2	<.2	<.2	<.8	<.8	56.9	<.2
30...	<.4	68.2	<.2	<.2	75.3	<.2	<.2	<.2	<.2	M	<.8	60.8	<.2

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 5 of 7
[Remark codes: <, less than; M, presence verified but not quantified.]

Date	Diazinon, water, unfltrd µg/L (39570)	Dichlorvos, water, unfltrd µg/L (30218)	Diethyl phthalate, water, unfltrd µg/L (34336)	D-Limonene, water, unfltrd µg/L (62819)	Fluoranthene water, unfltrd µg/L (34376)	Fluoranthene -d10, surrog, water, unflt % recvy (62842)	HHCB, water, unfltrd µg/L (62823)	Indole, water, unfltrd µg/L (62824)	Isoborneol, water, unfltrd µg/L (62825)	Isophorone water, unfltrd µg/L (34408)	Isoquinoline, water, unfltrd µg/L (62826)	Menthol water, unfltrd µg/L (62827)	Metalaxyl, water, unfltrd µg/L (04254)
Jun													
14...	<.2	<.2	1.3	<.2	<.2	67.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2
30...	<.2	<.2	<.2	<.2	<.2	81.5	<.2	<.2	<.2	<.2	<.2	<.2	<.2

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 6 of 7
[Remark codes: <, less than; M, presence verified but not quantified.]

Date	Methyl salicylate, water, unfltrd µg/L (62828)	Metolachlor, water, unfltrd µg/L (82612)	p-Cresol, water, unfltrd µg/L (77146)	Pentachlorophenol, water, unfltrd µg/L (39032)	Phenanthrene, water, unfltrd µg/L (34461)	Phenol, water, unfltrd µg/L (34694)	Prometon, water, unfltrd µg/L (39056)	Pyrene, water, unfltrd µg/L (34469)	Tributyl phosphate, water, unfltrd µg/L (62832)	Triclosan, water, unfltrd µg/L (61708)	Triethyl citrate water, unfltrd µg/L (62833)	Triphenyl phosphate, water, unfltrd µg/L (62834)	Tris(2-butoxyethyl) phosphate, wat unf µg/L (62830)
Jun													
14...	<.2	2.4	<.2	<.8	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2
30...	<.2	1.2	<.2	<.8	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2

05425500 ROCK RIVER AT WATERTOWN, WI—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 7 of 7
[Remark codes: <, less than; M, presence verified but not quantified.]

Date	Tris(2-chloro-ethyl) phos-phate, wat unf µg/L (62831)	Tris-(diCl-i-Pr) phos-phate, wat unf µg/L (61707)	1,4-Di-chloro-benzene water, unfltrd µg/L (34571)	Tri-bromo-methane water, unfltrd µg/L (32104)	Iso-propyl-benzene water, unfltrd µg/L (77223)	Naphth-alene, water, unfltrd µg/L (34696)	Tetra-chloro-ethene, water, unfltrd µg/L (34475)	Sam-pling method, code (82398)
Jun								
14...	<.2	<.2	<.2	<.2	<.2	<.2	<.4	--
30...	<.2	<.2	<.2	<.2	<.2	<.2	<.4	70