

Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Watershed Mapper Projection.

ROCK RIVER BASIN

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05423500 SOUTH BRANCH ROCK RIVER AT WAUPUN, WI

516

LOCATION.--Lat 43°38'30", long 88°43'14", in SW ¼ NW ¼ sec.33, T.14 N., R.15 E., Fond du Lac County, Hydrologic Unit 07090001, on left bank 260 ft upstream from U.S. Business Route 151 at Waupun, and 2.8 mi upstream from mouth.

DRAINAGE AREA.--63.6 mi².

PERIOD OF RECORD.--October 1948 to September 1969. March 1987 to current year. Monthly discharge for October and November 1948 published in WSP 1308, but unpublished daily discharges available for October to November 1948.

REVISED RECORDS.--WDR WI-88-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 863.46 ft above NGVD of 1929. October 1948 to September 1969, recording gage at site 150 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	5.8	39	e23	e12	174	95	42	576	108	32	19
2	2.3	8.3	34	e26	e10	320	86	38	477	91	29	18
3	5.4	19	35	e24	e10	267	78	36	398	81	30	16
4	2.7	136	32	e19	e10	203	72	34	334	79	32	15
5	2.6	56	31	e22	e9.7	413	67	32	274	75	28	14
6	2.6	38	27	e27	e9.9	428	65	31	233	83	26	18
7	3.5	29	26	e18	e9.9	338	61	30	201	79	24	14
8	3.1	24	26	e14	e9.3	231	58	60	166	79	24	13
9	3.5	19	29	e12	e9.4	184	55	95	265	81	33	12
10	3.2	16	69	e12	e9.4	147	52	104	696	78	27	11
11	3.7	15	61	e12	e9.1	125	50	94	1,080	71	25	11
12	3.8	15	51	e13	e9.0	86	48	80	945	66	24	10
13	3.1	13	40	e13	e9.8	86	45	148	654	65	22	9.9
14	5.2	13	34	e13	e10	88	44	117	533	61	21	9.5
15	3.3	13	31	e12	e9.9	73	42	107	469	57	20	14
16	3.1	12	32	e12	e9.9	67	44	85	424	51	23	10
17	3.1	12	29	e12	e9.4	66	43	74	479	47	38	9.2
18	3.5	19	28	e11	e9.1	64	61	70	455	43	34	7.7
19	3.0	18	24	e12	e9.0	62	58	62	399	41	33	7.4
20	3.4	17	25	e16	e11	81	59	312	350	39	28	7.0
21	2.1	15	23	e14	e9.9	76	84	336	306	37	26	8.4
22	2.8	14	23	e12	e9.3	69	75	542	264	36	24	7.0
23	2.9	132	23	e13	e11	65	65	662	233	32	22	6.1
24	3.8	111	20	e9.9	e11	69	59	701	278	30	21	5.7
25	4.4	83	21	e9.7	e11	78	62	568	275	30	21	5.5
26	4.1	71	19	e9.1	e13	127	58	480	243	28	19	5.3
27	6.1	61	19	e9.1	e14	118	53	405	203	27	29	5.5
28	6.7	54	32	e9.9	22	123	50	345	190	26	23	5.6
29	4.7	47	34	e13	56	166	46	311	159	25	22	5.3
30	4.9	44	31	e18	---	136	43	385	132	33	21	5.6
31	4.7	---	29	e15	---	111	---	624	---	27	20	---
TOTAL	113.4	1,130.1	977	455.7	353.0	4,641	1,778	7,010	11,691	1,706	801	305.7
MEAN	3.66	37.7	31.5	14.7	12.2	150	59.3	226	390	55.0	25.8	10.2
MAX	6.7	136	69	27	56	428	95	701	1,080	108	38	19
MIN	2.1	5.8	19	9.1	9.0	62	42	30	132	25	19	5.3
CFSM	0.06	0.59	0.50	0.23	0.19	2.35	0.93	3.56	6.13	0.87	0.41	0.16
IN.	0.07	0.66	0.57	0.27	0.21	2.71	1.04	4.10	6.84	1.00	0.47	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

	17.0	20.8	16.2	11.6	17.8	66.7	71.7	40.4	40.0	29.1	16.7	14.4
MEAN	17.0	20.8	16.2	11.6	17.8	66.7	71.7	40.4	40.0	29.1	16.7	14.4
MAX	90.9	106	80.0	64.6	105	176	266	226	390	246	115	76.2
(WY)	(1996)	(1962)	(1966)	(1996)	(1966)	(1952)	(1993)	(2004)	(2004)	(1993)	(1960)	(1960)
MIN	0.63	0.53	0.16	0.09	0.08	5.40	7.80	3.54	1.36	0.95	0.56	0.55
(WY)	(1965)	(1965)	(1959)	(1959)	(1959)	(1964)	(1964)	(1958)	(1964)	(1964)	(1964)	(1963)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1949 - 2004

ANNUAL TOTAL	4,581.80	30,901.0	
ANNUAL MEAN	12.6	84.4	30.4
HIGHEST ANNUAL MEAN			94.1
LOWEST ANNUAL MEAN			2.47
HIGHEST DAILY MEAN	136	Nov 4	1,080
LOWEST DAILY MEAN	0.60	Sep 7	2.1
ANNUAL SEVEN-DAY MINIMUM	(b)0.81	Feb 23	3.0
MAXIMUM PEAK FLOW			1,120
MAXIMUM PEAK STAGE			8.20
INSTANTANEOUS LOW FLOW			1.4
ANNUAL RUNOFF (CFSM)	0.197		1.33
ANNUAL RUNOFF (INCHES)	2.68		18.07
10 PERCENT EXCEEDS	30		266
50 PERCENT EXCEEDS	5.8		29
90 PERCENT EXCEEDS	1.7		5.8

(a) Many days in 1958-59, 1963-64

(c) Also occurred in 1959

(e) Estimated due to ice effect or missing record

(b) Ice affected

(d) From rating curve extended above 650 ft³/s; gage height, 7.97 ft

(f) No flow at times in 1949, 1953-54, 1958-59, 1963-64

05424057 ROCK RIVER AT HORICON, WI

LOCATION.--Lat 43°27'01", long 88°37'56", in NW ¼ SE ¼ sec.6, T.11 N., R.16 E., Dodge County, Hydrologic Unit 07090001, on left bank downstream side of State Highway 33, 1,700 ft upstream of dam, at Horicon.

DRAINAGE AREA.--456 mi².

PERIOD OF RECORD.--November 1997 to December 2000, November 2001 to current year.

GAGE.--Water-stage recorder. Side-looking velocity meter system. Elevation of gage is 860 ft, from topographic map.

REMARKS.--Records fair except for periods of estimated record, which are poor (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5.8	e25	128	223	e23	e150	1,080	589	2,310	2,070	124	232
2	e5.5	e32	99	263	e24	704	1,040	558	2,390	1,990	118	148
3	e5.1	e52	100	295	e25	791	1,060	333	2,370	1,900	124	131
4	e4.4	e65	101	292	e31	989	954	235	2,370	1,860	136	114
5	e5.7	70	95	220	e34	1,230	741	230	2,370	1,780	130	108
6	e4.6	80	95	195	e34	1,320	660	264	2,360	1,700	122	103
7	e3.5	32	99	191	e34	1,360	642	316	2,290	1,550	123	120
8	e4.6	37	86	195	e34	1,380	670	308	2,270	1,650	121	126
9	e5.2	41	81	197	e36	1,430	649	313	2,280	1,560	109	123
10	e5.8	40	145	193	e37	1,370	641	444	2,320	1,500	111	132
11	e5.5	47	182	187	e42	1,450	620	546	2,440	1,430	112	137
12	e5.8	45	210	180	e42	1,040	420	526	2,690	1,390	114	146
13	e7.3	52	197	176	e45	1,360	393	636	2,800	1,290	114	138
14	e11	52	185	175	e47	1,370	357	727	2,860	1,160	108	129
15	e12	49	157	176	50	1,380	260	723	2,960	1,040	117	116
16	e11	54	130	176	48	1,320	190	709	3,000	893	107	131
17	e12	40	203	170	49	1,230	208	706	3,050	889	103	142
18	e13	88	452	171	47	1,100	186	746	3,130	883	101	133
19	e13	132	621	174	47	1,030	225	707	3,070	859	100	118
20	e13	97	637	173	54	1,160	220	725	2,960	766	97	113
21	e12	104	713	168	e46	1,130	259	855	2,850	726	99	114
22	e13	105	784	125	e41	852	317	1,110	2,810	728	91	115
23	e13	150	633	69	e41	752	316	1,280	2,740	702	100	107
24	e14	191	410	74	e39	754	332	1,520	2,680	649	100	98
25	e15	188	390	74	e42	738	336	1,680	2,590	628	96	112
26	e16	190	333	66	e45	856	462	1,800	2,500	508	96	107
27	e17	188	233	e32	e53	822	518	1,890	2,390	499	182	104
28	e17	188	285	e27	e63	761	418	1,950	2,350	491	262	106
29	e18	177	369	e26	e82	1,060	550	1,940	2,250	276	247	88
30	e19	174	351	e24	---	1,220	629	1,960	2,140	111	230	88
31	e20	---	e275	e23	---	1,170	---	2,100	---	124	240	---
TOTAL	327.8	2,785	8,779	4,730	1,235	33,279	15,353	28,426	77,590	33,602	4,034	3,679
MEAN	10.6	92.8	283	153	42.6	1,074	512	917	2,586	1,084	130	123
MAX	20	191	784	295	82	1,450	1,080	2,100	3,130	2,070	262	232
MIN	3.5	25	81	23	23	150	186	230	2,140	111	91	88
CFSM	0.02	0.20	0.62	0.33	0.09	2.35	1.12	2.01	5.67	2.38	0.29	0.27
IN.	0.03	0.23	0.72	0.39	0.10	2.71	1.25	2.32	6.33	2.74	0.33	0.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	65.6	140	139	97.2	219	511	568	482	653	329	122	82.8
MAX	106	229	283	153	441	1,074	1,194	917	2,586	1,084	448	166
(WY)	(1999)	(2002)	(2004)	(2004)	(2002)	(2004)	(1998)	(2004)	(2004)	(2004)	(1999)	(1999)
MIN	10.6	91.0	63.1	42.2	26.4	81.6	145	310	110	40.7	14.0	6.24
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(1998)	(1998)	(2002)	(2002)	(2003)

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1998 - 2004
ANNUAL TOTAL	41,609.09	213,819.8	
ANNUAL MEAN	114	584	284
HIGHEST ANNUAL MEAN			584
LOWEST ANNUAL MEAN			98.7
HIGHEST DAILY MEAN	920	May 13	3,130
LOWEST DAILY MEAN	-28	Aug 20	(e)3.5
ANNUAL SEVEN-DAY MINIMUM	3.6	Aug 14	(e)4.7
ANNUAL RUNOFF (CFSM)	0.250		1.28
ANNUAL RUNOFF (INCHES)	3.39		17.44
10 PERCENT EXCEEDS	282		1,910
50 PERCENT EXCEEDS	52		189
90 PERCENT EXCEEDS	5.9		25

(e) Estimated due to ice effect or missing record

ROCK RIVER BASIN

05425500 ROCK RIVER AT WATERTOWN, WI

518

LOCATION.--Lat 43°11'17", long 88°43'34", in NE ¼ SW ¼ sec.4, T.8 N., R.15 E., Jefferson County, 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 mi².

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 (see page 11). Flow partly regulated by powerplant at Watertown. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	115	411	625	e280	600	1,520	786	4,170	3,050	603	359
2	37	182	395	595	295	748	1,480	778	3,880	e2,900	459	384
3	37	203	360	561	296	812	1,460	764	3,780	e2,800	358	386
4	37	464	373	501	e270	877	1,480	753	3,760	e2,700	684	362
5	36	636	376	366	281	1,260	1,490	746	3,800	e2,700	562	308
6	36	746	355	e380	279	1,510	1,500	722	3,750	e2,600	504	236
7	23	781	329	e370	279	1,370	1,510	674	3,710	e2,500	462	222
8	31	701	321	e340	e250	1,330	1,490	625	3,600	2,340	427	194
9	45	729	322	e320	261	1,340	1,470	603	3,620	2,110	398	190
10	33	646	405	e300	264	1,370	1,430	637	4,070	2,010	372	192
11	32	587	516	e300	e240	1,410	1,370	842	4,330	1,990	347	179
12	39	509	463	e290	251	1,460	1,300	930	4,350	2,000	314	167
13	38	415	450	309	e230	1,520	1,230	1,060	4,070	1,910	322	171
14	60	279	507	296	244	1,550	1,170	1,200	3,920	1,830	337	169
15	55	295	525	297	e220	1,610	1,110	1,300	3,860	1,750	315	179
16	55	275	540	286	e210	1,620	1,010	1,280	3,820	1,710	253	178
17	62	248	543	293	212	1,650	1,030	1,270	4,070	1,660	215	178
18	65	283	517	e280	e190	1,690	985	1,340	4,020	1,600	198	188
19	66	306	467	e280	206	1,690	887	1,380	3,910	1,530	191	192
20	63	315	404	e280	188	1,700	840	1,370	3,900	1,450	198	185
21	60	349	522	e270	e180	1,730	972	1,470	3,900	1,410	194	161
22	62	381	594	e270	e190	1,700	1,040	2,220	3,860	1,340	189	164
23	63	372	629	e270	e210	1,670	988	2,810	3,800	1,240	191	158
24	67	436	664	e270	259	1,650	957	2,820	3,750	1,190	192	151
25	77	382	712	e270	275	1,630	954	2,700	3,680	1,120	198	158
26	79	441	709	e280	318	1,720	973	2,820	3,600	1,020	202	147
27	81	466	738	e280	397	1,700	942	3,010	3,530	921	228	138
28	82	461	755	e280	440	1,660	897	3,170	3,450	836	243	141
29	82	458	773	e280	498	1,690	833	3,250	3,330	768	262	143
30	85	438	709	e280	---	1,650	793	3,420	3,210	709	277	147
31	86	---	656	e280	---	1,570	---	3,990	---	683	286	---
TOTAL	1,711	12,899	16,040	10,299	7,713	45,487	35,111	50,740	114,500	54,377	9,981	6,127
MEAN	55.2	430	517	332	266	1,467	1,170	1,637	3,817	1,754	322	204
MAX	86	781	773	625	498	1,730	1,520	3,990	4,350	3,050	684	386
MIN	23	115	321	270	180	600	793	603	3,210	683	189	138
CFSM	0.06	0.44	0.53	0.34	0.27	1.51	1.21	1.69	3.94	1.81	0.33	0.21
IN.	0.07	0.50	0.62	0.40	0.30	1.75	1.35	1.95	4.40	2.09	0.38	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

	336	414	338	283	363	959	1,283	754	520	369	255	258
MEAN	336	414	338	283	363	959	1,283	754	520	369	255	258
MAX	2,981	2,034	1,148	1,055	1,627	2,448	3,875	2,634	3,817	1,754	1,540	1,552
(WY)	(1987)	(1986)	(1986)	(1946)	(1938)	(1985)	(1979)	(1993)	(2004)	(2004)	(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)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1931 - 2004

ANNUAL TOTAL	100,797	364,985	
ANNUAL MEAN	276	997	513
HIGHEST ANNUAL MEAN			1,186
LOWEST ANNUAL MEAN			64.5
HIGHEST DAILY MEAN	1,330	May 21	4,970
LOWEST DAILY MEAN	20	Sep 11	0.90
ANNUAL SEVEN-DAY MINIMUM	23	Sep 6	1.1
MAXIMUM PEAK FLOW			(b)5,080
MAXIMUM PEAK STAGE			(c)6.96
ANNUAL RUNOFF (CFSM)	0.285	1.03	0.529
ANNUAL RUNOFF (INCHES)	3.87	14.01	7.19
10 PERCENT EXCEEDS	704	2,930	1,350
50 PERCENT EXCEEDS	160	508	271
90 PERCENT EXCEEDS	43	147	41

(a) Also occurred Sept. 9, 1944
(c) Backwater from ice

(b) Gage height, 6.19 ft
(e) Estimated due to ice effect or missing record

05425912 BEAVERDAM RIVER AT BEAVER DAM, WI

LOCATION.--Lat 43°26'57", long 88°50'21", in NE ¼ SW ¼ sec.4, T.11 N., R.14 E., Dodge County, Hydrologic Unit 07090002, on left bank 5 ft upstream from bridge on Davis Street, 0.8 mi downstream from outlet of Beaverdam Lake, at Beaver Dam.

DRAINAGE AREA.--157 mi².

PERIOD OF RECORD.--March 1985 to current year. Instantaneous stages from November 1984 to February 1985 in District data files.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 839.42 ft above NGVD of 1929.

REMARKS.--Records good (see page 11). Flow regulated by dam 0.8 mi upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	16	68	43	35	54	287	19	702	515	34	19
2	11	21	55	44	71	69	213	19	693	512	51	17
3	13	33	99	45	95	140	235	18	684	506	61	16
4	13	35	123	46	90	196	192	20	657	500	147	16
5	15	18	120	46	142	255	116	18	638	503	195	15
6	20	18	115	42	189	285	77	19	626	509	134	18
7	19	20	111	45	179	305	66	20	598	498	53	15
8	19	19	77	45	168	319	63	46	584	506	33	15
9	19	20	61	44	160	372	49	117	607	500	22	15
10	19	21	161	43	150	413	49	241	752	486	15	15
11	20	24	195	42	142	411	44	299	871	470	9.3	15
12	21	40	181	41	135	418	36	257	930	475	5.3	15
13	19	36	172	40	128	432	28	347	971	468	4.6	15
14	25	26	166	40	121	429	20	427	1,050	445	6.3	14
15	22	26	124	39	115	427	17	416	995	415	13	14
16	19	27	95	38	109	419	20	386	972	391	18	18
17	17	24	94	39	104	415	20	364	961	372	18	21
18	16	30	94	39	100	403	24	327	941	348	18	20
19	16	30	93	38	96	380	31	175	919	259	14	19
20	16	25	92	37	109	375	22	272	862	165	14	20
21	18	28	91	37	110	353	24	399	803	98	19	17
22	16	26	89	37	106	328	16	468	774	43	23	18
23	16	52	87	37	108	310	11	554	731	18	22	14
24	17	121	84	38	102	302	11	565	704	4.7	22	10
25	18	139	81	37	99	296	13	601	673	4.8	25	11
26	18	273	61	37	96	376	17	634	644	4.7	23	9.8
27	16	340	47	38	60	e354	13	648	612	4.1	21	9.6
28	17	353	49	37	39	e329	12	611	592	4.0	19	10
29	17	309	47	37	42	302	18	609	563	3.7	19	8.8
30	15	154	45	37	---	330	19	626	541	21	19	8.1
31	17	---	45	36	---	335	---	689	---	35	19	---
TOTAL	539	2,304	3,022	1,244	3,200	10,132	1,763	10,211	22,650	9,084.0	1,096.5	448.3
MEAN	17.4	76.8	97.5	40.1	110	327	58.8	329	755	293	35.4	14.9
MAX	25	353	195	46	189	432	287	689	1,050	515	195	21
MIN	11	16	45	36	35	54	11	18	541	3.7	4.6	8.1
CFSM	0.11	0.49	0.62	0.26	0.70	2.08	0.37	2.10	4.81	1.87	0.23	0.10
IN.	0.13	0.55	0.72	0.29	0.76	2.40	0.42	2.42	5.37	2.15	0.26	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2004, BY WATER YEAR (WY)

MEAN	66.5	91.9	80.5	72.9	77.8	162	166	117	147	104	64.5	54.1
MAX	446	350	289	281	182	327	527	449	755	561	287	282
(WY)	(1987)	(1986)	(1986)	(1986)	(1986)	(2004)	(1993)	(1993)	(2004)	(1993)	(1999)	(1986)
MIN	2.89	6.66	10.6	11.7	14.4	10.9	3.97	4.55	4.86	2.86	3.05	5.13
(WY)	(1989)	(1989)	(2003)	(2003)	(2003)	(1988)	(2000)	(1989)	(1985)	(1988)	(1988)	(1988)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1985 - 2004

ANNUAL TOTAL	12,765.9	65,693.8	
ANNUAL MEAN	35.0	179	101
HIGHEST ANNUAL MEAN			244
LOWEST ANNUAL MEAN			21.0
HIGHEST DAILY MEAN	353	Nov 28	1,050
LOWEST DAILY MEAN	3.7	Sep 25	3.7
ANNUAL SEVEN-DAY MINIMUM	8.1	Sep 20	6.3
MAXIMUM PEAK FLOW			1,140
MAXIMUM PEAK STAGE			10.68
INSTANTANEOUS LOW FLOW			3.4
ANNUAL RUNOFF (CFSM)	0.223		1.14
ANNUAL RUNOFF (INCHES)	3.02		15.57
10 PERCENT EXCEEDS	92		564
50 PERCENT EXCEEDS	17		47
90 PERCENT EXCEEDS	10		15
			7.9

(e) Estimated due to ice effect or missing record

05426000 CRAWFISH RIVER AT MILFORD, WI

LOCATION.--Lat 43°06'00", long 88°50'58", in NW ¼ SW ¼ sec.4, T.7 N., R.14 E., Jefferson County, Hydrologic Unit 07090002, on left bank near upstream side of highway bridge in Milford, 1.4 mi downstream from Rock Creek and 9.8 mi upstream from mouth.

DRAINAGE AREA.--762 mi².

PERIOD OF RECORD.--June 1931 to current year.

REVISED RECORDS.--WSP 975: 1937-38. WSP 1438: 1932-33(M), 1935(M), 1937, 1938-41(M), 1943-44(M), 1947-48(M). WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 779.40 ft above NGVD of 1929. Prior to July 28, 1966, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor (see page 11). Some diurnal fluctuation at lower flows, due to manipulation of gates on small dams upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	80	621	e342	e202	847	1,280	539	3,320	1,980	510	e224
2	32	99	562	e327	e202	1,040	1,260	500	3,400	1,890	533	e218
3	24	144	550	e312	e202	1,190	1,250	444	3,380	1,790	545	e211
4	41	308	540	e297	e210	1,330	1,170	374	3,310	1,770	683	201
5	40	487	531	e281	e223	1,550	1,080	367	3,200	1,730	750	176
6	36	635	484	e258	e226	1,600	1,030	351	3,080	1,690	803	165
7	34	724	433	e241	e238	1,910	965	342	2,940	1,660	810	190
8	35	759	424	e227	e259	2,040	916	322	2,800	1,600	790	185
9	40	729	429	e204	e272	2,060	834	340	2,720	1,550	761	170
10	41	695	527	e192	e284	1,960	778	360	2,700	1,500	719	147
11	35	657	514	e182	e300	1,920	703	405	2,810	1,430	654	144
12	42	608	531	e179	e316	1,850	649	435	3,030	1,420	587	148
13	43	571	582	e172	e334	1,710	601	540	3,210	1,370	518	128
14	72	478	585	e168	e354	1,620	535	625	3,310	1,320	457	121
15	61	442	592	e162	e373	1,560	462	679	3,350	1,250	398	102
16	63	406	596	e163	e379	1,470	435	708	3,320	1,180	338	143
17	58	345	584	e162	e389	1,370	460	725	3,310	1,120	315	134
18	51	343	561	e165	e397	1,290	391	843	3,250	1,050	274	128
19	59	329	532	e176	e408	1,190	461	901	3,180	978	261	114
20	52	284	523	e166	e414	1,200	534	941	3,060	933	241	113
21	69	325	468	e149	e422	1,160	606	1,020	2,960	881	223	116
22	61	316	431	e144	e425	1,080	664	1,420	2,880	833	183	114
23	60	298	419	e140	e427	1,040	683	1,830	2,770	765	193	101
24	57	353	414	e142	e435	1,000	696	2,260	2,700	679	171	102
25	66	442	373	e144	e437	966	701	2,610	2,610	609	166	115
26	70	581	356	e146	e458	1,030	685	2,860	2,510	523	155	105
27	66	631	e337	e154	e504	1,060	653	3,040	2,410	451	196	99
28	51	668	e345	e158	576	1,090	516	3,140	2,330	381	217	116
29	73	603	e355	e163	683	1,180	498	3,130	2,220	329	234	89
30	71	614	e360	e183	---	1,270	575	3,110	2,090	356	231	79
31	79	---	e359	e197	---	1,290	---	3,220	---	467	233	---
TOTAL	1,622	13,954	14,918	6,096	10,349	42,873	22,071	38,381	88,160	35,485	13,149	4,198
MEAN	52.3	465	481	197	357	1,383	736	1,238	2,939	1,145	424	140
MAX	79	759	621	342	683	2,060	1,280	3,220	3,400	1,980	810	224
MIN	24	80	337	140	202	847	391	322	2,090	329	155	79
CFSM	0.07	0.61	0.63	0.26	0.47	1.81	0.97	1.62	3.86	1.50	0.56	0.18
IN.	0.08	0.68	0.73	0.30	0.51	2.09	1.08	1.87	4.30	1.73	0.64	0.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

	265	300	253	236	313	1,015	971	525	420	306	203	237
MEAN	265	300	253	236	313	1,015	971	525	420	306	203	237
MAX	2,565	1,958	1,065	1,278	1,576	2,473	3,206	2,337	2,939	2,189	899	1,881
(WY)	(1987)	(1986)	(1983)	(1946)	(1938)	(1948)	(1959)	(1973)	(2004)	(1993)	(1993)	(1986)
MIN	16.8	25.9	18.0	15.2	16.2	56.2	193	73.8	34.4	17.9	18.0	8.11
(WY)	(1964)	(1950)	(1959)	(1940)	(1959)	(1940)	(1964)	(1958)	(1934)	(1965)	(1964)	(1958)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1931 - 2004

ANNUAL TOTAL	78,337	291,256	
ANNUAL MEAN	215	796	422
HIGHEST ANNUAL MEAN			1,117
LOWEST ANNUAL MEAN			61.8
HIGHEST DAILY MEAN	874	May 15	3,400
LOWEST DAILY MEAN	20	Sep 12	24
ANNUAL SEVEN-DAY MINIMUM	27	Sep 6	35
MAXIMUM PEAK FLOW			3,420
MAXIMUM PEAK STAGE			8.63
ANNUAL RUNOFF (CFSM)	0.282	1.04	11.15
ANNUAL RUNOFF (INCHES)	3.82	14.22	0.553
10 PERCENT EXCEEDS	562	2,230	1,100
50 PERCENT EXCEEDS	110	464	200
90 PERCENT EXCEEDS	44	100	40

(e) Estimated due to ice effect or missing record

05426067 BARK RIVER AT NAGAWICKA ROAD AT DELAFIELD, WI

LOCATION.--Lat 43°05'16" long 88°22'34", in NE ¼ NW ¼ sec.9, T.7 N., R.18 E., Waukesha County, Hydrologic Unit 07090001, on left bank 20 ft upstream from Nagawicka Road in Delafield.

DRAINAGE AREA.--35.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 2002 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records good except those for estimated daily discharges, which are poor (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	13	e15	e9.4	e20	33	26	82	32	20	22
2	12	21	13	e15	e9.4	30	29	25	76	32	20	21
3	15	30	13	e15	e9.4	31	29	25	72	31	25	21
4	15	59	13	e15	e9.4	30	28	24	65	31	33	21
5	12	52	13	e14	e9.4	54	23	24	57	30	23	21
6	12	40	13	e14	e9.4	47	24	26	52	30	22	20
7	11	30	13	e13	e9.2	44	23	26	47	30	21	20
8	11	24	13	e13	e9.2	39	21	25	43	29	20	18
9	9.6	20	14	e12	e9.2	34	19	28	42	29	20	18
10	9.6	18	36	e12	e9.0	29	19	41	46	29	19	18
11	9.8	17	27	e11	e9.0	27	18	66	58	28	19	17
12	11	16	26	e11	e9.0	24	18	64	58	32	20	17
13	11	16	20	e11	e9.0	23	17	61	57	30	20	17
14	12	17	19	e10	e9.0	22	17	67	55	29	19	17
15	12	16	17	e10	e9.0	21	16	78	54	28	19	17
16	11	15	16	e10	e8.8	20	16	60	51	27	19	17
17	11	15	16	e10	e8.8	20	21	55	60	27	19	17
18	11	19	16	e9.8	e8.8	21	20	59	53	26	19	16
19	11	19	15	e9.8	e8.8	20	18	52	49	25	18	16
20	13	18	15	e9.8	e9.4	21	25	46	47	24	18	15
21	13	17	18	e9.6	e9.0	22	46	54	48	24	18	15
22	12	17	17	e9.6	e9.0	22	39	86	46	23	17	16
23	11	17	17	e9.6	e8.8	21	36	99	38	23	18	15
24	13	16	15	e9.4	e8.8	21	32	111	40	22	19	14
25	14	16	e14	e9.4	e8.8	20	31	113	40	23	19	14
26	12	16	e14	e9.4	e10	36	28	106	40	22	18	14
27	12	16	15	e9.4	e11	34	28	85	37	22	26	14
28	11	15	18	e9.4	e12	39	26	73	37	21	25	14
29	13	15	18	e9.4	e14	39	24	66	35	21	26	14
30	14	14	17	e9.4	---	35	26	64	33	21	24	14
31	13	---	e16	e9.4	---	36	---	81	---	21	23	---
TOTAL	369.0	633	520	344.4	274.0	902	750	1,816	1,518	822	646	510
MEAN	11.9	21.1	16.8	11.1	9.45	29.1	25.0	58.6	50.6	26.5	20.8	17.0
MAX	15	59	36	15	14	54	46	113	82	32	33	22
MIN	9.6	12	13	9.4	8.8	20	16	24	33	21	17	14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2004, BY WATER YEAR (WY)

MEAN	11.9	19.2	15.7	11.3	9.54	21.9	21.9	47.5	35.0	20.1	16.8	13.8
MAX	11.9	21.1	16.8	11.5	9.63	29.1	25.0	58.6	50.6	26.5	20.8	17.0
(WY)	(2004)	(2004)	(2004)	(2003)	(2003)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)
MIN	11.9	17.4	14.6	11.1	9.45	14.7	18.9	36.4	19.3	13.7	12.8	10.6
(WY)	(2004)	(2003)	(2003)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 2003 - 2004

ANNUAL TOTAL	6,020.1	9,104.4	
ANNUAL MEAN	16.5	24.9	24.9
HIGHEST ANNUAL MEAN			24.9
LOWEST ANNUAL MEAN			24.9
HIGHEST DAILY MEAN	62	May 12	113
LOWEST DAILY MEAN	8.9	Sep 5	(a)8.8
ANNUAL SEVEN-DAY MINIMUM	(a)9.0	Jan 23	(a)8.9
MAXIMUM PEAK FLOW			117
MAXIMUM PEAK STAGE			13.48
10 PERCENT EXCEEDS	25		51
50 PERCENT EXCEEDS	14		19
90 PERCENT EXCEEDS	9.4		9.6

(a) Ice affected

(e) Estimated due to ice effect or missing record

05426067 BARK RIVER AT NAGAWICKA ROAD AT DELAFIELD, WI—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 2002 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: November 2002 to current year.

TOTAL-PHOSPHORUS DISCHARGE: November 2002 to current year.

INSTRUMENTATION.--Refrigerated automatic pumping sampler since November 2002.

REMARKS.--Records good.

COOPERATION.--Observer furnished by Delavan Lake Sanitary District.

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 312 mg/L, May 1, 2003; minimum observed, 5 mg/L, Oct. 2, 2003.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 57 tons, May 22, 2004; minimum daily, 0.13 ton, Oct. 9-11, 2003.

TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.59 mg/L, May 1, 2003; minimum observed, <0.02 mg/L, Feb. 13, 2003.

TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 109 lb, May 22-23, 2004; minimum daily, 0.80 lb, Feb. 25-27 and Mar. 6-8, 2003.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 287 mg/L, May 13; minimum observed, 5 mg/L, Oct. 2.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 57 tons, May 22; minimum daily, 0.14 ton, Sept. 30.

TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.29 mg/L, Nov. 4; minimum observed, 0.019 mg/L, Feb. 4.

TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 109 lb, May 22, 23; minimum daily, 0.94 lb, Feb. 16.

SUSPENDED SEDIMENT DISCHARGE, TONS PER DAY
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.15	0.54	0.89	e0.65	e0.30	e1.5	e3.9	1.5	17	5.0	1.7	3.3
2	0.16	1.9	0.86	e0.65	e0.30	2.2	e2.9	1.4	14	4.9	1.6	3.1
3	e0.84	4.8	0.84	e0.65	e0.30	1.6	e2.8	1.4	13	4.7	3.2	3.0
4	e0.80	21	0.81	e0.65	e0.30	2.0	e2.7	1.3	11	4.7	4.4	3.0
5	e0.35	9.4	0.81	e0.60	e0.30	8.5	e1.7	1.3	9.4	4.6	1.8	2.9
6	0.16	5.4	0.76	e0.60	e0.30	4.2	2.2	1.4	8.2	4.6	1.6	2.7
7	0.15	3.0	0.73	e0.56	e0.28	2.9	2.0	1.4	7.1	4.5	1.6	2.6
8	0.14	1.4	0.72	e0.56	e0.27	2.3	1.7	1.4	6.3	4.4	1.5	2.4
9	0.13	1.2	0.86	e0.49	e0.27	1.9	1.5	1.5	5.8	4.3	1.5	2.3
10	0.13	1.1	4.1	e0.49	e0.26	1.6	1.4	13	e8.0	4.2	1.4	2.2
11	0.13	1.0	1.3	e0.44	e0.26	1.4	1.3	33	e13	e4.1	1.5	2.1
12	0.14	0.96	1.2	e0.44	e0.26	1.3	1.2	30	e13	e4.9	1.5	2.1
13	0.14	0.91	0.93	e0.44	e0.26	1.2	1.1	28	e13	4.0	1.4	2.0
14	e0.35	0.96	0.85	e0.40	e0.26	1.1	1.0	31	e12	3.8	1.4	2.0
15	e0.30	0.88	0.75	e0.40	e0.26	1.1	0.96	38	e11	3.6	1.3	1.9
16	0.15	0.84	0.74	e0.40	e0.24	0.98	0.91	24	11	3.4	1.3	1.9
17	0.15	0.81	0.71	e0.40	e0.24	0.96	e1.4	19	15	3.2	1.3	1.8
18	0.14	2.2	0.73	e0.40	e0.24	0.97	e1.3	27	12	3.1	1.2	1.7
19	0.14	2.3	0.69	e0.40	e0.24	0.93	e1.0	21	e9.2	2.9	1.2	1.7
20	e0.49	2.0	0.68	e0.40	e0.28	0.93	e2.1	15	e8.4	2.8	1.1	1.5
21	e0.40	1.6	0.79	e0.36	e0.27	0.98	11	22	e8.8	2.6	1.1	1.5
22	e0.35	1.5	e0.75	e0.36	e0.29	0.94	5.1	57	e8.0	2.5	1.0	1.5
23	0.15	1.4	0.73	e0.36	e0.31	0.88	4.9	50	6.2	2.4	1.1	1.5
24	0.46	1.3	0.67	e0.35	e0.33	0.86	2.2	42	6.4	2.3	1.1	1.3
25	0.66	1.2	e0.60	e0.35	e0.36	0.83	1.7	37	6.4	2.3	1.0	1.3
26	0.56	1.2	e0.60	e0.35	e0.43	4.4	1.6	31	6.3	2.2	1.0	1.3
27	0.54	1.1	0.66	e0.32	e0.50	4.2	1.6	27	5.9	2.1	e3.7	1.2
28	0.50	1.1	0.77	e0.32	e0.62	7.1	1.5	19	5.8	2.0	4.3	1.2
29	0.68	1.0	0.78	e0.32	e0.79	7.5	1.3	12	5.5	1.9	4.5	1.2
30	0.82	0.97	0.74	e0.32	---	5.1	1.4	9.9	5.2	1.9	3.9	1.1
31	0.66	---	e0.69	e0.32	---	5.6	---	20	---	1.8	3.5	---
TOTAL	10.92	74.97	27.74	13.75	9.32	77.96	67.37	618.5	281.9	105.7	59.7	59.3
WTR YR	2004	TOTAL	1,407.13									

e Estimated

05426067 BARK RIVER AT NAGAWICKA ROAD AT DELAFIELD, WI—Continued

 PHOSPHORUS, WATER, UNFILTERED, POUNDS PER DAY
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.36	1.80	2.47	e1.71	e0.98	e7.21	e11.4	4.66	44.6	10.3	3.30	6.04
2	1.45	9.81	2.37	e1.70	e0.97	12.6	e8.20	4.48	39.6	9.42	3.21	5.23
3	e3.40	20.2	2.28	e1.69	e0.97	12.1	e8.00	4.36	37.4	8.65	8.56	4.61
4	e3.30	72.4	2.18	e1.69	e0.97	12.0	e7.50	4.09	33.2	8.19	21.3	4.27
5	e2.10	38.5	2.13	e1.58	e0.97	42.0	6.48	4.08	29.2	7.54	8.20	3.80
6	1.43	23.7	1.99	e1.57	e0.97	26.8	6.41	4.39	26.4	7.11	5.97	3.20
7	1.37	15.6	1.89	e1.46	e0.96	20.9	5.93	4.34	23.4	6.58	5.20	2.87
8	1.26	8.92	1.82	e1.45	e0.96	16.1	5.32	4.17	21.4	6.20	4.62	2.42
9	1.14	6.44	2.34	e1.33	e0.96	12.7	4.77	4.66	20.4	6.09	4.30	2.35
10	1.14	5.46	20.5	e1.32	e0.95	10.3	4.65	32.3	e24.2	6.05	3.85	2.30
11	1.15	4.84	7.67	e1.21	e0.95	8.79	4.44	70.6	e32.4	5.79	3.68	2.26
12	1.25	4.49	5.82	e1.21	e0.95	7.50	4.22	63.0	e32.0	e18.7	3.71	2.23
13	1.22	4.13	4.17	e1.20	e0.96	6.66	4.01	61.9	e31.7	e16.5	3.67	2.26
14	e2.10	4.23	3.42	e1.09	e0.96	5.94	3.76	66.9	e30.3	5.72	3.56	2.24
15	e2.00	3.78	2.73	e1.09	e0.96	5.76	3.66	82.2	e29.6	5.54	3.47	2.26
16	1.27	3.50	2.41	e1.08	e0.94	5.46	3.58	52.8	e27.6	5.23	3.48	2.25
17	1.23	3.27	2.08	e1.08	e0.95	5.41	e6.80	46.5	44.2	5.11	3.46	2.21
18	1.21	6.76	1.97	e1.06	e0.95	5.58	e6.20	61.1	e28.9	4.90	3.29	2.17
19	1.19	6.08	1.82	e1.05	e0.95	5.48	4.00	48.6	e26.2	4.73	3.20	2.11
20	1.43	5.36	1.79	e1.05	e1.02	5.58	8.15	38.0	e24.8	4.53	3.08	2.02
21	e2.50	4.53	2.09	e1.03	e0.98	5.98	31.1	54.6	e25.5	4.35	3.00	1.95
22	e2.10	4.29	1.98	e1.03	e0.98	5.85	16.8	109	e24.2	4.26	2.96	2.11
23	1.19	4.27	1.93	e1.02	e0.95	5.60	15.7	109	19.4	4.16	3.07	2.04
24	2.78	3.82	1.79	e1.00	e0.95	5.55	9.66	79.8	19.0	4.01	3.09	1.85
25	4.67	3.65	e1.73	e0.99	e0.95	5.50	7.30	73.1	18.1	4.01	3.08	1.86
26	1.93	3.58	e1.70	e0.99	e1.13	17.7	5.54	63.9	16.8	3.90	3.01	1.89
27	1.74	3.36	1.75	e0.99	e1.63	14.8	5.23	59.1	15.1	3.79	e12.3	1.84
28	1.53	3.10	2.03	e0.98	e2.41	21.1	4.82	47.2	13.9	3.63	8.99	1.83
29	2.07	2.92	2.08	e0.99	e3.78	20.3	4.40	37.8	12.4	3.54	11.1	1.87
30	2.66	2.74	1.98	e0.98	---	15.7	4.62	35.5	11.1	3.56	8.41	1.81
31	2.14	---	e1.81	e0.98	---	e16.0	---	48.4	---	3.48	7.05	---
TOTAL	57.31	285.53	94.72	37.60	33.01	368.95	222.65	1,380.53	783.0	195.57	169.17	78.15
WTR YR	2004	TOTAL	3,706.19									

e Estimated

05426067 BARK RIVER AT NAGAWICKA ROAD AT DELAFIELD, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Dis-charge, cfs (00060)	Instan- taneous dis- charge, cfs (00061)	Sam- pling method, code (82398)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Sus- pended sedi- ment con- centration mg/L (80154)
OCT							
02...	1435	--	11	10	.008	.023	5
24...	1930	--	17	50	--	.065	25
24...	2230	--	21	50	--	.089	35
25...	0130	--	17	50	--	.120	21
25...	0430	--	15	50	--	.082	15
25...	1100	--	14	50	--	.051	17
29...	1030	--	12	10	--	.023	16
NOV							
02...	0945	--	25	50	--	.117	48
02...	1245	--	28	50	--	.119	44
02...	1545	--	24	50	--	.092	25
02...	2145	--	26	50	--	.086	33
03...	1230	--	33	50	--	.114	52
03...	1530	--	40	50	--	.174	96
04...	0330	--	37	50	--	.125	53
04...	0545	--	57	50	--	.269	197
04...	1145	--	67	50	--	.290	166
04...	1250	--	66	10	--	.263	--
05...	0145	--	61	50	--	.165	81
05...	0945	--	52	50	--	.134	66
06...	0645	--	42	50	--	.111	53
07...	0700	--	32	50	--	.103	41
08...	1500	--	23	50	--	.065	20
09...	2300	--	18	50	--	.059	23
11...	2300	--	17	50	--	.052	22
19...	1010	--	19	50	--	.059	45
DEC							
10...	0400	--	27	50	--	.123	51
10...	0715	--	39	50	--	.150	79
10...	1015	--	44	50	--	.130	56
10...	1615	--	40	50	--	.088	26
10...	2215	--	35	50	--	.077	26
11...	0715	--	29	50	--	.052	17
18...	1035	--	16	10	--	.022	75
JAN							
19...	1130	9.8	--	50	--	.036	100
FEB							
04...	1400	9.4	--	70	--	.019	12
MAR							
02...	0900	--	29	50	--	.089	36
02...	1700	--	32	50	--	.069	17
03...	0100	--	32	50	--	.077	26
03...	0900	--	30	50	--	.069	16
03...	1700	--	32	50	--	.155	106
04...	0100	--	28	50	--	.072	21
04...	1021	--	28	50	--	.061	9
04...	1022	--	28	10	--	.062	19
04...	2115	--	34	50	--	.093	34
05...	0030	--	50	50	--	.155	80
05...	0430	--	57	50	--	.178	88
05...	0830	--	59	50	--	.159	75
05...	1055	--	57	50	--	.158	135
05...	1056	--	57	10	--	.152	63
05...	1630	--	52	50	--	.123	31
06...	0030	--	48	50	--	.106	38
06...	1230	--	46	50	--	.109	29
07...	0030	--	45	50	--	.101	39
07...	1230	--	45	50	--	.082	18
08...	0030	--	42	50	--	.082	23
08...	1230	--	39	50	--	.075	21
26...	0515	--	41	50	--	.136	91
26...	1324	--	37	50	--	.088	33
26...	1325	--	37	10	--	.084	38
26...	1600	--	34	50	--	.078	32
27...	0800	--	34	50	--	.074	38
28...	0001	--	33	50	--	.097	66
28...	0800	--	37	50	--	.085	51
28...	1200	--	37	50	--	.080	41
28...	1600	--	37	50	--	.087	50
28...	2000	--	48	50	--	.137	109
29...	0001	--	45	50	--	.131	107
29...	0940	--	38	50	--	.084	43
29...	0941	--	38	10	--	.090	65

05426067 BARK RIVER AT NAGAWICKA ROAD AT DELAFIELD, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)
APR							
20...	2145	38	50	--	--	.064	80
21...	0045	50	50	--	--	.195	182
21...	0445	53	50	--	--	.172	140
21...	0845	48	50	--	--	.117	76
21...	1245	45	50	--	--	.103	58
21...	2045	37	50	--	--	.091	58
22...	0845	38	50	--	--	.073	41
23...	0045	39	50	--	--	.092	64
23...	2045	33	50	--	--	.074	42
24...	1645	31	50	--	--	.050	20
26...	1330	30	10	--	--	.035	21
MAY							
10...	1600	51	50	--	--	.235	191
10...	1800	69	50	--	--	.230	185
11...	0200	75	50	--	--	.228	197
11...	1000	66	50	--	--	.178	167
11...	1800	62	50	--	--	.196	206
11...	2200	67	50	--	--	.209	214
12...	0600	69	50	--	--	.193	185
12...	1400	64	50	--	--	.161	151
12...	2200	57	50	--	--	.183	180
13...	0940	62	50	--	--	.262	287
13...	0941	62	10	--	--	.194	171
13...	1415	59	50	--	--	.156	132
14...	0615	59	50	--	--	.198	189
14...	1415	70	50	--	--	.186	172
15...	0215	78	50	--	--	.209	206
15...	1015	79	50	--	--	.191	162
15...	1815	77	50	--	--	.198	184
16...	0215	67	50	--	--	.175	159
16...	1415	57	50	--	--	.157	141
17...	2215	55	50	--	--	.189	162
18...	0215	61	50	--	--	.204	174
18...	1015	59	50	--	--	.182	161
18...	2215	57	50	--	--	.197	188
19...	1445	52	50	--	--	.165	142
21...	1400	59	50	--	--	.230	185
22...	0215	70	50	--	.030	.201	187
22...	1415	92	50	--	--	.258	266
22...	2215	94	50	--	--	.231	258
23...	1430	103	50	--	--	.211	167
24...	0230	110	50	--	.037	.149	169
24...	1430	112	50	--	--	.125	128
25...	0630	117	50	--	--	.121	118
25...	2230	112	50	--	--	.117	125
26...	1430	106	50	--	--	.106	100
27...	1030	86	50	--	--	.133	127
28...	1030	74	50	--	--	.127	129
28...	1105	74	10	--	--	.113	97
28...	1106	74	50	--	--	.104	80
31...	2045	87	50	--	--	.114	109
JUN							
01...	1120	81	50	--	--	.098	71
17...	0715	63	50	--	--	.166	102
17...	1145	58	50	--	--	.137	101
17...	1715	61	50	--	--	.128	95
JUL							
08...	0950	30	10	.011	--	.039	56
AUG							
03...	2015	37	50	--	.020	.097	72
04...	0015	47	50	--	.077	.197	104
04...	0415	40	50	--	--	.167	74
04...	0815	36	50	--	--	.117	44
04...	1215	32	50	--	.036	.085	28
11...	1050	19	10	--	--	.035	28
27...	0400	30	50	--	--	.162	139
28...	2015	31	50	--	--	.101	66
29...	0115	28	50	--	--	.097	74
SEP							
08...	1450	17	10	.011	--	.024	--

05426070 BARK RIVER AT DELAFIELD, WI

LOCATION.--Lat 43°03'46" long 88°24'09", in SW ¼ SW ¼ sec.17, T.7 N., R.18 E., Waukesha County, Hydrologic Unit 07090001, on right bank about 200 ft downstream from dam and 140 ft upstream from County Highway C in Delafield.

DRAINAGE AREA.--44.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 2002 to September 2003.

GAGE.--Water-stage recorder.

REMARKS.--Records good (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.9	21	15	13	14	37	21	79	40	17	20
2	2.2	5.0	4.8	15	13	14	37	21	62	38	16	20
3	2.2	48	4.8	15	14	14	37	20	69	38	18	21
4	2.3	107	6.9	15	14	15	37	20	79	38	79	21
5	2.3	119	8.5	15	14	36	23	21	78	38	78	20
6	2.3	116	8.4	15	13	47	15	21	78	29	31	21
7	2.4	52	8.4	15	13	48	15	21	50	22	16	21
8	2.5	17	8.4	15	14	46	14	21	36	22	16	20
9	2.5	17	8.4	15	14	45	14	39	58	23	16	19
10	2.8	23	49	15	14	32	14	49	68	23	20	18
11	3.1	31	13	15	14	25	14	51	68	23	22	19
12	3.7	30	13	15	14	25	14	72	67	40	22	19
13	3.8	24	13	14	14	25	13	108	67	51	22	19
14	9.3	16	13	14	14	25	13	117	67	48	22	19
15	15	16	45	14	14	25	12	108	62	48	21	19
16	14	15	51	14	14	24	11	108	60	40	16	19
17	15	14	15	14	14	24	11	75	90	31	14	19
18	17	14	14	14	14	24	10	61	79	30	14	19
19	17	13	14	14	14	24	10	83	66	40	14	19
20	8.3	13	14	14	14	24	11	75	47	38	14	19
21	4.4	13	14	13	14	23	66	45	38	27	14	19
22	4.0	12	14	13	14	23	90	100	46	27	14	11
23	3.5	42	14	13	14	18	51	122	50	27	31	2.5
24	3.5	60	14	13	14	10	20	123	50	27	25	2.2
25	3.6	59	14	13	14	9.5	20	121	50	27	15	2.1
26	3.7	59	14	13	14	24	35	119	46	25	15	2.2
27	3.7	58	14	13	14	36	53	117	45	22	16	4.5
28	3.7	57	15	13	14	36	30	114	45	21	41	5.2
29	3.9	56	15	13	14	37	20	112	44	20	58	5.2
30	3.8	55	15	13	---	37	21	111	40	17	35	4.6
31	3.8	---	15	13	---	37	---	111	---	16	21	---
TOTAL	171.5	1,164.9	491.6	435	402	846.5	768	2,307	1,784	956	773	449.5
MEAN	5.53	38.8	15.9	14.0	13.9	27.3	25.6	74.4	59.5	30.8	24.9	15.0
MAX	17	119	51	15	14	48	90	123	90	51	79	21
MIN	2.2	3.9	4.8	13	13	9.5	10	20	36	16	14	2.1
CFSM	0.12	0.86	0.35	0.31	0.31	0.61	0.57	1.66	1.32	0.69	0.56	0.33
IN.	0.14	0.97	0.41	0.36	0.33	0.70	0.64	1.91	1.48	0.79	0.64	0.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2004, BY WATER YEAR (WY)

	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
MEAN	5.53	31.2	16.9	14.9	12.3	20.2	19.4	55.9	37.3	20.5	17.5	9.53
MAX	5.53	38.8	18.0	15.8	13.9	27.3	25.6	74.4	59.5	30.8	24.9	15.0
(WY)	(2004)	(2004)	(2003)	(2003)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)
MIN	5.53	23.5	15.9	14.0	10.7	13.0	13.2	37.4	15.2	10.2	10.1	4.09
(WY)	(2004)	(2003)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 2003 - 2004

ANNUAL TOTAL	5,787.1	10,549.0		
ANNUAL MEAN	15.9	28.8		
HIGHEST ANNUAL MEAN			28.8	2004
LOWEST ANNUAL MEAN			28.8	2004
HIGHEST DAILY MEAN	119	Nov 5	123	May 24
LOWEST DAILY MEAN	1.8	Jun 28	2.1	Sep 25
ANNUAL SEVEN-DAY MINIMUM	2.1	Sep 5	2.3	Oct 1
MAXIMUM PEAK FLOW			126	Nov 4
MAXIMUM PEAK STAGE			3.70	Nov 4
ANNUAL RUNOFF (CFSM)	0.353	0.642		0.642
ANNUAL RUNOFF (INCHES)	4.79	8.74		8.72
10 PERCENT EXCEEDS	35	66		66
50 PERCENT EXCEEDS	13	19		19
90 PERCENT EXCEEDS	2.5	6.4		6.4

05426070 BARK RIVER AT DELAFIELD, WI—Continued

PHOSPHORUS, WATER, UNFILTERED, POUNDS PER DAY
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.16	0.26	1.27	0.56	0.70	0.62	2.06	1.36	5.52	3.01	1.21	1.43
2	0.16	0.33	0.29	0.56	0.71	0.62	2.06	1.34	4.38	2.91	1.20	1.43
3	0.17	3.09	0.29	0.57	0.73	0.62	2.09	1.33	4.88	2.94	1.28	1.44
4	0.17	6.75	0.43	0.58	0.73	0.64	2.09	1.33	5.51	2.98	5.71	1.44
5	0.18	7.42	0.53	0.58	0.73	1.56	1.32	1.33	5.51	3.03	5.62	1.44
6	0.17	7.07	0.53	0.58	0.72	2.07	0.84	1.34	5.48	2.31	2.22	1.44
7	0.18	3.15	0.53	0.59	0.71	2.11	0.85	1.37	3.51	1.78	1.15	1.44
8	0.18	1.03	0.53	0.59	0.71	2.06	0.84	1.34	2.56	1.80	1.14	1.40
9	0.19	0.96	0.54	0.60	0.71	2.01	0.84	2.52	4.05	1.83	1.15	1.30
10	0.20	1.29	3.13	0.61	0.71	1.47	0.85	3.17	4.74	1.83	1.44	1.29
11	0.23	1.73	0.81	0.61	0.70	1.17	0.80	3.31	4.79	1.84	1.55	1.36
12	0.27	1.65	0.75	0.61	0.69	1.18	0.81	4.69	4.73	3.20	1.54	1.36
13	0.28	1.31	0.69	0.61	0.69	1.18	0.80	7.01	4.72	4.04	1.53	1.37
14	0.68	0.88	0.63	0.61	0.68	1.20	0.78	7.61	4.69	3.82	1.52	1.36
15	1.07	0.88	1.95	0.61	0.68	1.20	0.74	6.97	4.33	3.74	1.51	1.35
16	1.05	0.81	2.08	0.62	0.67	1.17	0.70	6.97	4.24	3.14	1.12	1.35
17	1.12	0.78	0.53	0.63	0.66	1.18	0.65	4.83	6.30	2.40	0.97	1.35
18	1.26	0.76	0.47	0.63	0.66	1.20	0.63	3.98	5.55	2.35	0.98	1.37
19	1.22	0.75	0.47	0.64	0.67	1.21	0.65	5.40	4.64	3.07	1.00	1.36
20	0.59	0.75	0.47	0.64	0.66	1.20	0.68	4.84	3.33	2.91	1.01	1.39
21	0.32	0.73	0.48	0.62	0.65	1.18	4.17	2.94	2.67	2.08	1.02	1.39
22	0.29	0.70	0.49	0.63	0.64	1.19	5.68	7.18	3.25	2.07	1.01	0.77
23	0.25	2.39	0.49	0.63	0.64	0.96	3.24	12.0	3.52	2.06	2.18	0.18
24	0.25	3.46	0.50	0.64	0.64	0.53	1.29	16.1	3.58	2.05	1.75	0.16
25	0.25	3.46	0.50	0.65	0.64	0.51	1.32	14.5	3.60	2.06	1.05	0.16
26	0.26	3.45	0.51	0.65	0.63	1.28	2.25	12.0	3.38	1.86	1.06	0.16
27	0.26	3.42	0.51	0.66	0.63	1.95	3.41	9.93	3.30	1.63	1.13	0.34
28	0.26	3.37	0.53	0.67	0.63	1.96	1.95	8.28	3.34	1.58	2.87	0.39
29	0.27	3.35	0.54	0.68	0.64	2.03	1.31	7.87	3.26	1.50	4.04	0.39
30	0.26	3.34	0.54	0.69	---	2.07	1.35	7.83	3.05	1.22	2.47	0.34
31	0.26	---	0.55	0.69	---	2.05	---	7.79	---	1.20	1.44	---
TOTAL	12.46	69.32	22.56	19.24	19.66	41.38	47.05	178.46	126.41	74.24	54.87	31.95
WTR YR	2004	TOTAL	697.60									

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	Sam- pling method, code (82398)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT						
02...	1210	2.2	70	.004	.014	2
29...	1235	3.8	10	--	.013	2
NOV						
13...	1510	17	10	--	.010	3
DEC						
11...	1500	13	10	--	.012	2
18...	1245	14	10	--	.006	2
FEB						
04...	1120	14	10	--	.010	7
MAR						
04...	1220	15	10	--	.008	5
05...	1135	47	10	--	.008	1
26...	1430	36	10	--	.010	16
APR						
26...	1510	53	10	--	.012	6
MAY						
13...	1130	117	10	--	.012	8
24...	1300	123	70	--	.026	2
28...	1430	114	10	--	.013	3
JUN						
22...	1345	50	10	--	.013	3
JUL						
08...	1230	22	10	<.002	.015	19
AUG						
11...	0830	22	10	--	.013	11
SEP						
13...	1200	19	10	.002	.013	26

430347088240800 NAGAWICKA LAKE AT DELAFIELD, WI

LOCATION.--Lat 43°03'47", long 88°24'08", in SW ¼ SW ¼ sec.17, T.7 N., R.18 E., Waukesha County, Hydrologic Unit 07090001, on dike of Nagawicka Lake dam about 120 ft west of gates in Delafield.

DRAINAGE AREA.--44.9 mi². Area of Nagawicka Lake, 917 acres.

GAGE-HEIGHT RECORD

PERIOD OF RECORD.--October 2002 to September 2004.

GAGE.--Water-stage recorder.

REMARKS.--Gage established Oct. 29, 2002. Lake levels controlled by city of Delafield.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.73 ft, May 23; minimum gage height, 7.60 ft, Dec. 1.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.28	8.35	7.64	7.92	7.80	7.84	8.27	8.38	8.41	8.42	8.34	8.37
2	8.27	8.44	7.67	7.92	7.79	7.89	8.24	8.38	8.47	8.42	8.34	8.37
3	8.28	8.55	7.70	7.92	7.80	7.93	8.23	8.36	8.49	8.40	8.40	8.37
4	8.30	8.61	7.72	7.93	7.79	7.97	8.20	8.34	8.48	8.40	8.56	8.36
5	8.32	8.51	7.74	7.92	7.79	8.12	8.18	8.35	8.45	8.41	8.42	8.35
6	8.32	8.35	7.74	7.90	7.80	8.14	8.19	8.35	8.41	8.38	8.36	8.34
7	8.32	8.23	7.75	7.89	7.80	8.15	8.21	8.38	8.38	8.40	8.36	8.34
8	8.33	8.24	7.76	7.89	7.79	8.14	8.21	8.35	8.41	8.41	8.36	8.33
9	8.34	8.24	7.80	7.88	7.79	8.12	8.21	8.39	8.43	8.44	8.37	8.31
10	8.34	8.25	7.93	7.88	7.78	8.11	8.22	8.40	8.46	8.46	8.37	8.29
11	8.34	8.22	7.96	7.87	7.77	8.11	8.23	8.52	8.51	8.47	8.36	8.28
12	8.36	8.18	7.97	7.87	7.77	8.11	8.23	8.54	8.50	8.55	8.37	8.27
13	8.35	8.15	8.00	7.86	7.76	8.10	8.22	8.56	8.49	8.51	8.36	8.26
14	8.39	8.15	8.02	7.86	7.76	8.10	8.21	8.52	8.48	8.47	8.35	8.25
15	8.36	8.16	8.01	7.85	7.75	8.11	8.21	8.48	8.49	8.43	8.35	8.23
16	8.33	8.16	7.90	7.85	7.74	8.10	8.21	8.41	8.48	8.42	8.34	8.23
17	8.30	8.16	7.90	7.87	7.74	8.09	8.29	8.34	8.55	8.44	8.36	8.22
18	8.27	8.22	7.90	7.86	7.73	8.09	8.31	8.42	8.49	8.42	8.36	8.21
19	8.26	8.24	7.90	7.85	7.73	8.08	8.34	8.40	8.46	8.40	8.38	8.19
20	8.23	8.25	7.88	7.84	7.74	8.07	8.40	8.34	8.42	8.38	8.38	8.17
21	8.24	8.27	7.88	7.83	7.76	8.07	8.51	8.42	8.45	8.38	8.39	8.15
22	8.25	8.28	7.89	7.82	7.76	8.05	8.45	8.61	8.48	8.40	8.38	8.15
23	8.25	8.25	7.89	7.82	7.77	8.05	8.36	8.67	8.46	8.39	8.39	8.17
24	8.27	8.15	7.90	7.83	7.78	8.07	8.40	8.69	8.47	8.37	8.36	8.17
25	8.33	8.08	7.89	7.82	7.78	8.10	8.43	8.69	8.46	8.35	8.37	8.20
26	8.33	8.01	7.89	7.83	7.78	8.22	8.43	8.67	8.46	8.34	8.38	8.21
27	8.33	7.94	7.89	7.83	7.79	8.23	8.39	8.63	8.45	8.34	8.46	8.23
28	8.33	7.85	7.91	7.83	7.80	8.24	8.33	8.57	8.45	8.33	8.48	8.25
29	8.33	7.76	7.92	7.82	7.81	8.28	8.33	8.49	8.43	8.33	8.43	8.23
30	8.35	7.68	7.92	7.81	---	8.30	8.37	8.45	8.42	8.34	8.37	8.24
31	8.35	---	7.91	7.80	---	8.28	---	8.42	---	8.34	8.37	---
MEAN	8.31	8.20	7.86	7.86	7.77	8.11	8.29	8.47	8.46	8.40	8.38	8.26
MAX	8.39	8.61	8.02	7.93	7.81	8.30	8.51	8.69	8.55	8.55	8.56	8.37
MIN	8.23	7.68	7.64	7.80	7.73	7.84	8.18	8.34	8.38	8.33	8.34	8.15

430348088240800 NAGAWICKA LAKE AT DELAFIELD, WI—Continued

PRECIPITATION QUANTITY

PERIOD OF RECORD.--October 2002 to September 2004 (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established October 29, 2002. Rain gage covered Dec. 18 to Mar. 4.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 2.59 in., Aug. 3.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.03	0.00	---	---	---	0.00	0.00	0.01	0.00	0.00	0.00
2	0.00	1.29	0.00	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00
3	0.19	1.21	0.00	---	---	---	0.00	0.00	0.00	0.17	2.59	0.00
4	0.00	1.56	0.01	---	---	0.71	0.00	0.00	0.00	0.13	0.00	0.00
5	0.00	0.00	0.02	---	---	0.36	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	---	---	0.01	0.08	0.03	0.00	0.10	0.00	0.01
7	0.00	0.00	0.00	---	---	0.04	0.00	0.03	0.00	0.02	0.00	0.00
8	0.00	0.00	0.01	---	---	0.00	0.00	0.62	0.00	0.00	0.00	0.00
9	0.00	0.00	0.64	---	---	0.00	0.00	0.15	0.53	0.13	0.26	0.00
10	0.00	0.05	1.13	---	---	0.03	0.00	1.20	0.84	0.00	0.00	0.00
11	0.22	0.00	0.00	---	---	0.01	0.00	0.18	0.42	0.95	0.00	0.00
12	0.00	0.00	0.00	---	---	0.00	0.00	0.37	0.11	0.00	0.00	0.00
13	0.03	0.00	0.00	---	---	0.10	0.00	0.38	0.00	0.00	0.00	0.00
14	0.41	0.00	0.00	---	---	0.10	0.00	0.72	0.22	0.00	0.00	0.00
15	0.00	0.01	0.04	---	---	0.00	0.00	0.00	0.00	0.01	0.00	0.06
16	0.00	0.02	0.09	---	---	0.00	0.00	0.00	0.72	0.66	0.00	0.00
17	0.00	0.21	0.00	---	---	0.07	0.56	0.38	0.44	0.00	0.04	0.00
18	0.00	0.45	0.00	---	---	0.01	0.10	0.14	0.01	0.00	0.07	0.00
19	0.00	0.00	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	---	---	---	0.00	1.41	0.05	0.00	0.00	0.00	0.00
21	0.00	0.00	---	---	---	0.00	0.11	1.37	0.47	0.24	0.00	0.00
22	0.00	0.09	---	---	---	0.00	0.00	1.32	0.00	0.00	0.00	0.00
23	0.00	0.21	---	---	---	0.00	0.00	0.67	0.09	0.00	0.00	0.00
24	0.76	0.00	---	---	---	0.09	0.21	0.01	0.31	0.00	0.06	0.00
25	0.00	0.00	---	---	---	0.25	0.15	0.02	0.00	0.00	0.01	0.00
26	0.00	0.00	---	---	---	0.64	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.02	---	---	---	0.00	0.00	0.00	0.14	0.00	0.82	0.00
28	0.10	0.00	---	---	---	0.56	0.00	0.00	0.00	0.00	0.54	0.00
29	0.10	0.00	---	---	---	0.00	0.00	0.11	0.00	0.00	0.00	0.00
30	0.00	0.00	---	---	---	0.06	0.13	0.77	0.00	0.03	0.00	0.00
31	0.00	---	---	---	---	0.00	---	0.30	---	0.00	0.00	---
TOTAL	1.81	5.15	---	---	---	---	2.75	8.82	4.31	2.44	4.39	0.07

ROCK RIVER BASIN

05426250 BARK RIVER NEAR ROME, WI

LOCATION.--Lat 42°57'37" long 88°40'14", in SE ¼ SW ¼ sec.24, T.6 N., R.15 E., Jefferson County, Hydrologic Unit 07090001, on left bank just upstream from bridge on Cushman Road, 2.8 mi southwest of Rome.

DRAINAGE AREA.--122 mi².

PERIOD OF RECORD.--October 1979 to September 1982. October 1982 to September 1983 (fragmentary). October 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 810 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	39	65	57	e35	67	148	102	324	146	71	83
2	16	50	76	57	e35	94	135	96	320	110	66	65
3	17	66	76	55	e35	99	118	84	321	115	45	66
4	16	124	72	52	e35	100	114	77	296	123	96	65
5	15	143	68	45	e35	149	114	73	278	116	176	61
6	15	139	61	e44	e34	162	106	69	262	112	143	59
7	16	135	57	e43	e34	152	103	71	246	119	144	50
8	16	135	54	e43	e34	159	92	66	229	115	132	51
9	18	131	52	e43	e34	169	90	72	204	109	134	54
10	21	127	83	43	e34	153	87	82	203	106	120	53
11	26	123	99	44	e34	132	83	121	231	100	117	51
12	26	112	98	44	e34	121	79	138	229	98	99	48
13	25	92	104	43	e34	113	73	147	217	104	97	44
14	27	101	95	42	e34	94	71	166	214	100	93	30
15	23	95	88	41	e34	93	63	179	211	96	74	33
16	22	88	83	39	e33	93	26	127	205	95	70	35
17	21	81	76	e39	e33	88	43	146	224	93	67	39
18	21	86	76	e38	e35	88	55	198	227	85	95	39
19	22	83	72	e35	e33	88	49	221	223	82	64	38
20	22	84	63	e35	e34	77	81	205	219	79	49	39
21	23	80	63	e35	e35	77	127	211	220	79	59	39
22	25	78	65	e35	e36	84	127	358	228	75	78	36
23	25	73	62	e35	e38	81	125	387	222	87	68	36
24	28	60	57	e35	e39	80	121	369	228	110	44	35
25	31	68	54	e35	41	82	125	376	219	166	49	28
26	30	68	52	e36	43	121	123	362	215	126	56	26
27	31	69	54	e36	47	142	132	343	200	106	64	28
28	34	65	60	e36	50	154	123	324	190	88	80	30
29	34	71	62	e36	53	158	107	311	176	81	94	29
30	38	74	61	e35	---	157	105	340	162	78	80	28
31	43	---	59	e35	---	154	---	345	---	77	59	---
TOTAL	744	2,740	2,167	1,271	1,065	3,581	2,945	6,166	6,943	3,176	2,683	1,318
MEAN	24.0	91.3	69.9	41.0	36.7	116	98.2	199	231	102	86.5	43.9
MAX	43	143	104	57	53	169	148	387	324	166	176	83
MIN	15	39	52	35	33	67	26	66	162	75	44	26
CFSM	0.20	0.75	0.57	0.34	0.30	0.95	0.80	1.63	1.90	0.84	0.71	0.36
IN.	0.23	0.84	0.66	0.39	0.32	1.09	0.90	1.88	2.12	0.97	0.82	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2004, BY WATER YEAR (WY)

	69.6	89.8	79.1	64.9	79.6	123	144	115	87.7	66.0	65.3	67.4
MEAN	69.6	89.8	79.1	64.9	79.6	123	144	115	87.7	66.0	65.3	67.4
MAX	214	214	138	105	137	248	327	199	231	176	127	212
(WY)	(1987)	(1986)	(1986)	(1985)	(1999)	(1986)	(1993)	(2004)	(2004)	(1993)	(1995)	(1986)
MIN	23.6	47.6	34.2	34.2	25.9	35.0	56.1	48.1	13.3	7.66	6.04	14.6
(WY)	(1989)	(2000)	(1990)	(2003)	(2003)	(2003)	(2003)	(1989)	(1988)	(1988)	(1988)	(2003)

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1980 - 2004	
ANNUAL TOTAL	17,608		34,799			
ANNUAL MEAN	48.2		95.1		88.1	
HIGHEST ANNUAL MEAN					139	
LOWEST ANNUAL MEAN					46.2	
HIGHEST DAILY MEAN	199	May 10	387	May 23	459	Apr 20, 1993
LOWEST DAILY MEAN	11	Sep 8-13	15	Oct 5, 6	3.6	Aug 4, 1988
ANNUAL SEVEN-DAY MINIMUM	11	Sep 7	16	Oct 2	3.8	Aug 1, 1988
MAXIMUM PEAK FLOW			408	May 23	476	Apr 20, 1993
MAXIMUM PEAK STAGE			2.22	May 23	2.56	Apr 20, 1993
ANNUAL RUNOFF (CFSM)	0.395		0.779		0.722	
ANNUAL RUNOFF (INCHES)	5.37		10.61		9.81	
10 PERCENT EXCEEDS	94		205		160	
50 PERCENT EXCEEDS	34		76		76	
90 PERCENT EXCEEDS	17		33		32	

(e) Estimated due to ice effect or missing record

05427085 ROCK RIVER AT ROBERT STREET AT FORT ATKINSON, WI

LOCATION.--Lat 42°55'39", long 88°50'34", in SW ¼ NE ¼ sec.4, T.5 N., R.14 E., Jefferson County, Hydrologic Unit 07090001, on upstream center of Robert Street bridge at Fort Atkinson.

DRAINAGE AREA.--2,240 mi².

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder and Acoustical Velocity Meter (AVM) system. Single-path transducer installation. Datum of gage is 775.09 ft above NGVD of 1929 (levels by the City of Fort Atkinson).

REMARKS.--Records good except those for estimated daily discharges, which are poor (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	309	1,300	e900	e400	e1,400	3,560	1,770	8,530	6,710	1,700	836
2	196	416	1,300	e870	e410	e1,700	3,470	1,690	9,160	6,460	1,430	857
3	177	630	1,300	e850	e420	e1,900	3,380	1,610	9,320	6,080	1,390	876
4	186	1,040	1,210	e800	e430	e2,200	3,230	1,510	9,380	5,840	2,280	858
5	189	1,530	1,180	e770	e440	e2,600	3,090	1,480	9,160	5,810	2,290	790
6	181	1,790	1,130	e740	e440	e3,400	3,010	1,430	8,830	5,550	2,020	703
7	179	1,890	1,060	e720	e450	e3,900	2,960	1,390	8,550	5,390	1,890	667
8	181	1,930	1,010	e690	e440	4,310	2,870	1,300	8,350	5,270	1,860	607
9	158	1,830	1,020	e670	e440	4,250	2,760	1,380	7,960	5,110	1,750	543
10	188	1,770	e1,200	e640	e460	4,050	2,640	1,540	7,990	4,920	1,690	523
11	128	1,670	e1,300	e630	e480	3,910	2,540	1,990	8,180	4,740	1,580	516
12	229	1,450	e1,200	e620	e500	3,830	2,410	2,170	8,770	4,680	1,470	519
13	196	1,420	e1,200	e600	e520	3,670	2,290	2,480	9,140	4,530	1,330	484
14	218	1,110	e1,300	e570	e530	3,520	2,150	2,800	9,250	4,460	1,220	471
15	256	1,030	e1,300	e570	e510	3,580	1,980	2,990	9,140	4,240	1,130	436
16	247	1,000	e1,300	e560	e500	3,490	1,870	3,010	9,120	4,020	1,010	499
17	224	913	e1,300	e540	e510	3,410	1,880	2,960	9,110	3,880	936	478
18	240	946	e1,200	e560	e510	3,330	1,690	3,090	9,070	3,740	816	471
19	220	974	e1,200	e540	e530	3,230	1,560	3,130	9,020	3,590	793	453
20	226	942	e1,000	e520	e550	3,240	1,630	3,120	8,820	3,420	741	441
21	236	1,000	e1,000	e480	e570	3,290	2,000	3,310	8,640	3,260	681	436
22	228	991	e1,100	e490	e620	3,130	2,330	4,860	8,420	3,140	617	435
23	219	930	e1,100	e470	e650	3,100	2,290	6,240	8,240	2,940	637	423
24	239	964	e980	e460	e760	3,070	2,270	7,440	8,150	2,730	588	425
25	267	1,150	e1,000	e450	e750	3,030	2,190	7,820	8,110	2,610	582	420
26	282	1,270	e1,000	e460	e830	3,240	2,060	7,800	8,050	2,300	571	400
27	286	1,350	e1,000	e450	e930	3,370	2,000	7,840	7,780	2,100	693	396
28	251	1,380	e1,100	e440	e1,100	3,400	1,900	7,790	7,510	1,950	727	392
29	331	1,330	e1,100	e430	e1,300	3,570	1,810	7,520	7,220	1,770	807	378
30	273	1,310	e1,100	e430	---	3,730	1,870	7,640	6,940	1,660	822	366
31	294	---	e960	e410	---	3,670	---	7,910	---	1,700	843	---
TOTAL	6,914	36,265	35,450	18,330	16,980	101,520	71,690	119,010	255,910	124,600	36,894	16,099
MEAN	223	1,209	1,144	591	586	3,275	2,390	3,839	8,530	4,019	1,190	537
MAX	331	1,930	1,300	900	1,300	4,310	3,560	7,910	9,380	6,710	2,290	876
MIN	128	309	960	410	400	1,400	1,560	1,300	6,940	1,660	571	366
CFSM	0.10	0.54	0.51	0.26	0.26	1.46	1.07	1.71	3.81	1.79	0.53	0.24
IN.	0.11	0.60	0.59	0.30	0.28	1.69	1.19	1.98	4.25	2.07	0.61	0.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

MEAN	716	962	899	681	1,291	2,125	2,361	2,836	3,649	1,486	857	664
MAX	1,418	1,408	1,427	1,032	2,469	3,275	3,590	3,839	8,530	4,019	1,960	1,548
(WY)	(2002)	(2002)	(2002)	(1999)	(1999)	(2004)	(2001)	(2004)	(2004)	(2004)	(1999)	(2001)
MIN	223	565	446	299	250	581	928	2,013	827	410	266	204
(WY)	(2004)	(2000)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1999 - 2004

ANNUAL TOTAL	258,478	839,662	
ANNUAL MEAN	708	2,294	1,542
HIGHEST ANNUAL MEAN			2,294
LOWEST ANNUAL MEAN			630
HIGHEST DAILY MEAN	2,900	May 13	9,380
LOWEST DAILY MEAN	108	Sep 12	128
ANNUAL SEVEN-DAY MINIMUM	123	Sep 6	172
ANNUAL RUNOFF (CFSM)	0.316		1.02
ANNUAL RUNOFF (INCHES)	4.29		13.94
10 PERCENT EXCEEDS	1,430		3,250
50 PERCENT EXCEEDS	432		998
90 PERCENT EXCEEDS	196		370

(e) Estimated due to ice effect or missing record

05427235 LAKE KOSHKONONG NEAR NEWVILLE, WI

LOCATION.--Lat 42°51'27", long 88°56'27", in NW ¼ NE ¼ sec.34, T.5 N., R.13 E., Jefferson County, Hydrologic Unit 07090001, 80 ft east of Pottawatomi Trail Bridge at Bingham Point Estates, and 4.5 mi northeast of Newville.

DRAINAGE AREA.--2,560 mi², at lake outlet. Area of Lake Koshkonong, 16.3 mi².

PERIOD OF RECORD.--July 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 770.00 ft above NGVD of 1929 (Wisconsin Department of Transportation bench mark).

REMARKS.--Lake level regulated by dam at Indianford. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 12.23 ft, Apr. 25, 1993; minimum recorded, 5.10 ft, Dec. 28, 29, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 11.50 ft, June 5; minimum recorded gage height, 5.65 ft, Feb. 13.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.12	5.90	6.42	5.85	5.80	6.01	8.16	6.70	11.12	10.60	6.84	6.31
2	6.09	5.94	6.37	5.80	5.81	6.09	8.16	6.63	11.30	10.46	6.75	6.29
3	6.09	6.02	6.34	5.81	5.85	6.20	8.17	6.55	11.42	10.34	6.66	6.27
4	6.10	6.22	6.30	5.81	5.90	6.34	8.08	6.47	11.48	10.30	6.76	6.27
5	6.08	6.34	6.26	5.75	5.91	6.65	8.01	6.39	11.49	10.17	6.78	6.26
6	6.08	6.44	6.21	5.75	5.88	6.96	7.96	6.31	11.46	10.04	6.77	6.26
7	6.08	6.57	6.14	5.76	5.84	7.29	7.91	6.21	11.40	9.95	6.73	6.24
8	6.08	6.63	6.10	5.77	5.80	7.59	7.86	6.18	11.33	9.83	6.70	6.21
9	6.08	6.70	6.07	5.77	5.75	7.82	7.78	6.25	11.23	9.71	6.69	6.24
10	6.08	6.79	6.20	5.77	5.71	7.99	7.71	6.31	11.16	9.61	6.66	6.26
11	6.08	6.90	6.23	5.78	5.68	8.10	7.61	6.45	11.17	9.49	6.59	6.30
12	6.11	7.04	6.24	5.78	5.67	8.17	7.51	6.54	11.17	9.38	6.47	6.33
13	6.09	7.06	6.27	5.78	5.66	8.21	7.42	6.69	11.20	9.28	6.36	6.33
14	6.16	6.97	6.31	5.78	5.68	8.27	7.31	6.85	11.28	9.17	6.27	6.30
15	6.14	6.92	6.35	5.76	5.70	8.25	7.19	6.96	11.32	9.05	6.27	6.27
16	6.13	6.88	6.33	5.74	5.71	8.24	7.10	7.05	11.34	8.94	6.26	6.30
17	6.12	6.82	6.29	5.74	5.72	8.22	7.03	7.15	11.44	8.82	6.29	6.26
18	6.12	6.83	6.23	5.72	5.73	8.20	6.92	7.28	11.45	8.68	6.29	6.23
19	6.12	6.76	6.17	5.70	5.74	8.16	6.88	7.35	11.43	8.55	6.27	6.20
20	6.13	6.68	6.08	5.70	5.77	8.16	6.75	7.42	11.39	8.42	6.23	6.19
21	6.15	6.59	5.99	5.69	5.80	8.07	6.84	7.54	11.37	8.31	6.22	6.21
22	6.13	6.49	5.94	5.69	5.82	7.99	6.86	8.03	11.36	8.22	6.20	6.23
23	6.13	6.48	5.94	5.69	5.86	7.94	6.88	8.57	11.29	8.09	6.21	6.24
24	6.13	6.51	5.92	5.69	5.90	7.91	6.88	9.11	11.26	7.94	6.25	6.26
25	6.18	6.43	5.91	5.68	5.91	7.87	6.91	9.58	11.19	7.81	6.29	6.27
26	6.19	6.44	5.90	5.67	5.89	7.94	6.92	9.96	11.12	7.67	6.30	6.27
27	6.17	6.43	5.91	5.68	5.90	7.94	6.85	10.25	11.03	7.51	6.35	6.27
28	6.12	6.46	5.95	5.71	5.91	7.97	6.78	10.45	10.96	7.36	6.37	6.29
29	6.05	6.40	5.97	5.74	5.94	8.06	6.77	10.60	10.84	7.21	6.37	6.25
30	5.99	6.42	5.95	5.76	---	8.14	6.74	10.75	10.72	7.07	6.36	6.25
31	5.96	---	5.91	5.78	---	8.15	---	10.93	---	6.95	6.33	---
MEAN	6.11	6.57	6.14	5.75	5.80	7.71	7.33	7.73	11.26	8.87	6.45	6.26
MAX	6.19	7.06	6.42	5.85	5.94	8.27	8.17	10.93	11.49	10.60	6.84	6.33
MIN	5.96	5.90	5.90	5.67	5.66	6.01	6.74	6.18	10.72	6.95	6.20	6.19

ROCK RIVER BASIN

05427570 ROCK RIVER AT INDIANFORD, WI

534

LOCATION.--Lat 42°48'15", long 89°05'24", in SW 1/4 SW 1/4 sec.16, T.4 N., R.12 E., Rock County, Hydrologic Unit 07090001, on right bank 50 ft upstream from bridge on County Trunk Highways F and M, 250 ft upstream from dam in Indianford, and 1.8 mi upstream from Yahara River.

DRAINAGE AREA.--2,630 mi².

PERIOD OF RECORD.--May 1975 to current year.

REVISED RECORDS.--WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 763.84 ft (revised Oct. 1, 1990) above NGVD of 1929 (Rock County Surveyor bench mark).

REMARKS.--Records poor (see page 11). Natural flow of stream affected by dam in Indianford. Discharge is adjusted for flow through wicket gates. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	594	978	1,010	396	1,180	4,030	2,140	8,400	7,200	1,970	1,300
2	230	647	1,030	947	408	1,270	4,030	2,060	8,850	6,970	1,920	1,280
3	177	855	985	973	253	1,500	4,060	1,890	9,070	6,740	1,870	1,140
4	235	956	932	1,070	186	1,710	3,950	1,610	9,150	6,670	2,070	988
5	255	1,100	907	740	328	2,100	3,830	1,600	9,110	6,550	2,070	948
6	243	1,230	832	783	329	2,570	3,720	1,460	9,000	6,170	1,990	864
7	203	1,250	757	786	310	2,940	3,690	1,550	8,800	6,080	1,970	958
8	224	1,340	775	790	248	3,380	3,580	1,310	8,460	5,960	1,910	591
9	239	1,450	737	799	170	3,630	3,470	1,380	8,170	5,830	1,820	365
10	243	1,300	898	804	185	3,690	3,380	1,460	8,110	5,660	1,790	360
11	196	1,360	771	818	481	3,730	3,280	1,700	8,170	5,470	1,680	372
12	214	1,310	719	830	689	3,850	3,240	1,680	8,160	5,330	1,680	411
13	212	1,380	807	863	563	3,800	3,030	1,850	8,160	5,160	1,490	592
14	282	1,410	885	852	475	3,630	2,800	2,020	8,300	5,080	1,340	662
15	222	1,430	1,290	850	483	3,840	2,740	2,160	8,500	4,940	1,340	549
16	278	1,410	1,650	858	486	3,890	2,640	2,190	8,550	4,610	1,300	655
17	241	1,400	1,640	824	493	3,910	2,670	2,170	8,820	4,330	1,380	662
18	227	1,650	1,550	812	483	4,050	2,210	2,490	8,790	4,170	1,270	622
19	274	1,590	1,450	734	516	3,840	2,110	2,540	8,790	3,960	1,330	585
20	214	1,410	1,310	711	514	3,660	2,320	2,530	8,590	3,860	1,000	395
21	271	1,420	1,130	670	524	3,800	2,200	2,810	8,610	3,720	843	302
22	285	1,390	1,100	685	552	3,650	2,490	3,560	8,580	3,640	726	333
23	273	1,160	1,080	693	656	3,600	2,430	4,240	8,400	3,560	572	317
24	270	964	1,070	695	820	3,520	2,520	5,020	8,370	3,340	416	288
25	286	1,150	1,050	714	990	3,400	2,360	5,630	8,250	3,180	618	360
26	275	1,190	1,050	703	1,050	3,580	2,290	6,150	8,120	3,000	674	370
27	505	1,070	1,020	461	1,060	3,710	2,310	6,630	7,950	2,800	829	363
28	595	1,050	1,050	356	1,070	3,620	1,920	7,090	7,840	2,590	987	459
29	653	947	1,120	372	1,130	3,750	1,880	7,330	7,570	2,370	961	359
30	653	974	1,080	378	---	4,080	2,220	7,650	7,360	2,220	1,190	339
31	579	---	1,020	386	---	4,050	---	8,020	---	2,090	1,340	---
TOTAL	9,298	36,387	32,673	22,967	15,848	102,930	87,400	101,920	253,000	143,250	42,346	17,789
MEAN	300	1,213	1,054	741	546	3,320	2,913	3,288	8,433	4,621	1,366	593
MAX	653	1,650	1,650	1,070	1,130	4,080	4,060	8,020	9,150	7,200	2,070	1,300
MIN	177	594	719	356	170	1,180	1,880	1,310	7,360	2,090	416	288
CFSM	0.11	0.46	0.40	0.28	0.21	1.26	1.11	1.25	3.21	1.76	0.52	0.23
IN.	0.13	0.51	0.46	0.32	0.22	1.46	1.24	1.44	3.58	2.03	0.60	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2004, BY WATER YEAR (WY)

	1,351	1,571	1,509	1,081	1,295	2,860	3,605	2,555	2,033	1,495	1,049	1,057
MEAN	1,351	1,571	1,509	1,081	1,295	2,860	3,605	2,555	2,033	1,495	1,049	1,057
MAX	7,729	5,047	3,745	2,622	2,751	6,113	9,466	6,028	8,433	4,621	3,377	3,911
(WY)	(1987)	(1986)	(1986)	(1985)	(1999)	(1985)	(1979)	(1993)	(2004)	(2004)	(1993)	(1986)
MIN	216	297	262	254	283	741	957	317	185	158	130	178
(WY)	(1977)	(1977)	(1977)	(1977)	(1977)	(2003)	(2003)	(1977)	(1988)	(1988)	(1988)	(2003)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1975 - 2004

ANNUAL TOTAL	286,723	865,808	
ANNUAL MEAN	786	2,366	1,792
HIGHEST ANNUAL MEAN			3,252
LOWEST ANNUAL MEAN			509
HIGHEST DAILY MEAN	2,940	May 21	11,700
LOWEST DAILY MEAN	81	Sep 6	39
ANNUAL SEVEN-DAY MINIMUM	111	Sep 3	85
MAXIMUM PEAK FLOW			9,200
MAXIMUM PEAK STAGE			15.27
ANNUAL RUNOFF (CFSM)	0.299	0.899	(a)16.23
ANNUAL RUNOFF (INCHES)	4.06	12.25	0.681
10 PERCENT EXCEEDS	1,450	6,810	3,800
50 PERCENT EXCEEDS	530	1,340	1,300
90 PERCENT EXCEEDS	224	329	371

(a) Datum then in use

ROCK RIVER BASIN

535

05427718 YAHARA RIVER AT WINDSOR, WI

LOCATION.--Lat 43°12'32", long 89°21'09", in NW ¼ NE ¼ sec.31, T.9 N., R.10 E., Dane County, Hydrologic Unit 07090001, at bridge on road to Lake Windsor Country Club.

DRAINAGE AREA.--73.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1976 to December 1981, October 1989 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 870 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	9.2	19	16	e11	75	20	17	45	20	22	21
2	9.5	22	18	17	e11	50	19	17	33	20	26	19
3	9.5	47	17	17	e11	30	18	17	28	24	30	19
4	9.5	279	17	16	e11	24	18	17	26	86	64	18
5	9.2	80	17	15	e11	165	17	17	24	45	34	18
6	9.3	41	17	e14	e11	77	17	16	24	33	25	18
7	9.0	25	17	e14	e11	36	17	16	23	28	23	18
8	8.9	20	17	e14	e11	26	17	17	23	25	22	18
9	8.6	17	17	e14	e11	22	16	23	23	24	21	18
10	8.3	16	66	14	11	20	16	25	37	25	21	18
11	7.9	16	41	14	e11	20	15	30	88	24	21	18
12	7.8	16	30	14	e10	20	15	23	69	23	20	17
13	8.6	16	22	14	e11	17	15	24	43	22	19	17
14	12	16	19	14	e11	18	15	32	32	22	19	17
15	9.7	15	18	13	e10	17	15	27	28	21	19	19
16	8.9	15	19	13	e10	17	15	22	25	23	19	19
17	8.7	15	18	13	e10	17	19	21	44	23	20	18
18	8.6	22	17	13	e11	17	22	51	30	22	20	17
19	8.7	20	17	e13	12	17	19	29	26	21	19	17
20	9.0	17	17	e12	14	22	19	23	24	20	18	16
21	8.9	16	17	e12	14	20	25	77	24	23	18	16
22	8.8	16	17	e12	14	18	20	408	25	23	18	16
23	9.0	141	17	e12	19	18	18	480	23	22	18	16
24	11	67	16	e12	31	21	17	318	24	22	19	16
25	11	33	17	e12	34	22	19	106	24	21	23	16
26	9.4	25	16	e12	48	56	18	60	22	19	21	16
27	9.4	22	17	e12	58	34	17	42	22	19	27	16
28	9.5	21	20	e11	67	31	17	34	23	19	22	16
29	9.3	20	19	e11	77	35	17	34	22	20	21	16
30	9.6	19	18	e11	---	26	17	69	21	27	20	16
31	9.6	---	17	e11	---	22	---	68	---	26	19	---
TOTAL	286.8	1,104.2	631	412	582	1,010	529	2,160	925	792	708	520
MEAN	9.25	36.8	20.4	13.3	20.1	32.6	17.6	69.7	30.8	25.5	22.8	17.3
MAX	12	279	66	17	77	165	25	480	88	86	64	21
MIN	7.8	9.2	16	11	10	17	15	16	21	19	18	16
CFSM	0.13	0.50	0.28	0.18	0.27	0.44	0.24	0.95	0.42	0.35	0.31	0.24
IN.	0.14	0.56	0.32	0.21	0.29	0.51	0.27	1.09	0.47	0.40	0.36	0.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2004, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
MEAN	16.5	18.7	15.9	16.6	25.5	37.6	24.3	23.4	26.3	21.7	18.8	18.7																		
MAX	29.2	36.8	27.0	32.5	74.2	135	47.8	69.7	75.4	95.3	40.3	50.1																		
(WY)	(1994)	(2004)	(1994)	(1996)	(1994)	(1976)	(1993)	(2004)	(2000)	(1993)	(1993)	(1980)																		
MIN	7.75	8.78	8.54	6.50	4.76	11.8	14.1	7.71	7.48	7.12	7.29	7.12																		
(WY)	(1978)	(1978)	(1978)	(1978)	(1978)	(1978)	(1978)	(1977)	(1977)	(1977)	(1991)	(1977)																		

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1976 - 2004

ANNUAL TOTAL	6,053.9	9,660.0	
ANNUAL MEAN	16.6	26.4	21.7
HIGHEST ANNUAL MEAN			39.1
LOWEST ANNUAL MEAN			10.9
HIGHEST DAILY MEAN	279	Nov 4	480
LOWEST DAILY MEAN	7.8	Oct 12	7.8
ANNUAL SEVEN-DAY MINIMUM	8.4	Oct 7	8.4
MAXIMUM PEAK FLOW			721
MAXIMUM PEAK STAGE			6.04
INSTANTANEOUS LOW FLOW			(b)4.3
ANNUAL RUNOFF (CFSM)	0.225	0.359	0.295
ANNUAL RUNOFF (INCHES)	3.06	4.88	4.01
10 PERCENT EXCEEDS	21	36	31
50 PERCENT EXCEEDS	14	18	17
90 PERCENT EXCEEDS	9.1	11	9.1

- (a) Ice affected
- (b) Result of freezeup
- (c) Estimated due to ice effect or missing record

05427718 YAHARA RIVER AT WINDSOR, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
NOV						
03...	0315	20	50	--	.144	13
03...	1445	53	50	--	.303	64
03...	2130	94	50	--	.433	105
03...	2330	145	50	.220	.677	392
04...	0100	210	50	.230	.648	309
04...	0245	340	50	.280	.743	277
04...	0400	394	50	.290	.735	271
04...	0910	355	50	.310	.617	129
04...	1800	216	50	.330	.639	94
05...	0215	118	50	.300	.520	63
06...	0910	44	50	--	.221	19
06...	0911	44	10	--	.210	24
10...	1215	16	10	--	.082	17
23...	0315	33	50	--	.190	29
23...	0530	86	50	--	.486	299
23...	0600	109	50	--	.539	323
23...	0630	135	50	.179	.520	242
23...	0745	183	50	--	.651	274
23...	0915	226	50	.252	.588	237
23...	1700	165	50	.312	.594	106
24...	0800	73	50	--	.393	49
27...	1330	22	50	--	.092	10
DEC						
10...	0015	22	50	--	.089	12
10...	0530	54	50	--	.204	51
10...	0900	72	50	--	.264	55
10...	1045	83	50	--	.286	75
11...	0730	47	50	--	.220	21
15...	0800	18	10	--	.055	18
JAN						
12...	0800	14	10	--	.028	80
FEB						
23...	1730	22	50	--	.195	22
24...	0930	32	50	--	.640	28
25...	0930	25	50	--	.770	25
25...	1900	47	50	--	1.00	58
26...	1100	33	50	--	1.04	30
26...	1800	54	50	--	.885	49
26...	2045	72	50	--	.947	89
27...	0847	46	50	--	.994	42
27...	0848	46	10	--	1.04	36
27...	1900	74	50	--	.815	68
28...	0700	52	50	--	.852	35
28...	1500	51	50	--	.692	36
28...	1700	71	50	--	.742	63
28...	1830	95	50	.502	.863	145
28...	2000	106	50	.505	.896	129
29...	0730	76	50	--	1.02	73
29...	1730	80	50	.414	.667	49
MAR						
01...	0445	84	50	--	.637	58
01...	2045	71	50	--	.474	33
02...	2045	40	50	--	.319	17
04...	1300	22	50	--	.179	5
04...	2330	34	50	--	.187	23
05...	0115	69	50	--	.376	102
05...	0215	99	50	.260	.579	212
05...	0315	136	50	.268	.990	645
05...	0345	154	50	--	.958	582
05...	0430	173	50	.236	.803	466
05...	0600	192	50	--	.737	311
05...	0730	211	50	.342	.765	295
05...	1830	156	50	--	.829	145
06...	1215	71	50	--	.487	72
09...	0130	23	50	--	.134	10
23...	1509	18	50	--	.051	15
23...	1510	18	10	--	.042	18
26...	0001	34	50	--	.153	54
26...	0245	59	50	--	.267	148
26...	0330	70	50	--	.342	191
26...	1130	61	50	--	.241	52
28...	1145	26	50	--	.096	13
29...	0230	40	50	--	.230	104
30...	1845	24	50	--	.121	19

ROCK RIVER BASIN

05427718 YAHARA RIVER AT WINDSOR, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
APR						
14...	1219	15	50	--	.041	7
14...	1220	15	10	--	.032	8
17...	0830	25	50	--	--	29
18...	0800	33	50	--	--	49
21...	0700	25	50	--	--	13
MAY						
06...	0900	17	10	--	.041	22
10...	1745	35	50	--	--	78
10...	1900	43	50	--	--	101
11...	1915	26	50	--	--	23
13...	1745	36	50	--	--	79
15...	1015	27	50	--	--	21
17...	2200	26	50	--	--	51
18...	0130	59	50	--	--	449
18...	0930	60	50	--	--	249
19...	1515	27	50	--	--	41
21...	1230	35	50	--	.768	633
21...	1645	58	50	--	--	203
21...	1715	79	50	--	--	349
21...	1815	110	50	--	1.57	1,100
21...	1845	139	50	--	--	1,280
21...	1915	173	50	--	1.98	1,670
21...	2030	226	50	--	2.28	1,310
22...	0015	310	50	--	1.92	1,050
22...	0045	364	50	--	1.68	1,320
22...	0130	445	50	--	--	1,380
22...	0215	521	50	--	2.81	2,220
22...	1445	365	50	--	.740	158
23...	0330	277	50	--	.758	214
23...	0600	460	50	--	2.15	1,360
23...	0700	547	50	--	--	1,350
23...	0800	663	50	--	3.64	2,940
23...	2330	425	50	--	1.18	393
24...	1700	265	50	--	.665	181
24...	2345	158	50	--	--	196
25...	1215	101	50	--	.484	125
29...	0330	30	50	--	.274	56
29...	1445	41	50	--	--	46
30...	0645	34	50	--	.171	30
30...	1215	68	50	.133	.323	126
30...	1315	99	50	--	.567	423
30...	1345	111	50	--	--	423
30...	1430	126	50	.173	.580	312
30...	1730	108	50	--	--	303
30...	2130	90	50	.172	.444	156
JUN						
01...	1045	45	50	--	.205	60
06...	1100	24	50	--	.115	90
10...	0045	26	50	--	.133	49
10...	1815	45	50	--	.189	69
10...	2345	79	50	--	.276	130
11...	0645	101	50	--	.326	108
11...	2100	73	50	--	.342	64
12...	0515	82	50	--	.371	116
12...	2115	57	50	--	.264	59
14...	0835	33	50	--	.157	42
14...	0836	33	10	--	.156	35
16...	1745	25	50	--	.125	33
17...	0200	43	50	--	.234	93
17...	0315	62	50	--	.342	184
17...	0715	48	50	--	.235	83
18...	0715	31	50	--	--	60
20...	1600	24	50	--	.089	29
22...	0630	26	50	--	--	35

05427718 YAHARA RIVER AT WINDSOR, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
JUL						
03...	1900	25	50	--	.109	35
03...	2345	54	50	--	.236	124
04...	0345	112	50	.141	.424	238
04...	0415	125	50	--	--	231
04...	0500	139	50	.123	.399	230
04...	1030	100	50	.120	.290	93
04...	2245	53	50	--	.300	60
06...	1530	32	50	--	--	32
08...	1530	25	50	--	.104	18
12...	0638	23	50	--	.124	32
12...	0639	23	10	--	.115	74
30...	1230	26	50	--	--	21
30...	1745	35	50	--	--	42
31...	1015	26	50	--	--	29
AUG						
02...	1130	29	50	--	--	33
02...	1630	38	50	--	--	40
03...	0845	24	50	--	--	19
03...	2030	37	50	--	.223	47
03...	2100	58	50	--	.276	68
04...	0001	82	50	--	.388	92
04...	0045	96	50	--	--	144
04...	0130	108	50	--	.492	175
04...	0600	72	50	--	.378	109
05...	0415	39	50	--	.236	41
06...	1245	24	50	--	.128	20
25...	0215	23	50	--	--	41
25...	1445	24	50	--	--	20
27...	0200	24	50	--	.110	19
27...	0545	34	50	--	.149	49
27...	0645	43	50	--	.169	54
27...	0910	32	50	--	.146	26
27...	0911	32	10	--	.155	186
28...	1000	22	50	--	.129	17
SEP						
01...	0615	23	50	--	--	25
15...	2030	22	50	--	--	15
29...	1305	16	10	--	.046	9

05427850 YAHARA RIVER AT STATE HIGHWAY 113 AT MADISON, WI

LOCATION.--Lat 43°09'03", long 89°24'07", in SW 1/4 SW 1/4 sec.23, T.8 N., R.9 E., Dane County, Hydrologic Unit 07090001, at northbound bridge on Highway 113, 5.3 mi north of the state capitol in Madison.

DRAINAGE AREA.--114 mi², of which 36.6 mi² is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 2002 to current year.

GAGE.--Water-stage recorder. Side-looking velocity meter system. Datum of gage is 840.00 ft above NGVD of 1929 (Wisconsin Department of Transportation benchmark).

REMARKS.--Records good (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	41	85	44	38	184	76	52	183	73	151	60
2	8.1	82	69	44	33	159	70	55	146	75	111	67
3	59	140	62	56	41	101	80	31	114	52	113	66
4	33	326	57	45	47	93	59	67	111	98	183	60
5	32	366	55	39	38	206	56	44	106	139	162	53
6	27	175	48	37	42	277	76	58	98	91	107	74
7	37	100	42	40	47	139	59	47	73	94	85	68
8	36	63	73	37	46	91	72	52	106	83	73	60
9	31	54	76	37	47	72	64	78	110	81	80	58
10	34	62	123	39	49	47	65	77	87	81	91	49
11	14	70	132	41	53	70	63	82	157	67	83	65
12	57	36	73	43	56	64	52	53	152	71	76	52
13	36	85	64	45	47	41	51	77	119	65	69	49
14	40	46	54	39	54	56	55	84	96	76	65	49
15	43	63	56	36	49	74	38	74	84	68	63	40
16	43	57	59	41	49	47	70	59	76	73	62	92
17	19	47	55	42	54	53	71	58	114	104	78	59
18	58	80	50	34	54	53	-41	105	104	80	54	58
19	33	70	50	32	47	38	170	76	81	87	72	54
20	38	69	34	38	47	81	68	86	60	77	71	59
21	54	89	58	39	56	64	81	89	91	73	57	56
22	37	53	48	32	58	43	79	436	87	86	53	53
23	38	130	49	39	55	67	59	721	89	73	72	40
24	34	254	43	31	78	69	72	747	97	69	53	64
25	43	144	42	34	84	54	45	411	73	66	65	57
26	45	111	41	34	104	156	71	167	79	64	64	50
27	16	82	42	29	128	119	43	139	70	61	83	59
28	41	77	60	25	133	80	-2.0	102	74	42	79	43
29	64	62	48	25	165	126	101	124	66	66	62	48
30	35	69	34	40	---	121	74	139	50	166	69	41
31	38	---	64	36	---	63	---	174	---	187	63	---
TOTAL	1,158.1	3,103	1,846	1,173	1,799	2,908	1,897.0	4,564	2,953	2,588	2,569	1,703
MEAN	37.4	103	59.5	37.8	62.0	93.8	63.2	147	98.4	83.5	82.9	56.8
MAX	64	366	132	56	165	277	170	747	183	187	183	92
MIN	8.1	36	34	25	33	38	-41	31	50	42	53	40
CFSM	0.48	1.34	0.77	0.49	0.80	1.21	0.82	1.90	1.27	1.08	1.07	0.73
IN.	0.56	1.49	0.89	0.56	0.86	1.40	0.91	2.19	1.42	1.24	1.23	0.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	45.2	79.7	52.5	40.9	57.2	71.4	64.5	103	72.1	53.6	51.0	44.2
MAX	53.1	103	59.5	50.4	71.6	93.8	82.1	147	98.4	83.5	82.9	56.8
(WY)	(2003)	(2004)	(2004)	(2002)	(2002)	(2004)	(2002)	(2004)	(2004)	(2004)	(2004)	(2004)
MIN	37.4	56.0	45.5	34.6	37.9	47.1	48.2	77.8	37.8	34.4	27.2	37.4
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)

05427850 YAHARA RIVER AT STATE HWY 113 AT MADISON, WI—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	17,912.2		28,261.1			
ANNUAL MEAN	49.1		77.2		61.3	
HIGHEST ANNUAL MEAN					77.2 2004	
LOWEST ANNUAL MEAN					45.3 2003	
HIGHEST DAILY MEAN	366	Nov 5	747	May 24	747	May 24, 2004
LOWEST DAILY MEAN	-1.4	Apr 17	-41	Apr 18	-41	Apr 18, 2004
ANNUAL SEVEN-DAY MINIMUM	20	Aug 30	30	Oct 5	20	Aug 30, 2003
MAXIMUM PEAK FLOW			849	May 24	849	May 24, 2004
MAXIMUM PEAK STAGE			11.83	May 24	11.83	May 24, 2004
INSTANTANEOUS LOW FLOW			-560	Apr 18	-759	Jun 10, 2002
ANNUAL RUNOFF (CFSM)	0.634		0.998		0.792	
ANNUAL RUNOFF (INCHES)	8.61		13.58		10.76	
10 PERCENT EXCEEDS	82		127		100	
50 PERCENT EXCEEDS	40		63		49	
90 PERCENT EXCEEDS	24		37		29	

05427850 YAHARA RIVER AT STATE HIGHWAY 113 AT MADISON, WI—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 2002 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: January 2002 to current year.

SUSPENDED-SEDIMENT DISCHARGE: January 2002 to current year.

TOTAL-PHOSPHORUS DISCHARGE: January 2002 to current year.

INSTRUMENTATION.--Automatic pumping sampler since January 2002.

REMARKS.--Records good. Samples are point samples unless otherwise noted.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 31.5°C, July 18, 2002; minimum, 0.0°C, on many days during winter.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 107 mg/L, May 24, 2004; minimum observed, 4.0 mg/L, Feb. 18, 2003.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 216 tons, May 24, 2004; minimum daily, -2.43 ton, Apr. 18, 2004.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.472 mg/L, May 25, 2004; minimum observed, 0.013 mg/L, Feb. 18, 2003.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 1,660 lb, May 24, 2004; minimum daily, -42.5 lb, Apr. 18, 2004.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 28.5°C, July 20, 21; minimum, 0.0°C, on many days during winter.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 107 mg/L, May 24; minimum observed, 8.0 mg/L, Oct. 5.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 216 tons, May 24; minimum daily, -2.43 ton, Apr. 18.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.472 mg/L, May 25; minimum observed, 0.036 mg/L, Feb. 23.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 1,660 lb, May 24; minimum daily, -42.5 lb, Apr. 18.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.5	9.5	10.5	9.5	8.0	8.5	1.0	0.0	0.5	3.5	2.5	3.0
2	10.5	8.5	9.5	8.5	7.5	8.0	1.0	0.0	0.5	3.0	2.0	2.5
3	10.0	8.5	9.5	8.0	5.5	7.0	2.5	1.0	2.0	3.5	2.0	3.0
4	11.0	8.5	9.5	7.0	5.5	6.0	3.0	2.5	2.5	3.0	1.5	2.5
5	12.5	9.0	10.5	6.5	5.0	5.5	3.5	2.5	3.0	2.0	1.0	1.5
6	13.5	10.5	12.0	5.5	4.0	4.5	3.5	3.0	3.0	2.0	1.0	1.5
7	16.0	12.0	13.5	4.5	2.0	3.5	4.0	3.0	3.5	1.5	1.5	1.5
8	17.5	14.5	15.5	3.0	1.0	2.0	4.0	3.5	4.0	1.5	1.0	1.5
9	18.0	16.0	17.0	4.0	2.5	3.0	3.5	2.5	3.0	2.0	1.5	2.0
10	19.0	16.0	17.5	4.0	3.0	3.5	2.5	0.0	1.0	1.5	1.5	1.5
11	19.0	17.0	18.0	5.0	3.0	4.0	1.5	0.0	0.5	1.5	1.0	1.5
12	18.0	15.5	16.5	6.5	4.0	5.0	2.0	1.0	1.5	2.0	1.5	1.5
13	17.0	14.5	15.5	4.0	2.0	3.0	2.0	1.0	1.5	2.5	2.0	2.0
14	16.0	14.0	15.0	4.0	2.0	3.0	2.0	1.5	2.0	2.0	1.5	2.0
15	14.5	12.5	13.5	4.0	3.5	4.0	2.0	1.5	2.0	1.5	1.0	1.5
16	12.5	11.0	11.5	4.5	4.0	4.5	2.0	1.5	2.0	1.5	1.0	1.0
17	12.0	9.5	10.5	6.0	4.0	5.0	2.5	2.0	2.0	1.5	1.0	1.5
18	12.5	9.5	11.0	7.5	6.0	7.0	2.5	2.0	2.5	1.5	1.0	1.5
19	14.0	10.5	12.0	7.5	6.0	6.5	3.0	2.0	2.5	1.0	0.5	1.0
20	15.5	12.5	13.5	7.5	5.5	6.5	3.0	2.5	2.5	1.0	0.5	1.0
21	14.5	12.5	13.5	7.0	4.5	5.5	3.0	2.5	3.0	1.5	0.5	1.0
22	13.0	10.5	12.0	4.5	3.5	4.0	3.5	2.5	3.0	1.5	0.5	1.0
23	12.5	10.5	11.5	5.0	4.0	4.5	3.5	3.0	3.5	1.5	0.5	1.0
24	11.0	9.5	10.0	4.0	0.0	1.5	3.5	3.0	3.0	0.5	0.5	0.5
25	11.5	9.5	10.0	1.0	0.0	0.5	3.0	2.5	3.0	0.5	0.5	0.5
26	10.0	7.5	8.5	1.0	0.0	0.5	3.0	2.0	2.0	0.5	0.0	0.5
27	8.5	7.0	7.5	2.0	1.0	1.5	3.0	2.0	2.5	0.5	0.0	0.5
28	8.0	6.5	7.5	2.0	0.0	1.0	3.5	2.5	3.0	0.5	0.0	0.5
29	7.5	6.0	6.5	0.5	0.0	0.5	3.5	2.5	3.0	0.5	0.0	0.0
30	10.0	6.0	8.0	1.5	0.0	0.5	3.5	2.5	3.0	0.0	0.0	0.0
31	10.5	9.5	10.0	---	---	---	3.5	2.5	3.0	0.0	0.0	0.0
MONTH	19.0	6.0	11.8	9.5	0.0	4.0	4.0	0.0	2.4	3.5	0.0	1.3

ROCK RIVER BASIN

05427850 YAHARA RIVER AT STATE HIGHWAY 113 AT MADISON, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
COMPOSITE SAMPLES

Date	Time	End date	End time	Dis-charge, cfs (00060)	Sam-pling method, code (82398)	Phos-phorus, water, unfltrd mg/L (00665)	Sus-pended sedi-ment concen-tration mg/L (80154)
OCT							
05-05	0300	20031005	2100	32	50	.061	8
OCT							
10-10	0300	20031010	2100	34	50	.084	22
NOV							
13-13	0300	20031113	2100	85	50	.188	18
NOV							
14-14	0300	20031114	2100	46	50	.156	13
NOV							
15-15	0300	20031115	2100	63	50	.186	18
NOV							
24-24	0300	20031124	2100	254	50	.082	16
NOV							
26-26	0300	20031126	2100	111	50	.199	16
DEC							
10-10	0300	20031210	2100	123	50	.049	10
DEC							
11-11	0300	20031211	2100	132	50	.071	13
DEC							
23-23	0300	20031223	2100	49	50	.048	11
DEC							
27-27	0300	20031227	2100	42	50	.043	13
MAR							
11-11	0300	20040311	2100	70	50	.261	24
MAR							
24-24	0300	20040324	2100	69	50	.069	9
APR							
07-07	0200	20040407	2000	59	50	.192	22
APR							
19-19	0200	20040419	2000	170	50	.227	50
MAY							
23-23	0300	20040523	2100	721	50	.300	66
MAY							
24-24	0300	20040524	2100	747	50	.412	107
MAY							
25-25	0300	20040525	2100	411	50	.472	104
MAY							
26-26	0300	20040526	2100	167	50	.167	79
JUN							
09-09	0300	20040609	2100	110	50	.158	31
JUN							
11-11	0300	20040611	2100	157	50	.192	34
JUN							
13-13	0300	20040613	2100	96	50	.152	35
JUN							
16-16	0300	20040616	2100	76	50	.131	30
JUN							
19-19	0300	20040619	2100	81	50	.176	43
JUN							
21-21	0300	20040621	2100	91	50	.138	30
JUN							
22-22	0300	20040622	2100	87	50	.160	38
JUL							
05-05	0300	20040705	2100	139	50	.206	43
JUL							
07-07	0300	20040707	2100	94	50	.227	59
JUL							
31-31	0300	20040731	2100	187	50	.196	36
AUG							
21-21	0300	20040821	2100	57	50	.171	--
SEP							
20-20	0300	20040920	2100	59	50	.107	--

05427850 YAHARA RIVER AT STATE HIGHWAY 113 AT MADISON, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DISCRETE SAMPLES

Date	Time	Dis-charge, cfs (00060)	Sam-pling method, code (82398)	Phos-phorus, water, unfltrd mg/L (00665)	Sus-pended sedi-ment concen-tration mg/L (80154)
NOV					
24...	1355	254	50	.083	50
DEC					
10...	1400	123	50	.065	19
FEB					
23...	0300	55	50	.036	9
27...	0300	128	50	.306	9
MAR					
01...	0300	184	50	.437	15
06...	0300	277	50	.320	30
MAY					
12...	1115	53	50	.147	39
12...	1120	53	50	.166	50
27...	1145	139	50	.334	52
27...	1155	139	50	.333	51

ROCK RIVER BASIN

549

05427948 PHEASANT BRANCH AT MIDDLETON, WI

LOCATION.--Lat 43°06'12", long 89°30'42", in NE 1/4 NW 1/4 sec.11, T.7 N., R.8 E., Dane County, Hydrologic Unit 07090001, on left bank at bridge on U.S. Highway 12, 2.5 mi upstream from Lake Mendota, at Middleton.

DRAINAGE AREA.--18.3 mi², of which 1.22 mi² is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1974 to current year.

GAGE.--Water-stage recorder, crest-stage gage, parshall flume, and concrete control. Datum of gage is 901.5 ft above NGVD of 1929.

REMARKS.--Records good except those for October 9,10, 25-27, 28-31 and August 9-16, which are fair (see page 11). Low flows occasionally affected by construction activities upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.8	2.6	1.9	0.85	24	3.3	1.5	16	2.4	3.4	4.4
2	1.2	20	2.3	1.9	0.97	19	2.9	1.5	6.9	2.3	3.9	4.8
3	1.6	52	2.1	1.9	1.0	6.1	2.7	1.6	4.5	13	21	3.4
4	2.0	265	2.0	1.7	0.99	5.6	2.4	1.6	3.6	36	61	2.3
5	1.7	36	2.2	1.6	0.98	106	2.4	1.5	3.2	8.0	11	0.99
6	1.8	12	2.1	1.4	1.0	23	2.2	1.4	3.0	4.5	5.5	1.6
7	1.6	6.5	2.0	1.3	1.0	7.2	2.1	1.3	3.0	4.4	4.3	2.4
8	0.65	4.5	2.0	1.3	0.99	4.3	1.9	1.4	2.8	3.9	3.9	2.3
9	0.78	3.6	2.9	1.3	1.0	3.5	1.5	3.4	3.5	4.0	3.6	2.2
10	0.77	3.3	55	1.3	1.1	3.2	0.69	4.7	17	3.6	3.2	1.9
11	0.76	3.0	21	1.3	1.0	3.1	1.2	5.7	37	3.2	2.9	1.8
12	1.3	2.8	6.3	1.4	1.0	2.4	1.5	3.5	35	3.1	2.7	1.7
13	1.2	2.2	3.8	1.4	0.99	2.4	1.9	3.5	9.7	2.8	2.5	1.6
14	4.6	2.0	3.2	1.4	0.99	2.8	2.3	8.0	5.2	2.6	2.3	1.6
15	3.8	1.9	2.9	1.3	0.97	2.3	1.7	6.3	4.1	2.5	2.1	4.4
16	2.7	1.9	3.2	1.2	1.0	2.2	1.5	3.4	5.1	12	2.2	4.2
17	2.0	1.9	2.9	1.4	1.00	2.4	5.8	3.3	17	22	2.0	2.9
18	1.6	3.7	2.3	1.3	1.0	2.6	3.7	11	6.9	5.1	3.2	2.4
19	1.4	3.4	2.0	1.1	1.1	2.4	3.0	5.3	4.0	3.4	3.8	2.1
20	1.5	2.9	1.8	1.1	3.6	2.5	3.8	3.1	3.3	3.2	2.5	1.9
21	1.5	2.3	1.7	1.1	6.9	2.1	8.1	86	3.6	4.4	2.0	1.8
22	1.4	1.9	1.9	0.99	8.9	2.0	4.5	352	3.4	5.0	1.9	1.7
23	1.4	126	1.9	0.93	15	1.9	3.0	234	3.1	4.1	1.9	1.7
24	2.2	32	1.7	0.87	36	3.1	2.2	48	4.8	3.6	2.8	1.7
25	3.2	9.3	1.6	0.88	19	4.7	3.4	23	4.6	3.5	3.7	1.6
26	2.5	5.8	1.5	1.00	21	50	2.9	13	3.5	3.2	2.7	1.6
27	2.0	4.2	1.7	1.0	21	13	2.2	7.8	3.1	2.5	3.2	1.5
28	1.6	3.5	5.5	1.0	17	8.0	1.9	5.2	3.1	2.1	2.9	1.6
29	1.5	3.0	3.6	0.96	16	8.8	1.7	8.2	2.8	2.6	2.8	1.6
30	1.4	2.9	2.8	0.88	---	5.0	1.5	50	2.6	7.6	2.4	1.6
31	1.5	---	2.2	0.84	---	3.8	---	36	---	4.2	2.4	---
TOTAL	54.26	621.3	150.7	38.95	183.33	329.4	79.89	936.2	225.4	184.8	175.7	67.29
MEAN	1.75	20.7	4.86	1.26	6.32	10.6	2.66	30.2	7.51	5.96	5.67	2.24
MAX	4.6	265	55	1.9	36	106	8.1	352	37	36	61	4.8
MIN	0.65	1.8	1.5	0.84	0.85	1.9	0.69	1.3	2.6	2.1	1.9	0.99
CFSM	0.10	1.21	0.28	0.07	0.37	0.62	0.16	1.77	0.44	0.35	0.33	0.13
IN.	0.12	1.35	0.33	0.08	0.40	0.72	0.17	2.04	0.49	0.40	0.38	0.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004, BY WATER YEAR (WY)

MEAN	2.69	3.73	2.43	2.51	6.30	10.0	5.48	5.11	7.03	5.37	4.10	3.76
MAX	6.42	20.7	6.11	7.75	20.4	34.6	16.8	30.2	41.7	32.5	26.5	13.0
(WY)	(1987)	(2004)	(1985)	(1997)	(1994)	(1993)	(1999)	(2004)	(2000)	(1993)	(2001)	(1980)
MIN	0.86	0.67	0.34	0.36	0.46	1.63	0.95	0.96	0.92	0.94	0.92	0.74
(WY)	(1977)	(1991)	(1990)	(1991)	(1978)	(1981)	(1990)	(1977)	(1989)	(1976)	(2003)	(1976)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1974 - 2004

ANNUAL TOTAL	1,735.61	3,047.22	
ANNUAL MEAN	4.76	8.33	4.90
HIGHEST ANNUAL MEAN			11.0
LOWEST ANNUAL MEAN			2.78
HIGHEST DAILY MEAN	265	Nov 4	566
LOWEST DAILY MEAN	(a)0.54	Aug 28	0.17
ANNUAL SEVEN-DAY MINIMUM	(a)0.69	Aug 27	0.18
MAXIMUM PEAK FLOW			964
MAXIMUM PEAK STAGE			8.74
INSTANTANEOUS LOW FLOW			(a)0.47
ANNUAL RUNOFF (CFSM)	0.278		0.487
ANNUAL RUNOFF (INCHES)	3.78		6.64
10 PERCENT EXCEEDS	6.4		14
50 PERCENT EXCEEDS	1.9		2.6
90 PERCENT EXCEEDS	0.96		1.1

(a) Result of construction upstream

05427948 PHEASANT BRANCH AT MIDDLETON, WI—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1977 to current year.

TOTAL-PHOSPHORUS DISCHARGE: January 1992 to December 1993, and October 1994 to current year.

TOTAL ORTHO-PHOSPHORUS DISCHARGE: January to September 1992.

INSTRUMENTATION.--Automatic pumping sampler since December 1977.

REMARKS.--Records good. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 15,400 mg/L, Apr. 30, 1984; minimum observed, 4 mg/L, Mar. 12, 1979, May 11, 1995, Mar. 17, 2001, July 3 and Aug. 7, 2002.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 2,870 tons, June 10, 1984; minimum daily, 0.01 ton, on many days in 1990, 1991, and 2003 water years.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 15.1 mg/L, July 4, 1994; minimum observed, 0.03 mg/L, Jan. 28, 1998.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 4,310 lb, May 18, 2000; minimum daily, 0.19 lb, Jan. 14, 31, 1998.

TOTAL ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 2.40 mg/L, Feb. 29, 1992; minimum observed, 0.010 mg/L, Nov. 4, 2003.

TOTAL ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 966 lb, Feb. 28, 1992; minimum daily, 0.13 lb, Sept. 13, 1992.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 4,850 mg/L, May 22; minimum observed, 8 mg/L, May 14.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 2,400 tons, May 22; minimum daily, 0.02 ton, Apr. 10.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 1.99 mg/L, May 21; minimum observed, 0.058 mg/L, Sept. 30.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 3,190 lb, May 22; minimum daily, 0.24 lb, Sept. 30.

TOTAL ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.507 mg/L, Mar. 5; minimum observed, 0.010 mg/L, Nov. 4.

SUSPENDED SEDIMENT DISCHARGE, TONS PER DAY
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.08	0.14	0.22	0.50	0.06	3.9	0.08	0.06	3.4	0.11	0.19	0.13
2	0.08	2.9	0.18	0.38	0.07	4.6	0.07	0.06	0.83	0.10	0.13	0.14
3	0.12	20	0.16	0.31	0.08	0.77	0.07	0.06	0.37	3.8	30	0.10
4	0.14	755	0.16	0.23	0.07	0.87	0.06	0.06	0.22	107	47	0.07
5	0.12	13	0.16	0.20	0.07	97	0.06	0.05	0.18	2.2	2.5	0.03
6	0.13	2.4	0.15	0.16	0.08	9.8	0.05	0.05	0.17	0.19	0.47	0.05
7	0.11	0.94	0.14	0.14	0.08	2.7	0.05	0.05	0.17	0.17	0.16	0.07
8	0.05	0.45	0.13	0.13	0.07	1.2	0.05	0.05	0.16	0.14	0.12	0.07
9	0.05	0.29	0.29	0.11	0.08	0.60	0.04	0.11	0.31	0.13	0.12	0.07
10	0.05	0.22	23	0.10	0.08	0.34	0.02	0.14	1.3	0.11	0.10	0.06
11	0.05	0.19	4.9	0.10	0.08	0.24	0.03	0.16	7.5	0.09	0.09	0.05
12	0.09	0.18	0.81	0.10	0.08	0.17	0.04	0.09	39	0.09	0.09	0.05
13	0.08	0.15	0.35	0.10	0.07	0.17	0.05	0.08	0.68	0.08	0.08	0.05
14	0.47	0.13	0.22	0.10	0.07	0.19	0.06	0.33	0.15	0.07	0.07	0.05
15	0.40	0.13	0.16	0.09	0.07	0.15	0.05	0.24	0.09	0.06	0.07	0.42
16	0.26	0.12	0.17	0.09	0.08	0.14	0.06	0.12	0.71	1.4	0.07	0.18
17	0.18	0.12	0.15	0.10	0.08	0.14	0.57	0.11	3.0	3.7	0.07	0.11
18	0.13	0.24	0.13	0.09	0.08	0.15	0.20	0.92	0.30	0.40	0.22	0.08
19	0.12	0.22	0.11	0.08	0.09	0.13	0.15	0.27	0.14	0.20	0.19	0.06
20	0.12	0.19	0.09	0.08	0.31	0.13	0.47	0.14	0.11	0.15	0.07	0.06
21	0.11	0.15	0.09	0.08	0.65	0.11	0.66	345	0.12	0.20	0.06	0.05
22	0.11	0.12	0.10	0.07	0.76	0.10	0.27	2,400	0.11	0.22	0.05	0.05
23	0.10	134	0.10	0.07	2.2	0.12	0.15	666	0.10	0.18	0.05	0.05
24	0.20	15	0.09	0.06	8.2	0.27	0.10	43	0.40	0.16	0.13	0.05
25	0.31	3.3	0.08	0.06	2.6	2.0	0.13	10	0.41	0.15	0.25	0.05
26	0.22	1.6	0.08	0.07	3.0	35	0.11	3.2	0.28	0.14	0.10	0.05
27	0.16	0.86	0.11	0.08	2.1	3.1	0.08	1.1	0.22	0.10	0.12	0.05
28	0.12	0.55	2.6	0.07	1.6	1.3	0.07	0.40	0.20	0.09	0.10	0.05
29	0.12	0.34	1.6	0.07	2.4	1.2	0.06	0.76	0.17	0.11	0.09	0.05
30	0.10	0.26	1.1	0.06	---	0.38	0.05	37	0.14	0.71	0.07	0.05
31	0.11	---	0.74	0.06	---	0.15	---	15	---	0.45	0.07	---
TOTAL	4.49	953.19	38.37	3.94	25.26	167.12	3.91	3,524.61	60.94	122.70	82.90	2.40
WTR YR	2004	TOTAL 4,989.83										

05427948 PHEASANT BRANCH AT MIDDLETON, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
NOV						
02...	0450	6.4	50	--	.137	37
02...	1815	33	50	--	.199	66
03...	0630	23	50	--	.185	34
03...	1920	74	50	.070	.336	125
04...	0030	161	50	.080	.583	441
04...	0140	272	50	.060	1.19	1,350
04...	0215	358	50	.010	1.32	1,690
04...	0245	444	50	.050	1.47	2,580
04...	0315	511	50	--	1.21	1,800
04...	0345	558	50	--	1.27	1,940
04...	0445	590	50	.030	1.01	1,920
04...	0645	522	50	--	.834	1,170
04...	0730	463	50	.060	.766	774
04...	1045	275	50	.120	.854	625
04...	1915	107	50	.260	.748	229
05...	1333	28	50	--	.708	100
05...	1334	28	10	--	.727	129
10...	1340	3.3	10	--	.284	24
23...	0100	6.2	50	--	.138	31
23...	0145	32	50	--	--	213
23...	0510	70	50	--	.331	269
23...	0605	119	50	.052	.784	750
23...	0725	180	50	.068	.758	706
23...	0815	217	50	--	.818	680
23...	0915	239	50	.087	.707	505
23...	1545	150	50	.115	.521	268
24...	0430	48	50	--	.663	175
26...	1115	5.9	50	--	.497	102
DEC						
09...	2130	6.2	50	--	.143	43
10...	0305	28	50	--	.204	161
10...	0810	64	50	--	.263	185
10...	1415	76	50	--	.287	154
11...	0230	35	50	--	.332	102
15...	0935	2.9	10	--	.296	20
28...	0215	5.6	50	--	--	187
JAN						
12...	0940	1.3	10	--	.085	138
FEB						
02...	1115	.97	10	--	.063	135
21...	1000	5.6	50	--	.232	41
21...	2215	8.8	50	--	.408	29
23...	1045	8.8	50	--	.899	36
24...	0345	45	50	--	1.41	105
25...	1015	15	50	--	1.67	45
25...	2230	24	50	--	1.34	51
26...	2245	27	50	--	1.22	59
27...	2300	24	50	--	1.05	24
28...	1115	12	50	--	1.31	38
28...	2330	22	50	--	.981	51
29...	1745	13	50	--	1.04	45
MAR						
01...	1800	29	50	--	.569	50
03...	1230	5.6	50	--	.494	43
04...	2000	5.4	50	--	.434	28
04...	2325	26	50	--	.410	121
05...	0225	62	50	--	.495	209
05...	0445	108	50	.507	1.18	431
05...	0555	133	50	--	.738	443
05...	0800	158	50	.213	.936	421
05...	1745	93	50	.157	.683	284
06...	1600	16	50	--	.926	106
07...	1615	6.2	50	--	.659	153
23...	1549	1.9	50	--	.116	17
23...	1550	1.9	10	--	.104	33
25...	2230	6.7	50	--	.129	32
25...	2320	30	50	--	.586	537
26...	0545	66	50	--	.304	267
26...	1800	42	50	--	.349	219
28...	0630	5.9	50	--	.386	53
29...	2330	6.2	50	--	.221	37

05427948 PHEASANT BRANCH AT MIDDLETON, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
APR					
14...	1345	2.2	50	.079	9
14...	1346	2.2	10	.075	10
17...	0235	5.9	50	--	96
17...	0845	6.7	50	--	22
20...	1810	5.8	50	--	80
21...	0630	9.3	50	--	29
22...	0045	5.9	50	--	24
MAY					
06...	0955	1.4	10	.079	38
10...	1500	6.7	50	--	11
14...	0745	5.9	50	--	8
14...	1400	10	50	.118	21
15...	0815	7.0	50	--	14
17...	2045	6.2	50	--	12
18...	0900	15	50	--	17
19...	0315	7.3	50	--	19
21...	0750	8.2	50	.122	15
21...	1635	42	50	.249	117
21...	1730	125	50	1.99	2,190
21...	1915	215	50	1.08	1,020
21...	2240	314	50	1.05	1,610
21...	2345	461	50	1.64	3,130
22...	0040	562	50	--	3,000
22...	0120	606	50	1.62	2,990
22...	0415	647	50	1.71	4,850
22...	0810	523	50	1.87	2,280
22...	1030	363	50	1.69	1,270
22...	1430	211	50	1.69	709
23...	0100	105	50	1.12	416
23...	0510	178	50	1.08	748
23...	0615	282	50	1.09	1,000
23...	0730	406	50	1.03	1,090
23...	1215	367	50	1.37	1,670
23...	1745	179	50	1.42	658
24...	0945	48	50	.889	297
28...	0500	5.9	50	.311	31
29...	1515	10	50	--	39
30...	0925	11	50	.228	47
30...	1020	47	50	.927	1,060
30...	1215	66	50	--	278
30...	1415	88	50	.471	345
30...	2030	80	50	.450	214
31...	2045	28	50	--	113
JUN					
02...	1515	6.4	50	.307	39
09...	1515	5.9	50	--	65
10...	1140	9.3	50	.122	10
11...	0115	47	50	.319	63
11...	0715	47	50	--	61
11...	1930	27	50	.463	36
12...	0115	46	50	1.93	1,760
12...	1330	33	50	--	53
14...	0200	5.9	50	.295	14
16...	2130	7.8	50	.134	14
16...	2210	18	50	.318	150
17...	1030	22	50	.232	31
18...	1645	5.4	50	.201	13
24...	1100	5.9	50	--	37
JUL					
03...	1630	8.1	50	.150	14
03...	1910	34	50	.330	178
04...	0115	49	50	.247	105
04...	1330	34	50	.270	3,860
05...	1345	6.7	50	.260	17
12...	0734	3.2	50	.102	10
12...	0735	3.2	10	.102	12
16...	1610	14	50	.172	19
16...	2230	33	50	.291	81
17...	0430	34	50	--	71
18...	0500	6.4	50	.263	30
30...	1145	9.3	50	--	17
30...	1800	10	50	--	60

05427948 PHEASANT BRANCH AT MIDDLETON, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
AUG					
03...	1810	14	50	.121	12
03...	1830	32	50	.298	185
03...	2045	89	50	1.06	817
04...	0300	105	50	.653	367
04...	1445	43	50	.415	166
06...	0315	6.2	50	.440	41
18...	1830	5.9	50	--	42
24...	2115	6.4	50	--	26
31...	0930	2.4	50	.094	11
31...	0931	2.4	10	.091	36
SEP					
15...	1615	6.7	50	--	62
15...	2215	7.6	50	--	17
30...	1120	1.5	10	.058	38

ROCK RIVER BASIN

054279509 PHEASANT BRANCH TRIBUTARY AT MIDDLETON, WI

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LOCATION (revised).--Lat 43°07'10", long 89°29'02", in SE 1/4 SE 1/4 sec.36, T.8 N., R.8 E., Dane County, Hydrologic Unit 07090001, on left bank about 1.0 mi from County Highway M and Q bridge in Middleton, and approximately 1.1 mi from mouth.

PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 840.2 ft above NGVD of 1929.

REMARKS.--Records good except those for Nov. 4, 5, 23 and May 21 to July 18, which are poor (see page 11). Gage-height telemeter at station. Drainage area is not listed because discharge is primarily from springs. On Jan. 22, 2003, the ditch that diverted water from some contributing springs to the flume was filled in and the flow from these springs now bypasses the flume.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.2	2.3	2.3	2.3	2.4	2.3	2.3	e3.7	e2.5	2.5	2.5
2	2.2	2.5	2.3	2.3	2.3	2.3	2.3	2.3	e2.8	e2.5	2.5	2.5
3	2.3	3.0	2.2	2.3	2.3	2.2	2.3	2.3	e2.7	e2.9	3.2	2.5
4	2.3	e10	2.2	2.2	2.3	2.3	2.3	2.3	e2.6	e3.9	5.3	2.6
5	2.2	e4.0	2.3	2.2	2.3	6.5	2.3	2.3	e2.5	e2.7	2.5	2.6
6	2.2	2.3	2.3	2.3	2.3	2.4	2.3	2.3	e2.5	e2.5	2.5	2.6
7	2.2	2.3	2.3	2.3	2.2	2.4	2.3	2.3	e2.4	e2.5	2.5	2.6
8	2.2	2.3	2.3	e2.2	2.3	2.3	2.3	2.4	e2.4	e2.5	2.4	2.6
9	2.2	2.3	2.4	2.2	2.3	2.3	2.3	2.4	e2.4	e2.5	2.4	2.6
10	2.3	2.3	2.8	2.2	2.3	2.3	2.3	2.4	e2.4	e2.5	2.5	2.5
11	2.2	2.4	2.4	2.3	2.3	2.3	2.3	2.4	e3.0	e2.5	2.5	2.5
12	2.2	2.4	2.3	2.3	2.3	2.2	2.2	2.3	e3.5	e2.5	2.5	2.6
13	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4	e2.9	e2.5	2.5	2.6
14	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4	e2.6	e2.5	2.5	2.6
15	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4	e2.4	e2.5	2.5	2.7
16	2.2	2.4	2.4	2.3	2.3	2.4	2.3	2.4	e2.6	e2.5	2.4	2.8
17	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.5	e3.2	e2.5	2.4	2.6
18	2.2	2.4	2.3	2.3	2.3	2.4	2.4	2.4	e2.8	e2.5	2.5	2.6
19	2.2	2.3	2.3	2.3	2.3	2.3	2.4	2.4	e2.6	2.5	2.5	2.5
20	2.2	2.3	2.3	2.3	2.5	2.3	2.4	2.4	e2.5	2.5	2.5	2.5
21	2.2	2.3	2.3	2.3	2.4	2.3	2.4	e8.0	e2.5	2.6	2.4	2.6
22	2.2	2.3	2.3	2.3	2.4	2.3	2.4	e18	e2.5	2.6	2.4	2.6
23	2.2	e7.0	2.2	2.3	2.6	2.3	2.4	e12	e2.5	2.5	2.5	2.6
24	2.3	3.2	2.2	2.3	2.4	2.4	2.4	e7.0	e2.5	2.4	2.6	2.5
25	2.2	2.4	2.2	2.3	2.4	2.5	2.5	e5.0	e2.5	2.5	2.6	2.5
26	2.2	2.4	2.2	2.3	2.4	2.8	2.4	e4.0	e2.5	2.5	2.6	2.6
27	2.2	2.4	2.3	2.3	2.4	2.5	2.4	e3.3	e2.5	2.5	2.6	2.6
28	2.2	2.4	2.3	2.3	2.4	2.6	2.4	e2.6	e2.5	2.4	2.6	2.5
29	2.2	2.4	2.3	e2.3	2.3	2.5	2.3	e2.4	e2.5	2.4	2.5	2.5
30	2.2	2.4	2.3	2.3	---	2.4	2.2	e5.0	e2.5	2.5	2.5	2.6
31	2.2	---	2.3	e2.3	---	2.3	---	e4.4	---	2.5	2.5	---
TOTAL	68.6	85.8	71.5	70.8	67.8	77.5	70.1	119.0	79.5	79.4	80.9	77.2
MEAN	2.21	2.86	2.31	2.28	2.34	2.50	2.34	3.84	2.65	2.56	2.61	2.57
MAX	2.3	10	2.8	2.3	2.6	6.5	2.5	18	3.7	3.9	5.3	2.8
MIN	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.4	2.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	3.93	4.05	3.82	3.59	3.45	3.58	3.46	3.82	3.41	3.52	3.11	3.06
MAX	4.73	4.71	4.65	4.34	4.74	4.70	4.72	4.70	5.27	4.81	4.61	4.35
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)
MIN	2.21	2.86	2.31	2.28	2.34	2.50	2.34	2.50	2.31	2.22	2.11	2.27
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 2001 - 2004

ANNUAL TOTAL	921.8		948.1			
ANNUAL MEAN	2.53		2.59		3.43	
HIGHEST ANNUAL MEAN					4.69	
LOWEST ANNUAL MEAN					2.59	
HIGHEST DAILY MEAN	(e)10	Nov 4	(e)18	May 22	(e)18	May 22, 2004
LOWEST DAILY MEAN	2.0	(a)Jul 19	2.2	(b)Oct 1	2.0	(a)Jul 19, 2003
ANNUAL SEVEN-DAY MINIMUM	2.0	Jul 19	2.2	Oct 11	2.0	Jul 19, 2003
MAXIMUM PEAK FLOW			(c)		(c)	Jun 3, 2002
MAXIMUM PEAK STAGE			13.72	May 22	14.71	Aug 2, 2001
INSTANTANEOUS LOW FLOW			2.1	Jan 4	1.9	(d)Jul 19, 2003
10 PERCENT EXCEEDS	2.9		2.6		4.8	
50 PERCENT EXCEEDS	2.3		2.4		2.6	
90 PERCENT EXCEEDS	2.1		2.2		2.2	

(a) Also occurred July 20, 24, 25, and Aug. 11, 13, 2003

(b) Also occurred many other days

(c) Discharge unknown

(d) Also occurred Aug. 11, 14, 2003

(e) Estimated due to ice effect or missing record

ROCK RIVER BASIN

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05427965 SPRING HARBOR STORM SEWER AT MADISON, WI

LOCATION.--Lat 43°04'45", long 89°28'15", in NW ¼ SE ¼ sec.18, T.7 N., R.9 E., Dane County, Hydrologic Unit 07090001, in city park near the junction of Spring Harbor Drive and University Avenue in Madison.

DRAINAGE AREA.--3.29 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1976 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 855.3 ft above NGVD of 1929.

REMARKS.--Records good except those for periods of flow between 0.00 ft³/s and 0.3 ft³/s and flow greater than 100 ft³/s, which are poor (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.06	0.11	0.00	0.02	0.03	6.8	0.07	0.05	1.3	0.00	0.29	8.3
2	0.05	28	0.00	0.00	0.18	1.8	0.05	0.12	0.46	0.01	0.59	0.89
3	0.07	38	0.00	0.00	0.39	0.36	0.05	0.08	0.30	29	13	0.35
4	0.05	64	0.00	0.00	0.40	7.3	0.05	0.09	0.16	14	8.7	0.24
5	0.05	5.5	0.08	0.00	0.40	29	0.05	0.07	0.08	0.95	0.67	0.17
6	0.04	0.41	0.00	0.00	0.34	1.9	0.10	0.08	0.02	1.2	0.22	0.46
7	0.02	0.14	0.00	0.00	0.08	0.34	0.06	0.06	0.00	1.3	0.12	0.12
8	0.01	0.03	0.00	0.00	0.07	0.17	1.1	2.8	0.00	0.31	0.10	0.28
9	0.05	0.00	6.2	0.00	0.09	0.11	1.8	8.3	0.05	4.6	0.11	0.29
10	0.04	0.00	29	0.00	0.06	0.12	1.1	8.1	13	1.1	0.05	0.13
11	0.66	0.01	2.6	0.00	0.06	0.15	0.97	2.1	13	0.45	0.05	0.06
12	0.28	0.00	0.31	0.01	0.05	0.12	0.73	0.32	2.8	0.19	0.05	0.05
13	0.90	0.00	0.08	0.00	0.05	0.17	0.06	5.6	0.29	0.11	0.05	0.05
14	7.9	0.00	0.07	0.00	0.06	0.62	0.05	6.2	0.21	0.07	0.05	0.05
15	0.62	0.00	0.01	0.00	0.05	0.25	0.76	0.90	0.15	0.05	0.03	6.0
16	0.16	0.00	0.58	0.21	0.02	0.13	1.5	0.27	4.1	12	0.02	2.3
17	0.07	0.05	0.33	0.16	0.02	0.47	6.6	8.5	6.3	4.8	2.8	1.9
18	0.05	4.6	0.14	0.06	0.11	0.63	1.3	6.8	0.77	0.38	4.9	0.24
19	0.04	0.69	0.05	0.05	0.24	0.36	0.36	0.70	0.21	0.26	2.1	0.11
20	0.03	0.27	0.00	0.02	10	0.16	5.5	0.40	0.08	0.20	0.43	0.12
21	0.02	0.11	0.00	0.05	2.8	0.08	4.6	50	0.96	3.1	0.19	0.08
22	0.01	0.15	0.03	0.04	1.3	0.05	0.64	58	0.49	0.85	0.10	0.05
23	0.00	51	0.00	0.14	5.0	0.05	0.21	51	1.3	0.38	0.07	0.05
24	4.7	4.2	0.00	0.02	1.9	0.81	0.56	3.7	4.7	0.23	2.1	0.05
25	3.0	0.41	0.00	0.00	1.8	11	2.1	2.0	1.2	0.13	1.4	0.05
26	0.38	0.14	0.00	0.00	2.3	23	0.77	0.45	0.33	0.07	0.44	0.09
27	0.15	0.04	0.13	0.19	2.3	1.1	0.20	0.21	0.21	0.05	5.6	0.08
28	0.08	0.00	1.7	0.02	2.7	4.8	0.11	0.09	0.14	0.07	2.9	0.06
29	0.17	0.00	0.38	0.02	2.6	1.8	0.07	6.1	0.06	8.6	1.4	0.05
30	0.21	0.00	0.17	0.01	---	0.30	0.06	19	0.05	20	0.48	0.05
31	0.13	---	0.08	0.00	---	0.16	---	7.3	---	1.5	0.31	---
TOTAL	20.00	197.86	41.94	1.02	35.40	94.11	31.58	249.39	52.72	105.96	49.32	22.72
MEAN	0.65	6.60	1.35	0.03	1.22	3.04	1.05	8.04	1.76	3.42	1.59	0.76
MAX	7.9	64	29	0.21	10	29	6.6	58	13	29	13	8.3
MIN	0.00	0.00	0.00	0.00	0.02	0.05	0.05	0.05	0.00	0.00	0.02	0.05
CFSM	0.20	2.00	0.41	0.01	0.37	0.92	0.32	2.45	0.53	1.04	0.48	0.23
IN.	0.23	2.24	0.47	0.01	0.40	1.06	0.36	2.82	0.60	1.20	0.56	0.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2004, BY WATER YEAR (WY)

MEAN	1.07	1.35	0.54	0.50	1.36	2.02	1.91	1.91	2.57	2.12	1.94	1.74
MAX	3.19	6.60	1.99	1.73	3.60	6.97	6.26	8.04	7.20	6.51	5.01	4.97
(WY)	(1985)	(2004)	(1985)	(1990)	(1994)	(1993)	(1999)	(2004)	(2000)	(1993)	(2001)	(1980)
MIN	0.11	0.03	0.00	0.00	0.05	0.19	0.54	0.25	0.33	0.24	0.11	0.11
(WY)	(2001)	(1977)	(1990)	(1977)	(1978)	(1999)	(1985)	(1994)	(1987)	(2001)	(2003)	(1976)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1976 - 2004

ANNUAL TOTAL	621.19	902.02	
ANNUAL MEAN	1.70	2.46	1.59
HIGHEST ANNUAL MEAN			3.09
LOWEST ANNUAL MEAN			0.97
HIGHEST DAILY MEAN	64	Nov 4	79
LOWEST DAILY MEAN	0.00	many days	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	(a)Jan 6	0.00
MAXIMUM PEAK FLOW		501	754
MAXIMUM PEAK STAGE		3.50	4.16
ANNUAL RUNOFF (CFSM)	0.517	0.749	0.485
ANNUAL RUNOFF (INCHES)	7.02	10.20	6.59
10 PERCENT EXCEEDS	3.0	6.0	3.5
50 PERCENT EXCEEDS	0.11	0.16	0.14
90 PERCENT EXCEEDS	0.00	0.00	0.00

(a) Also occurred Feb. 6 and Nov. 28

(b) Also occurred Jan. 2

(c) Annual seven-day minimum flows are 0.00 for most years

05427965 SPRING HARBOR STORM SEWER AT MADISON, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Suspended sediment concentration mg/L (80154)
OCT				
11...	2200	6.1	50	23
14...	0050	16	50	47
14...	0700	14	50	23
14...	1615	4.4	50	6
24...	1700	26	50	144
24...	2310	9.2	50	17
25...	0520	4.7	50	6
NOV				
02...	0325	23	50	128
02...	0720	76	50	111
02...	1320	24	50	20
02...	1625	30	50	24
03...	0445	9.2	50	15
03...	1320	68	50	30
03...	1930	28	50	20
04...	0105	198	50	144
04...	0140	339	50	885
04...	0225	221	50	473
04...	0305	120	50	274
04...	1020	47	50	44
04...	2240	15	50	35
05...	1100	4.1	50	21
18...	0445	23	50	172
18...	1055	5.8	50	20
23...	0050	8.7	50	28
23...	0140	82	50	295
23...	0205	198	50	1,030
23...	0230	84	50	535
23...	0605	180	50	136
23...	1410	38	50	28
24...	0230	9.2	50	26
DEC				
09...	2030	21	50	176
09...	2105	45	50	115
10...	0010	34	50	31
10...	0620	50	50	23
10...	1230	24	50	20
FEB				
20...	0810	20	50	116
20...	1115	21	50	43
20...	2335	4.7	50	274
21...	1310	4.4	50	65
23...	1405	8.7	50	77
23...	1710	9.2	50	235
23...	2320	4.7	50	231
25...	1520	5.8	50	51
26...	1430	5.8	50	72
27...	1615	6.1	50	46
28...	1450	11	50	183
29...	1455	6.4	50	110
MAR				
01...	0000	11	50	684
01...	0610	5.2	50	25
01...	1505	4.1	50	43
01...	1810	13	50	112
02...	0020	4.7	50	32
04...	1955	21	50	279
04...	2320	81	50	599
05...	0835	37	50	119
05...	1445	16	50	51
06...	0305	4.1	50	23
25...	2200	20	50	328
25...	2235	100	50	1,160
25...	2325	259	50	1,820
25...	2355	110	50	1,700
26...	0355	45	50	104
26...	1310	13	50	91
26...	2225	4.4	50	31
28...	1535	6.1	50	54
28...	1840	12	50	62
29...	0050	5.0	50	38

05427965 SPRING HARBOR STORM SEWER AT MADISON, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Suspended sediment concentration mg/L (80154)
APR				
16...	0000	22	50	178
16...	0140	4.4	50	42
17...	0245	23	50	209
17...	0305	51	50	361
17...	0410	23	50	203
17...	1020	5.8	50	20
18...	0155	16	50	465
20...	1755	23	50	117
20...	2100	11	50	40
21...	0310	6.7	50	11
21...	0615	13	50	57
21...	0920	5.0	50	10
MAY				
08...	2255	81	50	993
08...	2340	37	50	590
09...	0245	15	50	83
09...	0855	8.7	50	35
09...	1515	3.8	50	14
10...	1415	50	50	796
10...	1620	25	50	104
11...	0135	5.0	50	14
18...	1030	6.1	50	20
21...	0745	81	50	524
21...	0805	147	50	945
21...	1420	17	50	28
21...	1640	114	50	324
21...	1700	161	50	660
21...	1800	213	50	993
21...	2220	46	50	60
21...	2310	228	50	451
21...	2345	380	50	1,360
22...	0245	85	50	177
22...	0340	149	50	178
22...	1035	44	50	51
22...	1950	18	50	51
22...	2320	46	50	101
23...	0235	128	50	210
23...	0430	80	50	134
23...	0540	276	50	256
23...	0615	138	50	240
23...	1335	34	50	40
24...	0500	6.1	50	30
25...	0130	6.1	50	40
29...	0940	24	50	250
29...	1245	11	50	44
29...	1855	5.0	50	11
30...	0850	23	50	234
30...	1010	124	50	578
30...	1210	46	50	69
30...	1740	16	50	24
31...	0720	6.1	50	24
31...	0845	23	50	78
31...	1800	5.2	50	16
JUN				
10...	1135	30	50	141
10...	1155	55	50	272
10...	1600	14	50	25
10...	1755	42	50	112
10...	2100	19	50	36
11...	0035	47	50	59
11...	0540	24	50	21
11...	1800	5.2	50	9
12...	0025	45	50	218
12...	0035	16	50	1,060
16...	2140	32	50	279
16...	2155	58	50	318
16...	2325	29	50	83
17...	1145	4.7	50	8
23...	2120	9.6	50	223
23...	2125	29	50	592
23...	2210	7.7	50	249
24...	1130	29	50	134
24...	1720	5.2	50	10

05427965 SPRING HARBOR STORM SEWER AT MADISON, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Suspended sediment concentration mg/L (80154)
JUL				
03...	1605	70	50	605
03...	1630	339	50	498
03...	1655	186	50	1,060
03...	1730	50	50	342
03...	1905	159	50	276
03...	2045	68	50	99
04...	0600	18	50	27
04...	1820	5.2	50	12
06...	2240	4.4	50	75
09...	1205	37	50	500
09...	1210	57	50	212
09...	1405	8.7	50	90
09...	2015	5.0	50	8
16...	1140	21	50	305
16...	1445	7.7	50	25
16...	1615	45	50	360
16...	1640	159	50	2,420
16...	1710	47	50	583
16...	1905	23	50	84
17...	0115	12	50	21
17...	1030	4.1	50	5
29...	1450	17	50	203
29...	1530	110	50	588
29...	1815	13	50	65
30...	0520	85	50	142
30...	0600	43	50	694
30...	0640	96	50	123
30...	0855	27	50	66
30...	1505	14	50	17
31...	0020	4.1	50	4
AUG				
03...	2000	257	50	751
03...	2015	292	50	2,900
03...	2035	102	50	1,180
03...	2240	36	50	85
04...	0450	14	50	29
04...	1405	5.8	50	46
17...	0310	4.7	50	147
17...	0705	5.0	50	16
18...	1735	62	50	965
18...	1800	24	50	601
18...	1805	58	50	425
18...	2015	8.7	50	54
19...	0225	4.4	50	6
24...	2145	42	50	200
24...	2205	24	50	216
27...	0105	55	50	350
27...	0800	5.2	50	8
28...	0940	11	50	77
28...	1900	6.1	50	23
SEP				
01...	0620	30	50	89
01...	0630	70	50	227
01...	0715	34	50	241
01...	1630	6.1	50	9
15...	1005	12	50	139
15...	1035	34	50	458
15...	1605	26	50	125
15...	2215	5.8	50	8
16...	2305	15	50	92
17...	0215	3.4	50	141

05428000 LAKE MENDOTA AT MADISON, WI

LOCATION.--Lat 43°05'42", long 89°22'12", in NW ¼ SE ¼ sec.12, T.7 N., R.9 E., Dane County, Hydrologic Unit 07090001, in county boat house at dam at outlet, in Madison.

DRAINAGE AREA.--233 mi². Area of Lake Mendota, 15.2 mi².

PERIOD OF RECORD.--January 1916 to current year (incomplete).

REVISED RECORDS.--WDR WI-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above NGVD of 1929, or 5.60 ft below City of Madison datum. Prior to Oct. 1, 1979, at datum 7.82 ft higher; prior to Nov. 15, 1971, nonrecording gage at same site at the higher datum.

REMARKS.--Lake level regulated by concrete dam with two 12-foot gates and 20-foot lock at outlet. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 12.75 ft, June 5, 2000; minimum observed, 8.02 ft, Feb. 24 to Mar. 10, 1920, current datum.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 11.66 ft, May 31; minimum recorded, 8.82 ft, Feb. 19.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.72	9.26	9.56	9.39	9.01	9.16	9.99	9.74	11.57	10.81	10.26	10.00
2	9.68	9.33	9.49	9.39	9.01	9.22	9.96	9.73	11.53	10.79	10.30	10.01
3	9.67	9.43	9.44	9.39	9.01	9.26	9.96	9.72	11.48	10.78	10.34	10.03
4	9.66	9.84	9.43	9.36	9.00	9.30	9.89	9.71	11.41	11.03	10.49	10.02
5	9.64	9.98	9.44	9.35	9.00	9.48	9.85	9.70	11.34	11.02	10.49	10.0
6	9.63	10.04	9.42	9.30	9.02	9.60	9.84	9.70	11.28	10.96	10.49	9.98
7	9.63	10.07	9.39	9.29	9.01	9.66	9.82	9.69	11.21	10.95	10.47	9.93
8	9.64	10.06	9.39	9.29	8.99	9.69	9.80	9.69	11.16	10.92	10.43	9.88
9	9.65	10.03	9.39	9.27	8.98	9.70	9.75	9.76	11.11	10.85	10.43	9.84
10	9.64	9.99	9.56	9.26	8.97	9.70	9.72	9.81	11.08	10.81	10.38	9.81
11	9.65	9.98	9.59	9.26	8.96	9.70	9.67	9.83	11.17	10.75	10.31	9.79
12	9.66	10.00	9.57	9.24	8.95	9.70	9.64	9.85	11.22	10.72	10.24	9.78
13	9.64	9.93	9.56	9.23	8.94	9.70	9.63	9.89	11.25	10.68	10.21	9.76
14	9.67	9.87	9.56	9.22	8.93	9.71	9.62	9.94	11.25	10.61	10.18	9.75
15	9.63	9.84	9.55	9.21	8.91	9.72	9.61	9.94	11.22	10.54	10.15	9.74
16	9.59	9.81	9.59	9.20	8.90	9.71	9.61	9.90	11.19	10.50	10.10	9.76
17	9.55	9.77	9.56	9.20	8.89	9.72	9.66	9.94	11.20	10.48	10.09	9.74
18	9.52	9.81	9.55	9.18	8.87	9.73	9.68	10.02	11.17	10.42	10.09	9.72
19	9.50	9.82	9.54	9.17	8.87	9.73	9.71	10.02	11.08	10.38	10.08	9.69
20	9.48	9.76	9.51	9.16	8.89	9.75	9.70	10.05	11.01	10.34	10.05	9.67
21	9.46	9.71	9.50	9.14	8.90	9.73	9.77	10.14	10.96	10.32	10.02	9.67
22	9.41	9.66	9.50	9.11	8.90	9.72	9.77	10.67	10.92	10.29	10.0	9.66
23	9.39	9.81	9.49	9.11	8.91	9.72	9.76	11.16	10.88	10.22	10.0	9.64
24	9.38	9.86	9.46	9.11	8.92	9.75	9.76	11.46	10.91	10.17	9.98	9.62
25	9.41	9.81	9.44	9.10	8.93	9.78	9.80	11.58	10.90	10.15	10.01	9.59
26	9.38	9.79	9.43	9.09	8.96	9.93	9.81	11.61	10.88	10.12	9.97	9.58
27	9.35	9.75	9.42	9.08	9.00	9.96	9.78	11.60	10.86	10.10	10.00	9.58
28	9.33	9.72	9.44	9.07	9.04	10.01	9.77	11.56	10.87	10.08	9.99	9.55
29	9.31	9.64	9.44	9.05	9.09	10.05	9.77	11.52	10.85	10.05	9.97	9.53
30	9.29	9.61	9.42	9.03	---	10.06	9.76	11.54	10.82	10.17	9.95	9.53
31	9.30	---	9.41	9.02	---	10.02	---	11.60	---	10.24	9.97	---
MEAN	9.53	9.80	9.49	9.20	8.96	9.70	9.76	10.36	11.13	10.52	10.18	9.76
MAX	9.72	10.07	9.59	9.39	9.09	10.06	9.99	11.61	11.57	11.03	10.49	10.03
MIN	9.29	9.26	9.39	9.02	8.87	9.16	9.61	9.69	10.82	10.05	9.95	9.53

05428500 YAHARA RIVER AT EAST MAIN STREET AT MADISON, WI

LOCATION.--Lat 43°05'22", long 89°21'39", in sec.7, T.7 N., R.10 E., Dane County, Hydrologic Unit 07090001, at Main Street bridge in Madison.

DRAINAGE AREA.--233 mi²

PERIOD OF RECORD.--November 2003 to September 2004.

GAGE.--Submersible pressure transducer, acoustic velocity meter and phone line with modem. Datum of gage is 841.22 ft above NGVD of 1929.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	309	88	89	53	232	99	397	327	67	102
2	---	---	261	97	e102	44	235	90	392	354	57	102
3	---	---	159	113	e93	38	254	101	402	349	77	108
4	---	---	107	109	92	56	232	86	417	243	71	112
5	---	---	97	128	96	77	222	81	439	238	81	109
6	---	---	91	95	99	53	229	79	443	235	103	106
7	---	---	108	91	95	60	228	80	451	241	129	100
8	---	94	114	85	95	63	242	86	431	271	142	93
9	---	227	123	79	97	83	221	92	360	306	135	95
10	---	228	145	81	105	89	217	91	287	306	127	92
11	---	243	105	92	94	87	192	84	196	294	130	88
12	---	186	76	78	93	81	135	84	180	288	131	91
13	---	255	86	72	93	85	117	81	186	284	129	75
14	---	239	92	80	93	90	143	80	181	319	131	60
15	---	222	93	96	96	77	114	83	225	326	135	64
16	---	208	108	89	98	91	105	86	286	327	130	55
17	---	212	112	85	95	94	119	87	307	314	127	59
18	---	189	105	105	100	81	114	78	300	307	112	62
19	---	215	120	96	93	80	110	79	306	286	100	63
20	---	355	82	77	126	84	98	78	301	290	99	47
21	---	335	106	84	92	72	99	132	305	287	100	32
22	---	331	95	98	95	72	85	145	314	279	99	28
23	---	360	104	95	98	79	89	193	243	250	94	39
24	---	339	97	85	87	86	91	247	193	191	94	42
25	---	291	95	79	76	90	86	287	194	169	98	40
26	---	282	87	98	43	92	94	289	195	162	99	45
27	---	292	95	81	41	83	96	336	195	99	101	46
28	---	319	107	91	46	97	103	410	194	67	95	34
29	---	292	101	102	44	170	106	438	220	69	95	28
30	---	286	102	110	---	e237	102	361	246	76	94	29
31	---	---	101	91	---	e233	---	376	---	68	91	---
TOTAL	---	6,000	3,583	2,850	2,566	2,777	4,510	4,919	8,786	7,622	3,273	2,046
MEAN	---	261	116	91.9	88.5	89.6	150	159	293	246	106	68.2
MAX	---	360	309	128	126	237	254	438	451	354	142	112
MIN	---	94	76	72	41	38	85	78	180	67	57	28
CFSM	---	1.11	0.49	0.39	0.38	0.38	0.64	0.68	1.25	1.05	0.45	0.29
IN.	---	0.95	0.57	0.45	0.41	0.44	0.71	0.78	1.39	1.21	0.52	0.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

MEAN	---	---	116	91.9	88.5	89.6	150	159	293	246	106	68.2
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SUMMARY STATISTICS

FOR 2004 WATER YEAR

HIGHEST DAILY MEAN	451	Jun 7
LOWEST DAILY MEAN	28	Sep 22
ANNUAL SEVEN-DAY MINIMUM	38	Sep 24

(e) Estimated due to ice effect or missing record

05428600 WEST BRANCH STARKWEATHER CREEK AT MADISON, WI

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January to September 2004.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January to July 2004.

INSTRUMENTATION.--Continuous specific conductance record since January 2004. Sensor located near left edge of water.

REMARKS.--Records for specific conductance were faulty Feb. 16, Mar. 22, June 6-8, and July 4-Sept. 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 5,300 µS/cm, Jan. 17, 2004; minimum, 65 µS/cm, May 21, 2004.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 5,300 µS/cm, Jan. 17; minimum, 65 µS/cm, May 21.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	886	854	870
11	---	---	---	---	---	---	---	---	---	882	854	865
12	---	---	---	---	---	---	---	---	---	893	854	869
13	---	---	---	---	---	---	---	---	---	899	858	878
14	---	---	---	---	---	---	---	---	---	912	880	898
15	---	---	---	---	---	---	---	---	---	976	100	875
16	---	---	---	---	---	---	---	---	---	887	850	872
17	---	---	---	---	---	---	---	---	---	5,300	851	1,880
18	---	---	---	---	---	---	---	---	---	2,240	990	1,420
19	---	---	---	---	---	---	---	---	---	1,150	970	1,050
20	---	---	---	---	---	---	---	---	---	1,230	938	1,010
21	---	---	---	---	---	---	---	---	---	943	909	932
22	---	---	---	---	---	---	---	---	---	1,090	909	1,000
23	---	---	---	---	---	---	---	---	---	1,000	902	961
24	---	---	---	---	---	---	---	---	---	917	870	894
25	---	---	---	---	---	---	---	---	---	925	884	905
26	---	---	---	---	---	---	---	---	---	892	869	881
27	---	---	---	---	---	---	---	---	---	2,230	884	1,170
28	---	---	---	---	---	---	---	---	---	1,240	897	1,040
29	---	---	---	---	---	---	---	---	---	973	895	929
30	---	---	---	---	---	---	---	---	---	932	883	909
31	---	---	---	---	---	---	---	---	---	936	865	891
MONTH	---	---	---	---	---	---	---	---	---	5,300	100	1,000

05429000 LAKE MONONA AT MADISON, WI

LOCATION.--Lat 43°03'48", long 89°23'49', in SE ¼ SW ¼ sec.23, T.7 N., R.9 E., Dane County, Hydrologic Unit 07090001, in Brittingham Park, in Madison.

DRAINAGE AREA.--279 mi². Area of Lake Monona, 5.3 mi².

PERIOD OF RECORD.--September 1915 to current year (fragmentary) in reports of the Geological Survey. For 1856 to March 1917 in reports of Wisconsin Railroad Commission, volume 19.

REVISED RECORDS.--WSP 1338: Lake area. WDR WI-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above NGVD of 1929, or 5.60 ft below City of Madison datum. Prior to Oct. 1, 1979, datum 3.61 ft higher; prior to Nov. 15, 1971, nonrecording gage at same site at the higher datum.

REMARKS.--Lake level regulated by concrete dam with four 12-foot stop-log sections and 12-foot lock at outlet of Lake Waubesa. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 7.48 ft, June 14, 15, 2000; minimum observed, 3.22 ft, Jan. 20, 1965, current datum.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 6.88 ft, June 11, 12; minimum recorded, 4.09 ft, Feb. 17-20.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.84	4.52	5.39	4.48	4.15	4.19	4.91	4.68	6.75	6.31	6.07	5.82
2	4.83	4.70	5.38	4.47	4.15	4.19	4.94	4.68	6.75	6.34	6.02	5.83
3	4.81	4.91	5.37	4.45	4.16	4.18	4.93	4.68	6.73	6.40	6.01	5.83
4	4.79	5.36	5.28	4.43	4.16	4.18	4.94	4.68	6.73	6.61	6.17	5.83
5	4.79	5.47	5.21	4.43	4.15	4.38	4.97	4.68	6.73	6.62	6.15	5.82
6	4.78	5.40	5.14	4.43	4.17	4.45	4.99	4.69	6.73	6.58	6.11	5.82
7	4.77	5.30	5.10	4.42	4.17	4.45	5.01	4.72	6.73	6.54	6.08	5.81
8	4.76	5.23	5.06	4.40	4.17	4.42	5.00	4.71	6.73	6.50	6.07	5.80
9	4.75	5.22	5.02	4.39	4.16	4.41	5.01	4.82	6.74	6.52	6.04	5.77
10	4.75	5.23	5.15	4.37	4.15	4.41	5.01	4.89	6.76	6.53	6.01	5.76
11	4.75	5.22	5.16	4.36	4.15	4.39	5.01	4.99	6.87	6.51	5.97	5.74
12	4.74	5.17	5.14	4.34	4.13	4.36	5.01	5.04	6.83	6.50	5.94	5.72
13	4.74	5.12	5.12	4.31	4.13	4.36	4.96	5.10	6.76	6.46	5.93	5.71
14	4.81	5.12	5.08	4.29	4.12	4.35	4.94	5.13	6.70	6.43	5.92	5.67
15	4.80	5.12	5.04	4.28	4.11	4.34	4.92	5.15	6.65	6.42	5.91	5.66
16	4.79	5.12	4.98	4.26	4.11	4.33	4.88	5.15	6.63	6.47	5.89	5.66
17	4.77	5.12	4.93	4.27	4.10	4.34	4.91	5.15	6.72	6.58	5.90	5.62
18	4.76	5.16	4.89	4.25	4.10	4.34	4.89	5.26	6.72	6.56	5.89	5.57
19	4.76	5.13	4.84	4.23	4.10	4.34	4.87	5.24	6.71	6.52	5.91	5.54
20	4.74	5.16	4.79	4.22	4.14	4.31	4.87	5.20	6.68	6.49	5.88	5.50
21	4.71	5.20	4.75	4.22	4.17	4.29	4.88	5.29	6.68	6.48	5.84	5.44
22	4.69	5.23	4.72	4.20	4.19	4.30	4.87	5.86	6.66	6.47	5.82	5.39
23	4.65	5.39	4.69	4.20	4.21	4.32	4.84	6.40	6.63	6.45	5.81	5.34
24	4.65	5.45	4.65	4.20	4.23	4.35	4.82	6.56	6.59	6.39	5.78	5.28
25	4.69	5.47	4.62	4.19	4.23	4.38	4.81	6.61	6.55	6.33	5.79	5.24
26	4.65	5.48	4.60	4.19	4.22	4.59	4.76	6.60	6.49	6.27	5.79	5.20
27	4.62	5.48	4.58	4.19	4.20	4.67	4.73	6.57	6.44	6.21	5.81	5.16
28	4.59	5.44	4.58	4.18	4.19	4.71	4.72	6.56	6.40	6.11	5.83	5.11
29	4.57	5.44	4.55	4.17	4.18	4.76	4.71	6.60	6.32	6.04	5.83	5.06
30	4.56	5.42	4.53	4.16	---	4.81	4.70	6.67	6.29	6.10	5.82	5.02
31	4.52	---	4.50	4.16	---	4.87	---	6.72	---	6.12	5.81	---
MEAN	4.72	5.23	4.93	4.29	4.16	4.41	4.89	5.45	6.66	6.41	5.93	5.56
MAX	4.84	5.48	5.39	4.48	4.23	4.87	5.01	6.72	6.87	6.62	6.17	5.83
MIN	4.52	4.52	4.50	4.16	4.10	4.18	4.70	4.68	6.29	6.04	5.78	5.02

430140089281000 KRONCKE DRIVE STORM SEWER AT MADISON, WI

LOCATION.--Lat 43°01'40", long 89°28'10", in NW ¼ NE ¼ sec.6, T.6 N., R.9 E., Dane County, Hydrologic Unit 07090001, 100 ft east of Teal Drive and 50 ft west of Tawhee Drive, at Madison.

DRAINAGE AREA.--0.08 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Water-stage recorder and area-velocity flow meter in a 42-inch circular, concrete pipe. Elevation of gage is 1,030 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.53
2	0.00	0.37	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.49	0.00
4	0.00	0.49	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.03	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.01
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
9	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.03	0.00	0.16	0.00	0.00
10	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.14	0.13	0.00	0.00	0.00
11	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.01	0.00	0.01
12	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.02	0.00	0.00	0.00
13	0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.05	0.00	0.00	0.00	0.07
14	0.07	0.00	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
16	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.10	0.29	0.00	0.00
17	0.00	0.02	0.00	0.01	0.00	0.02	0.08	0.37	0.03	0.00	0.10	0.00
18	0.00	0.09	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.22	0.00
19	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.18	0.00	0.09	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.01	0.00	0.02	0.00	0.04	1.7	0.02	0.07	0.00	0.00
22	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.52	0.00	0.00	0.00	0.00
23	0.00	0.61	0.00	0.00	0.09	0.00	0.00	1.5	0.06	0.00	0.00	0.00
24	e0.16	0.00	0.00	0.00	0.02	0.01	0.02	0.00	0.05	0.00	0.07	0.00
25	0.00	0.00	0.00	0.00	0.03	0.39	0.02	0.02	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.13	0.00
28	0.00	0.00	0.02	0.00	0.07	0.06	0.00	0.00	0.00	0.00	0.07	0.00
29	0.01	0.00	0.00	0.01	0.13	0.00	0.00	0.07	0.00	0.14	0.00	0.00
30	0.00	0.00	0.00	0.02	---	0.00	0.00	0.19	0.00	0.14	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.04	---	0.00	0.00	---
TOTAL	0.29	2.17	0.69	0.06	0.66	1.06	0.35	4.78	0.48	1.81	1.08	0.73
MEAN	0.01	0.07	0.02	0.00	0.02	0.03	0.01	0.15	0.02	0.06	0.03	0.02
MAX	0.16	0.61	0.31	0.02	0.18	0.39	0.09	1.7	0.13	0.93	0.49	0.53
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CFSM	0.12	0.90	0.28	0.02	0.28	0.43	0.15	1.93	0.20	0.73	0.44	0.30
IN.	0.13	1.01	0.32	0.03	0.31	0.49	0.16	2.22	0.22	0.84	0.50	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	0.02	0.03	0.01	0.00	0.02	0.03	0.03	0.07	0.02	0.04	0.02	0.04
MAX	0.02	0.07	0.02	0.00	0.04	0.03	0.04	0.15	0.04	0.06	0.03	0.06
(WY)	(2002)	(2004)	(2004)	(2002)	(2002)	(2004)	(2002)	(2004)	(2002)	(2004)	(2004)	(2001)
MIN	0.01	0.00	0.01	0.00	0.01	0.02	0.01	0.03	0.02	0.01	0.01	0.02
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2002)	(2004)	(2002)	(2003)	(2002)

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	9.83		14.16			
ANNUAL MEAN	0.03		0.04		0.03	
HIGHEST ANNUAL MEAN					0.04 2004	
LOWEST ANNUAL MEAN					0.02 2003	
HIGHEST DAILY MEAN	0.77	Jul 15	1.7	May 21	1.7	May 21, 2004
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Aug 19, 2001
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 8	0.00	Oct 1	0.00	Aug 26, 2001
ANNUAL RUNOFF (CFSM)	0.337		0.484		0.343	
ANNUAL RUNOFF (INCHES)	4.57		6.58		4.67	
10 PERCENT EXCEEDS	0.07		0.08		0.06	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

(e) Estimated due to ice effect or missing record

430140089281000 KRONCKE DRIVE STORM SEWER AT MADISON, WI—Continued

PRECIPITATION QUANTITY

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Tipping bucket rain gage with electronic datalogger, located 100 ft east of the storm sewer gage.

REMARKS.--Gage established October 2001.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.74 in., Sept. 13, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 2.57 in., May 22.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.07	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.90
2	0.00	1.59	0.00	0.04	0.00	0.00	0.00	0.07	0.00	0.00	0.11	0.00
3	0.05	1.53	0.00	0.00	0.1	0.00	0.00	0.00	0.00	2.07	0.83	0.00
4	0.00	1.46	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.12	0.00	0.00
5	0.00	0.00	0.11	0.04	0.00	0.44	0.00	0.00	0.00	0.02	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.03	0.02	0.30	0.00	0.14
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
8	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
9	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.34	0.00	0.41	0.04	0.00
10	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.52	0.90	0.00	0.00	0.00
11	0.27	0.00	0.00	0.00	0.1	0.00	0.00	0.00	0.38	0.08	0.00	0.00
12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00
13	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
14	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.07	0.00	0.00	0.00
15	0.00	0.00	0.02	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.51
16	0.00	0.04	0.09	0.00	0.00	0.00	0.00	0.00	0.57	0.79	0.06	0.00
17	0.00	0.09	0.00	0.00	0.00	0.15	0.43	0.80	0.21	0.00	0.29	0.00
18	0.00	0.45	0.00	0.00	0.1	0.00	0.08	0.08	0.00	0.00	0.53	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
20	0.00	0.00	0.00	0.00	0.42	0.00	0.56	0.00	0.00	0.00	0.00	0.00
21	0.02	0.00	0.00	0.00	0.15	0.00	0.18	2.20	0.28	0.40	0.00	0.00
22	0.00	0.04	0.00	0.00	0.13	0.00	0.00	2.57	0.00	0.00	0.00	0.00
23	0.00	1.56	0.00	0.00	0.00	0.00	0.00	1.79	0.27	0.02	0.00	0.00
24	0.75	0.00	0.00	0.00	0.00	0.17	0.19	0.04	0.29	0.00	0.26	0.00
25	0.00	0.00	0.00	0.00	0.00	1.20	0.17	0.14	0.00	0.00	0.03	0.00
26	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.02	0.00
27	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.36	0.00
28	0.05	0.00	0.06	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.43	0.00
29	0.09	0.00	0.00	0.00	0.08	0.05	0.00	0.47	0.00	0.51	0.00	0.02
30	0.00	0.00	0.00	0.00	---	0.06	0.03	0.69	0.00	0.57	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.36	---	0.00	0.00	---
TOTAL	1.87	6.85	2.11	0.08	1.08	3.74	1.75	11.08	3.29	5.35	2.96	1.57
CAL YR	2003	TOTAL		31.73								
WTR YR	2004	TOTAL		41.73								

430209089274900 KNOX LANE STORM SEWER AT MADISON, WI

LOCATION.--Lat 43°02'09", long 89°27'49", in NE ¼ SE ¼ sec.31, T.7 N., R.9 E., Dane County, Hydrologic Unit 07090001, 0.1 mi west of Reetz Road and 50 ft east of Widklow Way, at Madison.

DRAINAGE AREA.--0.14 mi².

PERIOD OF RECORD.--October 2001 to current year.

REVISED RECORDS.--Records have been revised for the period Apr. 1 to Sept. 30, 2002, and are published below.

GAGE.--Water-stage recorder and area-velocity flow meter in a 42-inch circular, concrete pipe. Elevation of gage is 1,025 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharge, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.21
2	0.00	0.53	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00
3	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.91	0.28	0.00
4	0.00	0.62	0.00	0.00	0.00	0.48	0.00	0.00	0.00	e0.01	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.03
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.06
9	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.05	0.00	0.13	0.00	0.00
10	0.00	0.00	0.34	0.00	0.00	0.01	0.00	0.14	0.25	0.00	0.00	0.00
11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.02	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.08	0.00	0.00	0.00
13	0.04	0.00	0.00	0.00	0.00	0.01	0.04	0.07	0.00	0.00	0.00	0.05
14	0.10	0.00	0.00	0.00	0.00	0.01	0.00	0.09	0.01	0.00	0.00	0.01
15	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.17
16	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.13	0.20	0.00	0.00
17	0.00	0.03	0.00	0.00	0.00	0.03	0.11	0.21	0.05	0.00	0.09	0.00
18	0.00	0.13	0.00	0.00	0.01	0.02	0.01	0.01	0.00	0.00	0.13	0.00
19	0.00	0.00	0.00	0.00	0.02	0.00	0.12	0.00	0.00	0.02	0.00	0.00
20	0.00	0.00	0.00	0.00	0.35	0.00	0.21	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.06	0.00	0.14	0.93	0.05	0.10	0.00	0.00
22	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.69	0.00	0.00	0.00	0.00
23	0.00	0.62	0.00	0.00	0.26	0.00	0.00	0.90	0.07	0.00	0.00	0.00
24	0.16	0.00	0.00	0.00	0.02	0.03	0.04	0.00	0.09	0.00	0.09	0.00
25	0.00	0.00	0.00	0.00	0.13	0.42	0.03	0.03	0.00	0.00	0.02	0.00
26	0.00	0.00	0.00	0.00	0.12	0.10	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.04	0.00	0.11	0.01	0.00	0.00	0.00	0.00	0.10	0.00
28	0.00	0.00	0.02	0.00	0.18	0.12	0.00	0.00	0.00	0.00	0.11	0.00
29	0.02	0.00	0.00	0.00	0.26	0.00	0.00	0.12	0.00	0.13	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.22	0.00	0.21	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.09	---	0.00	0.00	---
TOTAL	0.36	2.76	0.76	0.01	1.55	1.65	0.75	3.67	0.86	1.73	0.83	0.61
MEAN	0.01	0.09	0.02	0.00	0.05	0.05	0.03	0.12	0.03	0.06	0.03	0.02
MAX	0.16	0.80	0.34	0.01	0.35	0.48	0.21	0.93	0.25	0.91	0.28	0.21
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CFSM	0.08	0.66	0.18	0.00	0.38	0.38	0.18	0.85	0.20	0.40	0.19	0.15
IN.	0.10	0.73	0.20	0.00	0.41	0.44	0.20	0.98	0.23	0.46	0.22	0.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	0.02	0.04	0.02	0.00	0.04	0.04	0.05	0.07	0.04	0.04	0.02	0.04
MAX	0.03	0.09	0.02	0.00	0.05	0.05	0.08	0.12	0.08	0.06	0.03	0.05
(WY)	(2002)	(2004)	(2004)	(2003)	(2002)	(2004)	(2002)	(2004)	(2002)	(2004)	(2002)	(2002)
MIN	0.01	0.00	0.01	0.00	0.02	0.03	0.02	0.05	0.02	0.02	0.01	0.02
(WY)	(2004)	(2003)	(2003)	(2004)	(2003)	(2002)	(2004)	(2003)	(2003)	(2002)	(2003)	(2004)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 2001 - 2004

ANNUAL TOTAL	11.90	15.54	
ANNUAL MEAN	0.03	0.04	0.04
HIGHEST ANNUAL MEAN			0.04
LOWEST ANNUAL MEAN			0.03
HIGHEST DAILY MEAN	0.90	Apr 30	0.93
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 13	0.00
ANNUAL RUNOFF (CFSM)	0.233		0.303
ANNUAL RUNOFF (INCHES)	3.16		4.13
10 PERCENT EXCEEDS	0.09		0.13
50 PERCENT EXCEEDS	0.00		0.00
90 PERCENT EXCEEDS	0.00		0.00

(e) Estimated due to ice effect or missing record

430230089284300 PIPING ROCK ROAD STORM SEWER AT MADISON, WI

LOCATION.--Lat 43°02'30", long 89°28'43", in SW 1/4 NW 1/4 sec31, T.7 N., R.9 E., Dane County, Hydrologic Unit 07090001, 200 ft west of South Whitney Way at Madison.

DRAINAGE AREA.--0.09 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 2002 to September 2003.

GAGE.--Water-stage recorder and area-velocity flow meter in a 38 x 60-inch elliptical, concrete pipe. Elevation of gage is 995 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.01	0.00	0.00	0.19
2	0.00	0.45	0.00	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.01	0.01
3	0.00	0.75	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.59	0.25	0.00
4	0.00	0.70	0.00	0.00	0.00	0.45	0.00	0.00	0.01	0.01	0.01	0.00
5	0.00	0.00	0.01	0.00	0.00	0.23	0.00	0.01	0.00	0.02	0.01	0.00
6	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.04	0.00	0.02
7	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00
9	e0.01	0.00	0.27	0.00	0.00	0.00	0.00	0.06	0.00	0.13	0.00	0.00
10	e0.02	0.00	0.29	0.00	0.00	0.01	0.00	0.27	0.28	0.00	0.00	0.00
11	e0.04	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.09	0.01	0.00	0.00
12	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
13	0.04	0.00	0.00	0.00	0.00	0.01	0.02	0.08	0.00	0.00	0.00	0.00
14	0.06	0.00	0.01	0.00	0.00	0.02	0.01	0.09	0.02	0.00	0.00	0.03
15	0.00	0.00	0.01	0.00	0.00	e0.01	0.01	0.01	0.01	0.00	0.00	0.11
16	0.00	0.00	0.04	0.00	0.00	e0.01	0.01	0.02	0.13	0.21	0.00	0.00
17	0.00	0.01	0.01	0.00	0.00	e0.03	0.11	0.24	0.05	0.00	0.08	0.00
18	0.01	0.09	0.00	0.00	0.01	e0.03	0.03	0.01	0.00	0.00	0.09	0.00
19	0.01	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.01	0.00	0.00
20	0.00	0.00	0.00	0.00	0.25	0.02	0.13	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.01	0.00	0.05	0.01	0.05	1.3	0.04	0.07	0.00	0.00
22	0.00	0.02	0.01	0.00	0.05	0.01	0.01	0.74	0.00	0.00	0.00	0.00
23	0.00	0.69	0.00	0.00	0.20	0.00	0.00	1.1	0.04	0.00	0.00	0.00
24	0.15	0.01	0.00	0.00	0.03	0.03	0.04	0.01	0.06	0.00	0.09	0.00
25	0.00	0.00	0.00	0.00	0.07	0.39	0.04	0.05	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.10	0.08	0.02	0.02	0.00	0.00	0.00	0.00
27	0.00	0.00	0.02	0.00	0.10	0.00	0.00	0.01	0.00	0.00	0.11	0.00
28	0.00	0.00	0.02	0.00	0.18	0.12	0.00	0.00	0.00	0.00	0.07	0.00
29	0.01	0.00	0.01	0.00	0.26	0.00	0.01	0.11	0.00	0.07	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.01	0.00	0.29	0.00	0.20	0.00	0.00
31	0.00	---	0.00	0.00	---	0.01	---	0.10	---	0.00	0.00	---
TOTAL	0.35	2.72	0.73	0.00	1.31	1.79	0.49	4.65	0.78	1.36	0.72	0.36
MEAN	0.01	0.09	0.02	0.00	0.05	0.06	0.02	0.15	0.03	0.04	0.02	0.01
MAX	0.15	0.75	0.29	0.00	0.26	0.45	0.13	1.3	0.28	0.59	0.25	0.19
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CFSM	0.13	1.01	0.26	0.00	0.50	0.64	0.18	1.67	0.29	0.49	0.26	0.13
IN.	0.14	1.12	0.30	0.00	0.54	0.74	0.20	1.92	0.32	0.56	0.30	0.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

	MEAN	0.01	0.05	0.01	0.00	0.03	0.04	0.02	0.09	0.02	0.03	0.01	0.02
MAX	0.01	0.09	0.02	0.00	0.05	0.06	0.03	0.15	0.03	0.04	0.02	0.03	0.03
(WY)	(2003)	(2004)	(2004)	(2003)	(2004)	(2004)	(2003)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)
MIN	0.01	0.00	0.00	0.00	0.01	0.03	0.02	0.04	0.01	0.01	0.00	0.01	0.01
(WY)	(2004)	(2003)	(2003)	(2004)	(2003)	(2003)	(2004)	(2003)	(2003)	(2002)	(2003)	(2004)	(2004)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 2002 - 2004

ANNUAL TOTAL	9.20	15.26	
ANNUAL MEAN	0.03	0.04	0.03
HIGHEST ANNUAL MEAN			0.04 2004
LOWEST ANNUAL MEAN			0.02 2003
HIGHEST DAILY MEAN	0.75 Nov 3	1.3 May 21	1.3 May 21, 2004
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Jul 1, 2002
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 9	0.00 Oct 1	0.00 Aug 23, 2002
ANNUAL RUNOFF (CFSM)	0.280	0.463	0.321
ANNUAL RUNOFF (INCHES)	3.80	6.31	4.37
10 PERCENT EXCEEDS	0.05	0.10	0.07
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

(e) Estimated due to ice effect or missing record

PRECIPITATION QUANTITY

PERIOD OF RECORD.--October 2002 to September 2003.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established October 2002.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 3.22 in., May 21.

 PRECIPITATION, TOTAL, INCHES
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.09	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.68
2	0.00	1.66	0.00	0.02	0.00	0.00	0.00	0.05	0.00	0.00	0.10	0.00
3	0.05	2.12	0.00	0.00	0.09	0.01	0.00	0.00	0.00	2.16	0.96	0.00
4	0.00	1.51	0.02	0.00	0.00	0.87	0.00	0.00	0.00	0.04	0.01	0.00
5	0.00	0.00	0.12	0.00	0.00	0.48	0.00	0.00	0.00	0.08	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.00	0.02	0.20	0.00	0.15
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
8	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00
9	0.00	0.00	0.86	0.00	0.00	0.00	0.00	0.15	0.05	0.51	0.05	0.00
10	0.00	0.02	0.84	0.00	0.00	0.08	0.00	0.86	1.28	0.00	0.00	0.00
11	0.28	0.00	0.01	0.02	0.09	0.01	0.00	0.04	0.41	0.08	0.00	0.00
12	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.02	0.21	0.00	0.00	0.00
13	0.29	0.00	0.00	0.00	0.00	0.05	0.00	0.32	0.01	0.00	0.00	0.00
14	0.39	0.00	0.00	0.00	0.04	0.05	0.00	0.38	0.07	0.00	0.00	0.00
15	0.00	0.00	0.01	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.62
16	0.00	0.01	0.16	0.00	0.00	0.00	0.01	0.00	0.57	0.79	0.07	0.00
17	0.00	0.14	0.00	0.01	0.00	0.15	0.40	0.91	0.16	0.00	0.39	0.00
18	0.00	0.41	0.00	0.00	0.05	0.05	0.08	0.05	0.01	0.00	0.38	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.07	0.00	0.00
20	0.00	0.00	0.00	0.00	0.42	0.00	0.52	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.15	0.00	0.16	3.22	0.25	0.37	0.00	0.00
22	0.00	0.09	0.00	0.00	0.13	0.00	0.00	1.60	0.00	0.00	0.00	0.00
23	0.00	1.81	0.00	0.00	0.02	0.00	0.00	1.79	0.20	0.00	0.00	0.00
24	0.74	0.00	0.00	0.00	0.00	0.17	0.22	0.04	0.32	0.00	0.34	0.00
25	0.00	0.00	0.00	0.00	0.00	1.20	0.16	0.15	0.00	0.00	0.01	0.00
26	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.07	0.00
27	0.01	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.43	0.00
28	0.03	0.00	0.08	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.43	0.00
29	0.10	0.00	0.00	0.00	0.09	0.00	0.00	0.49	0.00	0.42	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.07	0.05	0.72	0.00	0.84	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.41	---	0.00	0.00	---
TOTAL	1.89	7.87	2.23	0.05	1.09	4.09	1.74	11.86	3.63	5.56	3.24	1.45
CAL YR	2003	TOTAL	36.03									
WTR YR	2004	TOTAL	44.70									

ROCK RIVER BASIN

05429485 LAKE WAUBESA AT MCFARLAND, WI

LOCATION.--Lat 43°00'32", long 89°18'18", in SW ¼ sec.3, T.6 N., R.10 E., Dane County, Hydrologic Unit 07090001, on left bank just upstream from bridge on U.S. Highway 51, downstream of dam at outlet of Lake Waubesa and 1.0 mi southwest of McFarland.

DRAINAGE AREA.--327 mi².

PERIOD OF RECORD.--October 2003 to current year.

REVISED RECORDS.--WSP 805, WDR WI-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above NGVD of 1929 (levels by Wisconsin Department of Natural Resources).

REMARKS.--Lake level regulated by dams at outlets of Lake Mendota and Lake Waubesa. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 6.30 ft, June 12, 2004; minimum observed, 3.85 ft, Feb. 18, 19, 20, 2004, current datum.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 6.30 ft, June 12; minimum recorded, 3.85 ft, Feb. 18, 19, 20.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.81	4.30	5.02	4.23	3.90	3.98	4.69	4.57	6.16	5.87	5.79	5.54
2	4.78	4.40	5.00	4.22	3.90	4.00	4.71	4.58	6.14	5.83	5.76	5.55
3	4.75	4.55	4.97	4.21	3.91	3.99	4.74	4.58	6.12	5.86	5.74	5.54
4	4.74	4.90	4.94	4.19	3.91	3.99	4.75	4.57	6.09	6.12	5.82	5.53
5	4.72	5.06	4.91	4.18	3.90	4.16	4.74	4.58	6.07	6.13	5.82	5.51
6	4.71	5.08	4.86	4.15	3.93	4.23	4.75	4.60	6.06	6.11	5.80	5.53
7	4.69	5.03	4.79	4.12	3.93	4.25	4.76	4.61	6.07	6.09	5.78	5.54
8	4.69	4.97	4.74	4.09	3.92	4.22	4.78	4.62	6.08	6.05	5.76	5.51
9	4.68	4.91	4.72	4.07	3.91	4.19	4.78	4.74	6.10	6.02	5.75	5.49
10	4.67	4.87	4.87	4.06	3.90	4.17	4.78	4.82	6.15	6.02	5.74	5.46
11	4.66	4.87	4.91	4.05	3.90	4.19	4.78	4.93	6.26	6.01	5.71	5.44
12	4.69	4.88	4.85	4.04	3.89	4.18	4.77	4.95	6.29	6.00	5.67	5.43
13	4.65	4.86	4.81	4.03	3.88	4.16	4.76	5.01	6.27	5.98	5.64	5.40
14	4.66	4.81	4.77	4.02	3.88	4.17	4.74	5.05	6.23	5.95	5.61	5.37
15	4.63	4.79	4.72	4.01	3.87	4.16	4.70	5.06	6.19	5.92	5.59	5.36
16	4.56	4.77	4.70	4.00	3.87	4.16	4.67	5.03	6.14	5.93	5.57	5.38
17	4.52	4.76	4.66	4.00	3.86	4.16	4.68	5.02	6.19	5.99	5.57	5.35
18	4.49	4.79	4.62	4.00	3.86	4.17	4.66	5.08	6.20	6.01	5.58	5.31
19	4.46	4.81	4.58	4.00	3.85	4.17	4.65	5.02	6.17	6.01	5.59	5.27
20	4.45	4.79	4.53	3.98	3.89	4.22	4.64	4.98	6.15	6.01	5.57	5.22
21	4.46	4.79	4.48	3.97	3.93	4.25	4.69	5.04	6.14	6.01	5.55	5.19
22	4.44	4.81	4.45	3.96	3.93	4.23	4.67	5.51	6.14	6.02	5.52	5.15
23	4.41	4.92	4.43	3.95	3.95	4.22	4.65	5.88	6.12	6.00	5.50	5.10
24	4.40	5.01	4.40	3.94	3.97	4.24	4.61	5.99	6.15	5.97	5.49	5.06
25	4.43	5.01	4.37	3.93	3.98	4.30	4.62	6.01	6.13	5.94	5.50	5.02
26	4.42	5.03	4.34	3.93	3.99	4.46	4.62	6.02	6.08	5.90	5.50	4.98
27	4.39	5.04	4.31	3.93	3.98	4.52	4.60	6.01	6.04	5.86	5.55	4.95
28	4.37	5.06	4.30	3.93	3.97	4.56	4.53	5.99	6.01	5.81	5.55	4.90
29	4.35	5.04	4.29	3.93	3.96	4.63	4.51	5.97	5.96	5.76	5.56	4.86
30	4.33	5.03	4.28	3.92	---	4.67	4.54	6.03	5.91	5.81	5.54	4.81
31	4.31	---	4.25	3.91	---	4.69	---	6.13	---	5.83	5.54	---
MEAN	4.56	4.86	4.64	4.03	3.91	4.25	4.69	5.19	6.13	5.96	5.63	5.29
MAX	4.81	5.08	5.02	4.23	3.99	4.69	4.78	6.13	6.29	6.13	5.82	5.55
MIN	4.31	4.30	4.25	3.91	3.85	3.98	4.51	4.57	5.91	5.76	5.49	4.81

ROCK RIVER BASIN

05429500 YAHARA RIVER AT MCFARLAND, WI

572

LOCATION.--Lat 43°00'32", long 89°18'18", in SW ¼ sec.3, T.6 N., R.10 E., Dane County, Hydrologic Unit 07090001, on left bank just upstream from bridge on U.S. Highway 51, downstream of dam at outlet of Lake Waubesa and 1.0 mi southwest of McFarland.

DRAINAGE AREA.--327 mi².

PERIOD OF RECORD.--September 1930 to current year. Prior to October 2000, published as "near McFarland".

REVISED RECORDS.--WSP 805, WDR WI-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above NGVD of 1929 (levels by Wisconsin Department of Natural Resources). September 1930 to Dec. 22, 1934, nonrecording gage at same site at datum 0.40 ft higher. Dec. 23, 1934 to Sept. 30, 1982, recording gage at same site at datum 0.40 ft higher.

REMARKS.--Records fair (see page 11). Flow regulated by dams at outlets of Lake Mendota and Lake Waubesa. The Madison Metropolitan Sewerage District diverted an average of 62 ft³/s of effluent into the Badfish Creek basin during 2004 water year. The data were provided by the Madison Metropolitan Sewerage District. Prior to 1958 the effluent was discharged into the Yahara River above McFarland. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	173	372	207	151	160	185	89	592	349	344	266
2	86	194	367	206	151	160	185	90	571	343	334	268
3	83	229	360	205	e150	159	187	92	547	350	328	268
4	83	307	351	201	152	158	186	78	524	426	349	267
5	83	347	345	e200	151	190	185	57	499	429	348	263
6	83	360	332	e190	e150	203	185	50	485	423	342	271
7	84	355	316	189	e150	204	194	55	471	418	335	273
8	85	336	306	185	154	199	203	57	460	407	329	266
9	85	322	300	181	152	191	202	80	454	401	323	264
10	85	313	338	179	151	175	202	62	455	402	320	257
11	86	312	e340	177	149	165	201	51	475	398	314	252
12	83	317	e330	178	148	166	201	65	471	396	303	250
13	116	313	e320	176	147	161	199	97	450	394	294	246
14	168	302	314	175	145	161	195	146	425	385	287	241
15	185	297	304	173	144	144	188	155	398	379	280	240
16	206	294	299	171	143	135	182	155	373	382	274	243
17	198	291	291	171	142	134	184	155	377	398	275	237
18	193	301	282	170	142	133	182	228	391	406	276	231
19	192	305	274	171	142	115	179	262	406	408	278	221
20	192	301	263	167	147	91	180	255	420	407	273	213
21	192	305	253	164	154	96	188	272	441	412	266	207
22	190	308	247	162	155	92	184	385	464	414	257	199
23	187	339	243	160	158	90	179	532	479	408	253	191
24	187	363	237	159	163	53	173	642	482	397	251	185
25	194	364	230	157	166	41	173	654	465	387	252	177
26	193	370	224	157	166	94	165	643	443	377	251	169
27	189	374	218	157	165	105	151	622	422	365	263	164
28	184	379	219	e150	163	109	144	598	405	352	266	156
29	181	376	218	e150	161	117	138	577	382	337	267	148
30	178	372	215	e150	---	142	106	582	361	350	265	141
31	176	---	211	153	---	168	---	600	---	354	265	---
TOTAL	4,515	9,519	8,919	5,391	4,412	4,311	5,406	8,386	13,588	12,054	9,062	6,774
MEAN	146	317	288	174	152	139	180	271	453	389	292	226
MAX	206	379	372	207	166	204	203	654	592	429	349	273
MIN	83	173	211	150	142	41	106	50	361	337	251	141
CFSM	0.45	0.97	0.88	0.53	0.47	0.43	0.55	0.83	1.39	1.19	0.89	0.69
IN.	0.51	1.08	1.01	0.61	0.50	0.49	0.61	0.95	1.55	1.37	1.03	0.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

MEAN	130	165	152	143	159	240	254	188	159	150	122	119
MAX	401	355	375	376	363	599	719	520	585	511	478	422
(WY)	(1981)	(1986)	(1986)	(1986)	(1938)	(1937)	(1959)	(1933)	(2000)	(1993)	(1993)	(1993)
MIN	4.09	27.4	36.5	34.0	31.6	28.3	12.4	42.1	15.6	16.0	15.9	13.8
(WY)	(1965)	(1940)	(1940)	(1977)	(1991)	(2003)	(2003)	(1958)	(1936)	(1965)	(1988)	(1964)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1930 - 2004

ANNUAL TOTAL	45,385.9	92,337	
ANNUAL MEAN	124	252	165
HIGHEST ANNUAL MEAN			336
LOWEST ANNUAL MEAN			63.8
HIGHEST DAILY MEAN	388	May 20	853
LOWEST DAILY MEAN	6.1	Sep 7	1.2
ANNUAL SEVEN-DAY MINIMUM	8.0	Sep 1	2.0
MAXIMUM PEAK FLOW		657	May 24, 25
MAXIMUM PEAK STAGE		(b)6.26	Jun 12
ANNUAL RUNOFF (CFSM)	0.380	0.772	(a)867
ANNUAL RUNOFF (INCHES)	5.16	10.50	(b)7.03
10 PERCENT EXCEEDS	328	413	327
50 PERCENT EXCEEDS	84	214	140
90 PERCENT EXCEEDS	13	116	40

- (a) Gage height, 5.82 ft, datum then in use
- (b) Backwater from vegetation
- (c) Estimated due to ice effect or missing record

425715089164700 LAKE KEGONSA AT BARBER DRIVE NEAR STOUGHTON, WI

LOCATION.--Lat 42°57'15", long 89°16'47", in SW ¼ sec.26, T.6 N., R.10 E., Dane County, Hydrologic Unit 07090001, on downstream side of bridge on Barber Drive, 3.5 mi northwest of Stoughton.

DRAINAGE AREA.--386 mi².

PERIOD OF RECORD.--October 2003 to current year.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above sea level (levels from Wisconsin Department of Transportation benchmark).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 4.71 ft, May 23, 2004; minimum observed, 2.44 ft, Jan. 19, 2004, current datum.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 4.71 ft, May 23; minimum observed, 2.44 ft, Jan. 19, current datum.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.24	2.52	3.09	2.68	2.75	2.79	2.95	2.94	4.57	3.77	3.43	3.29
2	3.25	2.61	3.10	2.67	2.72	2.83	2.98	2.90	4.54	3.77	3.39	3.28
3	3.26	2.76	3.12	2.65	2.72	2.85	3.00	2.86	4.49	3.80	3.36	3.27
4	3.28	2.94	3.12	2.63	2.72	2.85	3.01	2.85	4.42	4.04	3.37	3.25
5	3.29	3.00	3.13	2.59	2.69	3.01	3.03	2.87	4.35	4.07	3.30	3.22
6	3.30	3.04	3.11	2.56	2.70	3.06	3.05	2.90	4.28	4.08	3.24	3.21
7	3.31	3.07	3.08	2.56	2.70	3.08	3.07	2.94	4.22	4.10	3.22	3.20
8	3.33	3.10	3.06	2.55	2.68	3.06	3.09	2.95	4.16	4.10	3.20	3.18
9	3.34	3.09	3.06	2.53	2.66	3.01	3.10	3.09	4.13	4.11	3.18	3.15
10	3.36	3.08	3.17	2.51	2.64	2.95	3.12	3.17	4.13	4.12	3.15	3.13
11	3.37	3.06	3.19	2.49	2.63	2.92	3.13	3.25	4.17	4.11	3.15	3.11
12	3.39	3.03	3.19	2.48	2.62	2.88	3.15	3.29	4.22	4.10	3.16	3.10
13	3.38	3.02	3.18	2.48	2.60	2.85	3.15	3.35	4.20	4.09	3.20	3.08
14	3.35	3.00	3.17	2.48	2.59	2.82	3.16	3.43	4.17	4.06	3.23	3.06
15	3.29	2.99	3.14	2.48	2.58	2.79	3.16	3.49	4.13	4.03	3.26	3.06
16	3.20	2.97	3.11	2.48	2.56	2.75	3.17	3.54	4.09	4.00	3.26	3.07
17	3.12	2.94	3.09	2.50	2.56	2.72	3.22	3.57	4.08	3.98	3.31	3.06
18	3.04	2.96	3.05	2.49	2.54	2.68	3.20	3.64	4.04	3.96	3.33	3.04
19	2.97	2.95	3.00	2.46	2.53	2.66	3.20	3.62	3.99	3.93	3.35	3.02
20	2.89	2.94	2.97	2.45	2.55	2.65	3.22	3.61	3.94	3.92	3.33	3.00
21	2.82	2.94	2.95	2.48	2.56	2.63	3.26	3.68	3.92	3.92	3.32	3.07
22	2.75	2.92	2.93	2.49	2.56	2.60	3.27	4.04	3.91	3.91	3.29	3.14
23	2.68	2.97	2.90	2.53	2.58	2.58	3.24	4.43	3.89	3.87	3.28	3.21
24	2.62	2.99	2.87	2.57	2.60	2.58	3.22	4.51	3.90	3.81	3.27	3.19
25	2.61	3.01	2.85	2.61	2.61	2.57	3.20	4.60	3.89	3.75	3.27	3.18
26	2.59	3.04	2.82	2.67	2.65	2.71	3.17	4.64	3.87	3.68	3.25	3.19
27	2.58	3.06	2.79	2.71	2.68	2.78	3.13	4.63	3.85	3.62	3.32	3.20
28	2.55	3.08	2.78	2.75	2.71	2.83	3.06	4.59	3.83	3.57	3.33	3.20
29	2.53	3.08	2.77	2.76	2.74	2.89	3.02	4.52	3.80	3.51	3.32	3.19
30	2.52	3.10	2.74	2.76	---	2.92	3.00	4.53	3.77	3.51	3.30	3.18
31	2.52	---	2.71	2.76	---	2.93	---	4.57	---	3.48	3.29	---
MEAN	3.02	2.98	3.01	2.57	2.64	2.81	3.12	3.65	4.10	3.90	3.28	3.15
MAX	3.39	3.10	3.19	2.76	2.75	3.08	3.27	4.64	4.57	4.12	3.43	3.29
MIN	2.52	2.52	2.71	2.45	2.53	2.57	2.95	2.85	3.77	3.48	3.15	3.00

05429700 YAHARA RIVER AT FORTON STREET BRIDGE AT STOUGHTON, WI

LOCATION.--Lat 42°55'11", long 89°13'13", in sec.5, T.5 N., R.11 E., Dane County, Hydrologic Unit 07090001, at Forton Street Bridge in Stoughton.

DRAINAGE AREA.--407 mi².

PERIOD OF RECORD.--November 2003 to September 2004.

GAGE.--Submersible pressure transducer, acoustic velocity meter and phone line with modem.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	439	310	255	264	281	300	962	416	504	327
2	---	---	427	322	249	302	282	279	921	391	499	328
3	---	---	440	322	238	338	290	203	894	393	494	324
4	---	---	447	321	236	334	283	108	834	452	503	320
5	---	---	456	307	233	393	277	66	804	473	498	316
6	---	---	e440	198	219	432	283	69	795	521	468	313
7	---	---	e450	279	242	482	288	70	702	536	392	314
8	---	---	e450	304	248	457	291	61	675	531	392	310
9	---	---	e450	300	245	452	291	80	674	531	395	305
10	---	---	478	282	240	393	292	83	669	534	381	301
11	---	---	477	205	231	348	292	87	706	529	339	300
12	---	---	452	230	227	319	295	83	734	525	309	299
13	---	---	451	229	226	328	295	87	732	526	284	295
14	---	---	448	227	224	336	306	111	699	533	274	272
15	---	---	444	233	224	325	321	137	680	532	276	259
16	---	---	451	227	222	325	319	138	653	535	278	285
17	---	---	452	232	222	330	325	172	654	536	286	289
18	---	---	428	234	224	223	323	326	629	529	292	283
19	---	---	394	224	228	211	324	382	614	530	315	279
20	---	---	371	181	236	239	319	408	557	532	319	244
21	---	---	365	171	234	228	332	430	545	531	317	151
22	---	---	373	149	229	213	367	596	550	578	315	102
23	---	---	376	125	237	212	372	803	542	588	314	76
24	---	---	369	130	239	203	367	826	539	581	312	107
25	---	---	357	137	238	170	363	834	536	576	312	139
26	---	---	357	133	243	223	364	930	529	533	311	201
27	---	359	356	134	245	254	352	992	517	518	319	228
28	---	367	363	185	251	247	344	957	495	512	321	222
29	---	357	365	196	256	254	341	922	471	506	327	214
30	---	362	347	214	---	274	327	925	465	511	332	208
31	---	---	326	255	---	297	---	966	---	511	328	---
TOTAL	---	1,445	12,799	6,996	6,841	9,406	9,506	12,431	19,777	16,030	11,006	7,611
MEAN	---	361	413	226	236	303	317	401	659	517	355	254
MAX	---	367	478	322	256	482	372	992	962	588	504	328
MIN	---	357	326	125	219	170	277	61	465	391	274	76
CFSM	---	0.89	1.01	0.55	0.58	0.75	0.78	0.99	1.62	1.27	0.87	0.62
IN.	---	0.13	1.17	0.64	0.63	0.86	0.87	1.14	1.81	1.47	1.01	0.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

MEAN	---	---	413	226	236	303	317	401	659	517	355	254
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SUMMARY STATISTICS

FOR 2004 WATER YEAR

HIGHEST DAILY MEAN	992	May 27
LOWEST DAILY MEAN	61	May 8
ANNUAL SEVEN-DAY MINIMUM	74	May 5

(e) Estimated due to ice effect or missing record

05430150 BADFISH CREEK NEAR COOKSVILLE, WI

LOCATION.--Lat 42°50'00", long 89°11'48", in SW ¼ SE ¼ sec.4, T.4 N., R.11 E., Rock County, Hydrologic Unit 07090001, on right bank, 20 ft upstream from bridge on State Highway 59, 2.2 mi east of Cooksville, and 2.2 mi above the mouth.

DRAINAGE AREA.--82.6 mi².

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 807.06 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair (see page 11). Approximately 55 percent of flow is effluent from Nine Springs treatment plant (data provided by Madison Metropolitan Sewerage District). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	71	88	86	e79	131	117	93	259	113	113	110
2	74	101	88	84	e80	133	112	92	184	119	112	109
3	75	158	87	86	80	114	107	94	160	132	118	105
4	72	326	86	85	79	111	104	93	148	572	152	102
5	72	178	87	e84	80	361	103	92	136	193	126	98
6	73	123	83	e85	79	181	102	92	130	159	116	101
7	75	105	84	e85	76	141	100	92	130	150	109	104
8	73	94	88	84	76	129	99	88	127	135	106	101
9	73	89	92	82	81	122	97	108	123	135	110	100
10	73	91	e160	80	78	114	93	122	131	131	111	99
11	71	93	e130	80	78	112	92	129	173	123	107	98
12	73	92	e110	84	79	105	92	111	194	123	106	97
13	72	88	e100	83	79	98	97	109	151	122	103	97
14	84	85	e100	83	79	100	95	115	142	118	101	97
15	76	86	e100	80	79	99	94	110	135	114	98	100
16	75	84	e99	80	81	97	95	100	128	110	97	106
17	74	85	e98	78	81	97	108	102	184	133	109	98
18	71	101	98	78	80	97	101	133	146	115	105	95
19	71	95	97	e79	80	96	100	115	131	113	110	92
20	73	90	93	e79	90	95	104	109	121	114	102	92
21	74	87	91	79	86	94	149	175	135	131	100	93
22	73	83	92	e80	86	96	119	938	138	129	96	92
23	72	123	92	e75	124	96	108	747	125	116	97	91
24	75	125	89	76	141	99	100	469	129	109	101	92
25	83	104	83	77	113	100	106	235	125	106	104	90
26	72	98	78	e77	114	195	105	191	117	105	103	91
27	73	91	83	77	117	150	100	167	114	109	127	90
28	74	86	88	78	111	138	95	151	119	108	114	90
29	73	84	89	e78	112	158	95	152	119	106	119	89
30	72	85	90	e78	---	133	96	266	116	140	108	90
31	72	---	89	e79	---	124	---	423	---	130	107	---
TOTAL	2,286	3,201	2,932	2,499	2,598	3,916	3,085	6,013	4,270	4,313	3,387	2,909
MEAN	73.7	107	94.6	80.6	89.6	126	103	194	142	139	109	97.0
MAX	84	326	160	86	141	361	149	938	259	572	152	110
MIN	71	71	78	75	76	94	92	88	114	105	96	89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2004, BY WATER YEAR (WY)

MEAN	96.1	102	95.7	90.7	106	124	123	114	121	106	97.1	97.5
MAX	139	162	129	122	163	190	193	205	252	171	133	146
(WY)	(1987)	(1986)	(1983)	(1988)	(1994)	(1993)	(1993)	(1999)	(1996)	(1993)	(1996)	(2001)
MIN	66.9	69.5	69.7	65.3	73.1	80.4	88.7	78.3	76.4	70.4	59.2	67.6
(WY)	(1978)	(1978)	(1979)	(1991)	(1979)	(1981)	(1990)	(1981)	(1991)	(1977)	(1977)	(1991)

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1977 - 2004
ANNUAL TOTAL	32,260	41,409	
ANNUAL MEAN	88.4	113	106
HIGHEST ANNUAL MEAN			136
LOWEST ANNUAL MEAN			80.4
HIGHEST DAILY MEAN	326	Nov 4	938
LOWEST DAILY MEAN	64	Sep 1	71
ANNUAL SEVEN-DAY MINIMUM	68	Aug 30	72
MAXIMUM PEAK FLOW			1,170
MAXIMUM PEAK STAGE			8.60
10 PERCENT EXCEEDS	104		141
50 PERCENT EXCEEDS	84		99
90 PERCENT EXCEEDS	72		77

(a) Also occurred Oct. 18, 19, Nov. 1

(e) Estimated due to ice effect or missing record

ROCK RIVER BASIN

576

05430175 YAHARA RIVER NEAR FULTON, WI

LOCATION.--Lat 42°49'35", long 89°10'19", in SE ¼ NE ¼ sec.10, T.4 N., R.11 E., Rock County, Hydrologic Unit 07090001, on left bank, 20 ft upstream from bridge on State Highway 59, 0.5 mi downstream from Badfish Creek, and 2.6 mi northwest of Fulton.

DRAINAGE AREA.--518 mi².

PERIOD OF RECORD.--July 1977 to current year.

REVISED RECORDS.--WDR WI-96-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 789.85 ft above NGVD of 1929. July 1977 to April 1996, recording gage at site about 2,000 ft upstream at datum 2.85 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor (see page 11). Regulation from dams and powerplants upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	288	483	360	e310	367	396	374	1,370	522	571	416
2	142	369	489	354	e300	399	371	362	1,150	501	564	414
3	143	516	494	357	e300	442	365	311	1,070	516	571	404
4	135	877	500	359	e300	427	372	250	1,010	1,090	630	390
5	132	663	499	350	e300	835	366	173	937	659	574	386
6	143	543	495	e300	e290	603	365	170	917	626	550	385
7	148	524	486	e340	e300	569	362	187	844	669	480	389
8	149	513	482	e350	e310	554	362	175	772	641	452	379
9	165	505	489	e340	e310	535	364	207	793	629	477	378
10	164	500	e620	e330	e310	486	362	260	795	638	472	378
11	156	500	e600	e300	e300	441	363	268	939	617	439	365
12	163	483	e550	e310	e290	415	363	228	937	615	399	367
13	173	464	e520	e290	e290	413	368	208	888	618	378	362
14	340	473	509	e290	e290	405	370	235	847	611	358	321
15	405	497	514	e280	e290	400	390	257	800	599	360	362
16	432	484	512	e280	e290	402	383	249	771	609	362	352
17	501	454	506	e280	e290	397	401	255	876	625	390	366
18	496	477	500	e280	e290	350	395	406	782	609	379	347
19	464	472	468	e280	e300	264	387	468	729	605	405	347
20	422	468	453	e250	324	305	399	457	684	606	398	338
21	431	461	437	e240	320	307	488	616	668	628	395	247
22	425	458	420	e220	316	309	458	1,780	693	660	392	223
23	413	507	423	e210	367	302	460	1,840	647	658	389	178
24	385	522	416	e220	390	301	439	1,510	658	636	393	192
25	372	502	419	e230	343	267	445	1,090	635	627	395	222
26	261	498	406	e220	340	420	439	1,070	634	599	387	267
27	344	490	403	e220	338	406	430	1,170	621	557	438	312
28	376	479	400	e230	362	381	416	1,100	608	574	427	302
29	356	482	397	e260	346	406	401	1,070	578	565	432	291
30	314	480	402	e280	---	377	401	1,260	567	625	414	299
31	239	---	388	e310	---	407	---	1,670	---	603	414	---
TOTAL	8,937	14,949	14,680	8,920	9,106	12,892	11,881	19,676	24,220	19,337	13,685	9,979
MEAN	288	498	474	288	314	416	396	635	807	624	441	333
MAX	501	877	620	360	390	835	488	1,840	1,370	1,090	630	416
MIN	132	288	388	210	290	264	362	170	567	501	358	178
CFSM	0.56	0.96	0.91	0.56	0.61	0.80	0.76	1.23	1.56	1.20	0.85	0.64
IN.	0.64	1.07	1.05	0.64	0.65	0.93	0.85	1.41	1.74	1.39	0.98	0.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2004, BY WATER YEAR (WY)

MEAN	360	419	387	337	368	444	453	423	399	344	307	321
MAX	623	711	558	542	585	760	1,043	858	1,002	862	760	696
(WY)	(2002)	(1986)	(1983)	(1986)	(1986)	(1994)	(1993)	(1993)	(2000)	(1993)	(1993)	(1993)
MIN	171	181	167	192	168	144	168	155	136	121	117	109
(WY)	(1991)	(1990)	(1990)	(1978)	(1991)	(2003)	(2003)	(1981)	(1988)	(1988)	(1988)	(1988)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1977 - 2004

ANNUAL TOTAL	99,506	168,262		
ANNUAL MEAN	273	460	381	
HIGHEST ANNUAL MEAN			629	1993
LOWEST ANNUAL MEAN			261	2003
HIGHEST DAILY MEAN	877	Nov 4	1,840	May 23
LOWEST DAILY MEAN	109	Sep 9	132	Oct 5
ANNUAL SEVEN-DAY MINIMUM	113	Sep 23	142	Oct 1
MAXIMUM PEAK FLOW			2,670	May 23
MAXIMUM PEAK STAGE			10.02	May 23
ANNUAL RUNOFF (CFSM)	0.526	0.888	11.16	Jun 18, 1996
ANNUAL RUNOFF (INCHES)	7.15	12.08	10.00	
10 PERCENT EXCEEDS	501	664	608	
50 PERCENT EXCEEDS	220	402	355	
90 PERCENT EXCEEDS	125	250	162	

(e) Estimated due to ice effect or missing record

05430446 MARKHAM CREEK NEAR JANESVILLE, WI

LOCATION.--Lat 42°38'34", long 89°04'59", in SE ¼ SW ¼ sec.9, T.2 N., R.12 E., Rock County, Hydrologic Unit 07090001, on right bank, 10 ft upstream of Oleary Road, and 1.8 mi upstream from Rock River.

DRAINAGE AREA.--9.32 mi².

PERIOD OF RECORD.--July to September 2004.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 800 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	3.7	2.5	1.5
2	---	---	---	---	---	---	---	---	---	3.5	2.7	1.4
3	---	---	---	---	---	---	---	---	---	3.8	3.1	1.4
4	---	---	---	---	---	---	---	---	---	11	5.0	1.3
5	---	---	---	---	---	---	---	---	---	4.9	3.1	1.3
6	---	---	---	---	---	---	---	---	---	4.3	3.0	1.3
7	---	---	---	---	---	---	---	---	---	20	2.9	1.3
8	---	---	---	---	---	---	---	---	---	5.2	2.8	1.3
9	---	---	---	---	---	---	---	---	---	5.6	2.5	1.3
10	---	---	---	---	---	---	---	---	---	5.6	2.2	1.3
11	---	---	---	---	---	---	---	---	---	4.2	2.0	1.2
12	---	---	---	---	---	---	---	---	---	3.9	1.9	1.2
13	---	---	---	---	---	---	---	---	---	3.6	1.8	1.2
14	---	---	---	---	---	---	---	---	---	3.3	1.7	1.2
15	---	---	---	---	---	---	---	---	---	3.2	1.6	1.2
16	---	---	---	---	---	---	---	---	---	3.2	1.6	1.2
17	---	---	---	---	---	---	---	---	---	3.3	1.6	1.2
18	---	---	---	---	---	---	---	---	---	3.1	1.6	1.2
19	---	---	---	---	---	---	---	---	---	3.1	1.5	1.1
20	---	---	---	---	---	---	---	---	---	3.0	1.5	1.1
21	---	---	---	---	---	---	---	---	---	3.3	1.4	1.1
22	---	---	---	---	---	---	---	---	---	3.2	1.4	1.1
23	---	---	---	---	---	---	---	---	---	2.9	1.4	1.0
24	---	---	---	---	---	---	---	---	---	2.9	1.4	1.0
25	---	---	---	---	---	---	---	---	---	2.9	1.5	1.1
26	---	---	---	---	---	---	---	---	---	2.8	1.5	1.1
27	---	---	---	---	---	---	---	---	---	2.8	1.6	1.1
28	---	---	---	---	---	---	---	---	---	2.7	1.6	1.1
29	---	---	---	---	---	---	---	---	---	2.6	1.8	1.1
30	---	---	---	---	---	---	---	---	---	2.8	1.6	1.1
31	---	---	---	---	---	---	---	---	---	2.7	1.5	---
TOTAL	---	---	---	---	---	---	---	---	---	133.1	63.3	36.0
MEAN	---	---	---	---	---	---	---	---	---	4.29	2.04	1.20
MAX	---	---	---	---	---	---	---	---	---	20	5.0	1.5
MIN	---	---	---	---	---	---	---	---	---	2.6	1.4	1.0
CFSM	---	---	---	---	---	---	---	---	---	0.46	0.22	0.13
IN.	---	---	---	---	---	---	---	---	---	0.53	0.25	0.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	---	---	---	---	---	---	---	---	---	4.29	2.04	1.20
MAX	---	---	---	---	---	---	---	---	---	4.29	2.04	1.20
(WY)	---	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)
MIN	---	---	---	---	---	---	---	---	---	4.29	2.04	1.20
(WY)	---	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)

FOR 2004 WATER YEAR
(July - September)

SUMMARY STATISTICS

ANNUAL TOTAL	232.4
ANNUAL MEAN	2.53
HIGHEST DAILY MEAN	20 Jul 7
LOWEST DAILY MEAN	1.0 Sep 23, 24
ANNUAL SEVEN-DAY MINIMUM	1.1 Sep 19
MAXIMUM PEAK FLOW	64 Jul 7
MAXIMUM PEAK STAGE	3.86 Jul 7
INSTANTANEOUS LOW FLOW	0.98 Sep 23-25
ANNUAL RUNOFF (CFSM)	0.271
ANNUAL RUNOFF (INCHES)	0.93
10 PERCENT EXCEEDS	4.1
50 PERCENT EXCEEDS	1.7
90 PERCENT EXCEEDS	1.1

ROCK RIVER BASIN

05430500 ROCK RIVER AT AFTON, WI

LOCATION.--Lat 42°36'33", long 89°04'14", in NE ¼ sec.28, T.2 N., R.12 E., Rock County, Hydrologic Unit 07090001, on right bank in Afton, 0.3 mi downstream from highway bridge and 1.1 mi upstream from Bass Creek.

DRAINAGE AREA.--3,340 mi².

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge for January 1914 published in WSP 1308. Unpublished daily discharges for January and February 1914 in District files.

REVISED RECORDS.--WSP 1238: 1916(M), 1919(M), 1933, 1937-38, 1943. WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 742.36 ft above NGVD of 1929. Prior to Aug. 23, 1932, a nonrecording gage 20 ft upstream, and Aug. 23, 1932, to Sept. 30, 1933, water-stage recorder, at same site at datum 1 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair, and periods of discharge below 800 ft³/s, which are poor (see page 11). Diurnal fluctuation caused by powerplants above station. Gage-height telemeter and data-collection platform at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	517	1,100	2,140	2,260	e840	1,910	4,460	2,860	9,860	7,910	2,930	1,750
2	599	1,290	2,100	2,150	e840	2,320	4,420	2,740	9,820	7,660	2,830	1,730
3	527	1,540	2,250	1,860	e700	2,400	4,360	2,650	9,880	7,530	2,760	1,690
4	467	2,050	2,260	1,810	e650	2,540	4,330	2,450	9,910	7,710	2,950	1,580
5	528	2,230	2,240	1,670	e800	3,140	4,190	2,360	9,860	7,680	2,960	1,520
6	505	2,120	2,270	1,470	e790	3,330	4,060	2,270	9,790	7,200	2,870	1,440
7	595	2,090	2,160	e1,400	e780	3,360	4,080	2,260	9,630	7,060	2,800	1,440
8	549	2,410	2,030	e1,400	e750	3,640	3,980	1,980	9,380	6,760	2,660	1,440
9	545	2,320	2,040	e1,300	e650	4,010	3,890	1,940	9,310	6,590	2,600	1,010
10	593	2,150	2,450	e1,300	e660	4,160	3,800	2,020	9,300	6,440	2,510	1,070
11	597	2,090	2,430	e1,300	e960	4,190	3,710	2,310	9,410	6,190	2,620	1,080
12	556	2,040	2,170	e1,300	e1,100	4,240	3,630	2,570	9,460	5,960	2,580	1,020
13	597	1,930	2,170	e1,300	e1,000	4,320	3,510	2,620	9,340	5,780	2,520	1,130
14	758	2,260	2,210	e1,300	e900	4,230	3,400	2,800	9,400	5,580	2,200	1,330
15	794	2,140	2,270	e1,300	e900	4,270	3,290	2,930	9,470	5,430	1,650	1,220
16	844	2,110	2,630	e1,300	e900	4,380	3,140	2,980	9,470	5,280	1,680	1,200
17	934	2,000	2,610	e1,300	e900	4,340	3,200	3,010	9,730	5,260	1,620	1,300
18	934	2,130	2,590	e1,300	e880	4,270	3,050	3,270	9,700	5,100	1,750	1,250
19	896	2,310	2,540	e1,200	e890	4,100	2,660	3,480	9,550	4,860	1,670	1,220
20	949	2,100	2,470	e1,100	e910	4,210	2,910	3,510	9,420	4,670	1,570	1,160
21	761	2,330	2,430	e1,100	e980	4,190	3,030	3,760	9,350	4,560	1,370	914
22	899	2,290	2,260	e1,100	e1,100	4,090	3,010	5,310	9,360	4,390	1,350	868
23	837	2,130	1,960	e1,100	1,280	3,960	3,070	6,340	9,140	4,410	1,320	856
24	930	1,870	1,980	e1,100	1,490	3,950	3,080	7,010	9,060	4,170	1,140	758
25	972	1,940	1,950	e1,100	1,420	3,930	3,100	7,080	8,970	4,000	1,160	775
26	825	2,050	1,970	e1,000	1,610	4,120	2,970	7,480	8,810	3,820	1,330	1,010
27	789	2,310	1,960	e900	1,610	4,300	2,950	7,930	8,660	3,600	1,430	1,000
28	1,310	2,270	1,980	e790	1,700	4,240	2,850	8,320	8,590	3,430	1,620	1,050
29	1,270	2,200	2,040	e800	1,720	4,210	2,650	8,550	8,320	3,280	1,610	1,040
30	1,290	2,180	2,280	e830	---	4,350	2,790	8,910	8,090	3,170	1,540	957
31	1,150	---	2,290	e830	---	4,500	---	9,500	---	3,080	1,770	---
TOTAL	24,317	61,980	69,130	39,970	29,710	119,200	103,570	133,200	280,040	168,560	63,370	35,808
MEAN	784	2,066	2,230	1,289	1,024	3,845	3,452	4,297	9,335	5,437	2,044	1,194
MAX	1,310	2,410	2,630	2,260	1,720	4,500	4,460	9,500	9,910	7,910	2,960	1,750
MIN	467	1,100	1,950	790	650	1,910	2,650	1,940	8,090	3,080	1,140	758
CFSM	0.23	0.62	0.67	0.39	0.31	1.15	1.03	1.29	2.79	1.63	0.61	0.36
IN.	0.27	0.69	0.77	0.45	0.33	1.33	1.15	1.48	3.12	1.88	0.71	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2004, BY WATER YEAR (WY)

MEAN	1,393	1,585	1,481	1,311	1,554	3,321	4,069	2,624	1,930	1,478	1,145	1,194
MAX	8,219	5,884	4,395	3,558	5,647	8,958	10,010	7,911	9,335	5,443	5,376	5,088
(WY)	(1987)	(1986)	(1986)	(1960)	(1938)	(1918)	(1979)	(1973)	(2004)	(1993)	(1924)	(1938)
MIN	254	397	383	275	327	610	1,002	389	314	247	183	212
(WY)	(1940)	(1964)	(1940)	(1959)	(1959)	(1940)	(1931)	(1958)	(1934)	(1934)	(1934)	(1939)

ROCK RIVER BASIN

05430500 ROCK RIVER AT AFTON, WI—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1914 - 2004	
ANNUAL TOTAL	466,271		1,128,855		1,927	
ANNUAL MEAN	1,277		3,084		3,925	
HIGHEST ANNUAL MEAN					557	
LOWEST ANNUAL MEAN					1964	
HIGHEST DAILY MEAN	3,630	May 15	9,910	Jun 4	13,000	Mar 23, 24, 1929
LOWEST DAILY MEAN	335	Aug 27	467	Oct 4	42	Aug 25, 26, 1934
ANNUAL SEVEN-DAY MINIMUM	391	Sep 1	531	Oct 3	115	Aug 24, 1934
MAXIMUM PEAK FLOW			9,930	Jun 1	(a)13,000	Mar 23, 1929
MAXIMUM PEAK STAGE			10.96	Jun 1	(b)13.05	Feb 5, 1916
ANNUAL RUNOFF (CFSM)	0.382		0.923		0.577	
ANNUAL RUNOFF (INCHES)	5.19		12.57		7.84	
10 PERCENT EXCEEDS	2,410		7,770		4,070	
50 PERCENT EXCEEDS	960		2,260		1,360	
90 PERCENT EXCEEDS	528		852		486	

(a) Gage height, 11.81 ft, present datum

(b) Present datum, backwater from ice

(c) Estimated due to ice effect or missing record

ROCK RIVER BASIN

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI

580

LOCATION.--Lat 42°39'03", long 88°33'03", in NW ¼ NE ¼ sec.12, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on left bank 20 ft downstream from Interstate Highway 43, 1.1 mi upstream from Delavan Lake inlet at Mound Road, and 1.5 mi south of Elkhorn.

DRAINAGE AREA.--4.34 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

REVISED RECORDS.--WDR WI-89-1: 1988.

GAGE.--Water-stage recorder. Datum of gage is 924.70 ft above NGVD of 1929 (Wisconsin Department of Transportation benchmark). Prior to Dec. 4, 1992, at site 180 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.36	0.65	0.96	1.3	e0.60	3.4	3.3	2.0	8.9	2.0	0.69	3.6
2	0.37	11	0.93	1.4	e0.60	2.8	2.8	1.6	4.7	2.1	0.80	1.4
3	0.70	28	0.88	1.5	e0.58	2.3	2.7	1.5	3.6	5.0	6.4	1.1
4	0.37	21	0.92	e1.1	e0.60	6.5	2.4	1.5	3.1	8.5	14	0.76
5	0.32	8.9	1.3	e1.00	e0.64	34	2.3	1.5	2.6	2.8	1.6	0.68
6	0.36	2.5	0.86	e0.96	e0.62	8.1	2.1	1.5	2.3	2.7	1.3	0.69
7	0.35	1.8	0.83	e0.94	e0.62	5.0	2.1	1.9	2.2	3.8	1.1	0.71
8	0.36	1.2	0.91	e0.90	e0.64	3.9	2.0	1.9	2.1	2.6	0.95	0.79
9	0.35	1.0	4.7	e0.92	e0.64	3.3	1.8	8.4	2.4	5.2	1.0	0.79
10	0.46	1.1	38	0.97	e0.66	3.0	1.6	3.2	10	3.6	1.0	0.77
11	0.43	1.0	8.0	1.0	e0.68	e2.6	1.6	2.5	9.6	2.3	1.0	0.83
12	0.87	0.98	3.0	1.0	e0.68	e2.3	1.6	2.4	29	2.6	0.98	0.63
13	0.50	0.92	2.3	0.96	e0.66	2.1	1.6	16	6.8	2.3	1.0	0.69
14	2.2	1.0	2.1	e0.92	e0.62	2.9	1.5	37	21	1.9	0.83	0.74
15	0.57	0.86	2.0	e0.88	e0.60	2.0	1.4	12	7.6	1.6	0.75	1.3
16	0.46	0.85	2.0	e0.96	e0.62	1.9	1.4	4.2	4.0	1.7	0.78	1.4
17	0.55	1.1	1.8	e0.90	e0.64	2.1	2.1	3.4	71	1.2	8.4	0.86
18	0.43	10	1.6	e0.84	e0.68	2.1	1.3	7.1	19	0.77	1.3	0.59
19	0.36	2.7	1.6	e0.78	e0.80	2.0	1.3	3.6	7.0	0.85	0.95	0.47
20	0.42	1.8	1.3	e0.76	2.6	e1.8	4.3	3.1	4.1	0.79	0.85	0.55
21	0.45	1.6	1.3	e0.72	2.3	e1.7	5.5	22	24	9.1	0.86	0.64
22	0.45	1.4	1.3	e0.70	2.0	1.7	2.4	91	12	3.3	0.71	0.61
23	0.60	2.7	1.3	e0.66	4.5	1.7	2.0	36	6.5	1.2	0.75	0.63
24	2.1	1.6	1.1	e0.62	2.2	6.0	2.2	12	15	0.65	2.6	0.72
25	1.3	1.3	1.00	e0.60	1.5	3.2	3.1	5.7	6.4	0.52	2.3	0.53
26	0.53	1.3	0.97	e0.62	1.7	20	2.0	4.4	3.7	0.61	0.87	0.49
27	0.54	1.2	1.1	e0.64	1.8	5.0	2.0	3.8	2.7	0.69	1.7	0.58
28	0.65	1.1	4.0	e0.64	1.8	11	1.9	3.2	3.3	0.66	8.0	0.62
29	0.64	1.1	2.0	e0.64	2.1	11	1.8	4.0	2.2	0.66	5.2	0.62
30	0.62	1.0	1.6	e0.62	---	4.8	2.2	33	2.2	0.89	1.6	0.64
31	0.51	---	1.4	e0.60	---	3.9	---	24	---	0.73	1.3	---
TOTAL	19.18	112.66	93.06	27.05	34.68	164.1	66.3	355.4	299.0	73.32	71.57	25.43
MEAN	0.62	3.76	3.00	0.87	1.20	5.29	2.21	11.5	9.97	2.37	2.31	0.85
MAX	2.2	28	38	1.5	4.5	34	5.5	91	71	9.1	14	3.6
MIN	0.32	0.65	0.83	0.60	0.58	1.7	1.3	1.5	2.1	0.52	0.69	0.47
CFSM	0.14	0.87	0.69	0.20	0.28	1.22	0.51	2.64	2.30	0.54	0.53	0.20
IN.	0.16	0.97	0.80	0.23	0.30	1.41	0.57	3.05	2.56	0.63	0.61	0.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2004, BY WATER YEAR (WY)

MEAN	2.29	3.48	2.37	1.82	3.61	4.55	4.73	3.96	3.95	2.19	1.59	2.56
MAX	8.38	13.3	6.55	4.62	9.42	10.7	14.4	11.5	9.97	5.39	5.59	10.8
(WY)	(2002)	(1986)	(1985)	(1999)	(2001)	(1986)	(1993)	(2004)	(2004)	(1992)	(1995)	(1986)
MIN	0.30	0.58	0.49	0.45	0.33	1.11	1.17	0.79	0.54	0.44	0.30	0.27
(WY)	(1995)	(1990)	(1990)	(1994)	(1989)	(2003)	(2003)	(1989)	(1988)	(1988)	(1988)	(1987)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1984 - 2004

ANNUAL TOTAL	628.60	1,341.75	
ANNUAL MEAN	1.72	3.67	3.08
HIGHEST ANNUAL MEAN			5.74
LOWEST ANNUAL MEAN			1.37
HIGHEST DAILY MEAN	48	Jul 15	91
LOWEST DAILY MEAN	0.11	Sep 7	0.32
ANNUAL SEVEN-DAY MINIMUM	0.20	Sep 5	0.37
MAXIMUM PEAK FLOW			179
MAXIMUM PEAK STAGE			9.63
ANNUAL RUNOFF (CFSM)	0.397		0.845
ANNUAL RUNOFF (INCHES)	5.39		11.50
10 PERCENT EXCEEDS	2.9		8.0
50 PERCENT EXCEEDS	0.86		1.5
90 PERCENT EXCEEDS	0.35		0.60

(e) Estimated due to ice effect or missing record

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1983 to current year.
DISSOLVED AMMONIA NITROGEN DISCHARGE: February 1993 to September 1995.
TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Water years 1984-85 and February 1993 to September 1995.
DISSOLVED NITRITE PLUS NITRATE DISCHARGE: February 1993 to September 1995.
TOTAL NITRITE PLUS NITRATE DISCHARGE: Water years 1984-85.
TOTAL-PHOSPHORUS DISCHARGE: October 1983 to current year.
DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: February 1993 to September 1995.

INSTRUMENTATION.--Automatic pumping sampler since October 1983.

REMARKS.--Records good.

COOPERATION.--Observer furnished by Delavan Lake Sanitary District.

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 5,520 mg/L, Aug. 7, 1984; minimum observed, 1 mg/L, on several days during 1984, May 12, 1990, and May 11, 1995.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 136 tons, June 17, 1996; minimum daily, 0.00 ton, on several days in 1994, 1995, 1997 and 2000 water years, Aug. 3, 2002, and June 29 to July 2, 2003.
DISSOLVED AMMONIA NITROGEN CONCENTRATIONS: Maximum observed, 1.00 mg/L, Jan. 24, 1994; minimum observed, <0.015 mg/L, on many days in 1995 water year.
DISSOLVED AMMONIA NITROGEN DISCHARGE: Maximum daily, 298 lb, Mar. 23, 1993; minimum daily, 0.02 lb, Jan. 8-11 and July 1-2, 1995.
TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 16 mg/L, Nov. 19, 1983; minimum observed, 0.10 mg/L, Oct. 12, 1984.
TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 1,710 lb, Feb. 19, 1994; minimum daily, 0.09 lb, Jan. 9-11, 1995.
DISSOLVED NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 7.6 mg/L, Apr. 28, 1995; minimum observed, 0.30 mg/L, Aug. 7, 1995.
DISSOLVED NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 1,080 lb, June 8, 1993; minimum daily, 0.43 lb, Aug. 6, 1995.
TOTAL NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 6.10 mg/L, Oct. 19, 1984; minimum observed, <0.10 mg/L, Oct. 12 and July 23, 1985.
TOTAL NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 1,489 lb, May 28, 1984; minimum daily, 0.17 lb, July 23, 1985.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 8.20 mg/L, Aug. 7, 1984; minimum observed, 0.01 mg/L, Jan. 16, Mar. 14, 1990, and Dec. 27, 1994.
TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 584 lb, Feb. 19, 1994; minimum daily, 0.01 lb, Aug. 2, 1994.
DISSOLVED ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.81 mg/L, Mar. 4, 1993; minimum observed, <0.01 mg/L, on many days during 1995.
DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 126 lb, Mar. 23, 1993; minimum daily, 0.00 lb, Aug. 2, 1994, and Jan. 8-11, Aug. 6, 1995.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 3,270 mg/L, May 22; minimum observed, 5 mg/L, July 12, 22.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 100 tons, May 22; minimum daily, 0.01 ton, Aug. 14-16.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 4.69 mg/L, May 22; minimum observed, 0.05 mg/L, May 3.
TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 367 lb, May 22; minimum daily, 0.12 lb, Oct. 5.

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI—Continued

 SUSPENDED SEDIMENT DISCHARGE, TONS PER DAY
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	0.05	0.06	0.33	e0.04	0.34	0.17	0.30	0.38	0.05	0.02	e0.29
2	0.05	e1.8	0.05	0.38	e0.04	0.23	0.15	0.29	0.19	0.06	0.03	e0.11
3	0.09	13	0.05	0.41	e0.04	0.15	0.13	0.32	0.14	0.27	2.4	0.03
4	0.05	5.2	0.05	e0.32	e0.04	6.4	0.12	0.31	0.11	0.45	1.0	0.02
5	0.04	0.95	0.07	e0.32	e0.05	6.4	0.11	0.28	0.09	0.04	0.03	0.02
6	0.04	0.14	0.05	e0.28	e0.05	0.16	0.10	0.25	0.08	0.04	0.02	0.02
7	0.04	0.11	0.05	e0.25	e0.05	0.08	0.10	0.30	0.07	e0.31	0.02	0.03
8	0.04	0.08	0.05	e0.25	e0.04	0.06	0.09	0.27	0.06	0.04	0.02	0.03
9	0.04	0.08	1.9	e0.25	e0.05	0.05	0.08	5.5	0.07	0.16	0.02	0.03
10	0.05	0.09	5.7	0.20	e0.06	0.05	0.08	0.13	1.3	0.08	0.02	0.03
11	0.04	0.10	0.22	0.20	e0.06	e0.04	0.07	0.09	0.30	0.04	0.02	0.04
12	e0.15	0.11	0.10	0.19	e0.05	e0.04	0.07	0.07	10	0.04	0.02	0.03
13	e0.08	0.11	0.10	0.17	e0.06	0.03	0.07	10	0.17	0.03	0.02	0.04
14	e0.37	0.14	0.13	e0.17	e0.06	0.04	0.07	5.0	7.6	0.03	0.01	0.04
15	0.06	0.13	0.16	e0.14	e0.05	0.03	0.06	0.40	0.72	0.02	0.01	e0.11
16	0.05	0.14	0.22	e0.14	e0.06	0.03	0.06	0.44	0.28	0.02	0.01	e0.11
17	0.05	0.21	0.25	e0.14	e0.06	0.03	e0.44	0.32	31	0.02	e0.69	0.06
18	0.04	1.7	0.30	e0.11	e0.07	0.03	0.06	0.70	0.90	0.01	0.05	0.04
19	0.03	0.17	0.28	e0.10	e0.08	0.03	0.05	0.11	0.61	0.01	0.04	0.04
20	0.04	0.12	0.19	e0.09	0.22	e0.03	1.2	0.09	0.35	0.01	0.03	0.05
21	0.04	0.10	0.17	e0.09	0.19	e0.02	0.27	13	2.9	1.6	0.03	0.05
22	0.04	0.09	0.15	e0.08	0.18	0.02	0.07	100	0.44	0.06	0.02	0.05
23	0.05	0.17	0.13	e0.08	0.40	0.02	0.06	6.3	1.1	0.02	0.02	0.05
24	e0.35	0.10	0.10	e0.06	0.20	1.6	0.09	0.62	1.8	0.01	e0.21	0.05
25	e0.22	0.08	0.08	e0.05	0.14	0.16	0.21	0.51	0.16	0.00	e0.19	0.04
26	0.05	0.08	0.06	e0.06	0.16	5.0	0.10	0.41	0.09	0.01	0.02	0.03
27	0.05	0.07	0.06	e0.06	0.18	0.26	0.12	0.34	0.07	0.02	0.05	0.04
28	0.06	0.07	e0.67	e0.05	0.18	3.1	0.15	0.27	0.08	0.02	0.76	0.04
29	0.05	0.07	e0.34	e0.05	0.21	0.54	0.17	0.33	0.06	0.02	0.17	0.04
30	0.05	0.06	0.39	e0.05	---	0.26	0.27	11	0.06	0.03	0.04	0.04
31	0.04	---	0.36	e0.04	---	0.20	---	1.5	---	0.02	0.03	---
TOTAL	2.38	25.32	12.49	5.11	3.07	25.43	4.79	159.45	61.18	3.54	6.02	1.60
WTR YR	2004	TOTAL	310.38									

e Estimated

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI—Continued

PHOSPHORUS, WATER, UNFILTERED, POUNDS PER DAY
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.14	0.25	0.31	0.70	e0.20	2.18	1.48	0.60	5.09	0.65	0.34	e3.30
2	0.14	23.3	0.30	0.83	e0.20	1.68	1.24	0.44	2.33	0.64	0.38	e1.30
3	0.26	60.7	0.29	0.91	e0.19	1.30	1.13	0.40	1.65	3.78	13.4	0.62
4	0.14	29.5	0.30	e0.68	e0.21	22.0	0.99	0.41	1.33	5.93	14.3	0.43
5	0.12	8.09	0.42	e0.64	e0.23	44.0	0.91	0.40	1.05	1.32	0.91	0.38
6	0.14	1.76	0.28	e0.60	e0.22	3.29	0.84	0.39	0.86	1.10	0.64	0.38
7	0.13	1.19	0.27	e0.58	e0.23	1.87	0.81	e4.50	0.74	e3.40	0.51	0.38
8	0.14	0.73	0.29	e0.54	e0.24	1.46	0.73	e4.00	0.66	0.81	0.43	0.43
9	0.13	0.58	9.21	e0.53	e0.25	1.23	0.65	22.1	e4.60	3.37	0.44	0.44
10	0.17	0.56	52.5	0.56	e0.26	1.09	0.58	e7.50	10.8	2.20	0.42	0.44
11	e0.69	0.52	5.09	0.57	e0.28	e0.94	0.54	1.57	5.54	1.24	0.39	0.48
12	e1.40	0.45	1.65	0.57	e0.28	e0.82	0.53	1.36	50.4	1.24	0.35	0.37
13	e0.80	0.39	1.16	0.51	e0.28	0.75	0.52	42.5	2.83	1.05	0.34	0.41
14	e3.50	0.41	0.98	e0.48	e0.27	1.04	0.48	43.7	39.2	0.81	0.26	0.44
15	0.22	0.32	0.84	e0.44	e0.27	0.68	0.44	8.68	4.53	0.62	0.22	e1.20
16	0.17	0.30	0.79	e0.47	e0.28	0.65	0.43	1.77	1.72	0.65	0.22	e1.30
17	0.21	0.42	0.63	e0.43	e0.30	0.73	e4.90	1.06	163	0.43	9.03	0.51
18	0.16	12.5	0.54	e0.39	e0.33	0.73	0.38	7.67	12.5	0.25	0.74	0.35
19	0.14	1.28	0.53	e0.36	e0.39	0.68	0.37	2.49	3.70	0.26	0.48	0.28
20	0.16	0.77	0.44	e0.34	e4.20	e0.60	6.55	1.90	1.82	0.23	0.40	0.33
21	0.17	0.65	0.47	e0.31	e3.70	e0.56	3.37	60.8	26.6	14.1	0.37	0.38
22	0.17	0.57	0.49	e0.30	e3.20	0.56	0.87	367	7.33	2.55	0.29	0.36
23	0.23	e4.30	0.51	e0.27	e7.20	0.55	0.63	43.3	5.45	0.84	0.28	0.38
24	e3.40	0.62	0.45	e0.25	e3.50	8.30	0.81	8.50	14.7	0.43	e2.40	0.43
25	e2.10	0.50	0.42	e0.24	0.89	1.22	1.87	2.80	3.30	0.33	e2.10	0.32
26	0.20	0.47	0.43	e0.24	0.99	27.1	0.78	1.89	1.75	0.37	0.26	0.29
27	0.20	0.42	0.51	e0.24	1.10	1.86	0.71	1.44	1.19	0.41	e0.80	0.34
28	0.24	0.38	e6.40	e0.23	1.11	15.4	0.66	1.07	e6.30	0.38	7.42	0.36
29	0.24	0.38	e3.20	e0.23	1.32	6.23	0.58	e9.40	0.85	0.37	3.66	0.35
30	0.23	0.33	0.81	e0.22	---	2.27	0.68	61.8	0.76	0.47	0.99	0.35
31	0.19	---	0.76	e0.20	---	1.77	---	19.6	---	0.38	0.78	---
TOTAL	16.33	152.64	91.27	13.86	32.12	153.54	35.46	731.04	382.58	50.61	63.55	17.33
WTR YR	2004	TOTAL	1,740.33									

e Estimated

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Dis-charge, cfs (00060)	Instan- taneous dis- charge, cfs (00061)	Sam- pling method, code (82398)	Phos- phorus, water, unfltrd mg/L (00665)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT						
01...	1215	--	.35	70	.07	54
06...	1330	--	.45	10	.07	41
NOV						
02...	0800	--	5.6	50	.75	261
03...	0750	--	6.9	10	.15	60
03...	1245	--	15	50	.38	142
03...	1515	--	47	50	.90	548
03...	1545	--	64	50	.69	457
03...	1815	--	59	50	.35	139
03...	2245	--	39	50	.23	46
04...	0315	--	21	50	.21	41
04...	1001	--	14	10	.17	24
04...	1645	--	15	50	.39	274
04...	1800	--	36	50	.47	324
04...	1830	--	45	50	.39	196
04...	2045	--	40	50	.27	97
05...	0115	--	21	50	.21	77
05...	0830	--	9.7	10	.14	18
17...	1300	--	.94	70	.06	70
18...	0145	--	12	50	.36	87
18...	0400	--	7.5	50	.22	--
18...	0750	--	4.7	10	.16	26
18...	0945	--	14	50	.49	239
18...	1030	--	20	50	.34	176
18...	1245	--	19	50	.20	37
18...	1715	--	10	50	.17	20
19...	0810	--	2.7	10	.08	24
DEC						
01...	0845	--	.94	10	.06	112
09...	2030	--	13	50	.70	359
09...	2115	--	19	50	.51	214
10...	0315	--	35	50	.30	113
10...	0630	--	52	50	.32	86
10...	0750	--	62	10	.20	39
10...	0800	--	62	50	.30	123
10...	1015	--	58	50	.27	55
10...	1445	--	42	50	.20	29
10...	1915	--	26	50	--	21
11...	0200	--	15	50	.13	11
11...	0935	--	8.0	10	.11	9
18...	1510	--	1.6	70	.06	73
28...	0630	--	8.9	50	--	87
JAN						
05...	1115	1.0	--	10	.12	104
FEB						
02...	0830	.60	--	10	.06	20

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
MAR					
01...	0735	3.0	10	.12	39
04...	2015	10	50	.55	334
04...	2215	26	50	1.32	799
04...	2245	36	50	1.01	598
04...	2330	47	50	.73	462
05...	0145	52	50	.31	120
05...	0615	55	50	.26	77
05...	1045	35	50	.20	29
05...	1730	21	50	.13	12
06...	0015	14	50	.10	8
06...	0910	8.3	10	.06	9
06...	0915	8.3	50	.07	6
24...	0800	15	50	1.00	604
24...	1015	15	50	.20	67
24...	1230	8.9	50	.13	22
25...	0745	3.0	10	.06	14
26...	0030	16	50	.42	262
26...	0215	22	50	.29	118
26...	0315	31	50	.41	260
26...	0400	42	50	.47	309
26...	0615	36	50	.26	85
26...	1045	22	50	.17	17
26...	1730	12	50	.14	9
27...	0915	5.1	10	.06	22
28...	1730	11	50	.31	143
28...	1800	21	50	.55	364
28...	1830	30	50	.42	218
28...	1900	41	50	.48	256
28...	2115	33	50	.23	59
29...	0145	19	50	.14	16
29...	0850	11	10	.09	20
APR					
20...	1900	10	50	.47	146
20...	2045	17	50	.48	260
20...	2300	11	50	.20	36
21...	0115	8.8	50	.14	33
21...	0330	11	50	.16	30
21...	0545	8.2	50	.11	12
25...	0015	6.3	50	.18	52

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
MAY					
03...	0800	1.4	10	.05	83
09...	0345	20	50	2.98	2,140
09...	0400	28	50	1.58	982
09...	0445	40	50	1.01	576
09...	0600	24	50	.31	114
09...	1030	7.9	50	.14	19
13...	0130	9.2	50	.54	228
13...	0345	9.8	50	.18	43
13...	0600	6.0	50	.11	18
13...	1700	56	50	1.05	723
13...	1730	72	50	1.70	1,030
13...	1845	52	50	.37	142
13...	2215	23	50	.20	46
14...	0500	9.8	50	.12	23
14...	0715	21	50	.25	122
14...	0745	35	50	.29	153
14...	0945	61	50	.23	64
14...	1100	75	50	.24	76
14...	1315	69	50	.21	48
14...	1730	40	50	.23	26
15...	0230	21	50	.18	12
15...	0830	13	10	.12	14
15...	1600	7.0	50	.10	9
16...	0830	4.4	10	.08	47
18...	0115	7.9	50	.33	95
18...	0215	15	50	.42	138
18...	0430	14	50	.18	29
18...	0900	6.5	50	.15	12
21...	1000	41	50	1.40	942
21...	1015	63	50	1.25	758
21...	1045	86	50	1.58	910
21...	1201	67	50	.40	124
21...	1202	66	10	.40	135
21...	1545	29	50	.28	56
21...	2230	20	50	.23	38
22...	0030	31	50	.24	74
22...	0045	109	50	1.63	1,430
22...	0100	141	50	4.69	3,270
22...	0130	163	50	3.05	2,310
22...	0230	178	50	.86	575
22...	0445	150	50	.79	386
22...	0815	113	50	.40	116
22...	1500	67	50	.35	97
23...	0430	34	50	.16	25
23...	0715	50	50	.62	383
23...	0930	52	50	.23	68
23...	1615	33	50	.18	42
24...	0330	18	50	.14	18
24...	0805	14	10	--	15
25...	0825	6.2	10	.09	35
30...	1100	22	50	.92	587
30...	1115	36	50	.65	401
30...	1145	63	50	.77	435
30...	1200	90	50	.70	462
30...	1230	105	50	.72	408
30...	1430	77	50	.28	61
30...	1830	40	50	.21	34
30...	2300	46	50	.19	30
31...	0545	29	50	.15	18
31...	1700	17	50	.11	14
31...	1915	21	50	.23	88
31...	2345	17	50	.12	16

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
JUN					
10...	1130	17	50	.41	144
10...	1215	27	50	.38	147
10...	1645	14	50	.15	18
11...	0115	22	50	.14	26
11...	0545	12	50	.11	8
12...	0245	31	50	1.07	686
12...	0330	75	50	.73	413
12...	0715	46	50	.24	58
12...	2300	12	50	.09	19
13...	0820	7.4	10	.08	8
14...	1100	21	50	.64	425
14...	1115	45	50	.69	442
14...	1200	78	50	.61	329
14...	1730	26	50	.21	28
15...	0830	8.4	10	.10	39
17...	0530	26	50	.61	284
17...	0600	74	50	.67	439
17...	0645	132	50	.85	511
17...	0815	173	50	.58	312
17...	1145	120	50	.38	88
17...	2015	46	50	.20	16
18...	0740	23	10	.11	15
19...	0915	7.4	10	.10	35
21...	1145	22	50	.33	101
21...	1300	48	50	.28	87
21...	1345	61	50	.24	65
21...	1815	47	50	.20	31
22...	0100	22	50	.14	14
22...	0840	13	10	.10	--
23...	2315	30	50	.47	331
24...	0001	43	50	.46	230
24...	0215	25	50	.21	45
24...	0900	11	10	--	32
24...	1115	9.4	50	.13	16
24...	1330	14	50	.12	12
24...	2230	8.8	50	.10	9
JUL					
03...	1900	15	50	.13	30
03...	2115	17	50	.20	26
03...	2330	8.8	50	.12	13
04...	0215	10	50	.12	9
04...	0245	20	50	.20	63
04...	0500	18	50	.15	27
04...	1145	6.8	50	.10	6
09...	1530	15	50	.19	22
09...	2000	7.7	50	.12	9
12...	0825	2.6	10	.09	5
21...	1445	27	50	.49	227
21...	1515	37	50	.42	138
21...	1930	16	50	.21	18
22...	0740	3.7	10	.13	5
AUG					
02...	0830	.74	10	.09	14
03...	2200	36	50	.90	522
03...	2215	51	50	.59	260
03...	2245	65	50	.42	144
04...	0100	48	50	.23	--
04...	0430	20	50	.18	14
04...	0840	12	10	.17	7
17...	0545	24	50	.34	--
17...	0800	24	50	.21	26
17...	1000	13	50	.16	15
28...	0545	14	50	.16	27
28...	2115	22	50	.29	83
28...	2330	16	50	.15	19
29...	0850	5.8	10	.12	9
SEP					
07...	0745	.67	10	.10	--
13...	1315	.74	10	.11	19
20...	1000	.54	10	--	31
27...	1320	.67	10	.11	--

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI

LOCATION.--Lat 42°38'27", long 88°33'39", in SE ¼ SE ¼ sec.11, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on left bank at bridge on Mound Road, 2.3 mi south of Elkhorn.

DRAINAGE AREA.--16.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 920.00 ft above NGVD of 1929 (Wisconsin Department of Transportation benchmark).

REMARKS.--Records fair except those for estimated daily discharges, which are poor (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.65	1.2	3.5	5.6	e0.86	11	19	7.3	62	7.4	1.5	2.8
2	0.62	e16	3.3	5.4	e0.84	13	15	6.3	35	6.3	1.4	2.8
3	0.63	e80	3.0	5.7	e0.84	11	13	6.0	23	6.0	1.3	2.6
4	0.82	e60	2.9	5.7	e0.82	11	11	5.6	18	9.4	4.9	2.2
5	0.83	e35	3.2	5.1	e0.80	84	9.8	5.5	14	8.2	4.1	1.7
6	0.75	14	3.2	e4.8	e0.80	53	8.9	5.3	12	6.4	2.8	1.4
7	0.68	9.4	3.0	e4.4	e0.76	30	8.4	5.0	10	6.6	2.4	1.3
8	0.66	7.5	2.9	e4.1	e0.76	21	7.7	5.5	8.3	6.3	2.0	1.2
9	0.66	6.3	3.4	e3.8	e0.76	16	6.8	16	7.8	5.6	1.7	1.2
10	0.69	5.7	68	e3.6	e0.76	13	6.1	14	12	6.0	1.4	1.2
11	0.72	5.5	53	e3.6	e0.74	e12	5.7	12	29	5.1	1.2	1.2
12	0.81	4.5	24	e3.4	e0.74	e9.4	5.5	9.3	59	4.8	1.2	1.0
13	0.92	4.2	14	e3.2	e0.74	8.4	5.4	26	43	4.6	1.2	0.79
14	1.3	4.0	12	e3.0	e0.72	9.3	5.1	116	35	4.1	1.2	0.72
15	2.0	3.5	10	e2.6	e0.70	8.2	4.8	107	33	3.6	1.2	0.73
16	1.6	3.1	9.5	e2.5	e0.70	7.5	4.6	47	20	3.2	1.0	1.3
17	1.3	2.8	8.5	e2.5	e0.74	7.2	5.6	30	105	3.2	1.0	1.2
18	1.2	13	7.2	e2.2	e0.80	7.3	5.0	37	86	3.1	2.0	1.1
19	1.1	12	6.5	e2.0	e0.90	7.2	4.2	30	34	2.8	1.5	0.97
20	0.96	7.2	5.9	e1.8	e3.0	e7.0	5.4	23	22	2.5	1.4	0.83
21	0.84	6.0	5.4	e1.7	5.0	e6.8	18	28	31	3.2	1.5	0.83
22	0.84	5.3	5.5	e1.4	4.6	6.5	12	267	50	5.2	1.6	0.79
23	0.87	5.9	5.4	e1.3	12	6.2	9.1	163	26	3.5	1.9	0.67
24	0.99	5.8	5.0	e1.2	13	12	8.1	90	29	2.8	2.3	0.65
25	2.6	e5.4	4.7	e1.2	6.1	15	11	47	23	2.3	2.7	0.65
26	2.1	4.9	4.3	e1.1	5.6	49	10	32	17	2.0	3.2	0.71
27	1.4	4.4	4.2	e1.1	5.8	40	8.3	24	13	2.0	3.5	0.72
28	1.3	4.0	9.0	e1.0	5.9	30	6.9	18	12	1.9	5.4	0.72
29	1.4	3.6	8.0	e1.0	7.1	56	6.6	16	10	1.8	7.0	0.65
30	1.5	3.6	e7.0	e0.90	---	34	6.2	49	8.6	1.8	4.3	0.65
31	1.3	---	6.2	e0.90	---	24	---	119	---	1.8	3.2	---
TOTAL	34.04	343.8	311.7	87.80	82.88	626.0	253.2	1,366.8	887.7	133.5	73.0	35.28
MEAN	1.10	11.5	10.1	2.83	2.86	20.2	8.44	44.1	29.6	4.31	2.35	1.18
MAX	2.6	80	68	5.7	13	84	19	267	105	9.4	7.0	2.8
MIN	0.62	1.2	2.9	0.90	0.70	6.2	4.2	5.0	7.8	1.8	1.0	0.65
CFSM	0.07	0.68	0.60	0.17	0.17	1.20	0.50	2.62	1.76	0.26	0.14	0.07
IN.	0.08	0.76	0.69	0.19	0.18	1.39	0.56	3.03	1.97	0.30	0.16	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2004, BY WATER YEAR (WY)

	5.93	7.95	5.48	6.72	16.5	16.0	21.8	17.3	26.4	6.72	4.45	4.85
MEAN												
MAX	22.4	22.4	10.5	21.6	53.5	48.2	77.4	44.1	66.2	22.6	23.8	14.7
(WY)	(2002)	(1996)	(1996)	(1999)	(2001)	(1993)	(1993)	(2004)	(1996)	(1993)	(1995)	(2001)
MIN	1.10	1.41	2.05	1.13	0.88	2.75	3.23	4.18	3.78	1.23	0.82	0.82
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(1994)	(1994)	(2002)	(1999)	(2003)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1993 - 2004

ANNUAL TOTAL	1,858.29		4,235.70		
ANNUAL MEAN	5.09		11.6		10.8
HIGHEST ANNUAL MEAN					15.8
LOWEST ANNUAL MEAN					3.77
HIGHEST DAILY MEAN	103	Jul 15	267	May 22	578
LOWEST DAILY MEAN	0.34	Sep 12	0.62	Oct 2	0.28
ANNUAL SEVEN-DAY MINIMUM	0.47	Sep 6	0.68	Sep 24	0.35
MAXIMUM PEAK FLOW			440	May 22	1,190
MAXIMUM PEAK STAGE			10.43	May 22	11.60
ANNUAL RUNOFF (CFSM)			0.303		0.645
ANNUAL RUNOFF (INCHES)			4.11		9.38
10 PERCENT EXCEEDS			10		23
50 PERCENT EXCEEDS			2.4		4.4
90 PERCENT EXCEEDS			0.72		0.90

(e) Estimated due to ice effect or missing record

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI--CONTINUED

PRECIPITATION QUANTITY

PERIOD OF RECORD.--June 1999 to current year (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Rain gage covered Dec. 11, 2003 to Mar. 8, 2004.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.65 in., June 13, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 1.54 in., May 22, 30, but may have been greater during period of no record, July 1 to Aug. 23.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.26	0.00	---	---	---	0.00	0.01	0.00	---	---	0.08
2	0.00	1.37	0.00	---	---	---	0.00	0.00	0.00	---	---	0.00
3	0.13	1.51	0.00	---	---	---	0.00	0.00	0.00	---	---	0.00
4	0.00	0.67	0.04	---	---	---	0.00	0.00	0.00	---	---	0.00
5	0.00	0.00	0.07	---	---	---	0.00	0.00	0.00	---	---	0.00
6	0.00	0.00	0.00	---	---	---	0.01	0.00	0.00	---	---	0.02
7	0.00	0.00	0.00	---	---	---	0.00	0.28	0.00	---	---	0.00
8	0.00	0.00	0.00	---	---	---	0.00	0.02	0.00	---	---	0.00
9	0.00	0.00	0.84	---	---	0.00	0.00	0.78	0.20	---	---	0.00
10	0.00	0.01	1.12	---	---	0.00	0.00	0.18	1.13	---	---	0.00
11	0.18	0.00	---	---	---	0.00	0.00	0.01	0.15	---	---	0.00
12	0.00	0.01	---	---	---	0.00	0.00	0.37	0.60	---	---	0.00
13	0.01	0.00	---	---	---	0.09	0.00	1.12	0.00	---	---	0.00
14	0.47	0.00	---	---	---	0.07	0.00	0.90	0.63	---	---	0.00
15	0.00	0.00	---	---	---	0.00	0.00	0.00	0.00	---	---	0.16
16	0.00	0.00	---	---	---	0.00	0.00	0.00	0.04	---	---	0.00
17	0.00	0.40	---	---	---	0.05	0.26	0.10	1.41	---	---	0.00
18	0.00	0.51	---	---	---	0.06	0.00	0.43	0.00	---	---	0.00
19	0.00	0.00	---	---	---	0.07	0.00	0.00	0.00	---	---	0.00
20	0.00	0.00	---	---	---	0.00	0.58	0.00	0.00	---	---	0.00
21	0.00	0.00	---	---	---	0.00	0.22	1.02	0.85	---	---	0.00
22	0.00	0.11	---	---	---	0.00	0.00	1.54	0.00	---	---	0.00
23	0.00	0.18	---	---	---	0.00	0.00	0.24	0.25	---	---	0.00
24	0.48	0.00	---	---	---	0.59	0.27	0.00	0.14	---	0.00	0.00
25	0.00	0.00	---	---	---	0.34	0.04	0.03	0.00	---	0.00	0.00
26	0.00	0.00	---	---	---	0.50	0.00	0.00	0.00	---	0.01	0.00
27	0.00	0.03	---	---	---	0.01	0.00	0.00	0.07	---	0.17	0.00
28	0.08	0.00	---	---	---	0.74	0.00	0.00	0.00	---	0.76	0.00
29	0.09	0.00	---	---	---	0.00	0.00	0.33	0.00	---	0.00	0.00
30	0.00	0.00	---	---	---	0.08	0.22	1.54	0.00	---	0.00	0.00
31	0.00	---	---	---	---	0.00	---	0.24	---	---	0.00	---
TOTAL	1.44	5.06	---	---	---	---	1.60	9.14	5.47	---	---	0.26

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to September 1985, February 1993 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1999 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1993 to current year.
DISSOLVED AMMONIA NITROGEN DISCHARGE: February 1993 to September 1995.
TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: February 1993 to September 1995.
DISSOLVED NITRITE PLUS NITRATE DISCHARGE: February 1993 to September 1995.
TOTAL PHOSPHORUS DISCHARGE: February 1993 to current year.
DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: February 1993 to current year.

INSTRUMENTATION.--Automatic pumping sampler since February 1993. Continuous water temperature recorder since October 1999.

REMARKS.--Records good. Records represent water temperature at sensor within 0.5°C.

COOPERATION.--Observer furnished by Delavan Lake Sanitary District.

EXTREMES OUTSIDE PERIOD OF DAILY RECORD.--

TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 2.1 mg/L, July 10, 1985; minimum observed, 0.30 mg/L, Jan. 24, 1985.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.55 mg/L, July 10, 1985; minimum observed, 0.03 mg/L, Apr. 2, 1985.
DISSOLVED ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.20 mg/L, Nov. 20, 1984 and May 22, 1985; minimum observed, <0.01 mg/L, July 10, 23, 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 35.0°C, July 24, 2001 and July 4, 2002; minimum, 0.0°C on many days.
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 1,420 mg/L, June 17, 1996; minimum observed, 2 mg/L, Sept. 16, 1993, July 25, 1995, July 18, 1996, and June 4, 2000.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 1,030 tons, June 17, 1996; minimum daily, 0.01 ton, Aug. 25-28 and Sept. 11, 1993, July 19, 22, 1995, and many days in 1994, 1996, 1997, 1998, 1999, and 2004 water years.
DISSOLVED AMMONIA NITROGEN CONCENTRATIONS: Maximum observed, 1.70 mg/L, Mar. 5, 1993; minimum observed, 0.01 mg/L, Aug. 1, 29, and Sept. 25, 1994.
DISSOLVED AMMONIA NITROGEN DISCHARGE: Maximum daily, 1,410 lb, Feb. 20, 1994; minimum daily, 0.07 lb, July 31, 1995.
TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 4.6 mg/L, Mar. 5, 1993; minimum observed, 0.40 mg/L, Oct. 6 and Dec. 15, 1993, and Jan. 14, Mar. 28-29, 1995.
TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 4,900 lb, Apr. 20, 1993; minimum daily, 1.5 lb, June 19, 1994.
DISSOLVED NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 13.0 mg/L, Apr. 30, 1995; minimum observed, <0.05 mg/L, Sept. 2, 1993, and many days in 1994 and 1995 water years.
DISSOLVED NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 5,310 lb, Apr. 20, 1993; minimum daily, 0.16 lb, July 19, 1995.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 1.6 mg/L, June 17, 1996; minimum observed, <0.01 mg/L, Mar. 19, 1997.
TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 2,630 lb, Apr. 20, 1993; minimum daily, 0.13 lb, Feb. 6-7, 2000.
DISSOLVED ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.63 mg/L, Feb. 19, 1997; minimum observed, 0.009 mg/L, June 2, 2001.
DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 700 lb, Feb. 9, 2001; minimum daily, 0.03 lb, Sept. 15-19, 23, 26, 1999 and Sept. 15-18, 2002.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 29.5°C, Sept. 2; minimum, 0.0°C on many days.
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 262 mg/L, May 22; minimum observed, 1 mg/L, Mar. 8.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 113 tons, May 22; minimum daily, 0.01 ton, many days.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.69 mg/L, May 22; minimum observed, 0.04 mg/L, Dec. 1, Jan. 28.
TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 625 lb, May 22; minimum daily, 0.15 lb, Feb. 14-16.
DISSOLVED ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.26 mg/L, Nov. 4; minimum observed, 0.01 mg/L, many days.
DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 253 lb, May 22; minimum daily, 0.04 lb, Oct. 1-3, Sept. 13-15, 30.

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.5	6.5	9.0	12.0	9.0	10.0	2.5	0.5	2.0	2.0	1.0	1.5
2	11.0	5.0	8.0	10.5	8.5	9.5	3.5	2.0	3.0	4.0	1.0	2.0
3	9.5	6.5	8.0	9.5	8.0	9.0	4.5	3.0	3.5	4.0	1.0	2.5
4	13.0	6.0	9.5	12.5	8.0	10.0	4.0	3.0	3.5	1.0	0.5	0.5
5	15.5	7.5	11.0	11.0	7.0	8.5	4.5	3.0	3.5	1.0	0.5	0.5
6	17.0	9.0	12.5	9.0	4.0	6.5	4.0	3.0	3.5	2.0	0.5	1.0
7	18.5	11.0	14.5	6.5	1.5	3.5	4.5	3.0	3.5	1.0	0.5	1.0
8	20.5	14.0	17.0	5.5	1.5	3.5	3.5	3.0	3.5	1.0	0.5	0.5
9	18.5	15.5	17.0	5.5	3.0	4.5	4.5	3.0	3.5	1.0	0.5	1.0
10	22.0	14.5	18.0	6.0	3.5	4.5	5.0	2.5	4.0	1.0	0.0	0.5
11	20.5	16.0	18.5	9.5	5.0	7.5	2.5	1.0	1.0	1.0	0.0	0.5
12	18.0	13.0	16.0	11.5	3.5	8.0	2.0	1.0	1.5	1.0	0.5	0.5
13	17.0	11.5	15.0	4.0	0.0	2.0	2.0	1.0	1.5	1.0	0.5	1.0
14	16.5	10.5	13.0	5.5	3.0	4.5	2.5	1.0	1.5	1.0	0.5	0.5
15	13.0	7.0	10.5	6.0	5.0	5.5	2.0	1.0	1.5	1.0	0.5	0.5
16	12.0	7.5	9.5	7.5	6.0	6.5	1.5	0.0	1.0	1.0	0.5	1.0
17	11.0	5.0	8.0	10.0	6.0	8.0	1.0	0.0	0.5	0.5	0.5	0.5
18	14.5	8.0	11.0	12.0	10.0	11.0	1.5	0.5	1.0	1.0	0.0	0.5
19	17.0	11.0	13.5	11.0	8.0	9.5	2.0	0.5	1.0	1.0	0.0	0.5
20	18.0	12.0	15.0	11.0	6.5	8.5	2.0	1.0	1.0	0.5	0.0	0.5
21	16.5	12.5	14.0	9.5	6.5	8.0	2.0	1.0	1.5	0.5	0.0	0.0
22	13.5	8.5	11.5	7.5	6.0	6.5	2.5	1.0	2.0	1.0	0.0	0.5
23	12.0	9.5	11.0	12.0	7.5	9.5	2.0	1.5	2.0	0.0	0.0	0.0
24	10.5	6.5	9.0	7.5	2.0	3.5	2.0	1.0	1.5	0.0	0.0	0.0
25	14.5	9.5	11.5	3.5	2.0	3.0	2.0	1.0	1.5	0.0	0.0	0.0
26	11.5	6.5	7.5	4.5	3.5	4.0	1.5	1.0	1.0	0.0	0.0	0.0
27	7.5	5.5	6.5	5.0	4.0	4.5	1.5	1.0	1.5	0.0	0.0	0.0
28	8.5	5.5	6.5	4.5	2.0	3.0	2.5	0.5	1.5	1.0	0.0	0.5
29	8.0	4.5	6.0	3.5	2.0	3.0	3.0	1.5	2.0	1.0	0.5	0.5
30	14.5	6.0	10.0	4.5	2.5	3.0	2.5	0.5	1.5	0.5	0.0	0.5
31	15.0	12.0	14.0	---	---	---	2.5	0.5	1.5	0.5	0.5	0.5
MONTH	22.0	4.5	11.7	12.5	0.0	6.3	5.0	0.0	2.0	4.0	0.0	0.6
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.5	0.5	0.5	4.5	3.5	4.0	9.0	6.0	7.0	14.5	13.0	13.5
2	0.5	0.5	0.5	4.0	3.0	3.5	10.0	7.0	8.0	15.0	12.0	13.0
3	0.5	0.5	0.5	3.5	3.0	3.5	9.0	7.0	8.0	16.5	11.5	13.5
4	0.5	0.5	0.5	4.0	3.5	3.5	9.0	5.5	7.0	18.0	13.0	15.0
5	0.5	0.5	0.5	3.5	3.0	3.0	10.0	6.5	8.0	19.0	14.5	16.5
6	0.5	0.5	0.5	3.0	2.5	2.5	11.5	7.5	9.0	19.0	16.0	17.5
7	0.5	0.5	0.5	3.0	2.5	3.0	13.5	9.0	10.5	19.0	15.5	17.0
8	0.5	0.5	0.5	3.0	2.0	2.5	13.0	9.5	10.5	19.0	14.5	16.0
9	0.5	0.5	0.5	4.0	2.5	3.5	12.0	8.0	10.0	21.0	18.0	19.0
10	0.5	0.5	0.5	5.0	3.0	4.0	11.5	9.0	10.0	21.0	19.5	20.5
11	0.5	0.5	0.5	5.0	2.0	3.5	10.5	7.5	8.0	21.0	19.0	20.0
12	0.5	0.5	0.5	3.0	1.5	2.5	8.0	5.5	7.0	22.5	20.0	21.0
13	0.5	0.5	0.5	3.0	2.5	3.0	10.5	5.0	7.0	22.5	21.5	22.0
14	0.5	0.5	0.5	3.0	2.5	2.5	14.0	6.5	9.5	21.5	19.0	20.5
15	0.5	0.5	0.5	3.0	1.5	2.5	14.0	9.5	12.0	19.0	17.0	18.0
16	0.5	0.5	0.5	3.0	2.0	2.5	16.5	11.5	13.5	18.5	17.0	18.0
17	0.5	0.0	0.5	3.5	2.5	3.0	19.5	14.0	16.5	20.0	18.0	18.5
18	0.5	0.0	0.5	3.0	2.5	3.0	18.0	14.5	16.5	20.0	18.5	19.5
19	0.5	0.0	0.5	6.0	2.5	3.5	17.5	15.0	16.0	18.5	17.0	18.0
20	0.5	0.5	0.5	8.0	5.0	6.0	15.0	12.0	12.5	20.5	18.5	19.0
21	0.5	0.5	0.5	6.0	3.5	4.5	13.0	12.0	12.5	20.5	18.5	19.5
22	0.5	0.5	0.5	6.0	4.0	4.5	12.5	11.0	12.0	19.0	18.0	18.5
23	0.5	0.5	0.5	7.5	4.0	5.5	15.0	10.0	12.0	19.5	18.5	19.0
24	0.5	0.5	0.5	8.0	6.5	7.0	14.5	11.5	12.5	19.5	18.5	19.0
25	1.5	0.5	1.0	9.5	7.5	8.5	12.5	11.5	12.0	18.5	17.0	17.5
26	2.5	1.0	1.5	9.5	9.0	9.5	13.5	11.0	12.0	18.5	17.0	18.0
27	3.0	1.5	2.0	9.0	8.0	8.5	14.0	10.0	12.0	19.5	17.5	18.5
28	3.5	1.5	2.5	10.5	9.0	9.5	16.5	11.0	13.5	20.0	18.0	19.0
29	4.0	2.0	3.0	10.0	8.5	9.0	17.5	14.5	16.0	20.0	17.5	18.5
30	---	---	---	8.5	7.5	8.0	17.5	14.5	15.5	17.5	16.5	17.0
31	---	---	---	7.5	6.5	7.0	---	---	---	18.0	17.0	17.5
MONTH	4.0	0.0	0.8	10.5	1.5	4.7	19.5	5.0	11.2	22.5	11.5	18.0

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI—Continued

 SUSPENDED SEDIMENT DISCHARGE, TONS PER DAY
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.05	0.07	0.22	0.09	e0.01	e0.28	0.44	0.30	6.6	1.1	0.10	0.24
2	0.05	e1.7	0.20	0.09	e0.01	e0.33	0.40	0.25	3.6	0.84	0.08	0.25
3	0.05	e8.3	0.18	0.09	e0.01	e0.28	0.35	0.23	2.3	0.72	0.08	0.26
4	0.06	e6.2	0.17	0.09	e0.01	0.45	0.30	0.20	1.6	1.4	0.54	0.23
5	0.06	e3.6	0.19	0.08	e0.01	8.9	0.27	0.19	1.2	1.2	0.45	0.19
6	0.05	e1.4	0.20	e0.08	e0.01	1.3	0.24	0.18	0.94	0.79	0.28	0.17
7	0.04	e1.0	0.18	e0.07	e0.01	0.78	0.23	0.16	0.73	0.84	0.23	0.17
8	0.04	0.51	0.17	e0.07	e0.01	0.07	0.21	0.17	0.57	0.86	0.18	0.14
9	0.04	0.45	0.23	e0.06	e0.01	0.06	0.19	1.6	0.50	0.82	0.15	0.13
10	0.04	0.43	5.3	e0.06	e0.01	0.05	0.17	1.8	0.80	0.96	0.12	0.12
11	0.05	0.43	1.1	e0.06	e0.01	e0.05	0.16	1.5	2.1	0.87	0.12	0.11
12	0.05	0.37	0.37	e0.05	e0.01	e0.04	0.15	1.1	7.4	0.85	0.12	0.09
13	0.06	0.36	0.23	e0.05	e0.01	0.04	0.15	4.3	3.1	0.77	0.13	0.06
14	0.08	0.33	0.19	e0.05	e0.01	0.05	0.15	19	2.7	0.64	0.13	0.06
15	0.13	0.29	0.16	e0.04	e0.01	0.05	0.14	8.6	1.7	0.53	0.13	0.06
16	0.10	0.24	0.15	e0.04	e0.01	0.05	0.13	3.6	0.70	0.44	0.12	0.12
17	0.08	0.21	0.14	e0.04	e0.01	0.05	0.16	1.3	12	0.41	0.12	0.11
18	0.08	1.6	0.12	e0.03	e0.01	0.06	0.15	2.7	14	0.37	0.25	0.11
19	0.07	0.99	0.10	e0.03	e0.01	0.07	0.12	1.7	3.3	0.31	e0.20	0.10
20	0.06	0.47	0.09	e0.03	e0.08	e0.07	0.29	3.5	1.2	0.25	0.19	0.09
21	0.05	0.39	0.09	e0.03	e0.13	e0.08	2.1	4.3	1.5	0.29	0.21	0.09
22	0.05	0.34	0.09	e0.02	e0.12	0.08	0.93	113	3.7	0.47	0.24	0.09
23	0.05	0.38	0.09	e0.02	e0.30	0.09	0.53	26	2.9	0.34	0.30	0.08
24	0.06	0.37	0.08	e0.02	e0.33	e0.28	0.45	8.4	3.5	0.29	0.32	0.07
25	0.16	e0.34	0.08	e0.02	e0.15	e0.35	e1.4	4.0	3.1	0.26	0.34	0.07
26	0.13	0.31	0.07	e0.02	0.08	2.6	e1.2	2.6	2.6	0.23	0.37	0.08
27	0.08	0.28	0.07	e0.02	0.09	2.0	e1.0	2.1	2.3	0.21	e0.44	0.08
28	0.08	0.25	e0.90	e0.02	0.09	1.2	0.32	1.7	2.3	0.19	e0.67	0.08
29	0.08	0.22	e0.80	e0.02	e0.18	1.4	0.30	1.5	1.8	0.16	e0.87	0.08
30	0.09	0.22	e0.11	e0.01	---	0.71	0.27	8.1	1.4	0.14	0.33	0.08
31	0.07	---	0.10	e0.01	---	0.51	---	15	---	0.13	0.26	---
TOTAL	2.14	32.05	12.17	1.41	1.74	22.33	12.90	239.08	92.14	17.68	8.07	3.61
WTR YR	2004	TOTAL	445.32									

e Estimated

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI—Continued

PHOSPHORUS, WATER, UNFILTERED, POUNDS PER DAY
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.40	0.65	0.76	2.02	e0.18	e13.2	4.95	2.08	64.6	2.28	1.49	2.35
2	0.38	e13.0	0.71	1.89	e0.18	e15.6	4.01	1.73	26.2	1.81	1.36	2.32
3	0.37	e65.0	0.65	1.96	e0.18	e13.0	3.42	1.63	12.7	1.63	1.14	2.17
4	0.47	e49.0	0.61	1.93	e0.17	3.81	2.90	1.50	8.39	6.26	6.86	1.79
5	0.47	e28.0	0.68	1.70	e0.17	113	2.57	1.46	6.05	5.50	5.14	1.39
6	0.41	e11.0	0.69	e1.55	e0.17	58.1	2.34	1.40	4.64	4.76	2.85	1.17
7	0.37	e7.60	0.64	e1.40	e0.16	20.7	2.21	1.33	3.53	5.03	2.29	1.08
8	0.35	7.04	0.61	e1.29	e0.16	11.0	2.02	1.44	2.65	4.84	1.82	0.99
9	0.35	5.28	0.89	e1.17	e0.16	8.16	1.79	e21.9	2.25	4.37	1.47	0.98
10	0.37	4.20	84.3	e1.08	e0.16	6.27	1.59	e19.2	4.13	4.79	1.20	0.96
11	0.39	3.60	72.5	e1.06	e0.16	e5.45	1.50	e16.0	18.2	4.12	1.09	0.90
12	0.44	2.68	18.5	e0.99	e0.16	e4.08	1.43	e12.7	67.7	3.85	1.10	0.80
13	0.49	2.23	7.94	e0.91	e0.16	3.49	1.41	22.6	39.5	3.62	1.11	0.60
14	e1.10	2.09	6.03	e0.84	e0.15	3.72	1.34	160	21.3	3.20	1.12	0.53
15	e1.60	1.86	5.10	e0.71	e0.15	3.12	1.27	149	20.0	2.75	1.08	0.53
16	e1.30	1.64	4.70	e0.67	e0.15	2.74	1.21	36.1	7.21	2.42	0.92	0.94
17	0.69	1.46	4.10	e0.65	e0.16	2.54	1.46	15.0	145	2.37	0.91	0.82
18	0.66	11.2	3.41	e0.56	e0.17	2.45	1.32	20.9	113	2.22	e1.40	0.74
19	0.61	9.08	3.02	e0.51	e0.19	2.32	1.09	16.6	29.8	1.95	e1.10	0.64
20	0.51	4.56	2.69	e0.45	e3.60	e2.16	1.50	8.50	10.8	1.51	e1.00	0.54
21	0.45	3.44	2.42	e0.42	e6.00	e2.01	9.70	21.1	16.2	e2.20	1.23	0.51
22	0.44	2.75	2.39	e0.32	e5.50	1.85	4.82	625	43.4	e3.60	1.31	0.46
23	0.46	2.75	2.30	e0.30	e14.0	1.69	3.26	335	12.5	e2.50	1.58	0.36
24	0.52	2.45	2.12	e0.27	e16.0	e7.30	2.80	121	15.0	2.35	e1.70	0.34
25	1.40	e2.08	1.96	e0.26	e7.30	e9.10	e2.90	39.7	11.3	1.81	e1.90	0.31
26	1.10	1.71	1.76	e0.24	1.18	36.8	e2.60	20.4	7.60	1.50	e2.20	0.33
27	0.74	1.40	1.66	e0.24	1.22	28.8	2.64	12.2	5.53	1.58	e2.50	0.31
28	0.67	1.15	e11.2	e0.21	1.24	14.0	2.14	7.45	4.56	1.60	e3.80	0.27
29	0.72	0.93	e10.0	e0.21	e8.50	39.0	2.00	5.35	3.59	1.54	e4.90	0.21
30	0.76	0.85	e2.62	e0.19	---	14.9	1.82	56.8	2.83	1.61	3.78	0.18
31	0.66	---	2.27	e0.19	---	6.85	---	166	---	1.66	2.77	---
TOTAL	19.65	250.68	259.23	26.19	67.68	457.21	76.01	1,921.07	730.16	91.23	64.12	25.52
WTR YR	2004	TOTAL	3,988.75									

e Estimated

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI—Continued

ORTHOPHOSPHATE, WATER, FILTERED, POUNDS PER DAY
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.07	0.37	1.04	e0.09	1.13	1.49	0.40	33.9	0.54	0.36	0.18
2	0.04	e10.6	0.33	0.97	e0.08	1.16	0.88	0.34	14.7	0.41	0.36	0.19
3	0.04	e53.1	0.27	1.01	e0.08	0.77	0.70	0.33	7.64	0.34	0.31	0.20
4	0.07	e39.8	0.24	1.00	e0.08	0.78	0.60	0.30	4.46	0.96	2.08	0.18
5	0.08	e23.2	0.24	0.88	e0.07	51.6	0.53	0.29	2.75	0.88	1.19	0.15
6	0.08	e9.30	0.23	e0.80	e0.07	33.8	0.48	0.28	1.80	0.69	0.61	0.14
7	0.07	e6.20	0.20	e0.72	e0.07	9.91	0.46	0.27	1.17	0.71	0.51	0.14
8	0.07	1.75	0.17	e0.67	e0.07	3.43	0.42	0.30	0.75	0.68	0.43	0.12
9	0.07	1.26	0.19	e0.60	e0.06	2.44	0.37	2.99	0.55	0.60	0.36	0.11
10	0.07	0.97	42.2	e0.56	e0.06	1.83	0.33	0.93	1.00	0.65	0.24	0.09
11	0.07	0.80	43.8	e0.55	e0.06	e1.55	0.31	0.65	6.03	0.56	0.18	0.08
12	0.07	0.57	12.6	e0.51	e0.06	e1.13	0.29	0.52	34.6	0.51	0.15	0.06
13	0.08	0.45	4.28	e0.47	e0.06	0.95	0.29	2.85	16.2	0.44	0.12	0.04
14	e0.20	0.37	3.11	e0.43	e0.05	0.98	0.28	57.4	10.4	0.36	0.10	0.04
15	e0.32	0.28	2.63	e0.37	e0.05	0.80	0.26	85.1	6.15	0.29	0.08	0.04
16	e0.25	0.22	2.42	e0.34	e0.05	0.69	0.25	19.3	1.67	0.23	0.06	0.07
17	0.10	0.17	2.11	e0.34	e0.05	0.62	0.30	4.17	57.4	0.21	0.07	0.06
18	0.10	2.12	1.76	e0.29	e0.05	0.58	0.27	6.01	54.1	0.18	e0.21	0.06
19	0.09	1.95	1.56	e0.26	e0.06	0.54	0.22	4.63	13.9	0.15	e0.16	0.05
20	0.07	0.82	1.39	e0.23	e1.70	e0.49	0.30	1.36	4.77	0.14	0.15	0.05
21	0.06	0.65	1.25	e0.22	e2.90	e0.44	1.62	4.66	4.60	e0.35	0.18	0.05
22	0.06	0.58	1.23	e0.17	e2.60	0.40	0.72	253	20.7	e0.56	0.23	0.05
23	0.06	0.64	1.19	e0.15	e6.90	0.35	0.49	150	3.75	e0.38	0.32	0.05
24	0.07	0.62	1.09	e0.14	e7.50	e5.80	0.44	62.5	3.79	e0.30	0.40	0.05
25	e0.41	e0.58	1.01	e0.14	e3.50	e7.20	e0.70	21.3	2.60	e0.24	0.51	0.06
26	e0.33	0.53	0.91	e0.13	0.32	14.0	e0.60	7.90	1.85	0.22	0.63	0.07
27	0.09	0.48	0.85	e0.12	0.33	12.0	0.45	2.64	1.46	0.25	0.72	0.08
28	0.08	0.43	e1.40	e0.11	0.33	4.09	0.37	1.02	1.28	0.28	1.28	0.06
29	0.08	0.38	e1.35	e0.11	0.42	19.3	0.36	0.89	0.97	0.29	1.40	0.05
30	0.08	0.39	e1.30	e0.09	---	7.52	0.34	20.7	0.72	0.33	0.28	0.04
31	0.07	---	1.17	e0.09	---	2.87	---	83.6	---	0.37	0.19	---
TOTAL	3.37	159.28	132.85	13.51	27.72	189.15	15.12	796.63	315.66	13.10	13.87	2.61
WTR YR	2004	TOTAL	1,682.87									

e Estimated

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Dis-charge, cfs (00060)	Instan- taneous dis- charge, cfs (00061)	Sam- pling method, code (82398)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT							
01...	1130	--	.65	70	E.01	.12	27
06...	1340	--	.72	10	<.02	.10	24
NOV							
03...	0805	80	--	10	.02	.18	36
04...	0715	60	--	50	--	.36	22
04...	1020	60	--	10	.26	.38	21
13...	1115	--	4.5	50	<.02	.10	29
18...	1215	--	13	50	<.18	.16	35
18...	1515	--	18	50	<.18	.22	61
18...	1815	--	19	50	.04	.18	41
19...	0015	--	18	50	<.18	.18	49
19...	0830	--	13	10	<.18	.13	24
DEC							
01...	0910	--	3.4	10	<.02	.04	82
10...	0115	--	16	50	E.01	.16	54
10...	0715	--	45	50	.06	.17	31
10...	1315	--	91	50	.11	.25	36
10...	1615	--	100	50	.14	.25	26
10...	2215	--	89	50	.16	.28	12
11...	0415	--	71	50	.17	.28	8
11...	1000	--	54	10	.04	.10	16
11...	1015	--	54	50	.14	.27	8
11...	1915	--	39	50	.15	.23	4
12...	0925	--	24	10	.10	.14	6
JAN							
28...	1345	1.0	--	70	<.02	E.04	74
FEB							
02...	0850	.84	--	10	--	--	411
MAR							
01...	0755	--	11	10	E.02	.12	55
04...	2145	--	14	50	<.02	.10	21
05...	0345	--	56	50	.04	.18	50
05...	0645	--	81	50	.07	.27	79
05...	0945	--	102	50	.09	.25	23
05...	0946	--	102	10	.07	.20	49
05...	1545	--	104	50	.15	.30	28
05...	2145	--	85	50	.16	.26	14
06...	0940	--	55	10	.13	.21	7
06...	0945	--	54	50	.11	.20	5
06...	2145	--	39	50	.08	.17	9
07...	0925	--	30	10	.07	.13	16
08...	0345	--	23	50	.03	.10	1
26...	0715	--	41	50	E.01	.08	13
26...	0915	--	51	10	.05	.14	41
26...	1315	--	64	50	.05	.15	21
26...	1915	--	64	50	.08	.17	20
27...	0115	--	53	50	.07	.17	20
27...	0940	--	40	10	.06	.13	15
27...	1915	--	34	50	.04	.12	20
28...	0930	--	26	10	.03	.07	12
28...	1615	--	25	50	E.02	.12	50
28...	1915	--	30	50	E.01	.08	18
28...	2215	--	47	50	E.02	.08	13
29...	0415	--	64	50	.06	.14	10
29...	0915	--	64	10	.10	.17	26
29...	1615	--	51	50	--	.12	7
30...	1315	--	33	50	--	.08	7
31...	1315	--	23	50	--	.05	7
APR							
01...	1315	--	18	50	--	.05	8
02...	1315	--	15	50	--	.05	9
21...	0850	--	20	10	.02	.12	46

ROCK RIVER BASIN

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
MAY						
03...	0825	6.2	10	--	.05	111
10...	0935	13	10	E.01	.09	50
13...	0850	18	10	.02	.15	66
13...	1545	25	50	<.02	.20	59
13...	2145	56	50	.02	.16	52
14...	0645	81	50	.05	.22	53
14...	1545	142	50	.10	.28	65
14...	1845	165	50	.12	.31	58
15...	0045	161	50	.15	.29	49
15...	0850	120	10	--	.26	22
15...	1845	77	50	.15	.26	19
16...	0840	50	10	--	.12	81
16...	1845	40	50	.05	.15	32
17...	0830	31	10	.03	.08	9
18...	0045	27	50	E.01	.10	29
18...	0840	40	10	E.01	.08	55
18...	1245	41	50	.04	.11	13
18...	2145	39	50	.05	.13	15
19...	0835	31	10	--	--	14
20...	0830	24	10	E.01	.07	70
21...	1730	35	50	.04	.17	42
22...	0230	66	50	.07	.36	149
22...	0645	229	50	.10	.50	217
22...	0920	364	10	.19	.69	262
22...	1230	440	50	--	--	141
22...	1830	290	50	.20	.30	116
23...	0030	206	50	.20	.44	85
23...	0840	158	10	.16	.29	59
23...	1830	154	50	.17	.50	37
24...	0845	97	10	.13	.23	34
25...	0840	48	10	.09	.16	32
26...	0830	33	10	.05	.12	29
28...	0800	19	10	E.01	.08	36
30...	1500	45	50	.04	.19	61
30...	2100	114	50	.12	.30	64
31...	0001	134	50	.14	.31	60
31...	0600	142	50	.14	.28	49
31...	0945	134	10	.13	.27	46
31...	1800	100	50	.12	.23	28
JUN						
01...	0950	65	10	--	--	42
11...	0940	30	10	.05	.14	32
12...	0630	40	50	--	.14	14
12...	1530	81	50	--	.28	80
13...	0030	64	50	--	.23	27
13...	1230	40	50	--	.17	24
14...	0850	26	10	.03	.06	22
15...	0805	35	10	.03	.11	17
17...	1045	79	50	.07	.35	151
17...	1500	170	50	.10	.26	54
17...	2100	193	50	.13	.28	8
18...	0815	100	10	.12	.25	96
19...	0950	35	10	.08	.17	35
21...	1930	51	50	.02	.12	22
22...	0130	64	50	.09	.19	16
22...	0905	54	10	.09	.17	29
23...	0900	27	10	.03	.10	41
24...	0915	31	10	.03	.11	43
25...	0815	24	10	E.02	.09	--
28...	1120	13	10	<.02	.07	72
JUL						
04...	0830	9.4	10	<.02	.14	43
05...	0700	8.9	10	<.02	.12	59
06...	1030	6.2	10	<.02	.14	44
12...	0850	4.8	10	.02	.15	67
19...	0945	2.9	10	E.01	.13	41
22...	0805	5.8	10	.07	.18	33
26...	0750	2.0	10	E.02	.14	45

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
AUG						
02...	0850	1.4	10	.05	.19	22
04...	0905	4.2	10	.10	.25	44
09...	1125	1.8	10	.04	.16	32
16...	0805	1.1	10	E.01	.17	98
23...	0810	2.0	10	.03	.15	58
30...	1020	4.2	10	E.01	.16	28
SEP						
07...	0815	1.4	10	<.02	.15	47
13...	1335	.72	10	E.01	.14	29
20...	1015	.83	10	E.01	.12	41
27...	1340	.72	10	.02	.08	--

05431017 DELAVAN LAKE INLET AT STATE HIGHWAY 50 AT LAKE LAWN, WI

LOCATION.--Lat 42°37'16", long 88°34'57", in SE ¼ NE ¼ sec.22, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on downstream headwall of State Highway 50 bridge, and 1.0 mi east of Lake Lawn.

DRAINAGE AREA.--21.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1984 and 1985 water years (unpublished) to current year. Published as "at U.S. Highway 50" prior to October 1988.

GAGE.--Nonrecording gage. Datum of gage is 922.94 ft above NGVD of 1929 (Wisconsin Department of Transportation bench mark). Previously published datum of 914.48 ft in 1989-91 annual data reports was in error.

REMARKS.--Daily mean discharges were estimated based on discharges upstream at Jackson Creek near Elkhorn (05431014) and Jackson Creek Tributary near Elkhorn (054310157) for Oct. 1, 1983 to Jan. 31, 1993. Also during this period, an acoustical velocity meter was used to measure discharges equal to or greater than 20 ft³/s from Oct. 1, 1985 to May 7, 1987. Daily mean discharges were estimated based on discharges upstream at Jackson Creek at Mound Road near Elkhorn (05431016) from Feb. 1, 1993 to present. Records poor (see page 11).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.84	1.6	4.5	7.3	1.1	14	25	9.5	81	9.6	1.9	3.6
2	0.81	21	4.3	7.0	1.1	17	20	8.2	46	8.2	1.8	3.6
3	0.82	104	3.9	7.4	1.1	14	17	7.8	30	7.8	1.7	3.4
4	1.1	78	3.8	7.4	1.1	14	14	7.3	23	12	6.4	2.9
5	1.1	46	4.2	6.6	1.0	109	13	7.2	18	11	5.3	2.2
6	0.97	18	4.2	6.2	1.0	69	12	6.9	16	8.3	3.6	1.8
7	0.88	12	3.9	5.7	0.99	39	11	6.5	13	8.6	3.1	1.7
8	0.86	9.8	3.8	5.3	0.99	27	10	7.2	11	8.2	2.6	1.6
9	0.86	8.2	4.4	4.9	0.99	21	8.8	21	10	7.3	2.2	1.6
10	0.90	7.4	88	4.7	0.99	17	7.9	18	16	7.8	1.8	1.6
11	0.94	7.2	69	4.7	0.96	16	7.4	16	38	6.6	1.6	1.6
12	1.1	5.8	31	4.4	0.96	12	7.2	12	77	6.2	1.6	1.3
13	1.2	5.5	18	4.2	0.96	11	7.0	34	56	6.0	1.6	1.0
14	1.7	5.2	16	3.9	0.94	12	6.6	151	46	5.3	1.6	0.94
15	2.6	4.5	13	3.4	0.91	11	6.2	139	43	4.7	1.6	0.95
16	2.1	4.0	12	3.2	0.91	9.8	6.0	61	26	4.2	1.3	1.7
17	1.7	3.6	11	3.2	0.96	9.4	7.3	39	136	4.2	1.3	1.6
18	1.6	17	9.4	2.9	1.0	9.5	6.5	48	112	4.0	2.6	1.4
19	1.4	16	8.4	2.6	1.2	9.4	5.5	39	44	3.6	1.9	1.3
20	1.2	9.4	7.7	2.3	3.9	9.1	7.0	30	29	3.2	1.8	1.1
21	1.1	7.8	7.0	2.2	6.5	8.8	23	36	40	4.2	1.9	1.1
22	1.1	6.9	7.2	1.8	6.0	8.4	16	347	65	6.8	2.1	1.0
23	1.1	7.7	7.0	1.7	16	8.1	12	212	34	4.5	2.5	0.87
24	1.3	7.5	6.5	1.6	17	16	11	117	38	3.6	3.0	0.84
25	3.4	7.0	6.1	1.6	7.9	20	14	61	30	3.0	3.5	0.84
26	2.7	6.4	5.6	1.4	7.3	64	13	42	22	2.6	4.2	0.92
27	1.8	5.7	5.5	1.4	7.5	52	11	31	17	2.6	4.5	0.94
28	1.7	5.2	12	1.3	7.7	39	9.0	23	16	2.5	7.0	0.94
29	1.8	4.7	10	1.3	9.2	73	8.6	21	13	2.3	9.1	0.84
30	1.9	4.7	9.1	1.2	---	44	8.1	64	11	2.3	5.6	0.84
31	1.7	---	8.1	1.2	---	31	---	155	---	2.3	4.2	---
TOTAL	44.28	447.8	404.6	114.0	108.16	814.5	331.1	1,777.6	1,157	173.5	94.9	46.02
MEAN	1.43	14.9	13.1	3.68	3.73	26.3	11.0	57.3	38.6	5.60	3.06	1.53
MAX	3.4	104	88	7.4	17	109	25	347	136	12	9.1	3.6
MIN	0.81	1.6	3.8	1.2	0.91	8.1	5.5	6.5	10	2.3	1.3	0.84
CFSM	0.07	0.68	0.60	0.17	0.17	1.21	0.51	2.63	1.77	0.26	0.14	0.07
IN.	0.08	0.76	0.69	0.19	0.18	1.39	0.56	3.03	1.97	0.30	0.16	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2004, BY WATER YEAR (WY)

MEAN	7.77	13.3	10.3	7.98	18.8	23.2	23.6	17.9	22.2	7.99	4.64	7.41
MAX	29.2	54.5	30.3	28.0	69.9	68.3	100	57.3	86.0	29.3	30.5	37.4
(WY)	(2002)	(1986)	(1992)	(1999)	(2001)	(1986)	(1993)	(2004)	(1996)	(1993)	(1995)	(1986)
MIN	0.67	1.14	1.12	1.11	1.15	3.57	3.28	1.44	0.76	0.61	0.50	0.61
(WY)	(1989)	(1990)	(1990)	(1991)	(2003)	(2003)	(1989)	(1989)	(1988)	(1988)	(1988)	(1988)

05431017 DELAVAN LAKE INLET AT STATE HIGHWAY 50 AT LAKE LAWN, WI—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1984 - 2004	
ANNUAL TOTAL	2,417.96		5,513.46			
ANNUAL MEAN	6.62		15.1		13.7	
HIGHEST ANNUAL MEAN					30.3	1993
LOWEST ANNUAL MEAN					4.90	2003
HIGHEST DAILY MEAN	134	Jul 15	347	May 22	751	Apr 20, 1993
LOWEST DAILY MEAN	0.44	Sep 12	0.81	Oct 2	0.22	Sep 15, 1988
ANNUAL SEVEN-DAY MINIMUM	0.61	Sep 6	0.88	Sep 24	0.25	Sep 9, 1988
ANNUAL RUNOFF (CFSM)	0.304		0.691		0.628	
ANNUAL RUNOFF (INCHES)	4.13		9.41		8.54	
10 PERCENT EXCEEDS	13		39		31	
50 PERCENT EXCEEDS	3.1		6.4		5.1	
90 PERCENT EXCEEDS	0.94		1.1		0.92	

05431017 DELAVAN LAKE INLET AT STATE HIGHWAY 50 AT LAKE LAWN, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Dis-charge, cfs (00060)	Sam-pling method, code (82398)	Ortho-phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
OCT					
01...	1100	.84	30	.10	.18
06...	1440	.97	10	.04	.10
NOV					
02...	0935	21	10	.09	.15
02...	1545	21	10	.09	.17
03...	0915	104	10	.06	.12
03...	1425	104	10	E.01	.11
04...	1120	78	10	.03	.09
04...	1425	78	10	.06	.12
05...	1035	46	10	.08	.14
05...	1445	46	10	.07	.14
18...	0830	17	10	<.18	E.04
19...	0905	16	10	<.18	.04
DEC					
10...	0910	88	10	--	E.04
11...	1050	69	10	.04	.09
11...	1340	69	10	.04	.10
19...	1115	8.4	30	--	.04
JAN					
28...	1330	1.3	30	E.02	.09
FEB					
02...	0945	1.1	30	<.02	.13
MAR					
05...	1330	109	10	E.01	.08
06...	1000	69	10	E.02	.09
07...	1000	39	10	.03	.12
08...	1135	27	10	E.01	.08
09...	1010	21	10	E.01	.07
10...	0840	17	10	E.01	.06
26...	0935	64	10	.07	.07
27...	0950	52	10	<.02	.07
28...	0950	39	10	<.02	.08
29...	1025	73	10	<.02	.08
29...	1410	73	10	<.02	.06
30...	1015	44	10	E.01	.07
30...	1405	44	10	<.02	.08
31...	0935	31	10	E.01	.06
31...	1350	31	10	E.01	.06
APR					
01...	1035	25	10	<.02	.07
02...	1005	20	10	E.01	E.04
21...	0955	23	10	<.02	.20
21...	1315	23	10	<.02	.21
22...	0930	16	10	<.02	.25
22...	1415	16	10	<.02	.23
23...	0905	12	10	<.02	.24
23...	1350	12	10	<.02	.27
MAY					
03...	0925	7.8	10	<.02	.11
13...	1010	34	10	<.02	.20
13...	1425	34	10	--	.16
14...	1000	151	10	E.02	.14
14...	1435	151	10	--	.14
15...	0920	139	10	.06	.20
16...	0920	61	10	.04	.21
17...	0940	39	10	.03	.13
17...	1430	39	10	.02	.12
18...	1030	48	10	<.02	.10
20...	0920	30	10	E.01	.09
22...	1120	347	10	.07	.41
22...	1555	347	10	.13	.53
23...	0850	212	10	.13	.36
23...	1355	212	10	.11	.33
24...	1000	117	10	.08	.22
25...	0925	61	10	.04	.17
26...	0910	42	10	E.02	.15
27...	1045	31	10	E.01	.14
28...	0935	23	10	<.02	.11
31...	1045	155	10	.07	.24
31...	1500	155	10	.04	.19

05431017 DELAVAN LAKE INLET AT STATE HIGHWAY 50 AT LAKE LAWN, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Dis-charge, cfs (00060)	Sam-pling method, code (82398)	Ortho-phos- phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
JUN					
01...	1050	81	10	.06	.17
02...	1040	46	10	.02	.11
03...	0945	30	10	E.01	.10
04...	0840	23	10	<.02	.10
11...	1020	38	10	<.02	.14
12...	0920	77	10	<.02	.12
15...	0935	43	10	<.02	.08
16...	0910	26	10	<.02	.10
18...	0900	112	10	.06	.26
19...	1015	44	10	.03	.17
20...	1600	29	10	<.02	.11
21...	0950	40	10	<.02	.09
22...	1010	65	10	<.02	.08
23...	0955	34	10	<.02	.09
24...	1005	38	10	<.02	.08
25...	0950	30	10	<.02	.07
28...	1225	16	10	<.02	.08
JUL					
04...	1000	12	10	<.02	.12
05...	0940	11	10	<.02	.11
06...	1100	8.3	10	<.02	.13
07...	0950	8.6	10	E.01	.13
08...	1100	8.2	10	.04	.17
12...	0950	6.2	10	.10	.23
19...	1045	3.6	10	.20	.34
22...	0900	6.8	10	.32	.44
26...	0850	2.6	10	.29	.46
AUG					
02...	0945	1.8	10	.22	.37
04...	0955	6.4	10	.30	.43
05...	0910	5.3	10	.33	.47
06...	0915	3.6	10	.32	.46
09...	1215	2.2	10	.21	.37
16...	0850	1.3	10	.17	.31
23...	1040	2.5	10	.17	.29
30...	1115	5.6	10	.21	.34
SEP					
07...	0855	1.7	10	.20	.34
13...	1410	1.0	10	.14	.32
20...	1330	1.1	10	.10	.28
27...	1445	.94	10	.07	.29

ROCK RIVER BASIN

423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI

LOCATION.--Lat 42°35'56", long 88°36'50", in SE 1/4 SW 1/4 sec.28, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, 2.6 mi southeast of Delavan.

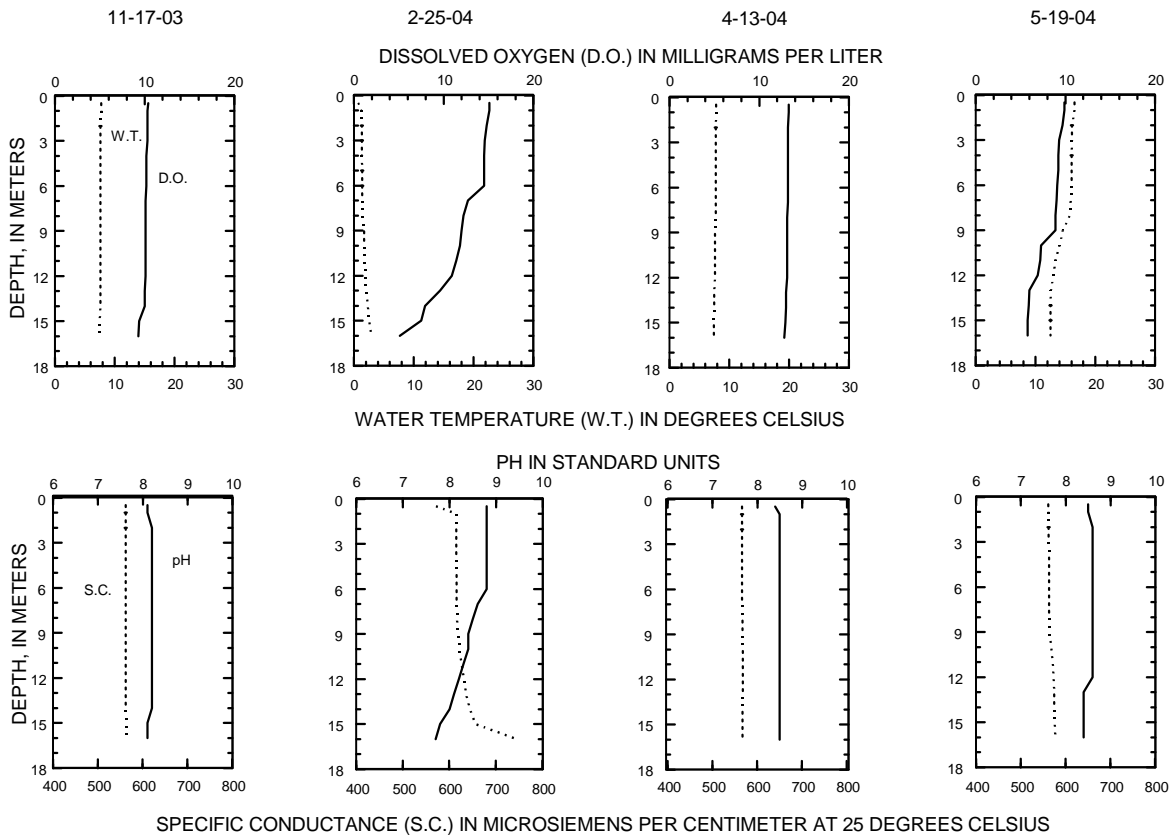
DRAINAGE AREA.--41.4 mi², of which 2.3 mi² is non-contributing. Area of Delavan Lake, 2,072 acres.

PERIOD OF RECORD.--October 1983 to current year.

REMARKS.--Lake ice-covered during February measurements. Water-quality analyses done by the U.S. Geological Survey National Water Quality Laboratory. Samples for determination of chlorophyll-a concentration are collected from the top 1.5 ft of the lake.

WATER-QUALITY DATA, NOVEMBER 17, 2003 TO MAY 19, 2004
(Milligrams per liter unless otherwise indicated)

date	Nov-17		Feb-25			Apr-13		May-19		
Lake stage (ft)	4.65		5.03			4.93		5.13		
Secchi-depth (m)	3.0		4.9			3.4		5.0		
Depth of sample (m)	0.5	16	0.5	5	10	16	0.5	16	0.5	16
Chlorophyll a, phytoplankton (µg/L)	3.4	--	6.2	--	--	--	8.2	--	8.8	--
Water temperature (°C)	7.7	7.4	0.7	1.4	1.7	2.9	7.8	7.4	16.5	12.5
Specific conductance (µS/cm)	562	564	571	616	622	746	566	567	561	577
pH	8.1	8.1	8.8	8.8	8.4	7.7	8.4	8.5	8.5	8.4
Dissolved oxygen (mg/L)	10.4	9.3	15.1	14.5	11.8	5.1	13.3	12.8	9.9	5.8
Phosphorus, total (as P)	0.102	0.116	0.086	0.087	0.088	0.175	0.046	0.051	0.059	0.086
Phosphorus, ortho, dissolved (as P)	0.074	0.074	0.052	--	--	0.143	0.009	<0.006	0.020	0.050
Nitrogen, NO ₂ + NO ₃ , diss. (as N)	0.072	--	0.206	--	--	--	0.059	0.059	0.063	--
Nitrogen, ammonia, dissolved (as N)	0.133	--	0.051	--	--	--	<0.010	<0.010	0.024	--
Nitrogen, amm. + org., total (as N)	0.78	--	0.66	--	--	--	0.65	0.68	0.69	--
Nitrogen, total (as N)	0.85	--	0.87	--	--	--	0.71	0.74	0.75	--
Hardness, as CaCO ₃	--	--	--	--	--	--	230	230	--	--
Calcium, dissolved (Ca)	--	--	--	--	--	--	34.9	34.9	--	--
Magnesium, dissolved (Mg)	--	--	--	--	--	--	33.6	33.6	--	--
Sodium, dissolved (Na)	--	--	--	--	--	--	27	27	--	--
Potassium, dissolved (K)	--	--	--	--	--	--	2.73	2.76	--	--
Sulfate, dissolved (SO ₄)	--	--	--	--	--	--	23.2	23.5	--	--
Chloride, dissolved (Cl)	--	--	--	--	--	--	58.7	60.1	--	--
Silica, dissolved (SiO ₂)	--	--	--	--	--	--	0.1	0.2	--	--
Solids, dissolved, at 180°C	--	--	--	--	--	--	335	333	--	--
Iron, dissolved (Fe) (µg/L)	--	--	--	--	--	--	<6	<6	--	--
Manganese, dissolved, (Mn) (µg/L)	--	--	--	--	--	--	1	0.9	--	--

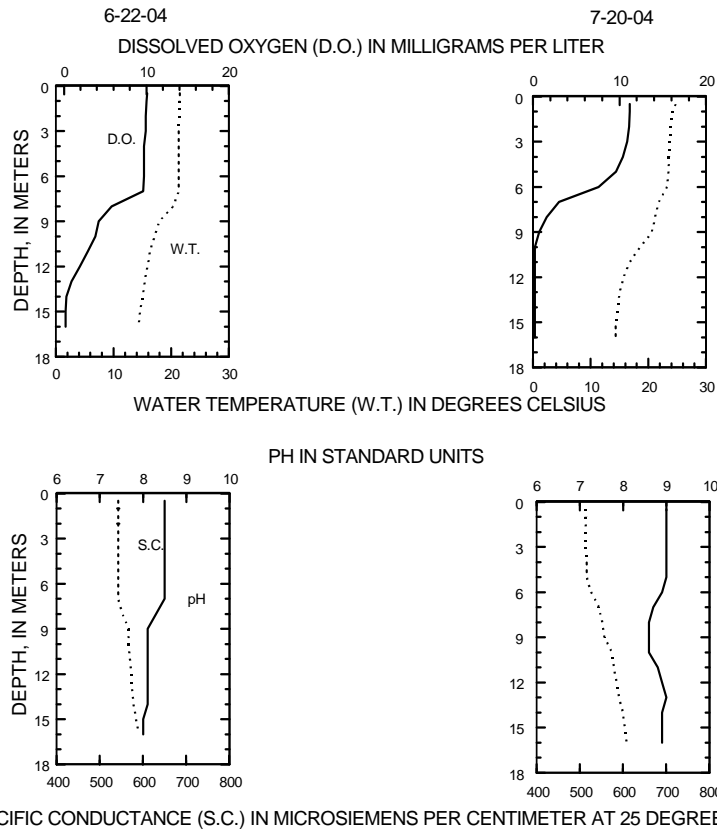


423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI--Continued

WATER-QUALITY DATA, JUNE 22 TO JULY 20, 2004

(Milligrams per liter unless otherwise indicated)

date		<u>Jun-22</u>				<u>Jul-20</u>			
Lake stage (ft)		5.03				4.93			
Secchi-depth (m)		2.2				1.4			
Depth of sample (m)	0.5	8	12	16	0.5	6	13	16	
Chlorophyll a, phytoplankton (µg/L)	30.3	--	--	--	10.4	--	--	--	
Water temperature (°C)	21.5	20.3	15.9	14.3	24.7	23.2	15	14.3	
Specific conductance (µS/cm)	543	552	573	591	513	526	591	608	
pH	8.5	8.3	8.1	8.0	9.0	8.9	9.0	8.9	
Dissolved oxygen (mg/L)	10.1	5.8	1.9	0.2	11.2	7.6	0.2	0.2	
Phosphorus, total (as P)	0.063	0.068	0.132	0.260	0.031	0.026	0.360	0.470	
Phosphorus, ortho, dissolved (as P)	0.005	0.034	0.099	0.213	<0.006	0.003	0.305	0.387	
Nitrogen, NO ₂ + NO ₃ , diss. (as N)	0.097	--	--	--	<0.016	--	--	--	
Nitrogen, ammonia, dissolved (as N)	0.042	--	--	--	0.017	--	--	--	
Nitrogen, amm. + org., total (as N)	0.96	--	--	--	0.82	--	--	--	
Nitrogen, total (as N)	1.1	--	--	--	--	--	--	--	



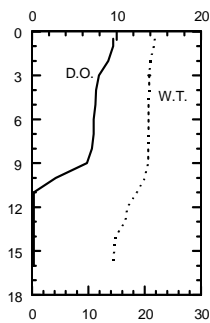
SPECIFIC CONDUCTANCE (S.C.) IN MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS

WATER-QUALITY DATA, AUGUST 19, 2004
(Milligrams per liter unless otherwise indicated)

date	<u>Aug-19</u>								
Lake stage (ft)	4.77								
Secchi-depth (m)	1.5								
Depth of sample (m)	0.5	5	9	11	13	14	15	16	
Chlorophyll a, phytoplankton (µg/L)	20.6	--	--	--	--	--	--	--	--
Water temperature (°C)	21.8	20.7	20.6	18.6	16.5	14.8	14.6	14.4	
Specific conductance (µS/cm)	526	529	533	563	587	607	611	620	
pH	8.6	8.4	8.4	7.9	7.7	7.7	7.7	7.7	
Dissolved oxygen (mg/L)	9.6	7.5	6.5	0.2	0.2	0.2	0.2	0.2	
Phosphorus, total (as P)	0.088	0.072	0.069	0.155	0.360	0.490	0.520	0.560	
Phosphorus, ortho, dissolved (as P)	0.012	--	0.028	--	--	0.459	--	0.554	
Nitrogen, NO ₂ + NO ₃ , diss. (as N)	0.008	--	--	--	--	--	--	--	
Nitrogen, ammonia, dissolved (as N)	0.042	--	--	--	--	--	--	--	
Nitrogen, amm. + org., total (as N)	0.82	--	--	--	--	--	--	--	

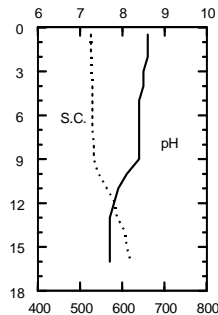
8-19-04

DISSOLVED OXYGEN (D.O.) IN MILLIGRAMS PER LITER



WATER TEMPERATURE (W.T.) IN DEGREES CELSIUS

PH IN STANDARD UNITS



SPECIFIC CONDUCTANCE (S.C.) IN MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS

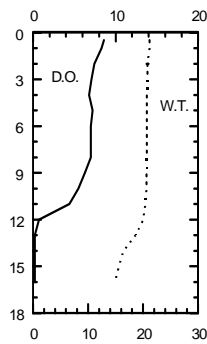
423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI--Continued

WATER-QUALITY DATA, SEPTEMBER 22, 2004
(Milligrams per liter unless otherwise indicated)

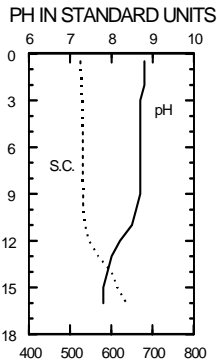
date	<u>Sep-22</u>			
Lake stage (ft)	4.68			
Secchi-depth (m)	1.7			
Depth of sample (m)	0.5	12	14	16
Chlorophyll a, phytoplankton (µg/L)	25.0	--	--	--
Water temperature (°C)	21.2	20.0	16.4	14.9
Specific conductance (µS/cm)	525	545	600	636
pH	8.8	8.2	7.9	7.8
Dissolved oxygen (mg/L)	8.6	0.7	0.2	0.2
Phosphorus, total (as P)	0.107	0.156	0.380	0.710
Phosphorus, ortho, dissolved (as P)	0.044	0.097	0.355	0.683
Nitrogen, NO ₂ + NO ₃ , diss. (as N)	0.011	--	--	--
Nitrogen, ammonia, dissolved (as N)	0.041	--	--	--
Nitrogen, amm. + org., total (as N)	0.94	--	--	--

9-22-04

DISSOLVED OXYGEN (D.O.) IN MILLIGRAMS PER LITER



WATER TEMPERATURE (W.T.) IN DEGREES CELSIUS



SPECIFIC CONDUCTANCE (S.C.) IN MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS

ROCK RIVER BASIN

423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI--Continued

 ADDITIONAL WATER-QUALITY DATA, OCTOBER 1, 2003 TO SEPTEMBER 30, 2004*
 (Milligrams per liter unless otherwise indicated)

	<u>Oct. 1</u>	<u>Oct. 8</u>	<u>Oct. 17</u>	<u>Oct. 22</u>	<u>Oct. 30</u>
Lake stage (ft)	4.26	4.20	4.20	4.17	4.17
Secchi-depth (meters)	1.5	2.0	2.4	3.0	3.2
Depth of sample (meters)	0.5	0.5	0.5	0.5	0.5
Water temperature (°C)	15.0	14.0	14.0	13.5	12.0
Phosphorus, total (as P)	0.116	0.121	0.118	0.109	0.108
	<u>Nov. 6</u>	<u>Nov. 14</u>	<u>April 1</u>	<u>April 7</u>	<u>April 22</u>
Lake stage (ft)	4.68	4.65	4.97	4.95	5.04
Secchi-depth (meters)	3.0	3.0	3.5	3.7	5.3
Depth of sample (meters)	0.5	0.5	0.5	0.5	0.5
Water temperature (°C)	10.0	7.5	6.5	8.0	11.0
Phosphorus, total (as P)	0.103	0.105	0.068	0.059	0.067
	<u>April 27</u>	<u>May 4</u>	<u>May 11</u>	<u>May 26</u>	<u>June 4</u>
Lake stage (ft)	4.97	4.97	5.05	5.39	5.01
Secchi-depth (meters)	6.4	6.1	4.9	3.4	4.4
Depth of sample (meters)	0.5	0.5	0.5	0.5	0.5
Water temperature (°C)	11.0	12.0	15.0	17.8	18.0
Phosphorus, total (as P)	0.051	0.050	0.051	0.054	0.066
	<u>June 9</u>	<u>June 18</u>	<u>June 22</u>	<u>July 1</u>	<u>July 9</u>
Lake stage (ft)	5.06	5.17	5.03	4.99	4.99
Secchi-depth (meters)	3.0	1.2	2.6	2.0	1.5
Depth of sample (meters)	0.5	0.5	0.5	0.5	0.5
Water temperature (°C)	22.0	24.5	21.5	23.0	22.0
Phosphorus, total (as P)	0.051	0.182	0.056	0.065	0.074
	<u>July 15</u>	<u>July 28</u>	<u>Aug. 2</u>	<u>Aug. 13</u>	<u>Aug. 18</u>
Lake stage (ft)	4.97	4.90	4.85	4.81	4.78
Secchi-depth (meters)	2.0	1.5	1.8	1.2	1.7
Depth of sample (meters)	0.5	0.5	0.5	0.5	0.5
Water temperature (°C)	24.0	24.0	24.0	21.0	21.5
Phosphorus, total (as P)	0.026	0.048	0.050	0.148	0.077
	<u>Aug. 27</u>	<u>Aug. 31</u>	<u>Sept. 9</u>	<u>Sept. 17</u>	<u>Sept. 30</u>
Lake stage (ft)	4.78	4.83	4.75	4.71	4.58
Secchi-depth (meters)	2.4	2.4	1.5	1.7	1.7
Depth of sample (meters)	0.5	0.5	0.5	0.5	0.5
Water temperature (°C)	22.0	23.0	23.0	21.0	22.8
Phosphorus, total (as P)	0.099	0.111	0.095	0.103	0.100

* Measurements and samples collected by the Delavan Lake Sanitary District.

ROCK RIVER BASIN

423659088354401 DELAVAN LAKE, AT NORTH END, NEAR LAKE LAWN, WI

LOCATION.--Lat 42°36'59", long 88°35'44", in NW 1/4 SW 1/4, sec.22, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, 2.6 mi southeast of Delavan.

DRAINAGE AREA.--41.4 mi², of which 2.3 mi² is non-contributing.

PERIOD OF RECORD.--October 1983 to current year.

WATER-QUALITY DATA, APRIL 13 TO AUGUST 19, 2004

	<u>April 13</u>	<u>May 19</u>	<u>June 22</u>	<u>July 20</u>	<u>Aug. 19</u>
Secchi-depth (meters)	3.4	5.3	2.2	1.3	1.3

423526088380101 DELAVAN LAKE, AT SW END, NEAR DELAVAN LAKE, WI

LOCATION.--Lat 42°35'26", long 88°38'01", in SE 1/4 NW 1/4, sec.32, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, 2.6 mi southeast of Delavan.

DRAINAGE AREA.--41.4 mi², of which 2.3 mi² is non-contributing.

PERIOD OF RECORD.--October 1983 to current year.

WATER-QUALITY DATA, APRIL 13 TO AUGUST 19, 2004

	<u>April 13</u>	<u>May 19</u>	<u>June 22</u>	<u>July 20</u>	<u>Aug. 19</u>
Secchi-depth (meters)	3.0	3.8	2.2	1.4	1.7

ROCK RIVER BASIN

423706088363400 DELAVAN LAKE NEAR DELAVAN, WI

LOCATION.--Lat 42°36'27", long 88°36'19", in SW ¼ NE ¼ sec.28, T.2N., R.16 E., Walworth County, Hydrologic Unit 07090001, at Delavan Lake Sanitary District Lift Station No. 2 at Delavan Lake Yacht Club, 1.0 mi southeast of outlet, and 2.7 mi southeast of Delavan.

DRAINAGE AREA.--41.4 mi², of which 2.3 mi² is non-contributing. Area of Delavan Lake, 2,072 acres.

PERIOD OF RECORD.--October 1983 to current year. October 1983 to September 1985 data published in Water Resources Investigation series report "Water Quality and Hydrology of Delavan Lake in Southeastern Wisconsin" by Stephen J. Field and Marvin D. Duerk.

GAGE.--Water-stage recorder. Datum of gage is 922.92 ft above NGVD of 1929. Prior to Sept. 5, 1989, staff gage at bridge on North Shore Drive at same datum.

REMARKS.--Lake was ice covered from Jan. 9 to Mar. 24. Lake levels controlled by Delavan Lake Sanitary District.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 6.19 ft, Feb. 21, 1994; minimum daily, -4.44 ft Nov. 6, 1989 (lake drawn down for lake rehabilitation program).

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 5.69 ft, May 23; minimum, 4.15 ft, Oct. 24.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.26	4.17	4.78	5.00	4.96	4.93	4.97	4.98	5.11	4.99	4.85	4.82
2	4.24	4.28	4.77	5.00	4.96	4.95	4.96	4.98	5.04	4.99	4.85	4.80
3	4.23	4.42	4.77	5.00	4.98	4.95	4.96	4.98	5.00	4.99	4.86	4.79
4	4.23	4.57	4.77	5.00	4.98	4.95	4.96	4.97	5.01	5.05	4.93	4.79
5	4.22	4.66	4.79	4.99	4.98	5.07	4.95	4.97	5.03	5.03	4.91	4.78
6	4.21	4.68	4.78	4.98	5.00	5.03	4.94	4.98	5.05	5.00	4.89	4.78
7	4.20	4.67	4.79	4.97	5.00	4.96	4.95	4.97	5.06	5.01	4.88	4.77
8	4.20	4.67	4.79	4.95	5.00	4.95	4.96	4.99	5.06	5.00	4.88	4.76
9	4.19	4.66	4.81	4.95	4.99	4.95	4.96	5.03	5.06	4.99	4.87	4.75
10	4.19	4.66	5.00	4.94	4.99	4.94	4.96	5.05	5.08	4.98	4.85	4.75
11	4.19	4.66	5.09	4.94	4.99	4.94	4.96	5.05	5.11	4.96	4.84	4.74
12	4.21	4.66	5.11	4.93	4.99	4.94	4.96	5.04	5.09	4.97	4.82	4.73
13	4.20	4.65	5.11	4.93	4.99	4.93	4.95	5.11	5.02	4.97	4.81	4.73
14	4.23	4.65	5.12	4.94	4.98	4.94	4.95	5.23	4.97	4.97	4.80	4.72
15	4.23	4.64	5.12	4.93	4.98	4.94	4.95	5.29	5.01	4.97	4.79	4.72
16	4.21	4.64	5.11	4.93	4.98	4.93	4.95	5.24	5.03	4.98	4.78	4.72
17	4.20	4.65	5.11	4.96	4.97	4.93	4.98	5.18	5.12	4.96	4.78	4.71
18	4.19	4.72	e5.10	4.97	4.97	4.94	4.98	5.16	5.17	4.95	4.78	4.70
19	4.18	4.76	5.09	4.96	4.97	4.94	4.98	5.13	5.09	4.94	4.77	4.69
20	4.18	4.76	5.08	4.96	4.98	4.94	5.00	5.15	5.00	4.93	4.76	4.68
21	4.18	4.77	5.06	4.96	5.00	4.94	5.07	5.18	4.98	4.95	4.75	4.66
22	4.17	4.77	5.05	4.96	5.01	4.93	5.04	5.46	5.03	4.98	4.73	4.65
23	4.16	4.79	5.04	4.96	5.03	4.93	5.00	5.66	5.00	4.98	4.73	4.64
24	4.17	4.79	5.03	4.96	5.04	4.97	4.98	5.65	5.00	4.96	4.74	4.63
25	4.20	4.79	5.02	4.96	5.03	5.00	4.98	5.54	5.01	4.94	4.76	4.62
26	4.19	4.78	5.01	4.96	5.01	5.10	4.98	5.39	5.02	4.92	4.76	4.61
27	4.18	4.79	5.00	4.97	4.97	5.12	4.97	5.27	5.03	4.91	4.78	4.61
28	4.18	4.79	5.02	4.97	4.94	5.11	4.94	5.14	5.03	4.90	4.82	4.59
29	4.17	4.79	5.03	4.97	4.92	5.14	4.94	5.05	5.02	4.89	4.83	4.58
30	4.17	4.78	5.02	4.97	---	5.09	4.96	5.02	5.01	4.88	4.83	4.58
31	4.18	---	5.01	4.97	---	5.03	---	5.12	---	4.87	4.83	---
MEAN	4.20	4.67	4.98	4.96	4.99	4.98	4.97	5.16	5.04	4.96	4.81	4.70
MAX	4.26	4.79	5.12	5.00	5.04	5.14	5.07	5.66	5.17	5.05	4.93	4.82
MIN	4.16	4.17	4.77	4.93	4.92	4.93	4.94	4.97	4.97	4.87	4.73	4.58

(e) Estimated due to ice effect or missing record

05431022 DELAVAN LAKE OUTLET AT BORG ROAD NEAR DELAVAN, WI

LOCATION.--Lat 42°36'53", long 88°37'29", in SW ¼ SE ¼ sec.20, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on right bank 50 ft upstream from bridge on Borg Road, 1.4 mi southeast of Delavan, and 0.2 mi downstream from Delavan Lake dam outlet.

DRAINAGE AREA.--42.1 mi², of which 2.3 mi² is non-contributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 914.50 ft above NGVD of 1929 (Public Service Commission bench mark).

REMARKS.--Records good except those for estimated daily discharges, which are poor (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	0.63	1.3	14	e2.8	19	55	1.5	133	11	0.90	1.3
2	1.8	1.1	1.4	14	e2.8	20	24	1.5	107	7.5	0.88	1.4
3	1.8	1.2	1.4	14	e2.8	20	14	2.5	36	7.4	0.98	1.3
4	2.0	2.1	1.4	14	e2.8	28	14	3.7	0.83	22	0.54	1.1
5	2.3	3.0	1.5	e12	e2.7	107	11	3.7	0.93	30	0.42	0.96
6	2.0	2.8	1.4	11	e2.7	162	7.8	3.5	2.6	17	0.48	0.74
7	2.0	2.4	1.3	11	e2.6	70	5.8	5.1	7.3	5.3	0.25	0.47
8	2.0	2.2	1.4	10	e2.4	27	4.9	10	14	12	0.10	0.77
9	2.0	2.0	1.3	10	e2.4	28	4.3	17	16	16	0.17	0.80
10	1.9	1.8	11	9.6	e2.4	24	4.0	27	18	21	0.31	0.60
11	1.7	1.7	e16	8.1	e2.5	22	3.2	35	95	14	0.36	0.62
12	1.6	1.8	e16	7.7	e2.5	20	2.9	36	150	6.5	3.4	0.72
13	1.5	1.8	16	5.3	e2.5	18	4.4	61	139	6.1	3.1	0.71
14	1.7	1.7	15	3.6	e2.5	17	4.9	113	54	6.2	0.77	0.56
15	1.9	1.7	15	3.3	e2.4	17	4.6	132	5.5	6.4	0.37	0.43
16	1.7	1.6	15	3.2	e2.3	17	4.5	117	12	5.8	1.6	0.95
17	1.3	1.5	15	e3.2	e2.5	18	4.5	117	90	2.8	1.5	1.0
18	0.97	1.6	15	e3.2	e2.6	18	4.4	119	140	2.0	1.1	0.80
19	1.00	1.5	15	e3.2	e2.7	20	4.1	43	122	3.8	1.2	0.81
20	1.0	1.5	15	e3.0	e2.9	17	3.8	11	89	5.0	0.77	0.78
21	0.80	1.5	15	e2.9	3.2	15	33	82	53	4.2	0.29	0.80
22	0.59	1.5	15	e2.8	3.1	10	54	161	59	6.4	0.17	0.74
23	0.54	1.5	15	e2.7	8.5	7.4	38	181	69	6.8	1.1	0.69
24	0.58	1.5	15	e2.7	18	21	28	184	35	5.5	1.8	0.80
25	0.74	1.4	15	e2.7	29	29	28	190	9.2	5.1	1.1	0.82
26	0.88	1.4	15	e2.8	40	50	20	175	2.3	2.0	2.2	0.61
27	0.96	1.5	15	e2.8	41	74	14	152	12	3.6	3.3	0.95
28	0.95	1.5	15	e3.0	39	83	9.4	141	18	3.4	2.1	1.2
29	0.85	1.7	15	e2.9	26	105	3.9	118	17	1.6	1.3	1.0
30	0.67	1.5	14	e2.8	---	116	1.7	120	18	1.3	1.2	0.91
31	0.71	---	13	e2.8	---	93	---	130	---	1.2	1.3	---
TOTAL	42.04	50.63	338.4	194.3	259.6	1,292.4	416.1	2,493.5	1,524.66	248.9	35.06	25.34
MEAN	1.36	1.69	10.9	6.27	8.95	41.7	13.9	80.4	50.8	8.03	1.13	0.84
MAX	2.3	3.0	16	14	41	162	55	190	150	30	3.4	1.4
MIN	0.54	0.63	1.3	2.7	2.3	7.4	1.7	1.5	0.83	1.2	0.10	0.43
AC-FT	83	100	671	385	515	2,560	825	4,950	3,020	494	70	50
CFSM	0.03	0.04	0.27	0.16	0.22	1.05	0.35	2.02	1.28	0.20	0.03	0.02
IN.	0.04	0.05	0.32	0.18	0.24	1.21	0.39	2.33	1.43	0.23	0.03	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2004, BY WATER YEAR (WY)

MEAN	20.1	17.7	17.8	17.3	29.7	29.5	35.5	24.6	30.3	11.1	4.84	14.5
MAX	127	93.1	51.1	44.7	97.8	71.2	145	80.4	105	53.7	32.6	110
(WY)	(1990)	(1986)	(1986)	(1993)	(1994)	(1986)	(1993)	(2004)	(1996)	(1993)	(1995)	(1989)
MIN	0.00	0.00	0.00	0.31	0.71	0.41	0.00	0.01	0.01	0.03	0.01	0.02
(WY)	(1991)	(1991)	(1990)	(1990)	(1990)	(1990)	(1990)	(1990)	(1990)	(1990)	(1991)	(1990)

05431022 DELAVAN LAKE OUTLET AT BORG ROAD NEAR DELAVAN, WI—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1984 - 2004	
ANNUAL TOTAL	2,955.10		6,920.93			
ANNUAL MEAN	8.10		18.9		21.0	
HIGHEST ANNUAL MEAN					42.6	1993
LOWEST ANNUAL MEAN					7.59	2003
HIGHEST DAILY MEAN	132	Jul 16	190	May 25	406	Feb 22, 1994
LOWEST DAILY MEAN	0.02	Jun 18	0.10	Aug 8	0.00	(a)Jun 21-22, 1989
ANNUAL SEVEN-DAY MINIMUM	0.35	Jun 23	0.30	Aug 5	0.00	(b)Nov 14, 1989
MAXIMUM PEAK FLOW			219	May 25	473	Feb 22, 1994
MAXIMUM PEAK STAGE			7.79	May 25	8.35	Aug 5, 1998
ANNUAL RUNOFF (AC-FT)	5,860		13,730		15,190	
ANNUAL RUNOFF (CFSM)	0.203		0.475		0.527	
ANNUAL RUNOFF (INCHES)	2.76		6.47		7.16	
10 PERCENT EXCEEDS	18		56		58	
50 PERCENT EXCEEDS	2.3		3.2		7.2	
90 PERCENT EXCEEDS	0.77		0.80		0.13	

(a) Also occurred many days during 1990 and 1991 water years (lake drawn down for lake rehabilitation program)

(b) Also occurred in 1991 water year

(c) Estimated due to ice effect or missing record

05431022 DELAVAN LAKE OUTLET AT BORG ROAD NEAR DELAVAN, WI—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: Water years 1984-85, 1990-91.

TOTAL-PHOSPHORUS DISCHARGE: October 1983 to current year.

INSTRUMENTATION.--Automatic pumping sampler from October to December 1983. Manual samples collected from January 1984 to present.

REMARKS.--Records good.

COOPERATION.--Observer furnished by Delavan Lake Sanitary District.

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 238 mg/L, Feb. 22, 1985; minimum observed, 1 mg/L, on many days.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 29 tons, Feb. 25, 1985; minimum daily, 0.00 ton, on many days during 1990 and 1991 water years.

DISSOLVED CHLORIDE CONCENTRATIONS: Maximum observed, 71 mg/L, June 5, 1995; minimum observed, 40 mg/L, July 5, 1995.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 6.00 mg/L, Jan. 5, 1990; minimum observed, <0.01 mg/L, Mar. 9-10, 1990, several days during 1992, 1994, and 1995 water years, and Oct. 2, 1995.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 585 lb, Feb. 22, 1994; minimum daily, 0.00 lb, Aug. 9, 13, 1987, and many days during 1990, 1991, and 1994 water years, Dec. 4, 1994, July 10-11, 1995, Oct. 1-5, 1995, and Sept. 27, 1996.

EXTREMES FOR CURRENT YEAR.--

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.12 mg/L, Nov. 4; minimum observed, 0.02 mg/L, Oct. 1.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 74.6 lb, June 12; minimum daily, 0.03 lb, Aug. 8.

PHOSPHORUS, WATER, UNFILTERED, POUNDS PER DAY
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.17	0.10	0.43	5.34	e1.22	5.21	8.91	0.33	43.0	3.56	0.34	0.32
2	0.20	0.21	0.46	5.34	e1.22	5.30	3.97	0.33	34.7	2.40	0.33	0.32
3	0.20	0.42	0.44	5.20	e1.20	5.34	2.24	0.53	11.7	2.42	0.36	0.30
4	0.23	1.26	0.45	5.21	e1.18	7.44	2.23	0.80	0.27	7.27	0.20	0.25
5	0.26	1.67	0.48	e4.52	e1.11	30.4	1.74	0.81	0.30	10.1	0.15	0.21
6	0.23	1.27	0.44	4.16	e1.09	51.7	1.26	0.75	0.85	5.72	0.17	0.16
7	0.23	0.92	0.43	4.11	e1.05	22.2	0.94	1.12	2.36	1.83	0.09	0.10
8	0.23	0.70	0.45	4.00	e0.92	6.02	0.80	2.34	4.57	4.14	0.03	0.17
9	0.24	0.51	0.43	3.96	e0.90	5.97	0.69	4.24	5.29	5.82	0.06	0.17
10	0.23	0.40	4.22	3.70	e0.89	5.13	0.65	7.38	5.68	7.80	0.10	0.13
11	0.21	0.35	e5.89	3.16	e0.92	4.59	0.52	10.1	48.9	5.31	0.12	0.13
12	0.19	0.37	e5.25	3.02	e0.91	4.07	0.46	11.0	74.6	2.46	1.10	0.16
13	0.19	0.35	5.26	2.08	e0.89	3.74	0.71	19.8	64.5	2.32	0.99	0.15
14	0.22	0.32	5.45	1.42	e0.88	3.40	0.79	36.7	23.6	2.35	0.24	0.12
15	0.24	0.31	5.60	1.32	e0.82	3.37	0.75	39.8	2.18	2.43	0.11	0.10
16	0.22	0.29	5.81	1.29	e0.78	3.36	0.73	26.1	4.53	2.18	0.47	0.21
17	0.18	0.26	6.03	e1.26	e0.84	3.34	0.73	25.2	30.7	1.05	0.46	0.24
18	0.13	0.26	6.28	e1.27	e0.86	3.36	0.71	25.7	44.1	0.75	0.33	0.19
19	0.14	0.25	6.49	e1.28	e0.88	3.72	0.66	9.30	33.6	1.42	0.35	0.19
20	0.14	0.26	6.48	e1.22	e0.91	3.14	0.62	2.41	24.0	1.90	0.22	0.19
21	0.11	0.27	6.31	e1.19	1.02	2.67	8.76	19.9	14.2	1.60	0.08	0.20
22	0.08	0.29	6.20	e1.16	0.97	1.77	14.1	48.8	16.1	2.43	0.05	0.18
23	0.08	0.30	6.15	e1.13	2.58	1.26	8.35	51.5	19.0	2.57	0.30	0.18
24	0.08	0.32	6.22	e1.14	5.34	3.54	5.95	60.6	9.82	2.07	0.47	0.20
25	0.11	0.32	6.21	e1.14	8.38	4.76	5.98	68.9	2.61	1.92	0.28	0.21
26	0.13	0.34	6.18	e1.18	11.6	8.13	4.35	57.4	0.67	0.76	0.56	0.16
27	0.14	0.39	6.14	e1.19	11.7	12.1	3.00	49.1	3.51	1.37	0.84	0.26
28	0.14	0.41	6.21	e1.26	10.9	13.4	2.04	45.6	5.32	1.30	0.53	0.32
29	0.13	0.49	5.91	e1.24	7.23	17.6	0.83	38.2	5.18	0.59	0.31	0.27
30	0.10	0.46	5.46	e1.20	---	23.3	0.36	38.9	5.42	0.48	0.30	0.24
31	0.11	---	5.15	e1.21	---	15.9	---	42.2	---	0.45	0.32	---
TOTAL	5.29	14.07	132.91	75.90	79.19	285.23	83.83	745.84	541.26	88.77	10.26	6.03
WTR YR 2004	TOTAL 2,068.58											

e Estimated

05431022 DELAVAN LAKE OUTLET AT BORG ROAD NEAR DELAVAN, WI—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Dis-charge, cfs (00060)	Instan- taneous dis- charge, cfs (00061)	Sam- pling method, code (82398)	Phos- phorus, water, unfltrd mg/L (00665)
OCT					
01...	1045	--	1.3	70	E.02
NOV					
02...	0920	--	2.9	10	E.03
04...	1405	--	.45	10	.12
19...	0845	--	1.5	10	E.03
DEC					
01...	0950	--	1.3	10	.06
10...	0855	--	1.8	10	.07
11...	1030	16	--	10	.07
12...	0940	16	--	10	.06
19...	1155	--	15	70	.08
JAN					
05...	1345	12	--	10	.07
FEB					
02...	0920	2.8	--	10	.08
MAR					
01...	0840	--	19	10	.05
05...	1010	--	32	10	.05
06...	0850	--	163	10	.06
07...	0850	--	32	10	.06
08...	1120	--	27	10	.04
10...	0840	--	24	10	.04
26...	0830	--	44	10	E.03
27...	0925	--	62	10	E.03
29...	0945	--	82	10	E.03
29...	1340	--	133	10	E.03
30...	1340	--	116	10	E.04
31...	1335	--	79	10	E.03
APR					
01...	1010	--	75	10	E.03
02...	0945	--	39	10	E.03
22...	0905	--	54	10	.05
23...	0830	--	53	10	.04
MAY					
13...	0930	--	35	10	.06
14...	0915	--	86	10	.06
15...	0910	--	140	10	.06
16...	0905	--	124	10	.04
17...	0915	--	108	10	E.04
18...	0900	--	128	10	.04
22...	1040	--	180	10	.06
23...	0705	--	189	10	.05
25...	0900	--	66	10	.07
26...	0850	--	189	10	.06
28...	0910	--	157	10	.06
31...	1000	--	127	10	.06
JUN					
11...	0950	--	54	10	.10
18...	0840	--	147	10	.06
19...	1000	--	128	10	.05
22...	0935	--	42	10	.05
JUL					
12...	0925	--	6.7	10	.07
AUG					
02...	0925	--	1.0	10	.07
SEP					
07...	0845	--	.42	10	E.04
13...	1400	--	.75	10	E.04
27...	1440	--	.51	10	.05

ROCK RIVER BASIN

05431032 TURTLE CREEK AT DELAVAN, WI

LOCATION.--Lat 42°38'13", long 88°39'27", in NW ¼ NW ¼ sec.18, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on left bank 0.1 mi downstream from bridge on County Highway P, 0.7 mi northwest of Post Office at Delavan.

DRAINAGE AREA.--83.3 mi², of which 2.33 mi² is noncontributing.

PERIOD OF RECORD.--June 1996 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 873.00 ft above NGVD of 1929 (levels by U.S. Geological Survey).

REMARKS.--Records good (see page 11). Some seasonal regulation caused by dams used to maintain levels of Comus and Delavan Lakes and Delavan Millpond. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	12	17	28	13	46	112	23	179	39	17	17
2	10	32	16	28	13	49	63	21	174	29	17	16
3	11	58	16	28	14	48	33	19	140	30	21	16
4	10	84	16	27	14	67	32	19	60	36	24	16
5	10	80	16	26	14	146	30	18	33	48	20	16
6	10	42	15	24	14	192	27	16	32	46	19	15
7	9.6	24	15	23	14	192	25	19	34	35	19	15
8	9.5	22	15	23	14	98	24	20	41	35	18	15
9	9.5	21	21	23	14	65	23	33	46	41	18	15
10	9.1	20	85	22	14	52	22	37	56	45	18	15
11	8.8	19	82	21	15	46	22	49	80	47	18	15
12	9.8	18	70	21	15	41	21	53	159	36	17	14
13	8.9	18	64	20	15	41	21	82	177	32	18	14
14	15	17	57	17	15	38	21	153	166	30	18	14
15	11	17	34	16	15	37	19	177	89	28	16	14
16	10	16	24	16	14	36	20	172	62	27	16	14
17	10	16	27	17	15	36	23	157	138	26	16	14
18	9.8	28	26	16	15	36	20	139	210	25	15	15
19	9.6	23	30	15	15	36	20	104	221	24	15	13
20	9.1	22	30	15	19	36	27	49	194	23	15	12
21	9.3	23	30	14	19	31	50	63	168	29	15	12
22	9.0	22	30	14	20	28	86	192	135	25	14	12
23	8.8	23	30	14	30	24	80	289	126	25	14	12
24	11	21	29	14	43	35	61	291	100	24	14	11
25	12	20	29	14	51	48	57	250	62	22	15	12
26	12	20	28	14	63	91	49	216	48	21	15	12
27	12	19	28	14	66	109	37	196	44	20	16	12
28	12	19	32	14	62	135	31	184	49	20	24	12
29	12	17	31	14	54	157	26	168	44	19	18	12
30	13	17	30	13	---	165	23	168	41	17	17	13
31	12	---	28	13	---	152	---	172	---	17	16	---
TOTAL	323.8	790	1,001	578	699	2,313	1,105	3,549	3,108	921	533	415
MEAN	10.4	26.3	32.3	18.6	24.1	74.6	36.8	114	104	29.7	17.2	13.8
MAX	15	84	85	28	66	192	112	291	221	48	24	17
MIN	8.8	12	15	13	13	24	19	16	32	17	14	11
CFSM	0.13	0.33	0.40	0.23	0.30	0.92	0.45	1.41	1.28	0.37	0.21	0.17
IN.	0.15	0.36	0.46	0.27	0.32	1.06	0.51	1.63	1.43	0.42	0.24	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

MEAN	32.7	32.0	32.7	37.3	67.6	61.8	69.6	67.6	92.6	32.7	25.3	30.8
MAX	74.1	56.3	48.2	72.4	122	103	106	114	171	62.6	68.3	72.7
(WY)	(2002)	(2002)	(2002)	(1999)	(2001)	(2001)	(1999)	(2004)	(1996)	(2000)	(1998)	(2001)
MIN	10.4	17.2	18.0	16.3	16.7	27.4	26.9	41.8	19.5	16.5	11.4	10.2
(WY)	(2004)	(1998)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2002)	(2003)	(2003)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1996 - 2004

ANNUAL TOTAL	9,086.9	15,335.8	
ANNUAL MEAN	24.9	41.9	47.7
HIGHEST ANNUAL MEAN			61.2
LOWEST ANNUAL MEAN			24.3
HIGHEST DAILY MEAN	146	Jul 17	291
LOWEST DAILY MEAN	6.6	Sep 10, 11	8.8
ANNUAL SEVEN-DAY MINIMUM	7.3	Sep 5	9.3
MAXIMUM PEAK FLOW			330
MAXIMUM PEAK STAGE			3.28
INSTANTANEOUS LOW FLOW			8.2
ANNUAL RUNOFF (CFSM)	0.307		0.517
ANNUAL RUNOFF (INCHES)	4.17		7.05
10 PERCENT EXCEEDS	46		110
50 PERCENT EXCEEDS	17		22
90 PERCENT EXCEEDS	10		12

05431486 TURTLE CREEK AT CARVERS ROCK ROAD NEAR CLINTON, WI

LOCATION.--Lat 42°35'50", long 88°49'45", in SE ¼ SW ¼ sec.27, T.2 N., R.14 E., Rock County, Hydrologic Unit 07090001, on left bank 25 ft downstream from bridge on Carvers Rock Road, 3.3 mi northeast of Clinton, 13 mi northeast of Beloit, and 17.8 mi upstream from mouth.

DRAINAGE AREA.--199 mi², of which 2.33 mi² is noncontributing.

PERIOD OF RECORD.--September 1939 to current year. Prior to January 1980, all records published as "Turtle Creek near Clinton" (05431500).

REVISED RECORDS.--WSP 955: 1940. WSP 1308: 1950(M). WDR WI-71-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 823 ft above NGVD of 1929, from topographic map. Prior to January 17, 1940, non-recording gage, and January 17, 1940 to December 31, 1979, water-stage recorder at site 1.8 mi downstream at a different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair (see page 11). Some seasonal regulation caused by dams used to maintain levels of Comus and Delavan Lakes and Delavan Millpond. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	45	67	82	e42	128	238	89	422	117	76	70
2	41	78	64	84	e43	140	187	85	337	111	75	69
3	43	188	63	85	e43	125	131	81	288	133	77	67
4	44	272	63	81	e43	122	112	77	214	322	123	66
5	42	261	66	78	e44	563	108	77	143	185	106	65
6	42	175	65	e78	e44	465	101	72	127	160	88	65
7	42	110	64	e78	e44	363	95	71	120	152	82	63
8	41	92	64	e78	e44	294	93	77	116	133	81	64
9	41	84	67	e78	e43	178	89	86	118	127	78	61
10	41	79	280	e78	e44	152	87	90	129	129	78	61
11	41	80	344	e77	e44	136	83	99	188	128	78	60
12	43	78	218	e78	e44	120	81	107	524	126	76	59
13	43	73	182	e77	e43	114	80	124	539	116	74	59
14	50	71	145	e70	e44	114	79	237	346	106	73	58
15	51	69	130	e59	e44	108	78	337	280	101	73	59
16	44	69	102	e56	e43	104	76	282	182	98	71	59
17	43	67	96	e58	e44	104	84	252	265	95	73	59
18	43	92	96	e57	e45	104	81	259	309	94	73	58
19	42	115	89	e54	e46	103	77	226	317	92	70	60
20	43	95	89	e50	e53	109	85	172	310	92	69	57
21	42	86	116	e47	e54	105	177	168	298	97	68	56
22	42	82	91	e45	e60	97	163	638	313	127	67	56
23	42	85	88	e45	e90	92	163	757	238	107	66	56
24	43	83	85	e45	e120	116	140	614	228	98	66	56
25	53	77	94	e44	124	159	136	488	189	94	68	55
26	47	74	282	e45	120	284	127	400	150	93	70	57
27	45	74	91	e45	125	286	113	351	134	90	70	58
28	46	72	91	e45	122	267	102	304	130	84	76	57
29	46	70	94	e44	123	357	93	285	129	82	88	56
30	46	69	89	e44	---	316	87	314	122	80	77	58
31	45	---	85	e43	---	286	---	453	---	77	71	---
TOTAL	1,358	2,965	3,560	1,928	1,822	6,011	3,346	7,672	7,205	3,646	2,381	1,804
MEAN	43.8	98.8	115	62.2	62.8	194	112	247	240	118	76.8	60.1
MAX	53	272	344	85	125	563	238	757	539	322	123	70
MIN	41	45	63	43	42	92	76	71	116	77	66	55
CFSM	0.22	0.50	0.58	0.32	0.32	0.99	0.57	1.26	1.22	0.60	0.39	0.31
IN.	0.26	0.56	0.67	0.36	0.34	1.14	0.63	1.45	1.36	0.69	0.45	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	102	109	105	106	143	223	176	133	129	98.7	86.7	95.8
MAX	312	388	343	315	518	664	758	486	407	458	278	482
(WY)	(1974)	(1986)	(1983)	(1946)	(1949)	(1959)	(1973)	(1973)	(1993)	(1978)	(1972)	(1972)
MIN	30.1	37.9	34.5	24.5	30.4	55.4	52.7	31.6	35.2	24.8	21.5	19.6
(WY)	(1958)	(1950)	(1965)	(1959)	(1959)	(1954)	(1958)	(1958)	(1965)	(1958)	(1958)	(1958)

05431486 TURTLE CREEK AT CARVERS ROCK ROAD NEAR CLINTON, WI—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	30,121		43,698			
ANNUAL MEAN	82.5		119		125	
HIGHEST ANNUAL MEAN					289	1973
LOWEST ANNUAL MEAN					43.0	1958
HIGHEST DAILY MEAN	449	Jul 15	757	May 23	6,400	Apr 21, 1973
LOWEST DAILY MEAN	34	Sep 7	41	(a)Oct 1	16	Sep 13, 1958
ANNUAL SEVEN-DAY MINIMUM	34	Sep 5	41	Oct 5	17	Sep 9, 1958
MAXIMUM PEAK FLOW			858	May 23	(b)16,500	Apr 21, 1973
MAXIMUM PEAK STAGE			6.37	May 23	(c)12.85	Apr 21, 1973
INSTANTANEOUS LOW FLOW			(d)24	Jan 6, 18	(f)8.0	Dec 29, 1956
ANNUAL RUNOFF (CFSM)	0.420		0.607		0.637	
ANNUAL RUNOFF (INCHES)	5.70		8.27		8.66	
10 PERCENT EXCEEDS	124		280		231	
50 PERCENT EXCEEDS	68		84		85	
90 PERCENT EXCEEDS	42		44		44	

(a) Also occurred Oct. 2, 8-11

(b) From rating curve extended above 6,500 ft³/s on basis of slope-area measurement of peak flow

(c) Site and datum then in use

(d) Ice affected

(e) Estimated due to ice effect or missing record

(f) Result of freezeup

LOCATION.--Lat 42°40'40", long 90°07'07", in NE $\frac{1}{4}$ sec.3, T.2 N., R.3 E., Lafayette County, Hydrologic Unit 07090003, on right bank in Darlington, 0.3 mi downstream from Vinegar Branch, and 3.6 mi upstream from Otter Creek.

DRAINAGE AREA.--273 mi².

PERIOD OF RECORD.--September 1939 to current year.

REVISED RECORDS.--WDR WI-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 802.42 ft above NGVD of 1929. Prior to Dec. 19, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	71	159	130	e100	292	309	167	1,130	321	225	178
2	64	107	141	163	e110	311	284	165	795	314	219	173
3	64	200	146	153	e110	235	264	162	653	313	229	170
4	69	708	142	118	e110	201	249	160	566	473	343	168
5	68	810	145	73	e110	645	236	159	518	391	304	165
6	67	282	143	e150	e110	620	231	157	506	338	229	164
7	67	204	137	e140	e110	313	225	160	491	393	216	164
8	66	174	140	e130	e110	253	218	190	445	362	213	162
9	65	154	147	e130	e110	227	210	174	411	323	213	161
10	64	148	217	e120	e110	213	202	178	410	381	208	160
11	64	146	228	e120	e110	207	196	222	654	332	203	158
12	66	142	162	e120	e110	178	192	190	766	408	200	156
13	71	131	201	e120	e110	193	189	185	558	330	195	153
14	79	121	195	e120	e100	199	186	221	584	296	190	153
15	89	120	180	e120	e100	200	183	205	512	276	186	164
16	77	119	178	e110	e100	179	182	183	454	267	184	211
17	70	116	165	e110	e100	179	204	176	884	364	189	179
18	68	118	161	e110	e100	183	208	217	735	328	193	162
19	68	117	156	e110	e110	186	190	219	545	277	190	157
20	68	111	121	e110	e150	181	188	187	480	269	185	151
21	69	108	154	e100	e300	176	228	194	465	317	178	148
22	68	105	159	e100	e350	169	239	993	493	388	175	147
23	67	296	149	e100	e420	169	200	2,600	435	302	177	146
24	70	491	108	e100	e700	192	189	2,350	416	265	178	148
25	85	265	138	e100	e500	233	190	1,480	442	252	215	148
26	82	215	143	e100	e330	436	195	823	393	243	211	144
27	74	194	146	e110	e350	601	182	639	367	235	237	142
28	73	182	179	e110	319	450	176	550	365	230	212	141
29	74	171	240	e100	319	466	173	582	351	229	214	140
30	75	165	171	e100	---	377	168	1,040	332	241	197	139
31	73	---	160	e100	---	337	---	1,280	---	239	186	---
TOTAL	2,188	6,291	5,011	3,577	5,768	8,801	6,286	16,208	16,156	9,697	6,494	4,752
MEAN	70.6	210	162	115	199	284	210	523	539	313	209	158
MAX	89	810	240	163	700	645	309	2,600	1,130	473	343	211
MIN	64	71	108	73	100	169	168	157	332	229	175	139
CFSM	0.26	0.77	0.59	0.42	0.73	1.04	0.77	1.92	1.97	1.15	0.77	0.58
IN.	0.30	0.86	0.68	0.49	0.79	1.20	0.86	2.21	2.20	1.32	0.88	0.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	131	142	124	154	214	362	244	209	251	204	153	143
MAX	302	674	338	546	738	951	731	780	810	1,796	610	487
(WY)	(1985)	(1962)	(1983)	(1960)	(1953)	(1959)	(1959)	(1960)	(2000)	(1993)	(1993)	(1942)
MIN	39.9	43.8	34.6	31.6	38.3	60.9	69.8	51.1	42.2	32.7	42.1	38.3
(WY)	(1965)	(1965)	(1959)	(1959)	(1959)	(1957)	(1957)	(1958)	(1965)	(1965)	(1958)	(1958)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1939 - 2004

ANNUAL TOTAL	42,838	91,229	
ANNUAL MEAN	117	249	194
HIGHEST ANNUAL MEAN			534
LOWEST ANNUAL MEAN			66.5
HIGHEST DAILY MEAN	810	Nov 5	11,200
LOWEST DAILY MEAN	54	Sep 10, 11	24
ANNUAL SEVEN-DAY MINIMUM	55	Sep 6	25
MAXIMUM PEAK FLOW		3,200	(c)22,000
MAXIMUM PEAK STAGE		13.80	20.71
INSTANTANEOUS LOW FLOW		(d)54	(d)17
ANNUAL RUNOFF (CFSM)	0.430	0.913	0.711
ANNUAL RUNOFF (INCHES)	5.84	12.43	9.67
10 PERCENT EXCEEDS	190	468	335
50 PERCENT EXCEEDS	96	182	128
90 PERCENT EXCEEDS	65	100	58

(a) Also occurred Oct. 10, 11

(b) Also occurred July 26, 27, 30, 1965

(c) From rating curve extended above 11,000 ft³/s on basis of slope-area determination of peak flow

(d) Result of freezeup

(e) Estimated due to ice effect or missing record

ROCK RIVER BASIN

05433000 EAST BRANCH PECATONICA RIVER NEAR BLANCHARDVILLE, WI

620

LOCATION.--Lat 42°47'08" long 89°51'40", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T.4 N., R.5 E., Lafayette County, Hydrologic Unit 07090003, on left bank at downstream side of bridge on State Highway 78, 1.8 mi south of Blanchardville and 4.5 mi upstream from Sawmill Creek.

DRAINAGE AREA.--221 mi².

PERIOD OF RECORD.--September 1939 to September 1986, October 1987 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 796.8 ft above NGVD of 1929. Prior to Dec. 20, 1939, nonrecording gage at bridge 50 ft upstream at same datum.

REMARKS.--Records good except those for periods of discharge over 500 ft³/s, which are fair, and estimated daily discharges, which are poor (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	76	115	106	e95	192	221	135	444	185	154	133
2	71	100	107	117	e98	209	210	132	356	182	151	141
3	74	162	108	113	e98	158	200	130	317	182	160	131
4	74	513	106	105	e98	140	191	129	290	220	248	128
5	74	456	110	e100	e98	391	184	127	276	199	189	126
6	73	168	108	e110	e98	322	181	126	271	189	160	126
7	72	131	106	e100	e98	203	177	126	263	209	153	125
8	71	116	108	e100	e98	174	172	126	252	192	152	123
9	72	105	110	e100	e99	159	167	129	242	184	152	123
10	72	105	197	e100	e99	150	162	132	239	192	148	123
11	72	105	215	e100	e99	151	156	169	307	180	146	121
12	75	104	e170	e100	e98	133	153	139	339	181	146	120
13	78	97	e180	e100	e98	140	150	135	290	174	142	118
14	86	95	e160	e100	e97	146	149	171	257	167	140	118
15	86	95	e140	e100	e97	141	147	159	245	162	138	123
16	77	95	e120	e98	e97	132	147	139	232	169	136	153
17	76	94	e110	e96	e97	134	165	134	335	283	140	131
18	77	98	e110	e96	e97	137	162	194	274	200	143	123
19	77	97	e110	e96	e100	136	150	175	241	180	143	120
20	76	93	e100	e95	e130	136	149	154	226	175	139	118
21	77	91	e120	e94	e240	131	193	182	225	185	134	118
22	76	90	e110	e94	e230	126	177	860	242	209	132	117
23	76	277	e110	e92	e270	127	154	1,660	220	180	133	117
24	77	333	e100	e92	e400	141	147	1,760	218	169	135	117
25	89	169	e100	e92	e230	160	154	926	226	165	152	117
26	82	144	e110	e91	e200	432	158	554	210	160	146	116
27	78	133	e120	e91	e200	402	145	399	202	157	173	116
28	79	128	e120	e92	184	292	142	342	200	154	150	115
29	78	120	e120	e93	187	314	140	333	195	154	150	114
30	78	118	118	e93	---	257	134	488	189	169	141	115
31	78	---	115	e93	---	236	---	587	---	168	136	---
TOTAL	2,372	4,508	3,833	3,049	4,130	6,102	4,937	10,952	7,823	5,675	4,662	3,686
MEAN	76.5	150	124	98.4	142	197	165	353	261	183	150	123
MAX	89	513	215	117	400	432	221	1,760	444	283	248	153
MIN	71	76	100	91	95	126	134	126	189	154	132	114
CFSM	0.35	0.68	0.56	0.45	0.64	0.89	0.74	1.60	1.18	0.83	0.68	0.56
IN.	0.40	0.76	0.65	0.51	0.70	1.03	0.83	1.84	1.32	0.96	0.78	0.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	113	120	110	125	165	255	197	169	176	153	122	119
MAX	252	311	278	354	597	574	547	584	450	885	303	332
(WY)	(1985)	(1962)	(1983)	(1960)	(1948)	(1950)	(1959)	(1973)	(2000)	(1993)	(1993)	(1981)
MIN	54.9	55.8	47.6	46.4	52.1	62.7	71.5	54.5	59.6	48.2	43.7	44.6
(WY)	(1965)	(1965)	(1959)	(1959)	(1959)	(1957)	(1957)	(1958)	(1958)	(1958)	(1958)	(1958)

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1939 - 2004
ANNUAL TOTAL	37,186	61,729	152
ANNUAL MEAN	102	169	338
HIGHEST ANNUAL MEAN			70.4
LOWEST ANNUAL MEAN			1958
HIGHEST DAILY MEAN	513	Nov 4	1,760
LOWEST DAILY MEAN	68	Aug 28	71
ANNUAL SEVEN-DAY MINIMUM	69	Sep 5	72
MAXIMUM PEAK FLOW			May 24
MAXIMUM PEAK STAGE			13.62
INSTANTANEOUS LOW FLOW			70
ANNUAL RUNOFF (CFSM)	0.461	0.763	(b)11,700
ANNUAL RUNOFF (INCHES)	6.26	10.39	16.54
10 PERCENT EXCEEDS	138	257	9.34
50 PERCENT EXCEEDS	91	136	237
90 PERCENT EXCEEDS	73	92	113
			66

(a) Also occurred Sept. 1, 22, 23, 29, Oct. 2, 6, 1958, and Dec. 19, 20, 1964

(b) Gage height, 15.74 ft

(c) Also occurred Oct. 7-11

(d) Result of freezeup

(e) Estimated due to ice effect or missing record

ROCK RIVER BASIN

05434500 PECATONICA RIVER AT MARTINTOWN, WI

621

LOCATION.--Lat 42°30'34", long 89°47'58", in NE ¼ SE ¼ sec.32, T.1 N., R.6 E., Green County, Hydrologic Unit 07090003, on right bank about 400 ft downstream from highway bridge in Martintown, 0.3 mi upstream from Wisconsin-Illinois State line and 8.8 mi downstream from Skinner Creek.

DRAINAGE AREA.--1,034 mi².

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1308: 1949-50(M). WDR WI-71-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 757.83 ft above NGVD of 1929. Prior to Jan. 6, 1940, nonrecording gage at same site and datum. Auxiliary wire-weight gage 1.2 mi downstream, at same datum.

REMARKS.--Records good except those for periods of discharge above 2,000 ft³/s, which are fair, and estimated daily discharges, which are poor (see page 11). Diurnal fluctuation at low flow may occur from powerplant operations in Argyle, 28.2 mi upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267	322	571	549	e370	1,100	1,250	632	2,930	1,130	868	682
2	265	346	547	519	e380	1,070	1,140	619	3,010	1,090	836	654
3	272	499	521	520	e400	1,040	1,060	609	3,030	1,090	813	642
4	274	1,030	506	526	e400	923	1,000	596	2,880	1,300	882	626
5	281	1,470	509	464	e400	1,410	949	584	2,610	1,330	1,030	610
6	283	1,660	516	e430	e400	1,880	905	576	2,230	1,300	1,030	604
7	286	1,320	518	e470	e390	1,870	875	572	1,900	1,320	885	599
8	284	855	508	e450	e390	1,450	844	602	1,690	1,340	809	586
9	281	658	509	e440	e390	1,120	820	649	1,550	1,240	789	580
10	278	571	743	e430	e390	966	790	659	1,460	1,170	781	585
11	274	536	1,090	e420	e390	883	762	689	1,540	1,180	764	577
12	280	522	1,010	e420	e390	816	737	719	2,020	1,200	747	568
13	288	505	744	e420	e390	762	715	714	2,080	1,190	736	560
14	316	484	955	e420	e390	735	700	707	2,000	1,130	718	551
15	332	469	1,030	e420	e380	741	690	760	1,870	1,050	700	550
16	338	460	873	e410	e380	739	677	761	1,760	998	687	606
17	326	455	722	e400	e380	702	677	680	2,040	998	680	660
18	302	471	729	e400	e380	691	711	675	2,190	1,090	684	654
19	299	491	689	e400	e380	699	732	718	2,200	1,110	685	591
20	299	476	600	e400	e410	696	703	783	2,040	1,010	691	560
21	300	455	707	e390	e600	682	849	719	1,800	1,000	674	550
22	300	438	755	e380	e1,000	662	917	1,420	1,700	1,150	653	540
23	300	466	641	e370	e1,600	639	888	2,340	1,600	1,170	639	534
24	298	851	571	e370	e1,800	665	794	2,830	1,500	1,070	647	529
25	316	1,250	546	e370	e1,900	767	743	4,140	1,430	974	659	527
26	341	1,030	735	e370	e1,900	981	733	5,380	1,390	921	701	530
27	347	798	851	e370	e1,800	1,370	729	5,320	1,320	888	736	527
28	331	694	632	e380	e1,600	1,640	703	4,570	1,260	865	786	514
29	324	640	589	e380	1,410	1,630	668	3,680	1,220	837	819	514
30	326	602	651	e370	---	1,540	647	3,070	1,180	862	766	523
31	325	---	604	e370	---	1,410	---	2,920	---	887	725	---
TOTAL	9,333	20,824	21,172	13,028	21,390	32,279	24,408	49,693	57,430	33,890	23,620	17,333
MEAN	301	694	683	420	738	1,041	814	1,603	1,914	1,093	762	578
MAX	347	1,660	1,090	549	1,900	1,880	1,250	5,380	3,030	1,340	1,030	682
MIN	265	322	506	370	370	639	647	572	1,180	837	639	514
CFSM	0.29	0.67	0.66	0.41	0.71	1.01	0.79	1.55	1.85	1.06	0.74	0.56
IN.	0.34	0.75	0.76	0.47	0.77	1.16	0.88	1.79	2.07	1.22	0.85	0.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	538	590	520	579	802	1,349	966	833	879	795	587	575
MAX	1,226	2,429	1,492	2,049	2,512	3,155	2,943	3,200	2,804	5,190	1,752	1,920
(WY)	(1987)	(1962)	(1983)	(1960)	(1953)	(1950)	(1960)	(1973)	(2000)	(1993)	(1993)	(1965)
MIN	187	211	162	147	182	259	328	234	233	181	167	166
(WY)	(1957)	(1965)	(1959)	(1959)	(1959)	(1957)	(1957)	(1958)	(1965)	(1965)	(1958)	(1958)

SUMMARY STATISTICS FOR 2003 CALENDAR YEAR FOR 2004 WATER YEAR WATER YEARS 1940 - 2004

ANNUAL TOTAL	173,784		324,400		
ANNUAL MEAN	476		886		
HIGHEST ANNUAL MEAN					751
LOWEST ANNUAL MEAN					1,720
HIGHEST DAILY MEAN	1,660	Nov 6	5,380	May 26	14,600
LOWEST DAILY MEAN	251	Sep 11	265	Oct 2	132
ANNUAL SEVEN-DAY MINIMUM	255	Sep 6	275	Oct 1	140
MAXIMUM PEAK FLOW			5,530	May 26	15,100
MAXIMUM PEAK STAGE			16.41	May 26	21.46
INSTANTANEOUS LOW FLOW					0.00
ANNUAL RUNOFF (CFSM)	0.460		0.857		0.726
ANNUAL RUNOFF (INCHES)	6.25		11.67		9.86
10 PERCENT EXCEEDS	786		1,630		1,330
50 PERCENT EXCEEDS	430		691		540
90 PERCENT EXCEEDS	280		370		261

(e) Estimated due to ice effect or missing record

05435943 BADGER MILL CREEK AT VERONA, WI

LOCATION.--Lat 42°58'37", long 89°32'22", in NW ¼ SW ¼ sec.22, T.6 N., R.8 E., Dane County, Hydrologic Unit 07090004, on left bank 60 ft downstream of Bruce Street, 0.8 mi southwest of intersection of State Highway 69 and County Trunk Highway M, at Verona.

DRAINAGE AREA.--20.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 930 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair (see page 11). Gage-height and water-quality telemeter at station. Effluent discharged into creek continuously at an average rate of 3.0 ft³/s (data provided by Madison Metropolitan Sewerage District).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	5.6	7.5	7.2	7.0	16	9.2	8.6	14	10	14	21
2	5.4	21	7.5	7.3	7.1	13	9.1	8.4	10	10	13	14
3	5.5	48	7.6	7.1	7.0	9.7	8.9	8.4	8.7	16	16	10
4	5.4	204	7.6	7.1	7.0	10	8.8	8.3	8.1	31	20	9.6
5	5.3	44	7.7	7.1	7.0	67	8.9	8.1	7.8	15	15	9.4
6	5.4	13	7.5	7.1	7.0	22	9.1	8.1	7.7	13	13	9.6
7	5.4	9.8	7.6	7.1	6.9	12	9.0	8.0	7.5	13	12	9.3
8	5.5	8.5	7.6	7.1	7.0	9.4	8.8	8.3	7.2	12	12	9.2
9	5.6	8.1	8.9	7.1	7.0	8.8	9.1	13	7.2	15	11	9.2
10	5.7	8.1	48	7.0	6.9	8.5	9.2	12	8.8	15	11	9.4
11	6.0	8.0	19	7.2	6.9	8.2	9.4	14	14	14	11	9.5
12	6.2	7.9	11	7.0	6.9	8.0	9.4	9.7	11	13	11	9.6
13	6.1	7.6	9.1	6.9	6.8	8.0	9.3	10	8.9	13	11	9.9
14	7.1	7.6	8.6	7.0	6.8	8.0	9.6	11	8.2	13	11	10
15	6.1	7.3	8.4	7.0	6.7	7.8	9.9	10	7.6	13	11	12
16	5.9	7.4	8.1	7.0	6.7	7.8	10	9.0	8.7	20	11	11
17	6.0	7.5	7.8	7.1	6.7	8.0	11	10	15	24	12	10
18	6.1	8.8	7.7	6.9	6.8	7.9	10	15	10	16	13	9.7
19	5.9	7.7	7.6	6.8	6.8	7.9	9.9	10	8.4	14	13	9.6
20	5.9	7.6	7.6	6.9	11	7.9	11	9.0	7.7	14	12	9.7
21	6.0	7.5	7.6	7.0	9.4	7.7	12	47	8.3	16	11	9.5
22	5.7	7.4	7.5	6.9	10	7.7	11	285	7.8	15	11	9.3
23	5.7	72	7.3	6.8	13	7.8	10	325	8.8	14	11	9.4
24	7.1	32	7.2	6.7	16	8.1	10	40	12	13	12	9.3
25	6.0	12	7.2	6.8	13	9.3	10	18	12	13	11	9.1
26	5.6	9.2	7.2	6.9	15	46	9.7	14	11	13	11	9.2
27	5.7	8.3	7.3	6.8	14	16	9.2	13	11	13	15	9.1
28	5.7	7.9	7.5	6.8	14	12	9.3	10	11	13	13	9.0
29	5.7	7.8	7.2	6.8	15	12	8.9	11	11	13	12	8.9
30	5.7	7.8	7.3	6.9	---	10	8.5	31	10	18	11	8.8
31	5.5	---	7.2	6.9	---	9.4	---	25	---	17	10	---
TOTAL	180.4	619.4	292.9	216.3	261.4	401.9	288.2	1,017.9	289.4	462	381	303.3
MEAN	5.82	20.6	9.45	6.98	9.01	13.0	9.61	32.8	9.65	14.9	12.3	10.1
MAX	7.1	204	48	7.3	16	67	12	325	15	31	20	21
MIN	5.3	5.6	7.2	6.7	6.7	7.7	8.5	8.0	7.2	10	10	8.8
CFSM	0.29	1.02	0.47	0.34	0.44	0.64	0.47	1.62	0.48	0.73	0.61	0.50
IN.	0.33	1.14	0.54	0.40	0.48	0.74	0.53	1.87	0.53	0.85	0.70	0.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2004, BY WATER YEAR (WY)

MEAN	8.34	9.75	7.60	7.55	10.2	10.3	10.9	13.7	13.4	10.6	10.6	9.71
MAX	12.5	20.6	10.1	9.24	17.7	13.6	19.3	32.8	29.8	14.9	19.7	15.2
(WY)	(2002)	(2004)	(2002)	(2001)	(1997)	(1997)	(1999)	(2004)	(2000)	(2004)	(2001)	(2001)
MIN	3.55	3.28	3.25	3.67	4.74	7.30	6.34	6.39	6.93	7.94	4.53	3.76
(WY)	(1998)	(1998)	(1998)	(1998)	(1998)	(2000)	(1997)	(1997)	(1997)	(1997)	(1997)	(1997)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1997 - 2004

ANNUAL TOTAL	3,373.3	4,714.1	
ANNUAL MEAN	9.24	12.9	10.2
HIGHEST ANNUAL MEAN			12.9
LOWEST ANNUAL MEAN			7.66
HIGHEST DAILY MEAN	204	Nov 4	325
LOWEST DAILY MEAN	5.3	Oct 5	5.3
ANNUAL SEVEN-DAY MINIMUM	5.4	Sep 30	5.4
MAXIMUM PEAK FLOW			567
MAXIMUM PEAK STAGE			8.68
ANNUAL RUNOFF (CFSM)	0.455		0.634
ANNUAL RUNOFF (INCHES)	6.18		8.64
10 PERCENT EXCEEDS	10		15
50 PERCENT EXCEEDS	7.6		9.1
90 PERCENT EXCEEDS	5.9		6.8

05435943 BADGER MILL CREEK AT VERONA, WI—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1996 to current year.

DISSOLVED OXYGEN: May 1998 to current year.

INSTRUMENTATION.--Continuous water temperature recorder since November 1996. Dissolved-oxygen recorder since May 1998.

REMARKS.--Records represent water temperature at sensor within 0.5°C. Effluent discharged continuously into creek after Aug. 28, 1998.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 26.5°C, Aug. 20, 21, and 26, 2003; minimum 0.0°C on many days during winter periods of 1996-98 water years.

DISSOLVED OXYGEN: Maximum, 28.1 mg/L, Apr. 15, 2004; minimum, 1.3 mg/L, Oct. 5, 1998.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 22.5°C, July 3; minimum 0.5°C, Jan. 30.

DISSOLVED OXYGEN: Maximum, 28.1 mg/L, Apr. 15; minimum, 2.3 mg/L, Oct. 12.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.5	11.0	13.0	14.0	12.0	13.0	8.5	6.5	7.5	8.5	6.0	7.5
2	15.5	10.0	12.5	12.5	8.5	10.5	8.5	6.0	7.5	10.0	7.5	8.5
3	15.5	12.0	13.5	9.5	7.0	8.5	9.5	7.5	8.5	9.5	6.5	8.0
4	16.5	12.0	14.0	7.5	6.0	7.0	10.0	8.0	9.0	6.5	4.5	5.5
5	17.5	12.0	14.0	8.0	7.0	7.5	9.5	8.0	9.0	6.0	2.5	5.0
6	18.0	12.0	14.5	9.5	7.5	8.0	9.5	7.5	8.5	3.5	1.5	2.5
7	19.5	13.0	16.0	9.5	7.0	8.0	10.0	8.5	9.0	6.5	2.5	4.0
8	20.0	14.0	17.0	9.0	6.0	7.5	11.0	9.0	10.0	7.0	3.5	5.0
9	19.5	14.5	17.0	10.0	6.5	8.0	10.5	6.0	9.5	7.5	4.5	5.5
10	20.0	14.5	17.0	10.5	8.0	9.5	6.5	2.5	4.0	7.5	5.0	6.0
11	20.0	15.5	17.5	13.0	10.5	11.5	4.0	2.5	3.5	8.5	6.0	7.5
12	18.0	13.5	15.5	12.5	8.5	11.0	5.5	3.0	4.0	8.5	7.0	7.5
13	18.5	13.0	15.5	9.5	7.5	8.5	7.0	4.0	5.5	8.0	5.5	7.0
14	17.0	13.0	15.0	11.5	8.0	10.0	8.5	6.5	7.5	7.0	5.5	6.0
15	16.5	11.5	13.5	11.5	10.5	11.0	8.5	7.0	7.5	7.0	4.0	5.5
16	14.5	11.5	13.0	12.5	11.5	11.5	8.5	6.5	8.0	8.0	5.5	6.5
17	15.5	10.5	12.5	13.0	10.0	11.5	8.0	6.0	7.0	8.5	6.0	7.0
18	18.0	12.5	14.5	13.5	11.0	12.5	8.0	6.0	7.0	6.0	2.5	4.0
19	17.5	12.0	14.5	12.0	9.5	10.5	7.5	5.5	6.5	5.0	2.0	3.5
20	19.0	13.5	15.5	13.0	9.0	11.0	7.5	5.0	6.0	6.0	3.5	4.5
21	16.5	13.5	15.0	11.0	9.5	10.0	9.0	5.5	7.5	6.5	3.5	5.0
22	16.0	11.5	13.5	10.5	9.5	10.0	9.5	8.0	8.5	3.5	1.5	2.5
23	16.0	11.0	13.5	10.5	5.5	7.0	8.5	6.0	8.0	5.0	2.5	4.0
24	14.0	10.5	12.0	5.5	4.5	5.0	7.0	5.5	6.0	5.5	3.0	4.0
25	15.0	12.0	13.5	7.0	4.5	6.0	8.0	5.0	6.0	6.5	3.5	4.5
26	12.5	11.0	12.0	9.5	6.0	7.5	9.0	5.5	7.0	6.0	4.0	5.0
27	13.5	11.0	12.0	10.5	8.5	9.0	9.5	7.5	8.5	6.5	3.5	5.0
28	13.0	11.0	12.0	8.5	7.5	7.5	10.5	7.5	9.0	5.0	2.0	3.5
29	13.5	11.0	12.0	8.5	7.0	7.5	9.0	7.0	8.0	4.5	1.0	2.5
30	16.5	11.5	14.0	10.5	8.0	9.0	8.5	6.5	7.0	3.5	0.5	1.5
31	15.5	13.0	14.5	---	---	---	7.5	6.0	7.0	5.5	1.0	3.0
MONTH	20.0	10.0	14.2	14.0	4.5	9.2	11.0	2.5	7.3	10.0	0.5	5.1

05435943 BADGER MILL CREEK AT VERONA, WI—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.9	8.2	9.8	13.0	7.1	9.0	12.3	10.1	10.8	13.7	9.5	11.0
2	12.8	8.2	9.8	10.3	7.0	8.8	12.1	9.9	10.7	12.8	8.8	10.4
3	11.8	7.8	9.1	10.5	8.8	9.5	12.6	9.8	10.6	12.8	8.8	10.1
4	13.1	7.8	9.6	---	---	---	11.9	9.7	10.3	12.0	9.5	10.3
5	12.9	7.9	9.5	---	---	---	13.0	9.7	10.7	13.4	9.6	10.9
6	13.2	8.0	9.6	11.0	10.0	10.4	12.1	9.7	10.4	12.9	10.3	11.1
7	13.1	7.6	9.5	10.9	9.5	10.1	13.1	9.6	10.7	12.7	10.0	10.9
8	13.2	7.4	9.4	10.3	9.5	9.8	12.0	9.4	10.2	12.2	9.8	10.6
9	13.9	5.9	9.6	10.4	9.3	9.8	11.7	9.4	9.9	12.7	9.6	10.5
10	13.8	6.6	9.2	10.2	8.7	9.4	12.5	11.2	12.1	12.2	9.4	10.3
11	11.4	3.4	7.8	9.9	8.6	8.9	12.3	11.6	12.0	12.7	9.0	10.2
12	12.2	2.3	7.1	10.2	8.5	9.1	12.0	11.0	11.5	13.0	8.9	10.2
13	14.5	6.5	9.0	11.0	9.2	9.8	11.6	10.2	10.9	13.1	9.0	10.3
14	11.4	5.8	7.6	10.7	8.7	9.5	11.3	9.7	10.3	11.2	9.0	9.7
15	11.8	6.1	8.1	9.9	8.7	9.0	10.8	9.5	10.0	13.9	9.3	10.6
16	13.2	6.2	8.4	10.4	8.6	9.1	10.8	9.3	9.9	14.3	9.1	10.7
17	12.4	6.7	8.6	11.9	8.4	9.6	11.7	9.9	10.4	12.5	8.9	10
18	12.0	6.3	8.1	9.6	7.8	8.4	11.5	9.4	10.2	13.9	9.0	10.8
19	11.6	6.3	8.0	11.7	8.4	9.5	11.7	9.5	10.2	12.7	9.8	10.8
20	11.9	6.1	7.9	12.2	8.6	9.7	12.3	9.8	10.6	12.2	9.8	10.6
21	12.0	6.1	8.0	13.1	8.6	10.1	12.2	9.3	10.4	11.6	9.6	10.3
22	13.0	6.6	8.5	11.0	8.8	9.5	12.8	9.2	10.3	12.1	10.0	10.8
23	13.2	6.7	8.9	11.4	8.8	10.6	12.5	9.4	10.4	11.3	9.7	10.3
24	11.3	6.7	8.2	11.5	10.9	11.3	13.0	9.8	10.8	11.6	9.8	10.5
25	12.2	6.4	8.4	11.6	10.5	11.1	13.1	10.0	11.0	12.2	9.8	10.7
26	11.2	7.2	8.3	11.5	9.9	10.6	14.2	9.8	11.3	11.9	9.7	10.5
27	12.8	7.4	9.0	11.5	9.7	10.2	13.9	9.6	10.9	12.0	9.6	10.6
28	11.4	7.2	8.6	11.5	9.8	10.4	14.5	9.5	10.8	12.0	10.0	10.9
29	13.0	7.1	8.9	12.2	9.8	10.7	13.8	9.4	11.0	12.0	10.4	11.1
30	12.7	6.4	8.4	11.8	9.7	10.3	15.3	9.8	11.6	12.0	10.4	11.2
31	9.2	6.4	7.6	---	---	---	14.6	9.7	11.4	12.2	10.2	11.1
MONTH	14.5	2.3	8.7	13.1	7.0	9.8	15.3	9.2	10.7	14.3	8.8	10.6
	FEBRUARY			MARCH			APRIL			MAY		
1	12.5	10.1	10.9	13.1	11.0	11.5	19.4	8.6	12.5	12.5	7.5	9.3
2	12.5	9.8	10.8	13.7	11.3	12.2	21.1	8.3	12.9	11.9	7.7	9.1
3	12.7	9.9	11.1	15.2	11.8	12.8	21.3	8.3	13.0	12.5	8.0	9.6
4	13.1	10.4	11.4	16.7	11.8	13.5	23.9	8.1	13.8	11.8	7.6	9.0
5	12.3	10.1	10.9	---	---	---	24.8	7.3	14.0	11.9	7.7	9.2
6	12.4	9.5	10.5	---	---	---	26.2	7.2	13.2	9.8	7.4	8.2
7	13.4	9.5	10.8	---	---	---	24.1	7.0	13.3	12.1	7.4	9.1
8	12.9	10.1	11.1	---	---	---	22.8	6.8	12.3	11.5	7.7	8.9
9	13.0	10.0	11.0	---	---	---	25.7	8.0	14.3	10.7	7.3	8.6
10	13.3	10.0	11.1	---	---	---	25.4	7.8	14.3	10.0	7.5	8.3
11	13.9	10.2	11.3	---	---	---	24.7	8.4	14.5	9.9	7.9	8.7
12	14.5	10.0	11.4	---	---	---	26.1	8.8	15.1	11.1	7.7	9.0
13	14.3	10.2	11.7	---	---	---	26.9	8.7	15.2	9.4	7.6	8.3
14	15.0	10.2	11.7	---	---	---	27.1	7.9	15.0	10.6	8.0	9.2
15	14.5	10.3	11.8	---	---	---	28.1	7.2	14.7	12.4	8.8	10.2
16	15.6	10.4	12.2	19.0	9.3	12.7	28.0	6.9	14.4	12.7	8.6	10.2
17	15.8	10.4	12.1	18.9	9.3	12.6	25.9	6.7	13.3	12.3	6.6	9.2
18	16.4	9.7	12.1	16.0	9.1	11.7	20.1	6.6	11.0	8.7	6.4	7.4
19	16.7	9.3	11.8	21.7	9.2	14.0	18.6	6.5	11.2	10.7	7.0	8.5
20	12.4	9.2	10.8	20.9	9.0	13.1	20.4	8.1	11.5	10.6	6.8	8.3
21	15.5	10.2	11.8	22.5	10.0	14.6	17.1	7.7	10.7	10.1	6.6	7.6
22	13.7	10.7	11.6	23.2	10.2	14.6	19.2	8.3	12.3	8.0	5.8	6.4
23	14.1	10.6	11.8	24.6	9.5	15.0	19.5	7.8	12.3	7.9	6.1	6.7
24	11.9	11.1	11.4	18.6	7.8	11.8	20.1	8.1	12.1	7.8	6.4	7.4
25	13.4	11.2	11.8	15.7	7.7	10.6	13.9	8.1	10.2	8.6	7.8	8.2
26	13.0	11.1	11.7	9.4	8.6	9.0	17.2	8.6	12.0	9.2	8.2	8.6
27	13.4	10.4	11.5	10.7	8.6	9.3	17.0	8.6	11.7	9.4	8.2	8.6
28	13.0	10.6	11.4	11.4	8.6	9.4	15.4	7.2	10.6	9.5	8.2	8.8
29	13.2	10.8	11.6	14.1	8.9	10.7	14.2	7.3	9.7	9.9	8.4	9.0
30	---	---	---	15.4	8.9	11.0	10.9	7.2	8.6	9.3	7.3	8.2
31	---	---	---	18.2	8.6	12.2	---	---	---	8.4	7.4	7.9
MONTH	16.7	9.2	11.4	24.6	7.7	12.1	28.1	6.5	12.7	12.7	5.8	8.6

ROCK RIVER BASIN

05436500 SUGAR RIVER NEAR BRODHEAD, WI

627

LOCATION.--Lat 42°36'42", long 89°23'53", in SW ¼ sec.26, T.2 N., R.9 E., Green County, Hydrologic Unit 07090004, on left bank at downstream side of highway bridge, 1.2 mi southwest of Brodhead, and 1.9 mi upstream from Sylvester Creek.

DRAINAGE AREA.--523 mi².

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge only for January and February 1914 published in WSP 1308.

REVISED RECORDS.--WSP 1238: 1914-16, 1918, 1922, 1927, 1933. WSP 1508: 1916-17(M), 1919(M), 1920, 1921(M), 1927-28(M), 1930(M), 1931, 1936(M), 1943(M). WDR WI-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 768.14 ft above NGVD of 1929. Prior to Oct. 17, 1938, nonrecording gage 20 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor (see page 11). Some regulation from dam and non-operational powerplant upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	198	332	314	e200	453	551	323	1,540	449	454	331
2	162	233	320	310	e200	501	492	319	1,630	421	409	319
3	169	347	309	311	e210	536	453	312	1,360	434	392	320
4	173	670	306	306	e220	496	422	305	1,040	661	503	317
5	176	879	310	e260	e220	747	402	296	817	810	546	304
6	183	985	309	e300	e220	945	387	293	699	853	520	300
7	199	1,000	305	e280	e220	1,060	375	290	640	802	443	303
8	175	760	304	e260	e220	976	368	298	603	675	378	298
9	173	482	308	e250	e220	656	359	299	567	592	381	291
10	170	395	442	e240	e220	499	352	321	560	599	374	286
11	169	361	646	e230	e220	455	336	392	627	596	365	286
12	171	355	646	e230	e220	420	332	417	769	536	355	281
13	192	338	610	e230	e220	392	329	393	861	492	349	275
14	198	325	515	e230	e220	389	324	376	901	460	341	269
15	203	314	497	e230	e220	378	319	393	893	434	336	278
16	203	310	466	e230	e210	369	313	399	743	457	329	296
17	191	302	406	e230	e210	363	324	364	756	540	329	303
18	187	318	380	e220	e220	363	355	368	784	573	332	293
19	186	357	365	e220	e230	361	353	410	765	514	331	279
20	186	373	334	e210	e240	364	342	417	670	453	328	270
21	185	344	339	e210	e270	355	464	393	597	432	322	264
22	184	323	378	e210	e350	349	515	1,090	612	469	315	260
23	183	339	341	e210	e500	340	491	1,890	603	493	309	257
24	186	407	330	e210	e600	351	414	3,230	560	450	309	255
25	205	512	292	e210	e680	368	394	4,080	539	419	314	251
26	225	527	306	e210	e750	447	386	2,860	532	401	326	250
27	218	452	339	e210	e650	598	374	1,950	506	387	334	248
28	209	392	339	e210	e550	755	354	1,390	480	372	359	246
29	203	359	337	e200	464	839	337	1,060	496	358	384	244
30	203	344	336	e200	---	737	325	969	467	396	373	245
31	202	---	327	e200	---	639	---	1,250	---	477	352	---
TOTAL	5,833	13,301	11,774	7,371	9,174	16,501	11,542	27,147	22,617	16,005	11,492	8,419
MEAN	188	443	380	238	316	532	385	876	754	516	371	281
MAX	225	1,000	646	314	750	1,060	551	4,080	1,630	853	546	331
MIN	162	198	292	200	200	340	313	290	467	358	309	244
CFSM	0.36	0.85	0.73	0.45	0.60	1.02	0.74	1.67	1.44	0.99	0.71	0.54
IN.	0.41	0.95	0.84	0.52	0.65	1.17	0.82	1.93	1.61	1.14	0.82	0.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2004, BY WATER YEAR (WY)

	286	309	273	293	428	651	462	381	380	305	261	297
MEAN	286	309	273	293	428	651	462	381	380	305	261	297
MAX	788	836	597	1,168	1,690	1,698	1,159	1,368	1,320	1,248	694	1,579
(WY)	(1928)	(1962)	(1929)	(1916)	(1938)	(1929)	(1993)	(1973)	(2000)	(1993)	(1924)	(1938)
MIN	126	127	120	89.4	127	181	198	140	113	117	105	106
(WY)	(1965)	(1965)	(1956)	(1956)	(1959)	(1934)	(1938)	(1934)	(1934)	(1958)	(1934)	(1958)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1914 - 2004

ANNUAL TOTAL	97,065	161,176	
ANNUAL MEAN	266	440	360
HIGHEST ANNUAL MEAN			694
LOWEST ANNUAL MEAN			172
HIGHEST DAILY MEAN	1,000	Nov 7	4,080
LOWEST DAILY MEAN	112	Sep 8	162
ANNUAL SEVEN-DAY MINIMUM	121	Sep 6	175
MAXIMUM PEAK FLOW			4,360
MAXIMUM PEAK STAGE			8.30
INSTANTANEOUS LOW FLOW			35
ANNUAL RUNOFF (CFSM)	0.508	0.842	0.689
ANNUAL RUNOFF (INCHES)	6.90	11.46	9.36
10 PERCENT EXCEEDS	406	744	587
50 PERCENT EXCEEDS	232	350	264
90 PERCENT EXCEEDS	163	210	151

(a) From rating curve extended above 7,500 ft³/s

(b) From floodmarks

(c) Estimated due to ice effect or missing record

05437500 ROCK RIVER AT ROCKTON, IL

LOCATION.--Lat 42°26'55", long 89°04'11", in SW ¼ NE ¼ sec.24, T.46 N., R.1 E., Winnebago County, Hydrologic Unit 07090005, on right bank 750 ft downstream from State Highway 75 in Rockton, 1.0 mi downstream from Pecatonica River, and at mile 156.1.

DRAINAGE AREA.--6,363 mi².

PERIOD OF RECORD.--June 1903 to July 1906, October 1906 to November 1907, January 1908 to March 1909, July 1914 to September 1919, October 1939 to current year. Published as "below mouth of Pecatonica River at Rockton" 1903-9; as "at Rockford" 1914-19. Monthly discharge only for some periods, for 1903-1950, published in WSP 1308.

REVISED RECORD.--WSP 325: 1903-9. WSP 895: 1904(M). WSP 1508: 1915, 1916-17(M). WDR IL-75-1: Drainage area. WDR IL-97-1: 1996 (Dec. 10-23).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 707.94 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1906, nonrecording gage at site 800 ft upstream at datum about 1 ft higher. Oct. 1, 1906, to Mar. 31, 1909, nonrecording gage at site 800 ft upstream at datum about 2 ft higher. July 30, 1914, to Apr. 30, 1919, nonrecording gage at site at Rockford about 21 mi downstream, at different datum. Oct. 1, 1939, to Aug. 10, 1973, at site 800 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor (see page 11). Low flow regulated by powerplant upstream from station. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1937 reached a stage of 14.6 ft (backwater from ice), from floodmark.

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	1,050	1,820	3,750	3,830	e1,900	5,530	9,140	4,850	18,000	11,900	5,630	3,930
2	1,370	2,170	3,600	3,820	e1,900	5,670	8,830	4,730	18,200	11,500	5,660	3,820
3	1,180	2,810	3,620	3,400	e1,900	5,270	8,420	4,560	18,500	11,200	5,460	3,740
4	1,140	3,790	3,710	3,250	e1,900	5,170	7,920	4,330	18,600	11,700	5,870	3,510
5	1,150	4,450	3,630	3,030	1,980	6,500	7,450	4,140	18,300	12,300	5,850	3,390
6	1,150	4,680	3,650	1,870	2,620	7,950	7,040	4,060	17,900	11,900	5,830	3,330
7	1,200	4,860	3,580	3,000	2,490	8,020	6,830	3,990	17,300	11,700	5,760	3,170
8	1,260	5,190	3,520	2,850	2,430	8,410	6,590	3,710	16,600	11,400	5,520	3,280
9	1,200	5,280	3,380	2,720	2,390	8,790	6,350	3,580	16,000	11,000	5,320	2,740
10	1,220	4,730	4,340	e2,700	2,360	8,780	6,130	3,700	15,600	10,700	5,020	2,670
11	1,200	4,130	5,280	e2,700	2,340	8,310	5,910	4,030	15,600	10,300	5,060	2,710
12	1,200	3,780	5,260	e2,600	2,180	7,480	5,760	4,530	16,700	9,930	4,940	2,530
13	1,030	3,350	e4,500	e2,600	2,120	7,130	5,590	4,740	16,800	9,620	4,930	2,690
14	1,450	3,800	e4,100	e2,500	2,040	6,880	5,400	5,130	16,300	9,250	4,620	2,860
15	1,540	3,630	e4,200	e2,400	1,980	6,570	5,240	5,360	16,100	8,920	3,790	2,740
16	1,550	3,510	e4,200	e2,300	2,010	6,590	5,070	5,340	15,800	8,630	3,760	2,730
17	1,620	3,440	e4,000	e2,200	2,020	6,570	5,090	5,350	16,000	8,620	3,700	2,830
18	1,720	3,430	e3,900	e2,200	1,960	6,420	4,980	5,640	16,300	8,520	3,830	2,840
19	1,660	3,790	e3,800	e2,100	1,950	6,140	4,610	5,890	15,900	8,220	3,700	2,730
20	1,660	3,540	e3,900	e2,100	2,000	6,260	4,800	5,980	15,600	8,000	3,680	2,700
21	1,590	3,810	4,190	e2,000	2,080	6,160	5,380	6,260	15,500	7,900	3,270	2,450
22	1,570	3,810	4,190	2,090	2,280	6,040	5,520	8,990	15,600	7,790	3,340	2,250
23	1,590	3,690	3,820	e2,100	3,030	5,850	5,790	11,900	15,200	7,820	3,220	2,220
24	1,600	3,330	3,690	e2,100	3,970	5,980	5,780	13,100	14,900	7,580	3,030	2,100
25	1,660	3,280	3,330	e2,100	4,170	6,140	5,740	13,500	14,700	7,380	2,890	1,980
26	1,690	3,700	3,320	e2,100	4,440	7,050	5,440	14,400	14,200	7,000	3,260	2,250
27	1,460	4,340	3,450	e2,000	4,570	8,100	5,280	15,700	13,700	6,680	3,420	2,260
28	2,020	4,390	3,660	e2,000	4,830	8,430	5,060	16,200	13,300	6,340	3,720	2,250
29	2,070	4,120	3,670	e1,900	5,290	8,810	4,800	16,200	12,800	6,040	3,810	2,260
30	2,090	3,890	3,960	e1,900	---	9,010	4,780	16,400	12,300	5,840	3,790	2,190
31	2,060	---	3,950	e1,900	---	9,240	---	17,200	---	5,730	4,040	---
TOTAL	45,950	114,540	121,150	76,360	77,130	219,250	180,720	243,490	478,300	281,410	135,720	83,150
MEAN	1,482	3,818	3,908	2,463	2,660	7,073	6,024	7,855	15,940	9,078	4,378	2,772
MAX	2,090	5,280	5,280	3,830	5,290	9,240	9,140	17,200	18,600	12,300	5,870	3,930
MIN	1,030	1,820	3,320	1,870	1,900	5,170	4,610	3,580	12,300	5,730	2,890	1,980
CFSM	0.23	0.60	0.61	0.39	0.42	1.11	0.95	1.23	2.51	1.43	0.69	0.44
IN.	0.27	0.67	0.71	0.45	0.45	1.28	1.06	1.42	2.80	1.65	0.79	0.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

MEAN	3,113	3,529	3,296	3,199	3,859	7,192	7,279	5,426	4,731	3,770	2,909	2,878
MAX	13,340	11,320	9,049	9,432	8,365	13,920	18,530	17,770	16,960	17,000	9,039	7,753
(WY)	(1987)	(1986)	(1983)	(1960)	(1997)	(1974)	(1993)	(1973)	(2000)	(1993)	(1993)	(1972)
MIN	857	1,100	1,004	800	1,000	1,692	2,476	1,103	1,248	1,056	793	780
(WY)	(1965)	(1940)	(1959)	(1940)	(1940)	(1954)	(1958)	(1958)	(1977)	(1965)	(1958)	(1958)

ROCK RIVER BASIN

05437500 ROCK RIVER AT ROCKTON, IL—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	1,043,806		2,057,170			
ANNUAL MEAN	2,860		5,621		4,265	
HIGHEST ANNUAL MEAN					9,484	
LOWEST ANNUAL MEAN					1,568	
HIGHEST DAILY MEAN	7,930	May 16	18,600	Jun 4	29,700	Mar 25, 1975
LOWEST DAILY MEAN	741	Sep 8	1,030	Oct 13	501	Sep 14, 1958
ANNUAL SEVEN-DAY MINIMUM	850	Sep 6	1,180	Oct 1	622	Oct 2, 1958
MAXIMUM PEAK FLOW			18,600	Jun 3	30,000	Mar 25, 1975
MAXIMUM PEAK STAGE			11.11	Jun 4	15.54	Mar 25, 1975
INSTANTANEOUS LOW FLOW			708	Oct 13		
ANNUAL RUNOFF (CFSM)	0.449		0.883		0.670	
ANNUAL RUNOFF (INCHES)	6.10		12.03		9.11	
10 PERCENT EXCEEDS	4,640		12,900		8,400	
50 PERCENT EXCEEDS	2,600		4,120		3,240	
90 PERCENT EXCEEDS	1,200		1,940		1,310	

(e) Estimated due to ice effect or missing record

ROCK RIVER BASIN

630

05438283 PISCASAW CREEK NEAR WALWORTH, WI

LOCATION.--Lat 42°31'18", long 88°39'39", in NE ¼ NE ¼ sec.25, T.1 N., R.15 E., Walworth County, Hydrologic Unit 07090006, on right bank 0.9 mi upstream from County Trunk Highway B bridge, 3.2 mi southwest of Walworth.

DRAINAGE AREA.--9.58 mi².

PERIOD OF RECORD.--September 1992 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 935 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair (see page 11). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.99	1.1	1.00	0.96	0.80	1.5	2.2	1.6	6.2	2.7	1.2	1.0
2	0.99	1.7	1.0	0.95	0.80	1.5	1.9	1.6	3.9	2.7	1.2	0.99
3	1.1	2.5	1.0	0.92	0.81	1.3	1.9	1.6	3.4	3.1	1.3	0.99
4	1.0	3.4	1.0	0.92	0.80	3.0	1.7	1.6	3.1	3.0	1.6	0.96
5	1.1	2.9	1.0	0.89	0.83	17	1.6	1.5	3.2	2.7	1.6	0.97
6	1.1	1.9	0.99	0.89	0.83	3.7	1.6	1.4	3.5	2.7	1.6	0.99
7	1.1	1.6	0.99	0.89	0.80	2.8	1.7	1.3	3.6	2.4	1.7	0.97
8	1.1	1.4	0.99	0.89	0.80	2.3	1.6	1.4	4.1	2.0	1.8	0.99
9	1.1	1.4	1.1	0.89	0.81	2.1	1.6	1.4	5.9	2.1	1.8	1.1
10	1.2	1.3	5.4	0.89	0.80	1.8	1.6	1.4	6.9	2.0	1.4	1.1
11	1.3	1.2	3.1	0.89	0.80	1.6	1.5	1.4	7.7	2.0	1.4	1.1
12	1.4	1.3	2.2	0.89	0.80	1.4	1.5	1.7	48	2.0	1.4	1.0
13	1.4	1.2	1.8	0.89	0.80	1.4	1.5	4.2	5.3	1.9	1.2	1.0
14	1.4	1.2	1.5	0.89	0.80	1.4	1.5	10	3.7	1.9	1.2	0.99
15	1.4	1.2	1.4	0.88	0.80	1.2	1.5	6.3	3.3	1.9	1.1	1.0
16	1.4	1.2	1.3	0.90	0.81	1.2	1.6	3.6	3.2	1.8	1.1	1.1
17	1.4	1.2	1.2	0.98	0.83	1.2	1.6	3.1	3.3	1.8	1.1	1.1
18	1.4	1.6	1.2	0.90	0.87	1.2	1.6	6.3	3.2	1.8	1.3	1.0
19	1.4	1.6	1.1	0.90	0.89	1.2	1.6	4.1	3.0	1.8	1.1	0.93
20	1.4	1.4	1.1	0.89	2.5	1.2	1.8	6.7	2.9	1.8	1.1	0.91
21	1.4	1.3	1.1	0.89	3.0	1.2	1.9	16	4.3	1.9	1.1	0.86
22	1.4	1.2	1.1	0.86	3.7	1.1	1.7	102	3.6	1.8	1.1	0.86
23	1.3	1.2	0.99	0.85	15	1.2	1.7	31	3.1	1.7	1.1	0.88
24	1.4	1.1	0.97	0.81	3.9	2.0	1.7	8.6	3.0	1.7	1.1	0.95
25	1.3	1.1	0.91	0.82	1.7	1.9	1.8	5.2	3.2	1.6	1.4	0.95
26	1.2	1.1	0.89	0.82	1.6	6.3	1.7	4.2	3.2	1.4	1.3	0.95
27	1.2	1.1	0.91	0.83	1.4	3.6	1.7	3.7	2.5	1.4	1.2	0.95
28	1.2	1.1	1.1	0.86	1.3	3.4	1.7	3.3	2.4	1.4	1.3	0.98
29	1.1	1.1	1.00	0.89	1.4	6.0	1.6	3.2	2.8	1.4	1.3	1.00
30	1.2	1.00	0.99	0.87	---	3.5	1.6	7.2	2.7	1.3	1.2	1.1
31	1.1	---	0.96	0.81	---	2.6	---	15	---	1.3	1.1	---
TOTAL	38.48	43.60	41.29	27.41	50.98	82.8	50.2	261.6	158.2	61.0	40.4	29.67
MEAN	1.24	1.45	1.33	0.88	1.76	2.67	1.67	8.44	5.27	1.97	1.30	0.99
MAX	1.4	3.4	5.4	0.98	15	17	2.2	102	48	3.1	1.8	1.1
MIN	0.99	1.0	0.89	0.81	0.80	1.1	1.5	1.3	2.4	1.3	1.1	0.86
CFSM	0.13	0.15	0.14	0.09	0.18	0.28	0.17	0.88	0.55	0.21	0.14	0.10
IN.	0.15	0.17	0.16	0.11	0.20	0.32	0.19	1.02	0.61	0.24	0.16	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2004, BY WATER YEAR (WY)

MEAN	2.14	2.00	1.93	2.21	4.33	3.85	3.70	3.72	8.17	2.90	2.00	2.03
MAX	3.68	3.29	4.54	5.85	13.1	12.0	12.4	8.44	17.2	6.22	4.27	4.48
(WY)	(1994)	(1993)	(1993)	(1993)	(1997)	(1993)	(1993)	(2004)	(1999)	(1993)	(1993)	(1993)
MIN	1.24	1.08	0.99	0.88	1.23	0.69	1.00	1.95	1.38	1.07	1.02	0.89
(WY)	(1996)	(1997)	(1998)	(2004)	(1995)	(1996)	(1996)	(1995)	(1995)	(1995)	(1995)	(2003)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1992 - 2004

ANNUAL TOTAL	552.02	885.63		
ANNUAL MEAN	1.51	2.42		
HIGHEST ANNUAL MEAN			3.23	
LOWEST ANNUAL MEAN			6.41	1993
HIGHEST DAILY MEAN	27	Jul 15	1.32	1995
LOWEST DAILY MEAN	0.78	Sep 9, 10	251	Feb 21, 1997
ANNUAL SEVEN-DAY MINIMUM	0.79	Sep 4	0.80	(a)Feb 1
MAXIMUM PEAK FLOW			0.80	Feb 7
MAXIMUM PEAK STAGE			345	May 22
INSTANTANEOUS LOW FLOW			8.51	May 22
ANNUAL RUNOFF (CFSM)	0.158		0.58	Mar 20
ANNUAL RUNOFF (INCHES)	2.14		(b)571	Jun 13, 1999
10 PERCENT EXCEEDS	1.8		(c)10.05	Jun 30, 1993
50 PERCENT EXCEEDS	1.3		0.58	(d)Mar 9, 1996
90 PERCENT EXCEEDS	0.97			

(a) Also occurred Feb. 2, 4, 7, 8, 10-15

(b) Gage height, 9.69 ft

(c) Discharge, 322 ft³/s

(d) Also occurred Mar. 10-12, 1996 and Mar. 20, 2004