Water-Data Report 2013

05429500 YAHARA RIVER AT MCFARLAND, WI

Rock Basin
Upper Rock Subbasin

LOCATION.--Lat 43°00′32″, long 89°18′18″ referenced to North American Datum of 1983, in SW ¼ SW ¼ sec.3, T.6 N., R.10 E., Dane County, WI, 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 mi^2 of which 36.6 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

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 and velocity meter. 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 poor. Flow regulated by dams at outlets of Lake Mendota and Lake Waubesa. The Madison Metropolitan Sewerage District diverted an average of 61.3 ft^3/s of effluent into the Badfish Creek basin during 2011 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.

05429500 YAHARA RIVER AT MCFARLAND, WI—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

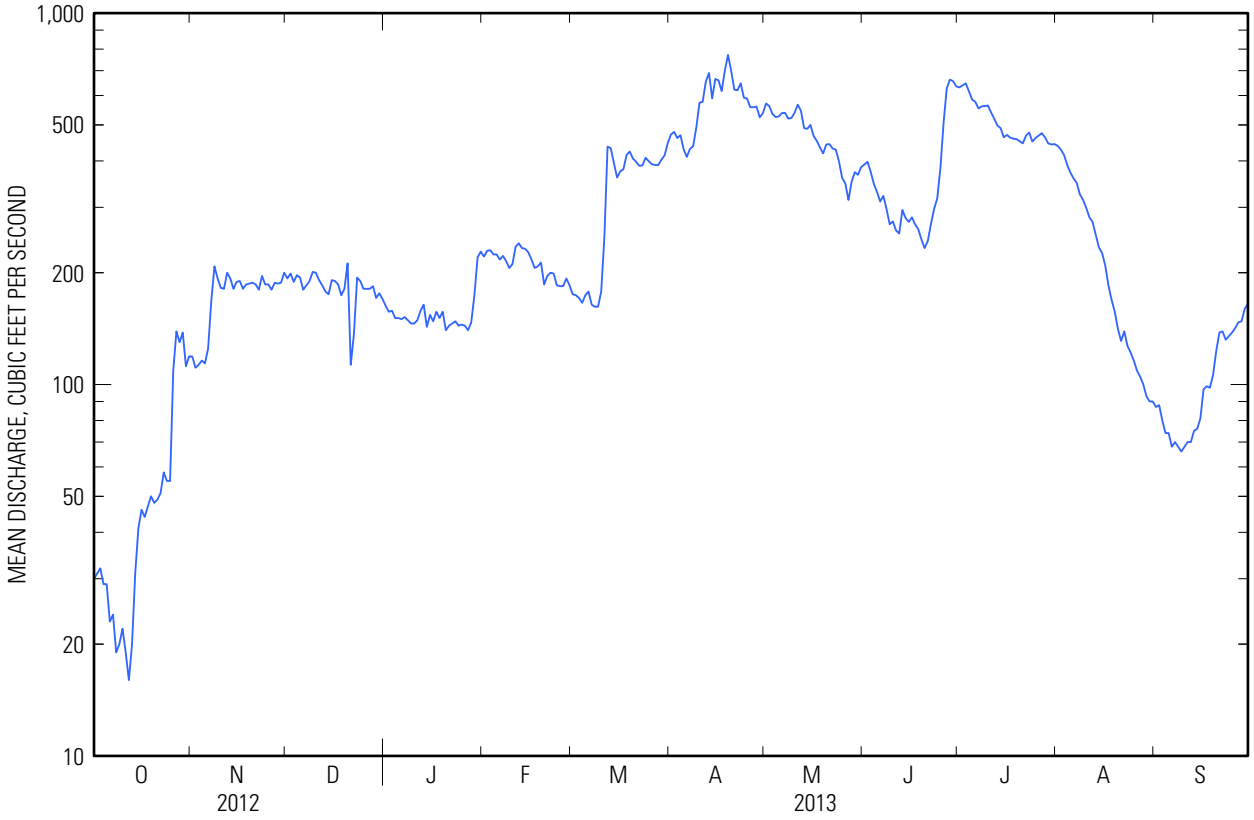
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	30	119	193	163	221	175	471	571	391	631	439	87
2	31	111	199	157	229	174	479	562	398	639	429	88
3	32	113	189	158	230	171	461	536	374	647	415	80
4	29	116	197	151	224	166	469	525	347	616	390	74
5	29	114	194	151	224	174	430	527	330	585	372	74
6	23	125	180	150	217	178	410	538	311	577	359	68
7	24	168	185	152	222	164	431	539	322	554	349	70
8	19	208	190	149	215	162	438	520	297	561	325	68
9	20	193	201	146	206	162	492	522	270	562	314	66
10	22	182	200	146	211	178	574	539	275	564	299	68
11	19	181	191	149	235	e250	577	567	260	540	282	70
12	16	200	185	158	240	e437	654	546	255	519	274	70
13	20	193	178	164	233	433	690	490	295	498	253	75
14	31	181	175	143	232	395	590	488	281	490	234	76
15	41	189	191	154	227	361	665	500	274	463	226	81
16	46	190	190	148	217	375	659	467	282	470	209	97
17	44	181	186	157	206	380	617	453	270	462	185	99
18	47	186	174	151	208	415	700	435	262	459	169	98
19	50	187	181	157	213	424	772	419	246	458	157	106
20	48	188	212	140	186	406	699	443	233	452	141	123
21	49	186	113	144	196	398	622	444	243	446	131	138
22	51	180	137	146	200	388	620	432	270	468	139	139
23	58	196	194	148	199	389	647	429	297	477	127	132
24	55	186	190	144	185	408	592	399	317	451	122	135
25	55	186	181	145	184	399	589	360	383	461	116	138
26	109	180	181	144	184	392	558	348	507	468	109	142
27	139	188	181	140	193	390	558	314	628	475	105	147
28	130	187	184	147	185	390	560	352	662	463	100	148
29	138	188	171	174	---	403	524	373	656	446	93	160
30	112	200	176	220	---	414	538	367	635	443	90	165
31	119	---	170	228	---	447	---	385	---	444	90	---
Total	1,636	5,202	5,669	4,824	5,922	9,998	17,086	14,390	10,571	15,789	7,043	3,082
Mean	52.8	173	183	156	212	323	570	464	352	509	227	103
Max	139	208	212	228	240	447	772	571	662	647	439	165
Min	16	111	113	140	184	162	410	314	233	443	90	66
Cfsm	0.18	0.60	0.63	0.54	0.73	1.11	1.96	1.60	1.21	1.75	0.78	0.35
In.	0.21	0.67	0.73	0.62	0.76	1.28	2.19	1.84	1.35	2.02	0.90	0.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	140	176	167	153	164	244	265	203	169	156	127	128
Max	427	376	421	376	363	599	719	535	690	511	478	459
(WY)	(2011)	(2010)	(2010)	(1986)	(1938)	(1937)	(1959)	(2008)	(2008)	(1993)	(1993)	(2007)
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)

05429500 YAHARA RIVER AT MCFARLAND, WI—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1930 - 2013	
Annual total	45,022		101,212			
Annual mean	123		277		174	
Highest annual mean					403	2008
Lowest annual mean					63.8	1964
Highest daily mean	[a]344	Jan 1	772	Apr 19	966	Jun 14, 2008
Lowest daily mean	16	Oct 12	16	Oct 12	1.2	Jun 27, 1979
Annual seven-day minimum	20	Oct 7	20	Oct 7	2.0	Jun 22, 1979
Maximum peak flow			[b]821	Apr 19	[c]976	Jun 14, 2008
Maximum peak stage			6.98	Jun 29	[d]7.22	Jun 16, 2008
Instantaneous low flow			8.4	Oct 14	1.2	Jun 27, 1979
Annual runoff (cfsm)	0.424		0.955		0.600	
Annual runoff (inches)	5.77		12.97		8.15	
10 percent exceeds	238		549		347	
50 percent exceeds	112		201		149	
90 percent exceeds	35		78		40	

[a] Estimated.
[b] Gage height, 5.86 ft.
[c] Gage height, 7.17 ft.
[d] Backwater.