Water-Data Report 2013

04220045 OAK ORCHARD CREEK NEAR SHELBY, NY

Southwestern Lake Ontario Basin
Oak Orchard-Twelvemile Subbasin

LOCATION.--Lat 43°10′25″, long 78°23′12″ referenced to North American Datum of 1983, Orleans County, NY, Hydrologic Unit 04130001, on right bank, at bridge on Harrison Road, 0.2 mi east of State Highway 63, 1.1 mi south of Shelby, and 4.7 mi upstream from Erie (Barge) Canal crossing at Medina.

DRAINAGE AREA.--146 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Occasional discharge measurements, water year 1976. Annual maximum only--1977-78, December 2008 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 600 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft^3/s, Mar. 13, 2011, gage height, 11.21 ft; maximum gage height, 11.33 ft, Feb. 15, 2009; minimum discharge, 1.1 ft^3/s, Aug. 26, 27, Sept. 15, 2012, gage height, 5.18 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 636 ft^3/s, Apr. 15, gage height, 10.07 ft; minimum discharge, 1.6 ft^3/s, Oct. 4, 5, 7, 8, gage height, 5.42 ft.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5.1	171	42	e94	e190	295	210	e107	121	340	65	26
2	5.4	189	43	e90	e280	390	186	104	247	410	65	26
3	4.5	203	42	e86	e310	461	176	99	278	441	84	24
4	2.7	213	40	e84	e310	e470	162	94	357	440	68	23
5	2.0	210	44	84	e290	e450	148	88	404	396	60	22
6	3.7	197	45	84	257	e430	135	82	452	372	58	22
7	2.1	178	46	85	e220	413	124	77	484	357	57	22
8	2.1	153	48	e90	193	388	112	74	495	337	57	23
9	2.2	119	50	e110	166	372	109	84	474	305	62	21
10	3.1	93	62	124	e140	374	151	86	458	267	62	21
11	6.3	85	64	131	124	384	188	101	446	230	61	21
12	11	77	69	156	126	399	299	115	417	187	63	23
13	13	73	75	218	125	406	429	133	467	150	69	24
14	17	68	79	273	e130	405	557	142	468	124	70	22
15	28	64	81	344	149	389	625	143	506	97	67	21
16	35	59	81	381	e140	368	619	134	518	79	62	20
17	36	53	79	388	e170	341	578	120	519	68	58	19
18	35	52	80	369	e180	307	531	107	507	63	54	17
19	40	50	79	335	200	274	482	94	481	78	51	16
20	42	46	78	299	201	244	424	86	444	225	47	15
21	45	46	87	e220	198	217	367	77	390	160	44	43
22	49	45	95	e160	193	191	313	69	332	159	41	47
23	48	45	100	e120	188	173	265	61	267	162	38	46
24	43	44	109	e110	179	162	233	59	206	158	36	49
25	39	43	118	e100	166	158	209	57	148	147	33	49
26	39	43	e120	e84	e150	154	183	54	111	130	32	48
27	48	42	e110	e80	e210	162	161	52	106	110	34	45
28	47	42	e100	80	236	206	145	51	154	95	33	41
29	86	42	e98	104	---	218	134	75	222	81	30	37
30	161	41	e96	163	---	218	e123	85	254	73	27	33
31	147	---	96	207	---	221	---	97	---	67	27	---
Total	1,048.2	2,786	2,356	5,253	5,421	9,640	8,378	2,807	10,733	6,308	1,615	866
Mean	33.8	92.9	76.0	169	194	311	279	90.5	358	203	52.1	28.9
Max	161	213	120	388	310	470	625	143	519	441	84	49
Min	2.0	41	40	80	124	154	109	51	106	63	27	15
Cfsm	0.23	0.64	0.52	1.16	1.33	2.13	1.91	0.62	2.45	1.39	0.36	0.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2009 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	64.3	97.9	192	238	274	406	239	178	155	84.1	40.8	17.8
Max	100	124	243	337	452	636	377	541	358	203	88.2	28.9
(WY)	(2010)	(2010)	(2010)	(2009)	(2009)	(2011)	(2011)	(2011)	(2013)	(2013)	(2009)	(2013)
Min	33.8	72.5	76.0	139	160	174	135	68.2	29.6	6.64	7.56	5.42
(WY)	(2013)	(2011)	(2013)	(2011)	(2010)	(2012)	(2012)	(2009)	(2012)	(2012)	(2012)	(2012)

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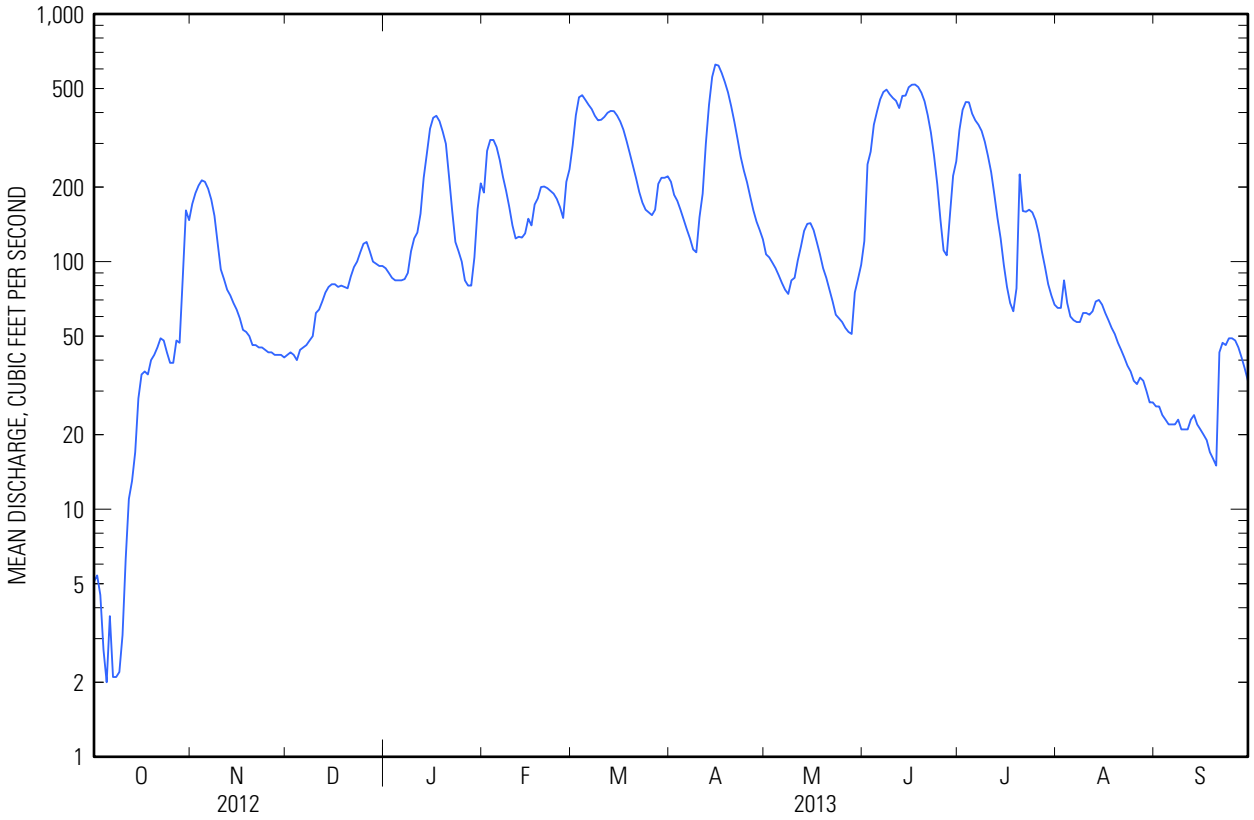
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 2009 - 2013	
Annual total	38,824.9		57,211.2			
Annual mean	106		157		162	
Highest annual mean					214	2011
Lowest annual mean					123	2012
Highest daily mean	559	Feb 3	625	Apr 15	1,090	Mar 13, 2011
Lowest daily mean	1.4	Aug 26	2.0	Oct 5	1.4	Aug 26, 2012
Annual seven-day minimum	2.3	Aug 24	2.6	Oct 4	2.3	Aug 24, 2012
Annual runoff (cfsm)	0.727		1.07		1.11	
10 percent exceeds	295		392		405	
50 percent exceeds	52		104		100	
90 percent exceeds	4.7		28		13	



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2011 to current year.
CHEMICAL DATA: Water years 2012 (c), 2013 (d).
NUTRIENT DATA: Water years 2012 (c), 2013 (d).

COOPERATION.--In cooperation with the U.S. Environmental Protection Agency's Great Lakes Restoration Initiative (GLRI).

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

[P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; --, no data; <, less than]

Begin date	Begin time	Discharge, instantaneous, ft³/s (00061)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Suspended solids, water, unfiltered, mg/L (00530)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)
10-01-2012	1300	5.3	--	2,120	13.9	1,830	25	0.061	0.17
10-16-2012	0930	27	7.8	2,160	11.2	1,870	22	.079	.15
11-06-2012	0910	180	--	1,260	3.7	989	< 15	.132	.18
12-05-2012	1425	44	7.8	1,890	6.2	1,550	< 15	.042	.12
01-07-2013	1645	86	--	714	.6	1,020	< 17	.066	.09
02-04-2013	1635	323	--	396	.1	484	< 15	.044	.09
03-05-2013	0920	452	--	340	.0	427	15	.039	< .05
04-01-2013	1255	208	--	914	7.4	660	15	.031	.10
04-11-2013	1415	197	--	809	6.1	596	25	.053	.18
05-07-2013	0730	78	--	1,190	19.0	872	< 30	.125	.65
05-22-2013	0905	88	--	1,220	23.1	913	40	.180	.32
06-03-2013	1135	275	--	653	19.4	457	< 30	.284	.36
06-17-2013	1315	518	--	660	19.7	444	< 15	.193	.24
07-01-2013	1510	359	--	654	20.4	462	< 15	.324	.38
07-15-2013	1200	111	--	--	24.6	890	39	.241	.47
08-06-2013	1325	59	--	1,500	20.4	1,190	< 15	.111	.25
08-20-2013	1730	47	--	1,660	22.4	1,340	< 15	.146	.27
09-04-2013	1435	24	--	1,630	20.3	1,300	< 15	.149	.25
09-18-2013	1050	18	--	1,800	14.1	1,530	< 15	.126	.22