Water-Data Report 2012

04231000 BLACK CREEK AT CHURCHVILLE, NY

Southwestern Lake Ontario Basin
Lower Genesee Subbasin

LOCATION.--Lat 43°06′02″, long 77°52′56″ referenced to North American Datum of 1983, Monroe County, NY, Hydrologic Unit 04130003, on right bank at east end of Carrol Street in Churchville, 100 ft downstream from mainline tracks of Penn Central Transportation Co., and 0.3 mi downstream from Black Creek Dam.

DRAINAGE AREA.--130 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WDR NY-82-3: Drainage area. WDR NY-00-3: 1998 (M), 1999 (M).

GAGE.--Water-stage recorder. Datum of gage is 551.88 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to May 1952, small diversion by Penn Central Transportation Co. and slight regulation by pumping operations upstream from station. U.S. Army Corps of Engineers, Buffalo District, telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,880 ft^3/s, Mar. 31, 1960, gage height, 9.44 ft; minimum discharge, 0.17 ft^3/s, Aug. 12, 2001; minimum gage height, 0.93 ft, Aug. 5, 6, 7, Sept. 15, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 19	0730	*782	*4.44

Minimum discharge, 1.4 ft^3/s, July 20, gage height, 1.16 ft.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 04231000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/04231000.2012.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	33	86	221	247	392	247	121	140	24	5.3	25	2.7
2	40	75	170	231	523	293	151	156	44	4.6	34	2.2
3	70	67	134	179	450	268	157	145	57	4.3	26	1.8
4	86	61	121	89	299	225	124	138	78	4.3	14	27
5	69	57	115	135	241	174	100	134	79	4.9	19	65
6	47	53	206	121	206	132	88	116	63	5.2	53	62
7	34	52	358	141	185	131	81	90	47	5.8	61	29
8	27	50	376	144	164	139	78	121	39	7.5	27	18
9	23	48	231	121	142	178	76	166	37	7.3	15	15
10	19	47	167	109	132	215	73	138	49	5.9	12	13
11	19	49	133	104	126	179	76	102	45	3.9	31	11
12	21	48	110	177	92	146	79	79	55	3.2	32	8.6
13	29	46	98	359	116	138	80	67	70	2.9	20	7.1
14	47	50	98	352	129	143	81	62	63	2.8	22	7.5
15	64	62	122	204	128	131	83	58	43	5.4	25	7.7
16	95	85	224	155	147	119	90	52	30	5.4	25	7.8
17	137	85	355	307	194	111	81	48	24	4.4	18	6.9
18	122	64	271	565	230	101	75	46	20	2.2	13	9.6
19	78	55	167	692	230	95	72	43	29	2.0	11	9.0
20	113	51	147	386	185	94	71	38	29	1.7	8.8	9.1
21	189	47	150	243	149	88	79	36	19	1.9	7.1	9.0
22	195	47	185	193	149	82	124	39	14	2.3	7.0	9.5
23	121	183	236	181	197	77	291	40	12	3.3	7.2	9.7
24	87	348	266	278	306	73	619	40	12	2.4	7.0	8.8
25	72	420	224	342	395	78	689	37	12	2.2	5.9	7.6
26	99	235	170	264	389	82	526	29	11	7.0	4.9	7.9
27	197	142	e160	390	271	74	334	26	9.6	8.5	4.6	7.3
28	279	118	e160	629	228	70	226	25	8.4	10	4.8	6.6
29	263	121	e190	574	201	74	163	24	7.9	8.3	5.2	6.1
30	153	175	207	365	---	77	131	22	6.3	6.7	4.7	8.0
31	104	---	209	296	---	86	---	20	---	7.6	3.9	---
Total	2,932	3,027	5,981	8,573	6,596	4,120	5,019	2,277	1,037.2	149.2	554.1	400.5
Mean	94.6	101	193	277	227	133	167	73.5	34.6	4.81	17.9	13.3
Max	279	420	376	692	523	293	689	166	79	10	61	65
Min	19	46	98	89	92	70	71	20	6.3	1.7	3.9	1.8
Cfsm	0.73	0.78	1.48	2.13	1.75	1.02	1.29	0.57	0.27	0.04	0.14	0.10
In.	0.84	0.87	1.71	2.45	1.89	1.18	1.44	0.65	0.30	0.04	0.16	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	44.2	78.5	134	138	191	332	255	132	65.5	29.8	22.6	29.0
Max	247	405	497	484	460	664	497	505	348	143	201	291
(WY)	(2007)	(1971)	(1978)	(1998)	(1981)	(1971)	(1947)	(2011)	(1989)	(1992)	(1992)	(2004)
Min	2.61	6.07	5.68	6.15	15.4	122	51.6	38.1	10.7	3.75	2.35	1.66
(WY)	(1964)	(1965)	(1961)	(1961)	(1958)	(1989)	(1946)	(1949)	(1949)	(1965)	(2001)	(1959)

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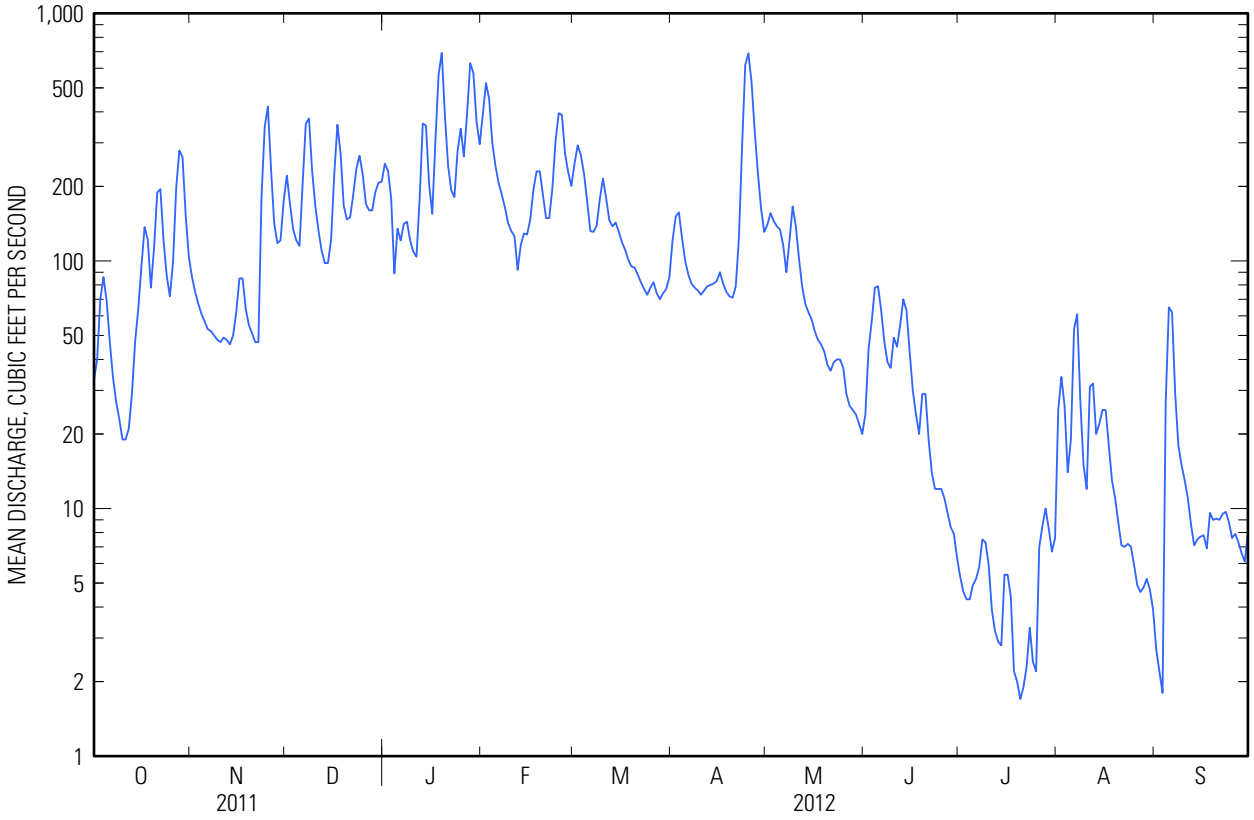
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1946 - 2012	
Annual total	70,438.8		40,666.0			
Annual mean	193		111		121	
Highest annual mean					207	1978
Lowest annual mean					52.3	1953
Highest daily mean	1,560	May 16	692	Jan 19	4,120	Mar 31, 1960
Lowest daily mean	8.9	Jul 24	1.7	Jul 20	0.17	Aug 12, 2001
Annual seven-day minimum	14	Jul 19	2.3	Jul 18	0.47	Aug 3, 1959
Annual runoff (cfsm)	1.48		0.855		0.928	
Annual runoff (inches)	20.16		11.64		12.61	
10 percent exceeds	470		265		295	
50 percent exceeds	98		76		54	
90 percent exceeds	18		6.7		7.4	



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1956, 1961, 1962, 1965-76, 1998 to current year.
CHEMICAL DATA: Water years 1954 (a), 1956 (a), 1961 (b), 1962 (e), 1965 (a), 1966-74 (d), 1975-76 (e), 1998 to 2003 (e), 2004 (d), 2005 (c), 2006 (b), 2007 (c), 2008-09 (d), 2010-12 (c).
NUTRIENT DATA: Water years 1954 (a), 1956 (a), 1961 (b), 1962 (e), 1965 (a), 1966-74 (d), 1975-76 (e), 1998 to 2003 (e), 2004 (d), 2005 (c), 2006 (b), 2007 (c), 2008-09 (d), 2010-12 (c).
SEDIMENT DATA: Water years 1975-76 (e).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1961 to September 1962.

INSTRUMENTATION.--Automatic water sampler since April 1998.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
[N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter]

Begin date	Begin time	Discharge, instanta-neous, ft^3/s (00061)	Suspended solids, water, unfiltered, mg/L (00530)	Chloride, water, filtered, mg/L (00940)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, unfiltered, mg/L as N (00630)	Orthophos-phate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)
10-12-2011	1700	19	12	77.3	0.83	0.040	1.02	0.014	0.083
01-18-2012	1005	500	8	46.9	.50	.029	1.24	.060	.061
01-19-2012	0915	773	22	47.8	.69	.063	1.44	.196	.174
02-07-2012	1620	185	6	57.2	.37	.032	2.33	.015	.035
04-04-2012	1315	80	7	64.5	.49	.033	.982	.008	.039
04-24-2012	0945	595	16	40.7	.72	.103	.622	.029	.084
07-30-2012	1400	6.9	13	78.3	1.0	.021	.077	.015	.109