Water-Data Report 2013

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY

Upper Hudson Basin
Schoharie Subbasin

LOCATION.--Lat 42°48′00″, long 74°15′46″ referenced to North American Datum of 1983, Schenectady County, NY, Hydrologic Unit 02020005, on right bank 0.4 mi south of Burtonsville, 3.3 mi north of Esperance, and about 15 mi upstream from mouth.

DRAINAGE AREA.--886 mi^2.

SURFACE-WATER RECORDS

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

REVISED RECORDS.--WDR NY-82-1: 1981(average discharge). WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 507.98 ft above NGVD of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated to some extent by Blenheim-Gilboa Pumped Storage Project about 37 mi upstream. Entire flow, runoff from 315 mi^2, except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York. For days of reservoir outflow greater than 10 ft^3/s, see station 01350101. Satellite and telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 128,000 ft^3/s, Aug. 29, 2011, gage height, 17.46 ft, from floodmark in gage house, from rating curve extended above 75,000 ft^3/s on basis of runoff comparison of peak flows from contracted-opening and flow-over-road measurement and slope-area measurement at site 3.3 mi upstream; minimum discharge, 2.4 ft^3/s, Sept. 24, 25, 1964, gage height, 0.30 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of March 1936 and September 1938 reached stages of 10.5 and 10.2 ft, respectively, from information provided by local resident. However, flood of October 1903 is known to have reached a higher stage than the 1936 or 1938 flood.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,200 ft^3/s, June 14, gage height, 6.20 ft; minimum discharge, 44 ft^3/s, Sept. 29, 30, gage height, 0.78 ft.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 01351500, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/01351500.2013.pdf

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY—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	227	3,690	315	1,290	2,760	1,740	2,600	627	2,720	2,070	81	191
2	183	2,510	285	1,020	2,290	1,260	2,350	543	1,860	1,950	78	351
3	152	1,980	214	948	1,810	988	1,700	616	2,130	1,780	79	530
4	134	1,650	220	1,060	1,540	879	1,480	587	1,720	1,460	74	431
5	129	1,400	220	967	1,280	842	1,510	519	1,580	1,360	63	276
6	132	1,200	235	934	1,180	809	1,540	481	1,330	1,210	54	199
7	127	950	221	924	983	588	1,380	444	1,820	1,170	50	150
8	122	946	237	850	950	484	1,570	397	2,570	2,120	47	131
9	112	779	338	874	756	475	1,630	349	2,070	890	129	111
10	99	588	346	889	860	674	2,410	349	1,840	522	836	107
11	93	618	626	861	931	1,180	3,880	321	5,790	529	323	101
12	86	555	624	972	e917	4,900	4,880	308	6,240	394	192	105
13	82	649	503	1,680	895	8,040	6,070	276	8,500	298	295	153
14	96	1,200	465	3,580	897	5,660	4,510	249	19,700	262	1,080	139
15	120	1,360	422	3,300	884	3,770	3,530	236	14,500	230	496	119
16	124	1,050	396	3,220	876	3,090	2,970	234	6,860	202	297	103
17	115	852	403	2,940	843	2,500	3,150	223	4,290	172	211	93
18	99	776	1,510	2,250	e837	2,020	2,780	198	3,580	148	168	81
19	489	672	1,740	1,950	822	1,930	2,560	188	3,020	132	136	75
20	4,000	666	1,450	1,870	790	1,770	6,690	189	2,450	117	118	69
21	3,170	634	2,980	1,600	736	1,600	5,320	182	1,910	106	104	66
22	2,100	584	6,300	1,410	e644	1,620	3,730	840	1,700	101	92	61
23	1,490	557	4,410	984	364	1,550	3,050	1,200	1,420	157	87	55
24	1,250	501	3,170	799	264	1,390	2,690	947	1,360	413	74	53
25	1,110	490	2,550	768	291	1,520	2,380	3,320	1,410	207	68	50
26	935	492	2,000	911	298	1,550	2,050	3,930	1,110	140	65	49
27	714	468	1,980	864	533	1,770	1,760	2,450	925	110	79	48
28	379	364	1,900	780	1,790	2,040	1,750	2,100	3,230	99	162	47
29	254	465	1,750	863	---	1,880	1,600	2,410	2,700	98	151	45
30	3,930	360	1,550	1,410	---	2,040	886	5,210	1,970	100	117	44
31	5,790	---	1,390	3,880	---	2,220	---	3,920	---	93	98	---
Total	27,843	29,006	40,750	46,648	28,021	62,779	84,406	33,843	112,305	18,640	5,904	4,033
Mean	898	967	1,315	1,505	1,001	2,025	2,814	1,092	3,744	601	190	134
Max	5,790	3,690	6,300	3,880	2,760	8,040	6,690	5,210	19,700	2,120	1,080	530
Min	82	360	214	768	264	475	886	182	925	93	47	44

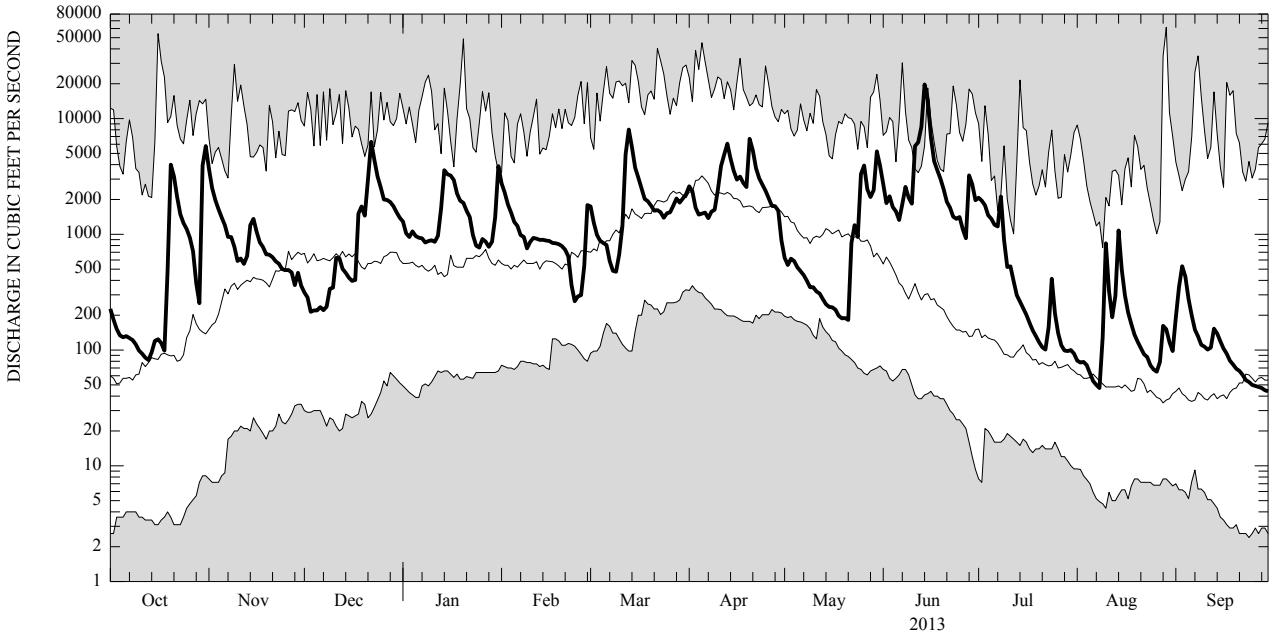
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	559	868	1,142	1,121	1,101	2,559	3,107	1,514	774	279	215	290
Max	5,181	3,414	4,753	5,089	4,069	8,194	8,446	4,045	4,171	2,312	4,067	5,080
(WY)	(1956)	(1978)	(1997)	(1996)	(1976)	(2010)	(1993)	(1984)	(2006)	(1996)	(2011)	(2011)
Min	4.07	22.4	58.8	71.3	108	525	356	140	48.8	19.4	8.26	4.90
(WY)	(1965)	(2002)	(1999)	(1981)	(1940)	(1981)	(1946)	(1941)	(1964)	(1959)	(1965)	(1964)

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1940 - 2013	
Annual total	313,544		494,178			
Annual mean	857		1,354		1,126	
Highest annual mean					2,867	2011
Lowest annual mean					320	1965
Highest daily mean	6,300	Dec 22	19,700	Jun 14	61,500	Aug 29, 2011
Lowest daily mean	18	Sep 17	44	Sep 30	2.4	Sep 24, 1964
Annual seven-day minimum	21	Sep 4	48	Sep 24	2.6	Sep 21, 1964
10 percent exceeds	2,100		3,170		2,840	
50 percent exceeds	491		850		385	
90 percent exceeds	37		99		34	



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DATA: 2013 (e).

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 2012 to current year.

REMARKS.--Point samples are collected using an automatic sampler with teflon-lined sample tubing. Tubing is housed in a 4 inch diameter galvanized pipe extending 79 ft from the gage house on right bank. A sampling method code of "SS Pumping" indicates suspended sediment sampling using a pumping mechanism. Turbidity data are collected every 15 minutes using an in-situ turbidity probe located in the same pipe adjacent to the automatic sampler intake tubing. Daily suspended-sediment load and concentration are derived from a regression equation relating turbidity to suspended-sediment concentration.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, about 1,460 mg/L, June 14; minimum daily mean, 5 mg/L or about 5 mg/L, on many days in October, July, and September.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, about 78,400 tons, June 14; minimum daily, 0.55 tons, Sept. 30.

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 1 of 2
[mg/L, milligrams per liter]

Date	Sample start time	Sampling method (82398)	Suspended sediment concen-tration, mg/L (80154)
12-19-2012	1345	SS Pumping	70
12-21-2012	1515	SS Pumping	101
12-21-2012	1915	SS Pumping	341
12-21-2012	2315	SS Pumping	577
12-22-2012	0315	SS Pumping	1,220
12-22-2012	0715	SS Pumping	570
12-22-2012	1115	SS Pumping	389
12-22-2012	1515	SS Pumping	449
12-22-2012	1915	SS Pumping	185
12-23-2012	0315	SS Pumping	163
12-23-2012	1445	SS Pumping	60
03-12-2013	1830	SS Pumping	494
03-12-2013	2130	SS Pumping	877
03-13-2013	0030	SS Pumping	1,640
03-13-2013	0330	SS Pumping	2,680
03-13-2013	0630	SS Pumping	9,720
03-13-2013	1915	SS Pumping	414
03-30-2013	1600	SS Pumping	192
04-03-2013	1600	SS Pumping	92
04-07-2013	1600	SS Pumping	226
04-11-2013	1600	SS Pumping	423
04-12-2013	2245	SS Pumping	251
04-13-2013	0200	SS Pumping	270
04-13-2013	0500	SS Pumping	206
04-13-2013	0645	SS Pumping	160
04-13-2013	2245	SS Pumping	163
04-13-2013	2315	SS Pumping	113
04-19-2013	1000	SS Pumping	27
04-20-2013	0300	SS Pumping	141
04-20-2013	1500	SS Pumping	606
04-20-2013	1800	SS Pumping	410
04-20-2013	2245	SS Pumping	107
05-10-2013	1020	SS Pumping	146
05-14-2013	1020	SS Pumping	54
05-18-2013	1020	SS Pumping	13
05-21-2013	2245	SS Pumping	5
05-25-2013	1130	SS Pumping	68
05-25-2013	2100	SS Pumping	103
05-25-2013	2145	SS Pumping	102
05-31-2013	0805	SS Pumping	270

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 2 of 2
[mg/L, milligrams per liter]

Date	Sample start time	Sampling method (82398)	Suspended sediment concen-tration, mg/L (80154)
06-07-2013	**1815**	SS Pumping	274
06-11-2013	**1645**	SS Pumping	277
06-11-2013	**2015**	SS Pumping	1,500
06-13-2013	**1730**	SS Pumping	6,190
07-10-2013	**1210**	SS Pumping	17
07-17-2013	**1210**	SS Pumping	4
07-28-2013	**1900**	SS Pumping	5
08-12-2013	**1900**	SS Pumping	26
08-15-2013	**0910**	SS Pumping	27
08-17-2013	**0100**	SS Pumping	704
08-21-2013	**0100**	SS Pumping	10
08-28-2013	**0100**	SS Pumping	6
09-01-2013	**0100**	SS Pumping	5
09-05-2013	**0100**	SS Pumping	15
09-09-2013	**0100**	SS Pumping	88
09-16-2013	**0100**	SS Pumping	83
09-28-2013	**0100**	SS Pumping	37

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY—Continued

SUSPENDED SEDIMENT CONCENTRATION, WATER, UNFILTERED, ESTIMATED BY REGRESSION EQUATION, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

[e, estimated]

Day	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)
	October		November		December		January		February		March	
1	e5	e3.1	142	1,450	28	24	e52	e180	e251	e1,940	82	388
2	e5	e2.5	e113	e772	34	26	e39	e106	e128	e796	46	160
3	e5	e2.1	e96	e516	28	17	e38	e97	e93	e458	29	78
4	e5	e1.8	e80	e358	22	13	38	108	e71	e298	26	61
5	e5	e1.7	e73	e278	18	11	33	85	e60	e209	23	53
6	e5	e1.8	e69	e223	16	10	33	83	e53	e169	22	47
7	e5	e1.7	e63	e162	14	8.3	31	77	e49	e129	22	34
8	e5	e1.6	e60	e153	13	8.6	33	76	e45	e115	20	26
9	e5	e1.5	e51	e107	12	11	e31	e74	e42	e87	20	26
10	e5	e1.3	e45	e72	10	9.5	30	73	e42	e97	37	74
11	e5	e1.3	e45	e76	14	25	31	72	e41	e103	50	161
12	e5	e1.2	e43	e65	20	34	31	80	e38	e100	276	6,650
13	e5	e1.1	43	75	24	32	52	247	e39	e93	590	14,500
14	e5	e1.3	44	145	19	24	169	1,670	e37	e90	e164	e2,660
15	e5	e1.6	49	179	16	19	102	934	e37	e88	91	928
16	e5	e1.7	45	128	14	14	57	494	e35	e82	75	631
17	e5	e1.6	44	101	14	16	48	379	e31	e71	68	456
18	e5	e1.4	37	77	73	319	44	265	e32	e75	64	347
19	72	148	35	64	101	481	38	201	e35	e78	56	292
20	397	3,990	32	57	60	233	44	222	e33	e70	54	256
21	150	1,330	33	56	314	4,430	35	152	e31	e62	50	216
22	113	646	35	55	282	4,710	32	121	e34	e63	51	222
23	97	391	33	50	97	1,160	31	82	e28	e28	50	211
24	96	325	30	41	96	819	29	64	e25	e18	44	167
25	99	296	29	38	88	611	30	61	e24	e19	42	172
26	93	236	31	41	78	422	31	75	e21	e16	43	182
27	85	164	32	41	77	413	29	69	23	38	51	246
28	75	77	32	31	90	460	25	54	51	266	57	310
29	65	45	28	36	74	351	26	61	---	---	49	247
30	317	3,840	28	27	63	264	40	171	---	---	48	266
31	223	3,510	---	---	58	219	298	3,230	---	---	58	348
Total	---	15,028.3	---	5,474	---	15,194.4	---	9,663	---	5,658	---	30,415

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY—Continued

SUSPENDED SEDIMENT CONCENTRATION, WATER, UNFILTERED, ESTIMATED BY REGRESSION EQUATION, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

[e, estimated]

Day	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)
	April		May		June		July		August		September	
1	71	502	29	49	49	363	e93	e528	13	2.7	9	4.9
2	92	582	23	33	37	186	e67	e352	12	2.5	17	17
3	57	261	21	34	44	251	e61	e297	11	2.4	22	32
4	39	156	21	33	40	190	e58	e228	10	2.1	36	41
5	38	154	21	29	31	132	e45	e166	10	1.7	37	27
6	41	171	20	26	29	104	e38	e125	9	1.4	31	17
7	41	152	19	23	31	152	e32	e102	8	1.1	23	9.5
8	39	164	19	20	43	297	e111	e646	8	0.99	19	6.8
9	54	239	19	18	43	248	e59	e153	13	10	17	5.2
10	95	649	17	16	31	155	e31	e43	37	79	16	4.5
11	157	1,650	14	13	162	2,840	24	34	75	64	13	3.4
12	126	1,800	14	12	122	2,140	15	16	101	53	11	3.0
13	170	2,870	13	9.9	e436	e17,500	11	8.6	66	53	11	4.7
14	80	978	11	7.4	e1,460	e78,400	8	5.9	66	193	11	4.2
15	e61	e587	9	6.0	e804	e34,000	6	4.0	74	98	10	3.2
16	e57	e456	8	5.2	e239	e4,700	5	3.0	65	54	9	2.5
17	58	496	8	5.0	e127	e1,480	5	2.3	32	19	9	2.1
18	53	402	7	3.8	e103	e999	5	1.9	22	10	9	1.9
19	59	426	6	3.3	85	696	5	1.7	16	5.8	8	1.7
20	292	5,430	6	3.1	74	490	5	1.6	13	4.1	8	1.5
21	121	1,810	6	2.9	68	353	5	1.4	10	2.9	8	1.4
22	70	706	e63	e155	e67	e308	5	1.4	9	2.1	8	1.3
23	57	471	51	169	e65	e250	9	4.3	7	1.7	7	1.0
24	49	355	41	105	e59	e219	15	17	7	1.3	7	0.97
25	51	326	96	977	e77	e304	12	6.6	6	1.2	8	1.1
26	48	263	163	1,790	e59	e176	16	6.0	6	1.0	7	0.88
27	46	217	63	430	e46	e115	12	3.7	6	1.3	6	0.76
28	44	206	39	219	e185	e2,010	10	2.6	8	3.4	5	0.66
29	43	187	41	288	144	1,100	11	2.8	8	3.3	5	0.60
30	37	91	194	2,770	e71	e380	13	3.5	7	2.2	5	0.55
31	---	---	78	854	---	---	14	3.4	6	1.7	---	---
Total	---	22,757	---	8,109.6	---	150,538	---	2,771.7	---	679.89	---	202.32

	Total suspended sediment discharge (tons)
Year	266,491.21