04233300 SIXMILE CREEK AT BETHEL GROVE, NY

Oswego Basin
Seneca Subbasin

LOCATION.--Lat 42°24′11″, long 76°26′07″ referenced to North American Datum of 1927, Tompkins County, NY, Hydrologic Unit 04140201, on left bank at bridge on German Cross Road in Bethel Grove, 3.4 mi southeast of Ithaca.

DRAINAGE AREA.--39.0 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--March 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 700 ft above NGVD of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft^3/s, Jan. 19, 1996, gage height, 9.78 ft, from rating curve extended above 2,700 ft^3/s on basis of slope-area measurement at gage height 8.32 ft; minimum discharge, 1.5 ft^3/s, Aug. 2, 1995.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 23	1945	*2,090	*5.41
Feb 6	0830	1,840	5.09

Minimum discharge, 6.5 ft^3/s, Sept. 25, 26, gage height, 0.31 ft.

04233300 SIXMILE CREEK AT BETHEL GROVE, NY—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	9.6	24	56	87	73	43	287	49	23	17	13	8.7
2	8.7	22	50	79	127	37	229	49	18	14	17	8.2
3	8.5	20	120	e72	67	54	150	46	16	15	16	7.9
4	7.7	19	77	e68	59	124	187	83	16	18	14	7.7
5	7.2	18	61	65	168	403	178	51	15	14	12	7.4
6	7.8	25	52	82	755	189	135	44	14	12	15	8.0
7	9.1	20	47	177	393	182	119	41	14	11	13	8.9
8	8.0	18	44	194	217	522	106	42	12	9.9	17	8.1
9	12	17	40	179	166	276	94	38	14	12	16	8.1
10	14	17	40	124	133	157	82	34	17	12	50	7.9
11	31	16	42	153	e88	128	81	32	26	9.7	73	7.3
12	48	16	245	109	81	109	86	30	13	9.3	30	13
13	23	17	122	88	104	89	72	27	11	46	22	18
14	17	16	101	87	93	129	62	25	15	38	18	14
15	14	130	83	82	79	231	55	27	26	16	16	11
16	13	150	82	71	e75	148	50	32	42	12	14	9.7
17	12	83	74	63	e70	107	46	49	30	15	13	8.8
18	12	65	62	60	229	98	43	46	23	13	12	8.4
19	33	61	56	e48	106	255	42	36	22	11	16	8.4
20	45	152	54	e45	76	379	37	29	22	36	13	7.7
21	23	110	50	e42	72	187	34	27	29	113	11	7.7
22	18	89	49	e38	64	140	31	27	28	120	10	7.7
23	50	69	499	e32	59	113	30	26	e32	72	9.8	7.0
24	75	56	360	e28	e58	96	29	23	e65	54	9.4	6.9
25	40	51	173	e24	56	86	27	21	26	42	11	7.0
26	31	140	128	e22	47	101	45	19	36	29	9.6	7.0
27	53	313	112	e22	45	98	95	19	30	25	8.7	11
28	44	120	97	e20	e44	105	74	18	23	21	8.7	42
29	35	91	139	e25	e40	86	71	16	19	18	13	22
30	29	70	104	83	---	83	55	16	18	16	12	13
31	25	---	96	60	---	164	---	26	---	15	9.7	---
Total	763.6	2,015	3,315	2,329	3,644	4,919	2,632	1,048	695	865.9	522.9	318.5
Mean	24.6	67.2	107	75.1	126	159	87.7	33.8	23.2	27.9	16.9	10.6
Max	75	313	499	194	755	522	287	83	65	120	73	42
Min	7.2	16	40	20	40	37	27	16	11	9.3	8.7	6.9
Cfsm	0.63	1.72	2.74	1.93	3.22	4.07	2.25	0.87	0.59	0.72	0.43	0.27
In.	0.73	1.92	3.16	2.22	3.48	4.69	2.51	1.00	0.66	0.83	0.50	0.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	30.9	60.8	77.0	84.2	81.2	124	113	63.4	53.4	28.0	21.0	23.6
Max	60.5	125	184	186	134	188	217	165	175	66.4	88.1	111
(WY)	(2004)	(1997)	(1997)	(1996)	(2000)	(2003)	(2005)	(1996)	(2006)	(2004)	(2004)	(2004)
Min	9.19	11.5	14.8	26.5	21.0	60.6	48.6	19.5	6.77	4.10	3.93	4.38
(WY)	(1998)	(1999)	(1999)	(2001)	(2007)	(2002)	(2006)	(1999)	(1999)	(1999)	(1999)	(1995)

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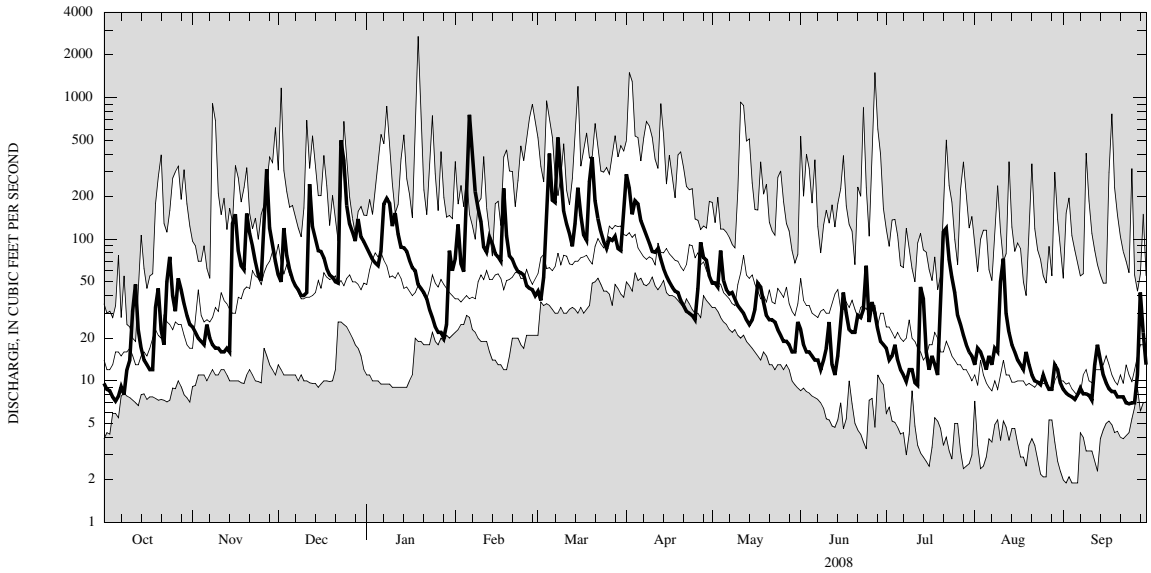
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1995 - 2008	
Annual total	22,087.0		23,067.9			
Annual mean	60.5		63.0		64.5	
Highest annual mean					88.2	2004
Lowest annual mean					38.1	1999
Highest daily mean	1,200	Mar 15	755	Feb 6	2,700	Jan 19, 1996
Lowest daily mean	5.4	Sep 7	6.9	Sep 24	1.9	Sep 2, 1999
Annual seven-day minimum	5.8	Sep 1	7.3	Sep 20	2.0	Aug 31, 1999
Annual runoff (cfsm)	1.55		1.62		1.65	
Annual runoff (inches)	21.07		22.00		22.47	
10 percent exceeds	131		139		131	
50 percent exceeds	25		38		37	
90 percent exceeds	8.4		9.7		9.0	



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.

04233300 SIXMILE CREEK AT BETHEL GROVE, NY—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SUSPENDED-SOLIDS CONCENTRATION: October 1996 to September 1998.
SUSPENDED-SOLIDS DISCHARGE: October 1996 to September 1998.
SUSPENDED-SEDIMENT CONCENTRATION: December 1998 to current year.
SUSPENDED-SEDIMENT DISCHARGE: December 1998 to current year.

INSTRUMENTATION.--Automatic water sampler since 1995.

EXTREMES FOR PERIOD OF RECORD.--
SUSPENDED-SOLIDS CONCENTRATION: Maximum daily mean, 1,480 mg/L, Nov. 8, 1996; minimum daily mean, 1 mg/L, many days during the 1998 water year.
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 7,050 tons, Nov. 8, 1996; minimum daily, 0.02 tons, several days in October 1997 and September 1998.
SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 7,190 mg/L, June 27, 2006; minimum daily mean, 1 mg/L on many days in 2004, 2005, 2007, and 2008.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 17,200 tons, June 27, 2006; minimum daily, 0.02 tons on several days in 2008.

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SUSPENDED-SEDIMENT
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

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	1	0.03	1	0.10	24	3.6	11	2.6	52	9.8	31	3.6
2	1	0.02	1	0.06	37	5.1	10	2.0	37	13	32	3.2
3	1	0.02	1	0.05	73	24	8	1.6	23	4.2	33	5.0
4	1	0.02	1	0.05	36	7.6	7	1.3	10	1.6	50	17
5	1	0.02	1	0.05	27	4.4	8	1.4	29	14	344	411
6	1	0.02	1	0.07	17	2.4	24	6.3	678	1,800	92	47
7	1	0.02	1	0.05	8	1.1	125	61	158	191	154	102
8	1	0.02	1	0.05	7	0.77	116	61	83	49	552	905
9	1	0.03	1	0.05	6	0.65	71	35	67	30	130	103
10	1	0.04	1	0.05	5	0.59	54	18	51	18	68	29
11	60	10	1	0.04	7	0.87	81	34	35	8.2	22	7.7
12	33	5.1	1	0.04	145	119	68	20	21	4.7	19	5.7
13	4	0.23	1	0.05	17	5.7	39	9.5	29	8.2	20	4.7
14	2	0.11	2	0.09	12	3.3	14	3.2	37	9.2	181	86
15	2	0.08	140	69	11	2.4	8	1.8	18	3.9	240	149
16	2	0.05	39	17	10	2.1	7	1.4	11	2.3	28	11
17	1	0.04	12	2.8	8	1.7	6	1.0	8	1.6	23	6.6
18	1	0.03	7	1.2	7	1.2	6	0.95	184	111	35	9.4
19	32	6.1	4	0.63	5	0.69	6	0.73	27	8.2	261	371
20	25	3.4	241	113	4	0.58	5	0.66	18	3.6	427	620
21	12	0.75	186	56	5	0.69	5	0.59	16	3.2	128	65
22	4	0.18	40	9.6	33	4.4	5	0.51	15	2.6	93	35
23	41	12	31	5.7	780	2,060	5	0.41	13	2.1	55	17
24	34	8.8	27	4.1	342	364	4	0.33	12	1.8	21	5.5
25	9	1.0	23	3.1	178	86	4	0.27	10	1.5	15	3.4
26	9	0.73	112	88	45	16	4	0.23	11	1.3	14	3.9
27	16	2.4	347	466	23	6.9	4	0.21	17	2.0	15	4.0
28	13	1.6	34	11	17	4.5	3	0.18	24	2.8	16	4.7
29	7	0.64	16	3.9	15	5.6	14	0.93	30	3.2	18	4.1
30	4	0.31	14	2.6	13	3.8	72	16	---	---	19	4.3
31	2	0.14	---	---	12	3.2	66	11	---	---	122	71
Total	---	53.93	---	854.43	---	2,742.84	---	294.10	---	2,312.0	---	3,114.8

04233300 SIXMILE CREEK AT BETHEL GROVE, NY—Continued

SUSPENDED-SEDIMENT
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

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	229	182	7	0.95	7	0.45	4	0.18	3	0.10	5	0.13
2	98	66	6	0.74	2	0.10	4	0.15	3	0.12	6	0.13
3	44	18	18	2.4	1	0.06	4	0.16	2	0.10	6	0.12
4	61	32	31	7.6	1	0.05	4	0.19	2	0.08	5	0.11
5	53	26	9	1.2	1	0.05	4	0.15	3	0.09	5	0.10
6	34	13	7	0.88	1	0.05	4	0.13	4	0.15	4	0.09
7	19	6.0	6	0.64	2	0.06	4	0.11	3	0.11	4	0.09
8	16	4.7	4	0.49	2	0.06	1	0.04	2	0.10	3	0.07
9	14	3.6	3	0.31	2	0.09	2	0.05	2	0.09	5	0.11
10	12	2.6	2	0.22	14	0.84	2	0.07	98	50	5	0.11
11	9	2.0	2	0.15	12	1.1	3	0.08	84	27	4	0.08
12	8	2.0	1	0.09	4	0.14	6	0.15	6	0.50	3	0.11
13	8	1.5	1	0.08	3	0.10	51	11	5	0.27	2	0.12
14	7	1.2	1	0.10	13	0.69	18	2.1	4	0.20	2	0.06
15	10	1.5	2	0.13	6	0.55	8	0.35	4	0.16	1	0.03
16	13	1.8	20	2.0	23	3.7	3	0.10	3	0.12	1	0.03
17	13	1.6	29	4.0	6	0.57	2	0.08	3	0.10	1	0.02
18	11	1.3	10	1.2	5	0.30	2	0.07	2	0.08	1	0.02
19	10	1.1	5	0.51	4	0.23	2	0.06	2	0.09	1	0.02
20	8	0.80	2	0.14	2	0.11	125	38	2	0.07	1	0.02
21	6	0.59	1	0.07	4	0.28	129	65	2	0.06	1	0.02
22	5	0.41	1	0.07	6	0.47	337	228	2	0.06	1	0.02
23	3	0.27	1	0.07	22	1.9	194	38	2	0.06	1	0.02
24	3	0.23	1	0.06	36	6.3	104	15	3	0.07	1	0.03
25	3	0.21	1	0.06	11	0.80	28	3.4	3	0.08	2	0.03
26	90	20	1	0.05	25	2.2	16	1.3	3	0.08	2	0.03
27	83	30	1	0.05	6	0.53	12	0.86	3	0.08	2	0.05
28	40	9.7	1	0.05	5	0.29	9	0.49	4	0.09	13	1.9
29	13	2.5	1	0.04	4	0.23	5	0.25	4	0.14	2	0.13
30	9	1.3	1	0.04	4	0.21	2	0.08	5	0.15	1	0.04
31	---	---	18	1.7	---	---	2	0.07	5	0.13	---	---
Total	---	433.91	---	26.09	---	22.51	---	405.67	---	80.53	---	3.84