

CHEMUNG RIVER BASIN

01518000 TIOGA RIVER AT TIOGA, PA

LOCATION.--Lat 41°54'30", long 77°07'47", Tioga County, Hydrologic Unit 02050104, on left bank 130 ft upstream from highway bridge on Township Route 667 at Tioga, 0.8 mi upstream from Crooked Creek, and 0.9 mi downstream from Tioga Dam.

DRAINAGE AREA.--282 mi².

PERIOD OF RECORD.--June 1938 to current year. Prior to October 1938 monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WSP 871: 1938.

GAGE.--Water-stage recorder. Datum of gage is 1,021.07 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 9, 1953, at site 20 ft upstream at datum 2.11 ft higher. Sept. 9, 1953, to Aug. 10, 1954, at site 130 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Discharges include flow diverted from Crooked Creek into Tioga River since Oct. 1, 1977. Flow regulated since November 1979 by Tioga Dam (station 01517900). Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	125	184	995	146	360	966	205	2770	219	1640	177
2	32	108	192	2300	174	336	2270	206	2500	169	800	2190
3	33	98	199	1110	199	302	2080	245	1250	161	533	1020
4	33	98	175	918	264	269	e1500	263	1080	134	490	1180
5	32	116	159	589	262	307	e3000	262	1080	117	964	1610
6	32	120	189	606	245	394	e2000	236	742	117	967	925
7	32	101	179	571	219	338	e1400	187	592	117	501	530
8	32	98	168	528	188	331	1140	184	1190	117	460	387
9	32	94	166	559	166	406	1030	192	606	117	1520	322
10	32	94	150	719	166	449	975	189	545	117	3160	269
11	32	94	146	643	162	531	1010	199	451	181	1240	226
12	32	129	195	529	143	539	1120	240	566	172	1540	158
13	32	189	210	429	127	577	995	245	840	141	692	154
14	32	188	601	330	126	560	676	215	657	119	481	216
15	67	e190	1100	277	141	657	586	214	441	71	350	305
16	128	e190	625	278	148	1510	588	215	312	71	299	531
17	472	e520	445	257	140	3230	574	335	262	71	301	577
18	342	712	306	236	131	3990	527	432	313	97	257	325
19	198	453	261	226	152	4020	389	370	340	109	228	171
20	164	336	1970	226	166	3280	359	292	290	103	166	169
21	127	301	1650	205	165	1280	366	271	4460	195	129	309
22	127	302	709	165	167	1230	381	271	4500	2310	129	233
23	127	328	744	141	612	3770	e450	241	2210	574	129	1710
24	110	344	634	141	723	4970	e380	278	930	1700	129	998
25	99	385	560	141	593	5080	215	402	611	932	114	465
26	195	392	522	142	375	4030	262	475	611	390	87	520
27	270	355	476	135	339	1870	262	525	446	353	87	589
28	182	296	367	121	373	1100	261	500	293	409	87	2150
29	153	246	343	131	---	1040	248	417	291	254	73	989
30	125	215	384	137	---	1190	231	378	248	180	55	659
31	125	---	419	137	---	1110	---	444	---	148	69	---
TOTAL	3497	7217	14428	13922	6812	49056	26241	9128	31427	9965	17677	20064
MEAN	113	241	465	449	243	1582	875	294	1048	321	570	669
MAX	472	712	1970	2300	723	5080	3000	525	4500	2310	3160	2190
MIN	32	94	146	121	126	269	215	184	248	71	55	154

e Estimated.

CHEMUNG RIVER BASIN

01518000 TIOGA RIVER AT TIOGA, PA--Continued

REMARKS--Those data in the first set of statistics (1978-2003) represent flow past the gage including streamflow diverted into Tioga River from the adjacent Crooked Creek Basin since October 1977, and are not equivalent to natural streamflow conditions prior to this date.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2003, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	243	405	475	489	542	933	1079	529	402	158	167	132
MAX (WY)	1454	1684	1377	1709	1716	2161	4544	1433	1404	682	1747	669
(WY)	1991	1978	1997	1996	1981	1979	1993	1989	1989	1994	1994	2003
MIN (WY)	34.5	31.2	36.2	22.7	111	238	323	136	41.5	32.5	28.4	20.8
(WY)	1999	1981	1999	1981	1989	1981	1988	2001	1991	1991	1980	1980

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1978 - 2003

ANNUAL TOTAL	147368	209434	
ANNUAL MEAN	404	574	462
HIGHEST ANNUAL MEAN			862
LOWEST ANNUAL MEAN			241
HIGHEST DAILY MEAN	5070	Jun 7	5080
LOWEST DAILY MEAN	31	Aug 10-13a	32
ANNUAL SEVEN-DAY MINIMUM	31	Sep 19	32
MAXIMUM PEAK FLOW			5400
MAXIMUM PEAK STAGE			6.60
INSTANTANEOUS LOW FLOW			b0.00
10 PERCENT EXCEEDS	897	1240	1060
50 PERCENT EXCEEDS	227	301	184
90 PERCENT EXCEEDS	32	110	39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1977, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	145	291	350	271	346	790	753	516	254	93.4	77.0	89.9
MAX (WY)	1084	1061	978	787	814	1694	2124	1534	2397	471	380	1083
(WY)	1956	1971	1974	1952	1976	1964	1958	1946	1972	1972	1947	1975
MIN (WY)	9.26	12.8	22.0	37.9	59.2	169	132	87.6	44.3	16.5	12.2	6.68
(WY)	1964	1965	1965	1961	1963	1969	1946	1941	1962	1955	1966	1964

SUMMARY STATISTICS WATER YEARS 1939 - 1977

ANNUAL MEAN	331	
HIGHEST ANNUAL MEAN	583	1972
LOWEST ANNUAL MEAN	138	1965
HIGHEST DAILY MEAN	26900	Jun 23 1972
LOWEST DAILY MEAN	5.0	Sep 11 1964
ANNUAL SEVEN-DAY MINIMUM	5.3	Sep 8 1964
MAXIMUM PEAK FLOW	d59000	Jun 22 1972
MAXIMUM PEAK STAGE	f19.70	Jun 22 1972
INSTANTANEOUS LOW FLOW	4.5	Aug 10,11 1955
ANNUAL RUNOFF (CFSM)	1.17	
ANNUAL RUNOFF (INCHES)	15.95	
10 PERCENT EXCEEDS	780	
50 PERCENT EXCEEDS	130	
90 PERCENT EXCEEDS	23	

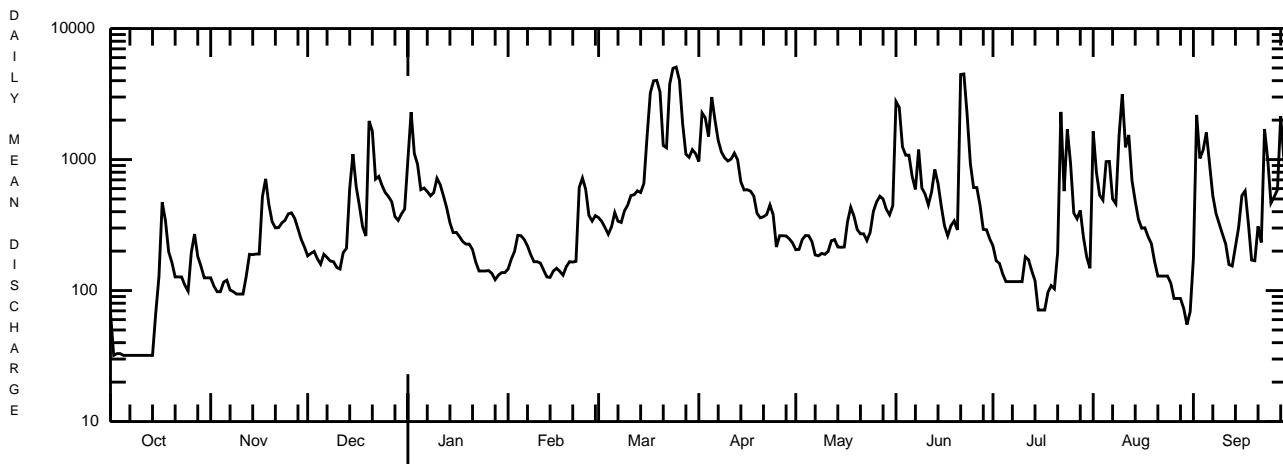
a Also Sept. 20, 21, 23-25.

b Result of shutoff at Tioga Dam.

c Also Aug. 29, 1980.

d From rating curve extended above 8,000 ft³/s on basis of slope-area and contracted-opening measurement at gage height 15.47 ft, and slope-area measurement of peak flow.

f From floodmark.



OCTOBER 1, 2002 TO SEPTEMBER 30, 2003