

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 sea level. 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.--No estimated daily discharges. Records good. 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	442	58	479	200	159	1510	363	415	235	125	59	29
2	213	58	396	193	159	1260	364	381	198	127	59	29
3	168	58	350	237	159	937	1240	386	188	128	59	29
4	149	58	337	439	159	753	3810	334	209	128	59	29
5	172	58	357	558	159	771	4320	291	304	128	52	29
6	151	62	342	369	153	665	3190	272	499	119	45	29
7	120	66	318	271	146	531	1230	265	325	111	44	29
8	120	66	260	282	145	473	1740	241	252	81	44	28
9	120	66	226	277	145	433	2950	200	183	62	44	29
10	120	66	226	380	145	413	2260	171	145	61	44	29
11	120	66	209	541	145	452	1530	171	161	62	44	29
12	108	66	197	441	145	1010	1240	202	267	64	43	30
13	91	66	197	357	176	858	915	216	328	63	43	30
14	92	66	630	237	275	646	758	217	463	63	43	30
15	114	67	1690	304	454	597	633	196	412	64	43	30
16	123	66	1010	311	444	684	579	160	306	63	43	30
17	116	66	844	228	341	1720	879	124	596	63	43	30
18	113	66	666	188	289	868	1760	157	474	63	43	30
19	105	62	561	191	280	812	1460	2140	910	62	43	30
20	94	59	485	229	267	739	1160	1140	594	51	43	33
21	76	61	488	212	248	1230	1300	960	364	40	43	35
22	76	61	471	181	267	2440	1980	1050	418	39	43	35
23	76	63	420	200	447	1130	2290	890	396	39	43	35
24	76	67	318	207	1210	1060	1510	2180	248	39	43	35
25	76	68	253	189	2500	958	1100	1580	179	39	43	35
26	76	746	245	175	3790	956	915	1200	861	39	37	35
27	68	2940	240	176	3650	1000	791	726	800	39	30	35
28	58	1160	244	167	4090	728	789	551	335	39	30	35
29	58	667	210	164	3270	579	669	546	163	46	30	35
30	58	558	196	168	---	548	550	422	123	59	29	35
31	57	---	207	159	---	473	---	280	---	59	29	---
TOTAL	3606	7657	13072	8231	23817	27234	44275	18064	10936	2165	1340	941
MEAN	116	255	422	266	821	879	1476	583	365	69.8	43.2	31.4
MAX	442	2940	1690	558	4090	2440	4320	2180	910	128	59	35
MIN	57	58	196	159	145	413	363	124	123	39	29	28

CHEMUNG RIVER BASIN

01518000 TIOGA RIVER AT TIOGA, PA--Continued

REMARKS--Those data in the first set of statistics (1978-2000) 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 - 2000, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	263	441	493	520	572	942	1100	534	360	158	160	107
MAX (WY)	1454	1684	1377	1709	1716	2161	4544	1433	1404	682	1747	386
MIN (WY)	1991	1978	1997	1996	1981	1979	1993	1989	1989	1994	1994	1996
MIN (WY)	34.5	31.2	36.2	22.7	111	238	323	140	41.5	32.5	28.4	20.8
(WY)	1999	1981	1999	1981	1989	1981	1988	1985	1991	1991	1980	1980

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1978 - 2000
ANNUAL TOTAL	124816	161338	
ANNUAL MEAN	342	441	470
HIGHEST ANNUAL MEAN			862 1978
LOWEST ANNUAL MEAN			256 1985
HIGHEST DAILY MEAN	4320 Jan 24	4320 Apr 5	8360 Jan 9 1978
LOWEST DAILY MEAN	28 Jun 12	28 Sep 8	16 Aug 26-28 1980
ANNUAL SEVEN-DAY MINIMUM	31 Aug 31	29 Sep 2	16 Jan 15 1981
INSTANTANEOUS PEAK FLOW		5210 Nov 27	14300 Nov 4 1977
INSTANTANEOUS PEAK STAGE		6.51 Nov 27	8.84 Nov 4 1977
INSTANTANEOUS LOW FLOW			a.00 Mar 6 1979b
10 PERCENT EXCEEDS	836	1130	1080
50 PERCENT EXCEEDS	98	196	187
90 PERCENT EXCEEDS	33	38	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
MIN (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

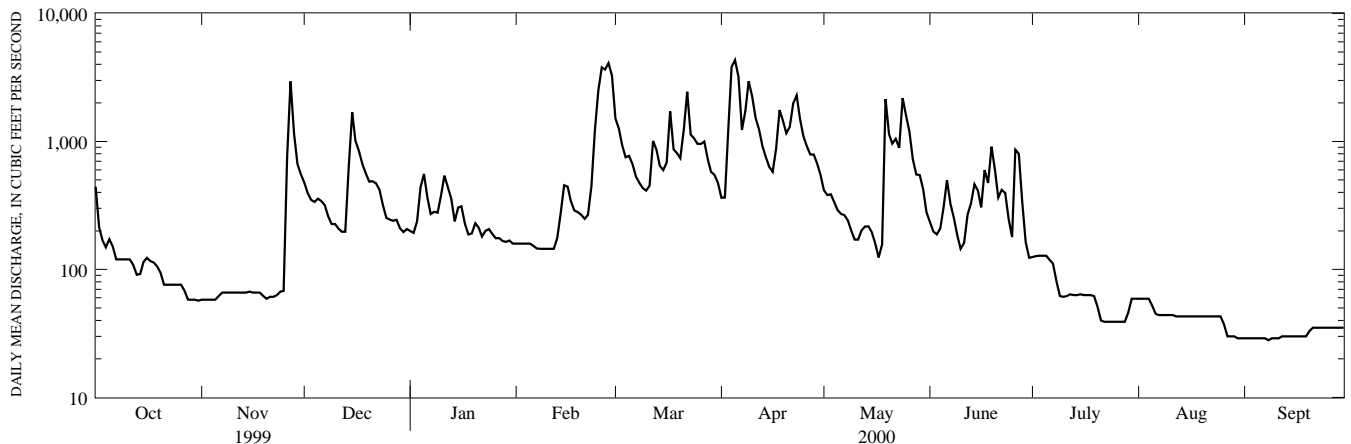
ANNUAL MEAN	331
HIGHEST ANNUAL MEAN	583 1972
LOWEST ANNUAL MEAN	138 1965
HIGHEST DAILY MEAN	26900 Jun 23 1972
LOWEST DAILY MEAN	5.0 Sep 11 1964
ANNUAL SEVEN-DAY MINIMUM	5.3 Sep 8 1964
INSTANTANEOUS PEAK FLOW	c59000 Jun 22 1972
INSTANTANEOUS PEAK STAGE	d19.70 Jun 22 1972
INSTANTANEOUS LOW FLOW	4.5 Aug 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 Result of shutoff at Tioga Dam.

b Also Aug. 29, 1980.

c 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.

d From floodmark.



1-YEAR HYDROGRAPH
OCTOBER 1, 1999 TO SEPTEMBER 30, 2000