

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°57'09", long 77°06'56", Tioga County, Hydrologic Unit 02050104, on left bank 0.3 mi upstream from bridge on Township Route 722 at Tioga Junction, 3.3 mi downstream from Crooked Creek, and 5.0 mi downstream from Tioga and Hammond Dams.

DRAINAGE AREA.--446 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 990.43 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since November 1979 by Tioga Dam (station 01517900) and Hammond Dam (station 01518498). Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1975 reached a stage of about 22.1 ft, from floodmarks, discharge, about 48,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	78	580	188	979	296	891	976	365	130	61	35
2	122	78	627	e170	1040	293	710	1110	314	101	61	35
3	121	78	391	138	729	355	673	989	e260	99	50	34
4	119	78	248	122	565	362	569	678	224	98	38	34
5	119	78	277	133	477	312	459	597	1180	79	58	34
6	120	78	312	160	462	268	407	556	5250	58	38	34
7	116	78	280	172	410	284	401	578	5920	57	38	34
8	92	77	258	155	380	272	399	544	4510	56	38	34
9	92	77	256	155	373	255	375	495	1540	64	38	34
10	92	77	234	156	377	265	357	681	801	80	37	34
11	91	77	189	158	1820	269	369	551	617	69	36	34
12	92	76	167	157	912	285	319	1210	521	68	36	35
13	92	76	192	157	701	280	311	4020	484	68	36	35
14	95	76	258	158	e530	270	477	4800	705	68	35	35
15	98	76	585	158	528	267	2000	2700	2550	59	36	35
16	98	76	566	158	604	272	999	1350	2390	46	36	40
17	99	76	464	155	569	302	748	1080	1150	43	35	34
18	117	76	1640	142	508	326	639	3190	925	44	35	33
19	132	76	1170	128	448	306	590	2640	623	44	36	33
20	132	69	734	e120	408	315	522	1320	523	43	38	32
21	130	61	690	130	422	364	482	943	409	43	35	32
22	130	61	600	156	454	381	500	959	392	53	36	34
23	130	60	521	183	443	376	413	831	351	67	36	34
24	130	59	416	211	386	376	357	694	252	68	36	33
25	126	65	356	496	337	376	348	593	214	82	35	33
26	126	177	311	388	315	1440	346	489	223	82	35	35
27	110	237	309	311	304	3820	343	399	239	67	35	90
28	92	239	285	319	300	1950	906	395	238	65	35	263
29	92	249	243	355	---	1430	2950	546	202	113	37	312
30	89	302	216	650	---	1310	1360	569	159	97	35	174
31	78	---	e190	904	---	1120	---	481	---	61	35	---
TOTAL	3458	3041	13565	7143	15781	18797	20220	36964	33531	2172	1206	1728
MEAN	111.5	101.4	437.6	230.4	563.6	606.4	674.0	1192	1118	70.06	38.90	57.60
MAX	186	302	1640	904	1820	3820	2950	4800	5920	130	61	312
MIN	78	59	167	120	300	255	311	395	159	43	35	32

e Estimated.

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	246.1	406.8	513.1	489.1	661.9	940.6	1306	607.9	436.1	174.4	168.2	117.2
MAX (WY)	1515	1626	1632	1975	1837	2009	5667	1723	1619	697	1836	368
MIN (WY)	1991	1997	1997	1996	1981	1994	1993	1989	1989	1994	1994	1996
MIN (WY)	41.4	49.0	41.5	29.5	127	259	352	151	51.4	38.4	29.6	26.3
(WY)	1992	1981	1999	1981	1989	1981	1988	2001	1980	1991	1980	1980

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1980 - 2002
ANNUAL TOTAL	119687	157606	
ANNUAL MEAN	328	432	504
HIGHEST ANNUAL MEAN			842 1994
LOWEST ANNUAL MEAN			297 2001
HIGHEST DAILY MEAN	4810	Apr 8	5920 Jun 7 7210 Apr 27 1993
LOWEST DAILY MEAN	35	Aug 13-15	32 Sep 20,21 16 Aug 26-28 1980
ANNUAL SEVEN-DAY MINIMUM	37	Aug 11	33 Sep 18 21 Jan 23 1981
MAXIMUM PEAK FLOW			a6280 Jun 6 a11200 Aug 18 1994
MAXIMUM PEAK STAGE			6.50 Jun 6 15.42 Aug 18 1994
10 PERCENT EXCEEDS	780		949 1170
50 PERCENT EXCEEDS	119		237 195
90 PERCENT EXCEEDS	59		36 48

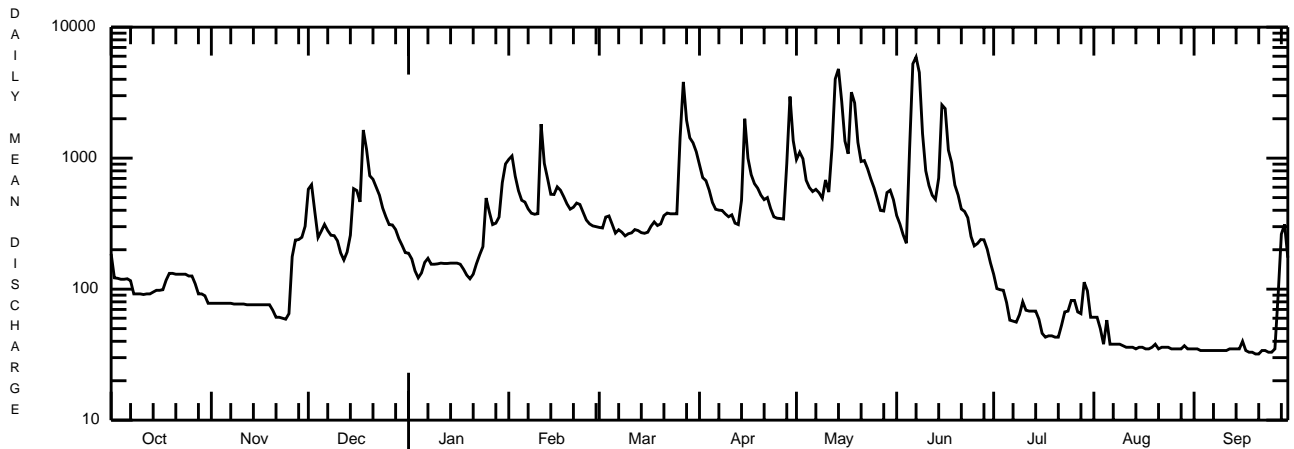
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1979, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	581	746	635	963	453	1993	1010	663	210	123	177	160
MAX (WY)	838	1764	1324	1484	597	2355	1404	1365	318	181	288	278
MIN (WY)	1978	1978	1978	1979	1977	1979	1978	1978	1978	1976	1976	1977
MIN (WY)	198	181	229	97.2	380	1478	807	311	153	78.3	65.2	80.3
(WY)	1979	1979	1977	1977	1978	1977	1979	1979	1977	1979	1979	1976

SUMMARY STATISTICS WATER YEARS 1976 - 1979

ANNUAL MEAN	643	
HIGHEST ANNUAL MEAN	955	1978
LOWEST ANNUAL MEAN	429	1977
HIGHEST DAILY MEAN	8510	Jan 9 1978
LOWEST DAILY MEAN	28	Sep 11 1977
ANNUAL SEVEN-DAY MINIMUM	32	Sep 7 1977
MAXIMUM PEAK FLOW	bc17900	Feb 25 1977
MAXIMUM PEAK STAGE	d17.20	Jan 26 1978
INSTANTANEOUS LOW FLOW	26	Feb 13, Sep 12, 1977; Feb 3, 1979.
ANNUAL RUNOFF (CFSM)	1.44	
ANNUAL RUNOFF (INCHES)	19.59	
10 PERCENT EXCEEDS	1520	
50 PERCENT EXCEEDS	232	
90 PERCENT EXCEEDS	69	

- a From rating curve extended above 6,000 ft³/s.
- b From rating curve extended above 4,000 ft³/s.
- c Gage height 16.70 ft.
- d Backwater from ice.



OCTOBER 1, 2001 TO SEPTEMBER 30, 2002

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 306-334.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	AGENCY ANA-LYZING SAMPLE (CODE NUMBER)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L) (00900)	CALCIUM TOTAL RECOV-ERABLE (MG/L) (00916)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L) (00927)	ANC WATER UNFLTRD FET LAB (MG/L) (00417)	SULFATE DIS-SOLVED (MG/L) (00945)
APR 2002 18...	1500	9813	656	30	9.6	6.7	177	14.9	56	15.2	4.3	20	31.3
JUN 24...	1045	9813	314	30	10.1	7.6	136	19.0	59	17.1	3.9	32	25.6
AUG 15...	1330	9813	37	30	8.1	7.7	218	25.0	90	25.3	6.5	36	48.1

Date	RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA TOTAL (MG/L) (00610)	NITRO-GEN, NITRATE TOTAL (MG/L) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L) (00615)	NITRO-GEN, TOTAL (MG/L) (00600)	PHOS-PHORUS ORTHO TOTAL (MG/L) (70507)	PHOS-PHORUS TOTAL (MG/L) (00665)	CARBON, ORGANIC TOTAL (MG/L) (00680)	COPPER, TOTAL RECOV-ERABLE (µG/L) (01042)	IRON, TOTAL RECOV-ERABLE (µG/L) (01045)	LEAD, TOTAL RECOV-ERABLE (µG/L) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (µG/L) (01055)
APR 2002 18...	80	<2	<.020	.33	<.040	.66	.06	.030	2.7	<10	910	<1.0	440
JUN 24...	136	4	<.020	.34	<.040	.54	.04	.020	3.6	<10	240	<1.0	270
AUG 15...	152	2	.040	.38	<.040	.58	.01	.030	2.8	<10	120	<1.0	100

Date	NICKEL, TOTAL RECOV-ERABLE (µG/L) (01067)	ZINC, TOTAL RECOV-ERABLE (µG/L) (01092)
APR 2002 18...	<50	20
JUN 24...	<50	<10
AUG 15...	<50	<10