



2004 Water Year CHEMUNG RIVER BASIN

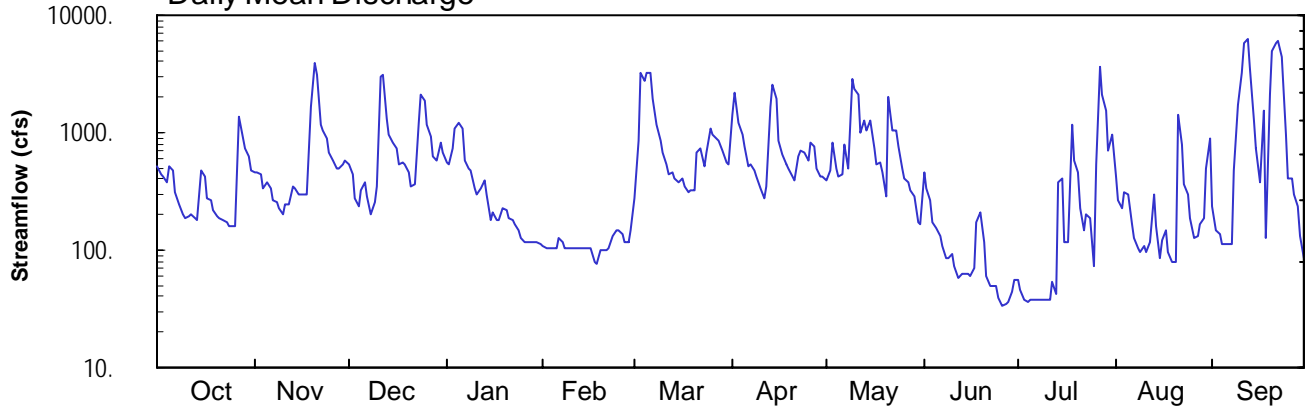
01520000 Cowanesque River near Lawrenceville, PA

Latitude: 41° 59' 48"
Tioga County

Longitude: 077° 08' 25"
Datum: 983.96 feet

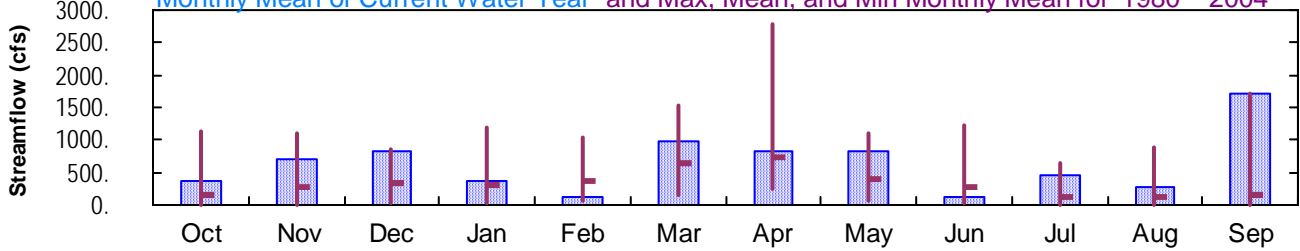
Hydrologic Unit Code: 02050104
Drainage Area: 298. mi²

Daily Mean Discharge

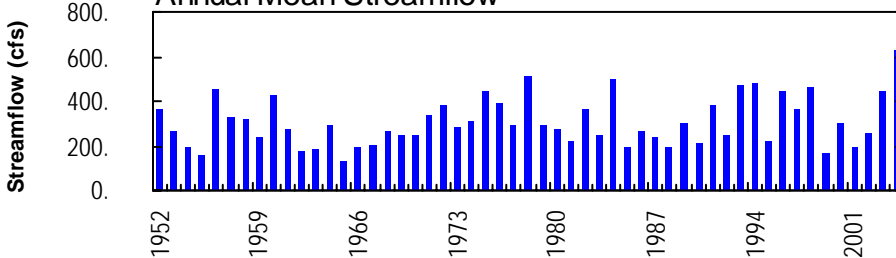


Monthly Statistics

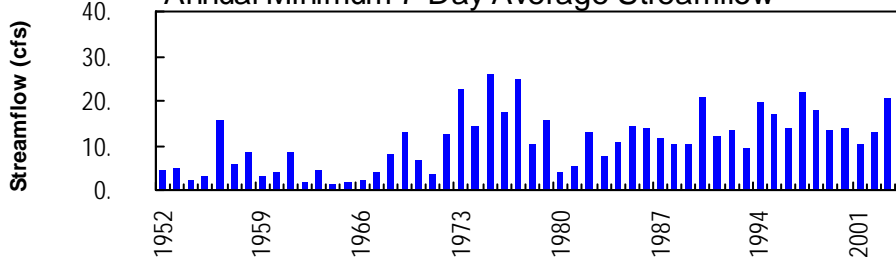
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1980 – 2004



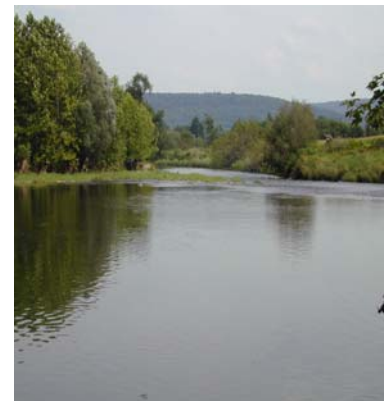
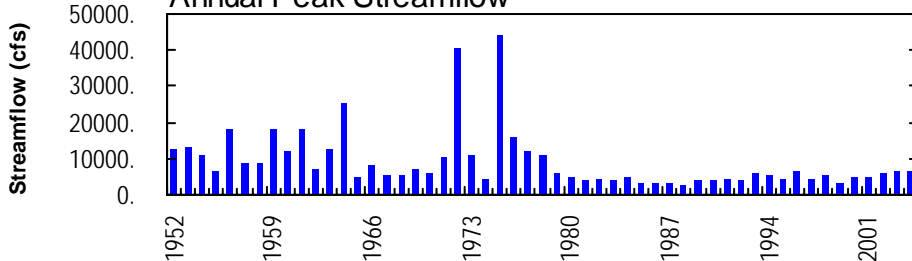
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



CHEMUNG RIVER BASIN

**01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA
(Pennsylvania Water-Quality Network Station)**

LOCATION.--Lat 41°59'48", long 77°08'25", Tioga County, Hydrologic Unit 02050104, on left bank on SR 4022, 0.5 mi downstream from Cowanesque Dam, 0.8 mi upstream from highway bridge on U.S. Route 15 in Lawrenceville, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--298 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1951 to current year. Prior to October 1951 monthly discharge only, published in WSP 1722.

REVISED RECORDS.--WDR PA-72-1: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 983.96 ft above National Geodetic Vertical Datum of 1929. Prior to July 1976 at site 1.1 mi upstream at datum 14.07 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since December 1979 by Cowanesque Dam (station 01519995). Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	513	466	527	549	107	274	1410	389	455	56	421	240
2	442	466	444	538	104	869	2220	470	333	46	270	145
3	417	433	278	722	104	3280	1230	836	269	38	224	135
4	376	342	239	1090	104	2760	949	495	174	37	313	114
5	508	371	322	1210	104	3240	747	420	151	38	296	114
6	475	340	383	1060	126	3220	524	442	130	37	163	114
7	312	267	289	572	117	1920	538	800	109	38	125	114
8	246	251	205	496	104	1170	484	504	86	38	103	479
9	199	230	255	482	104	868	430	2840	84	38	96	1720
10	187	205	343	329	104	677	331	2380	91	37	106	3170
11	193	250	2950	298	104	545	279	2090	74	38	96	5740
12	203	242	3150	335	104	437	351	990	59	53	115	6140
13	186	350	1320	396	104	451	1650	1280	61	42	302	3580
14	177	338	964	297	104	402	2520	1050	62	380	159	1250
15	481	295	832	182	104	384	1950	1280	62	403	86	722
16	430	295	746	210	104	400	849	721	61	118	123	378
17	275	295	546	177	78	352	653	528	70	116	149	1540
18	263	303	567	177	76	306	540	551	171	1160	98	128
19	219	1650	532	224	100	320	493	452	209	571	79	2060
20	197	3990	453	220	100	320	431	290	119	451	80	4910
21	190	3140	343	184	101	680	389	2050	61	223	1450	5900
22	179	1180	363	176	103	738	623	1050	49	149	792	6100
23	171	1060	1220	165	130	507	717	1040	49	199	366	4410
24	157	884	2100	148	145	e680	670	776	49	184	296	961
25	157	687	1890	128	145	1080	568	504	39	72	189	403
26	158	571	1180	118	136	947	826	406	34	539	129	408
27	1390	490	908	117	117	891	748	383	35	3680	129	297
28	1110	490	638	117	117	868	503	326	36	2070	165	239
29	719	543	578	117	146	696	428	289	43	1540	186	131
30	621	569	829	119	---	554	431	170	56	715	491	85
31	467	---	683	114	---	532	---	169	---	972	899	---
TOTAL	11618	20993	26077	11067	3196	30368	24482	25971	3281	14078	8496	51727
MEAN	375	700	841	357	110	980	816	838	109	454	274	1724
MAX	1390	3990	3150	1210	146	3280	2520	2840	455	3680	1450	6140
MIN	157	205	205	114	76	274	279	169	34	37	79	85

e Estimated.

CHEMUNG RIVER BASIN

01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2004, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	149	273	328	295	376	640	739	390	287	127	128	156
MAX	1122	1114	864	1198	1027	1527	2773	1115	1222	628	889	1724
(WY)	1991	1997	1991	1996	1981	1994	1993	1996	1989	2003	1994	2004
MIN	13.9	14.3	19.1	23.3	57.6	158	231	48.9	17.4	14.1	11.9	5.09
(WY)	1989	1992	1999	1981	1980	1981	1997	1985	1991	1991	1983	1980

SUMMARY STATISTICS FOR 2003 CALENDAR YEAR FOR 2004 WATER YEAR WATER YEARS 1980 - 2004

ANNUAL TOTAL	211651	231354										
ANNUAL MEAN	580	632							323			
HIGHEST ANNUAL MEAN									632			2004
LOWEST ANNUAL MEAN									165			1999
HIGHEST DAILY MEAN	4770			Jul 22		6140		Sep 12	6140		Sep 12	2004
LOWEST DAILY MEAN	31			Jul 15		34		Jun 26	3.4		Sep 13	1980
ANNUAL SEVEN-DAY MINIMUM	56			Jan 26		38		Jul 4	3.9		Sep 10	1980
MAXIMUM PEAK FLOW						6400		Sep 12	6580		Jan 23	1996
MAXIMUM PEAK STAGE						12.34		Sep 12	12.41		Jan 23	1996
10 PERCENT EXCEEDS			1340			1400			792			
50 PERCENT EXCEEDS			295			341			109			
90 PERCENT EXCEEDS			78			85			17			

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1979, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	121	203	297	288	345	808	707	359	220	61.0	39.1	87.9
MAX	809	826	860	886	1173	1909	1934	797	1366	223	125	1054
(WY)	1956	1978	1973	1952	1976	1964	1958	1960	1972	1977	1977	1975
MIN	3.33	7.95	12.2	13.9	45.6	230	167	55.5	13.8	7.00	3.11	2.52
(WY)	1965	1965	1961	1961	1963	1965	1955	1955	1955	1966	1954	1964

SUMMARY STATISTICS WATER YEARS 1952 - 1979

ANNUAL MEAN	294											
HIGHEST ANNUAL MEAN	514				1978							
LOWEST ANNUAL MEAN	135				1965							
HIGHEST DAILY MEAN	21500				Jun 23	1972						
LOWEST DAILY MEAN	.00				Aug 22	1978						
ANNUAL SEVEN-DAY MINIMUM	1.5				Sep 22	1964						
MAXIMUM PEAK FLOW	a43700				Sep 26	1975						
MAXIMUM PEAK STAGE	b18.13				Sep 26	1975						
INSTANTANEOUS LOW FLOW	c0.8				Aug 31, Sep 1, 27,	1964						
ANNUAL RUNOFF (CFSM)	.99											
ANNUAL RUNOFF (INCHES)	13.41											
10 PERCENT EXCEEDS	694											
50 PERCENT EXCEEDS	95											
90 PERCENT EXCEEDS	10											

- a From rating curve extended above 6,000 ft³/s, on basis of slope-area measurement of peak flow.
- b From floodmark; site and datum then in use.
- c No flow Aug. 22, 1978, during dam construction.

CHEMUNG RIVER BASIN

01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	10/22/03
Benthic Macroinvertebrate	Count
Arthropoda	
Crustacea	
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
Caecidotea	6
Insecta	
Ephemeroptera (MAYFLIES)	
Heptageniidae	
Stenonema	13
Isonychiidae	
Isonychia	2
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	170
Hydropsyche	23
Coleoptera (BEETLES)	
Psephenidae (WATER PENNIES)	
Psephenus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	16
Simuliidae (BLACK FLIES)	
Simulium	1
Total Organisms	232
Total Taxa	8