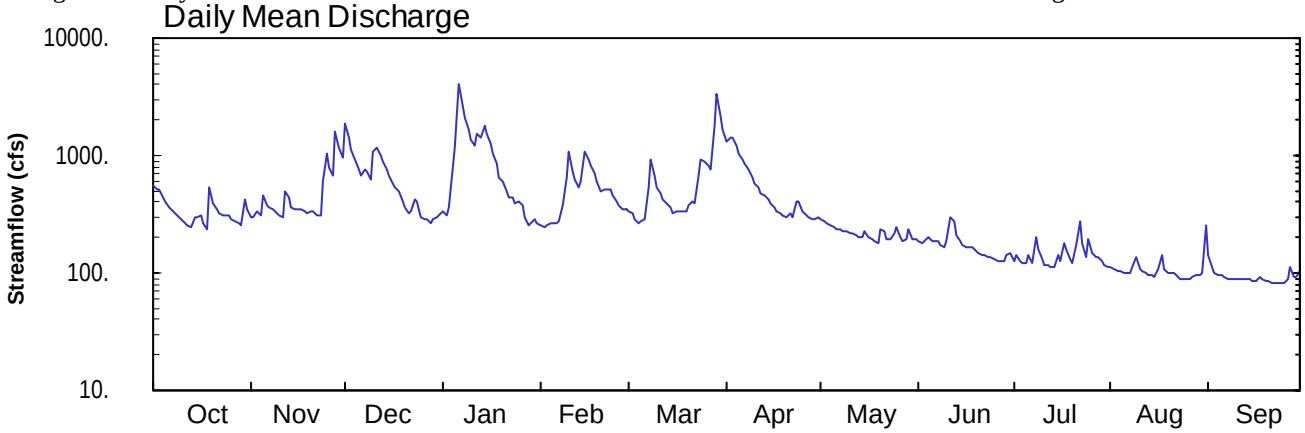
2005 Water Year
JUNIATA RIVER BASIN
01558000 Little Juniata River at Spruce Creek, PA

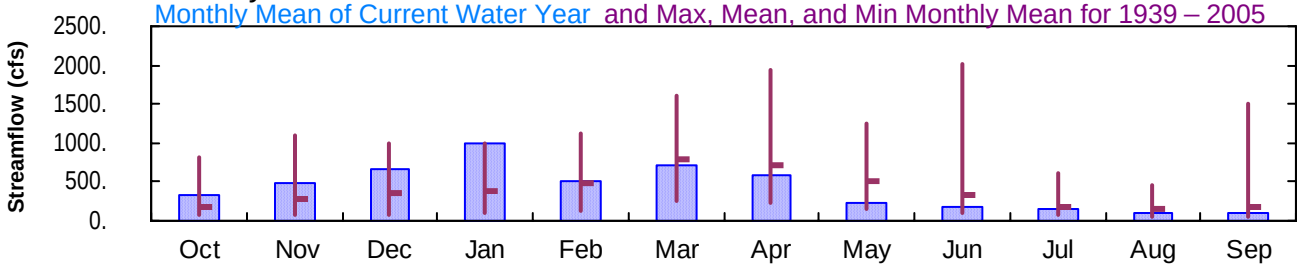
Latitude: 40°36'45" Longitude: 078°08'27" Hydrologic Unit Code: 02050302
Huntingdon County Datum: 751.15 feet Drainage Area: 220. mi²

Daily Mean Discharge

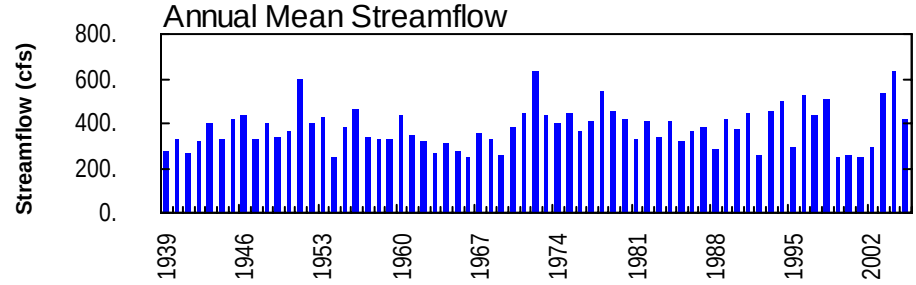


Monthly Statistics

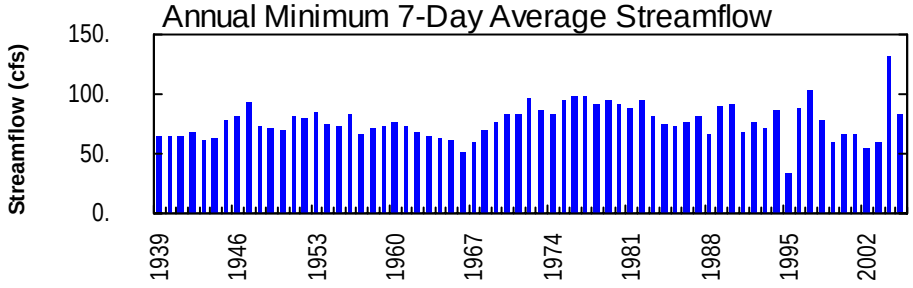
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1939 – 2005



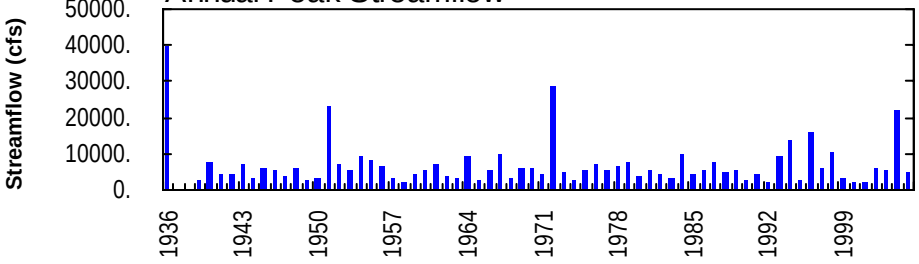
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



JUNIATA RIVER BASIN

01558000 LITTLE JUNIATA RIVER AT SPRUCE CREEK, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°36'45", long 78°08'27", Huntingdon County, Hydrologic Unit 02050302, on right bank on SR 4006, 150 ft downstream from Penn Central Railroad bridge, 0.5 mi northwest of village of Spruce Creek, and 0.5 mi upstream from Spruce Creek.

DRAINAGE AREA.--220 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 751.15 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those less than 100 ft^3/s during Aug. and Sept., and those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 19.1 ft, from floodmarks 175 ft downstream, discharge, 39,800 ft^3/s, from rating curve extended above 5,600 ft^3/s on basis of slope-area measurement of peak flow.

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

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 6	1600	*4,790	*7.27	Mar. 29	0415	4,450	7.00

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	548	304	1900	332	e260	e340	1320	291	184	128	111	145
2	509	298	1440	311	e250	e320	1420	272	180	141	106	113
3	524	338	1140	360	e260	e290	1410	265	187	126	106	102
4	448	315	914	805	264	e270	1210	252	203	120	102	98
5	403	462	769	1160	260	e280	1050	243	187	120	101	95
6	367	370	673	4020	265	e290	930	236	185	141	101	93
7	344	358	749	2640	277	546	840	235	189	124	100	90
8	321	350	746	2100	378	922	752	231	172	199	115	90
9	302	325	620	1650	653	667	659	223	163	161	135	90
10	287	307	1080	1340	1090	e540	589	217	190	134	108	90
11	270	301	1160	1200	719	e480	535	215	299	119	102	89
12	253	489	999	1540	615	e430	485	208	276	115	101	87
13	243	441	882	1400	539	e390	451	200	208	111	98	88
14	297	364	755	1770	609	e360	420	199	189	113	96	87
15	301	352	665	1530	1060	e320	392	227	174	140	93	86
16	310	344	570	1270	919	e330	358	203	169	129	110	86
17	262	342	544	1050	814	337	339	194	165	179	142	92
18	233	336	491	844	698	335	324	186	164	159	108	87
19	540	319	e410	e650	597	340	315	181	153	129	98	85
20	393	340	e360	e600	e500	377	300	237	150	121	100	84
21	344	337	e320	e500	e520	407	321	230	144	174	99	83
22	328	305	e330	e440	e520	399	294	193	143	275	94	83
23	306	305	e430	e440	e520	675	411	197	139	178	90	83
24	306	598	e400	e390	e450	935	404	215	135	136	90	82
25	309	1030	e300	e400	e410	886	339	245	130	192	91	83
26	289	781	e290	e380	e380	838	317	202	127	147	89	91
27	278	677	e290	e300	e350	758	304	189	126	134	91	111
28	268	1600	e270	e260	e350	1820	290	195	126	139	98	92
29	258	1190	e290	e270	---	3410	287	234	142	124	97	91
30	425	969	e300	e290	---	2150	293	196	145	115	101	104
31	347	---	321	e270	---	1640	---	192	---	111	253	---
TOTAL	10613	14847	20408	30512	14527	22082	17359	6803	5144	4434	3326	2780
MEAN	342	495	658	984	519	712	579	219	171	143	107	92.7
MAX	548	1600	1900	4020	1090	3410	1420	291	299	275	253	145
MIN	233	298	270	260	250	270	287	181	126	111	89	82
CFSM	1.56	2.25	2.99	4.47	2.36	3.24	2.63	1.00	0.78	0.65	0.49	0.42
IN.	1.79	2.51	3.45	5.16	2.46	3.73	2.94	1.15	0.87	0.75	0.56	0.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

MEAN	190	283	369	385	480	781	716	517	337	190	146	178
MAX	816	1092	997	991	1128	1609	1928	1239	2022	623	462	1501
(WY)	1991	1951	1973	1949	1976	1979	1993	1978	1972	1956	2003	2004
MIN	64.7	71.3	73.2	90.5	138	261	228	150	104	70.4	56.9	50.8
(WY)	1964	1939	1966	1940	1963	1990	1946	1976	1965	1965	1966	1995

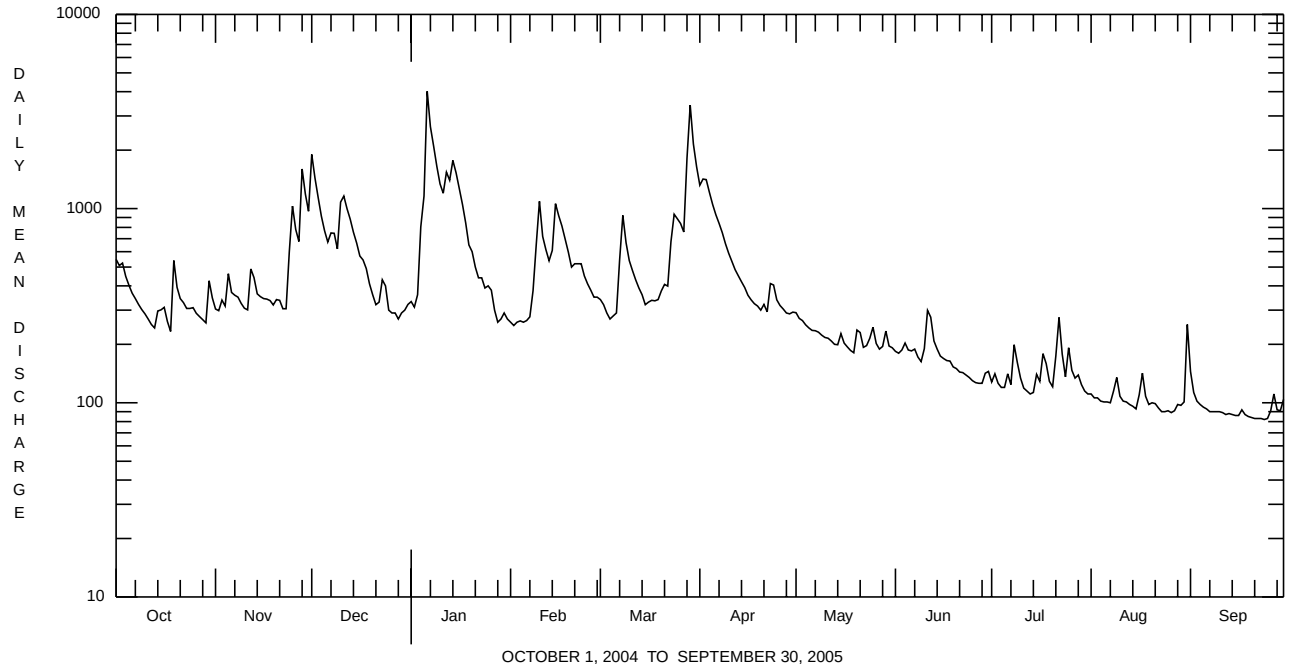
e Estimated.

JUNIATA RIVER BASIN

01558000 LITTLE JUNIATA RIVER AT SPRUCE CREEK, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	218422		152835			
ANNUAL MEAN	597		419		380	
HIGHEST ANNUAL MEAN					633	2004
LOWEST ANNUAL MEAN					248	1966
HIGHEST DAILY MEAN	13400	Sep 18	4020	Jan 6	21100	Jun 23 1972
LOWEST DAILY MEAN	116	Jul 11	82	Sep 24	31	Sep 12 1995
ANNUAL SEVEN-DAY MINIMUM	131	Jun 28	83	Sep 19	34	Sep 7 1995
MAXIMUM PEAK FLOW			**a**4790	Jan 6	**a**28600	Jun 23 1972
MAXIMUM PEAK STAGE			7.27	Jan 6	16.98	Jun 23 1972
INSTANTANEOUS LOW FLOW			78	Sep 24	45	Sep 26 1943**b**
ANNUAL RUNOFF (CFSM)	2.71		1.90		1.73	
ANNUAL RUNOFF (INCHES)	36.93		25.84		23.47	
10 PERCENT EXCEEDS	1160		925		824	
50 PERCENT EXCEEDS	348		291		224	
90 PERCENT EXCEEDS	170		98		83	

a From rating curve, then in use, extended above 3,600 ft^3/s on basis of slope-area measurement at gage height 15.77 ft.
b Also Oct. 4, 1949.



01558000 LITTLE JUNIATA RIVER AT SPRUCE CREEK, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

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 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduct-ance, wat unf lab, µS/cm 25 degC (90095)	Specif. conduct-ance, wat unf µS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover-able, mg/L (00916)
NOV 2004													
03...	1230	1028	9813	362	30	11.5	8.3	8.1	269	271	12.2	110	29.6
JAN 2005													
11...	0830	1028	9813	1120	30	12.3	7.9	8.1	194	191	5.7	84	22.9
MAR													
21...	1300	1028	9813	395	30	11.5	9.0	8.8	243	238	6.3	91	24.0
MAY													
18...	1415	1028	9813	188	30	12.3	8.6	8.5	287	287	14.7	130	31.9
JUL													
06...	1330	1028	9813	157	30	8.2	8.2	8.3	353	358	17.9	160	39.4
SEP													
13...	1445	1028	9813	90	30	11.1	8.5	8.6	392	403	16.7	170	41.0

Date	Magnes-ium, water, unfltrd recover-able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Ortho-phos-phate, water, unfltrd mg/L as P (70507)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Alum-inum, water, unfltrd recover-able, µg/L (01105)
NOV 2004													
03...	8.8	84	20.4	150	8	<.020	1.28	<.040	.21	.220	1.5	2.1	<200
JAN 2005													
11...	6.5	65	17.5	162	18	<.020	1.33	<.040	.03	.032	1.3	1.3	590
MAR													
21...	7.6	69	19.9	154	<2	<.020	1.14	<.040	.02	.026	1.3	1.9	<200
MAY													
18...	11.2	100	21.2	114	2	<.020	1.85	<.040	.06	.078	2.0	--	<200
JUL													
06...	14.1	120	30.4	212	2	.020	2.20	<.040	.29	.322	2.4	--	<200
SEP													
13...	15.5	133	30.6	286	<2	.050	2.53	<.040	.10	.100	2.7	--	<200

Date	Copper, water, unfltrd recover-able, µg/L (01042)	Iron, water, unfltrd recover-able, µg/L (01045)	Lead, water, unfltrd recover-able, µg/L (01051)	Mangan-ese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, unfltrd recover-able, µg/L (01092)
NOV 2004						
03...	20	80	<1.0	<10	<50	10
JAN 2005						
11...	<10	680	1.8	30	<50	<10
MAR						
21...	<10	110	<1.0	10	<50	<10
MAY						
18...	<10	80	<1.0	20	<50	<10
JUL						
06...	<10	100	<1.0	10	<50	20
SEP						
13...	<10	60	<1.0	10	<50	<10

01558000 LITTLE JUNIATA RIVER AT SPRUCE CREEK, 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	09/14/05
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	2
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Pisidium	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	4
Tubificida	
Tubificidae	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	2
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	31
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	3
Ephemerellidae	
Ephemerella	17
Serratella	7
Heptageniidae	
Stenonema	5
Trichoptera (CADDISFLIES)	
Brachycentridae	
Brachycentrus	25
Glossosomatidae	
Glossosoma	1
Hydropsychidae	
Hydropsyche	6
Rhyacophilidae	
Rhyacophila	1

01558000 LITTLE JUNIATA RIVER AT SPRUCE CREEK, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	09/14/05
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	11
Stenelmis	21
Psephenidae (WATER PENNIES)	
Psephenus	3
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	2
Empididae (DANCE FLIES)	
Hemerodromia	1
Tipulidae (CRANE FLIES)	
Antocha	1
Total Organisms	146
Total Taxa	21