



# 2004 Water Year JUNIATA RIVER BASIN

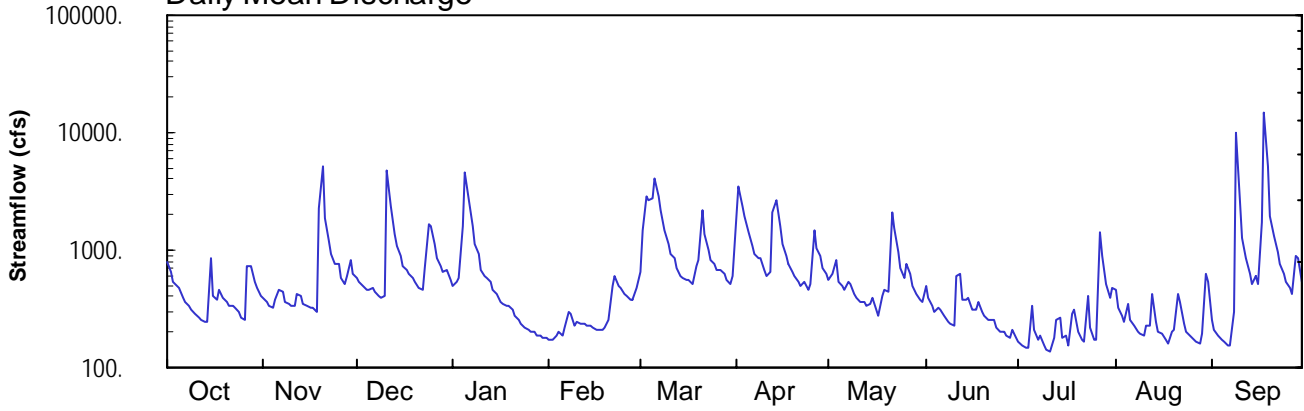
## 01556000 Frankstown Br Juniata River at Williamsburg, PA

Latitude: 40° 27 ' 47"  
Blair County

Longitude: 078° 12 ' 00"  
Datum: 831.78 feet

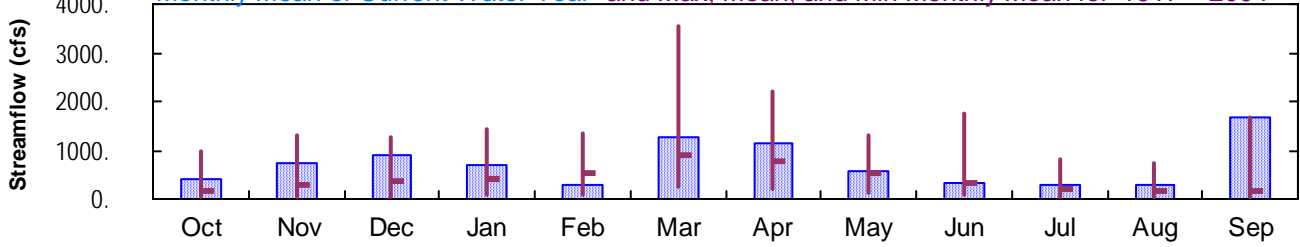
Hydrologic Unit Code: 02050302  
Drainage Area: 291. mi<sup>2</sup>

### Daily Mean Discharge

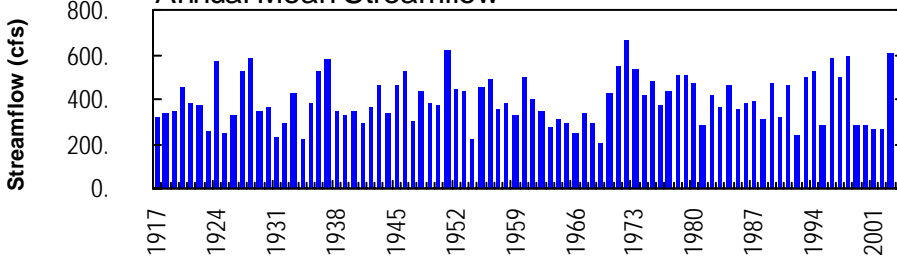


### Monthly Statistics

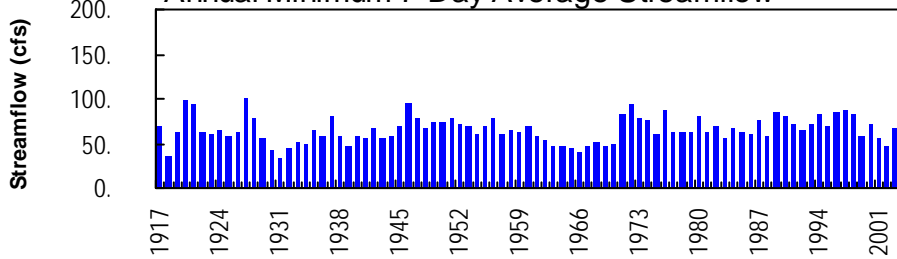
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1917 – 2004



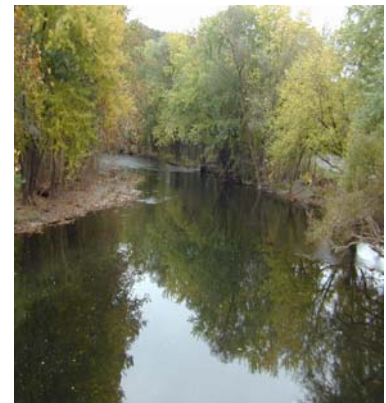
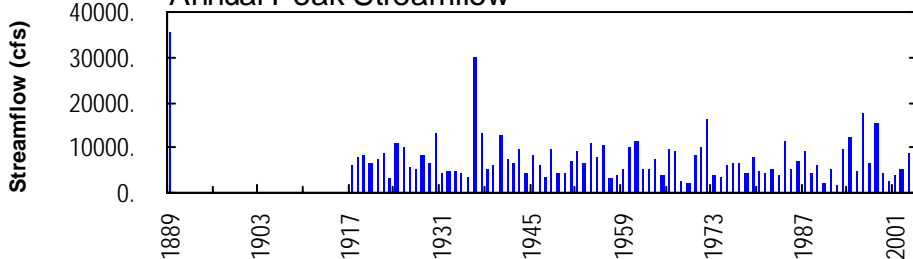
### Annual Mean Streamflow



### Annual Minimum 7-Day Average Streamflow



### Annual Peak Streamflow



**JUNIATA RIVER BASIN**

**01556000 FRANKSTOWN BRANCH JUNIATA RIVER AT WILLIAMSBURG, PA**

**LOCATION.**--Lat 40°27'47", long 78°12'00", Blair County, Hydrologic Unit 02050302, on left bank 10 ft downstream from highway bridge on SR 1015 at Williamsburg, and 2.5 mi upstream from Clover Creek.

**DRAINAGE AREA.**--291 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1916 to current year.

**REVISED RECORDS.**--WSP 756: Drainage area. WDR PA-71-1: 1954(M), 1960(M), 1961(M). WDR PA-77-2: 1936-39(M).

**GAGE.**--Water-stage recorder. Datum of gage is 831.78 ft above National Geodetic Vertical Datum of 1929 (Penn Central Railroad bench mark). Prior to Aug. 14, 1928, nonrecording gage at same site and datum.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Some regulation at low flow by mill upstream. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of June 1, 1889, reached a stage of 19.1 ft, from floodmark, discharge, about 35,500 ft<sup>3</sup>/s.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 4,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Nov. 20	0300	7,880	12.85	Apr. 2	1045	4,260	9.66
Dec. 11	1500	6,690	11.86	May 21	1715	4,680	10.08
Jan. 5	1700	5,130	10.52	Sept. 9	1130	13,600	16.91
Mar. 6	1330	4,760	10.16	Sept. 18	1145	*18,000	*19.46

**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	794	388	584	495	e170	e650	1920	566	503	165	463	260
2	646	364	528	533	e170	1500	3550	622	395	156	325	208
3	539	342	493	586	e190	2900	2340	816	337	149	271	185
4	505	321	458	1590	e200	2620	1960	545	295	147	247	173
5	474	373	462	4620	e190	2710	1410	500	327	337	348	164
6	396	465	485	2800	e220	4150	1080	467	313	209	254	154
7	357	437	435	1610	e300	2830	918	526	276	174	223	154
8	333	363	407	1140	e290	2140	855	516	250	183	204	301
9	306	344	392	908	e230	1500	860	422	235	151	192	10100
10	290	333	408	e680	e250	1130	675	392	231	140	185	2750
11	270	337	4750	e600	e240	918	607	368	605	136	223	1260
12	260	430	2390	e580	e240	841	656	359	625	183	228	840
13	247	407	1380	e540	e230	692	2060	339	375	257	423	634
14	249	351	1070	e460	e230	609	2630	351	372	265	250	514
15	843	331	893	e430	e220	580	1590	390	397	176	204	605
16	400	319	731	e360	e210	550	1130	312	308	188	191	505
17	376	326	678	e350	e210	547	906	281	305	153	174	1710
18	458	303	632	e340	e210	520	755	402	364	284	162	15000
19	389	2280	580	e330	e220	739	663	458	301	304	202	5150
20	365	5110	531	e310	e260	824	597	432	272	204	211	1960
21	340	1860	477	e280	e500	2140	534	2110	252	174	422	1290
22	332	1210	454	e260	e600	1340	491	1560	255	165	365	959
23	321	910	695	e240	e500	1010	534	950	251	409	237	755
24	295	772	1650	e220	e470	826	455	699	217	215	205	623
25	265	751	1600	e210	e420	747	514	571	202	172	186	533
26	258	586	1100	e200	e400	688	1480	757	198	173	174	469
27	733	519	856	e200	e380	667	1040	620	186	1440	164	423
28	735	604	724	e190	e380	625	876	497	182	898	157	874
29	535	823	647	e190	e480	565	714	417	209	516	193	847
30	469	623	675	e180	---	518	629	370	179	395	636	541
31	414	---	562	e180	---	611	---	362	---	484	531	---
TOTAL	13194	22582	27727	21612	8610	38687	34429	17977	9217	9002	8250	49941
MEAN	426	753	894	697	297	1248	1148	580	307	290	266	1665
MAX	843	5110	4750	4620	600	4150	3550	2110	625	1440	636	15000
MIN	247	303	392	180	170	518	455	281	179	136	157	154
CFSM	1.46	2.59	3.07	2.40	1.02	4.29	3.94	1.99	1.06	1.00	0.91	5.72
IN.	1.69	2.89	3.54	2.76	1.10	4.95	4.40	2.30	1.18	1.15	1.05	6.38

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 2004, BY WATER YEAR (WY)**

MEAN	182	284	377	420	544	897	770	527	314	185	147	165
MAX	969	1298	1268	1446	1340	3561	2194	1314	1743	824	738	1665
(WY)	1977	1998	1973	1937	1971	1936	1993	1924	1972	1989	1956	2004
MIN	45.9	48.0	52.4	61.3	86.0	263	215	127	83.0	49.7	46.9	45.9
(WY)	1931	1931	1931	1918	1934	1990	1925	1934	1965	1965	1966	1932

e Estimated.

**JUNIATA RIVER BASIN**

**01556000 FRANKSTOWN BRANCH JUNIATA RIVER AT WILLIAMSBURG, PA--Continued**

<b>SUMMARY STATISTICS</b>	<b>FOR 2003 CALENDAR YEAR</b>		<b>FOR 2004 WATER YEAR</b>		<b>WATER YEARS 1917 - 2004</b>	
ANNUAL TOTAL	252836		261228			
ANNUAL MEAN	693		714		400	
HIGHEST ANNUAL MEAN					714	
LOWEST ANNUAL MEAN					200	
HIGHEST DAILY MEAN	6420	Jan 2	15000	Sep 18	25000	Mar 18 1936
LOWEST DAILY MEAN	<b>e</b> 70	Feb 17,18	136	Jul 11	31	Dec 24 1930
ANNUAL SEVEN-DAY MINIMUM	<b>a</b> 84	Feb 15	168	Jul 6	32	Dec 19 1930
MAXIMUM PEAK FLOW			<b>b</b> 18000	Sep 18	<b>cd</b> 30000	Mar 18 1936
MAXIMUM PEAK STAGE			19.46	Sep 18	19.46	Sep 18 2004
INSTANTANEOUS LOW FLOW			133	Jul 11	13	Jul 24 1934
ANNUAL RUNOFF (CFSM)	2.38		2.45		1.37	
ANNUAL RUNOFF (INCHES)	32.32		33.39		18.68	
10 PERCENT EXCEEDS	1510		1450		890	
50 PERCENT EXCEEDS	462		430		208	
90 PERCENT EXCEEDS	160		189		72	

**a** Computed using estimated daily discharges.

**b** From rating curve extended above 13,100 ft<sup>3</sup>/s on basis of straight-line extension.

**c** From rating curve in use at that time based on slope-area measurement at gage height 18.58 ft.

**d** Gage height 18.58 ft, from floodmark in gage shelter.

**e** Estimated.