



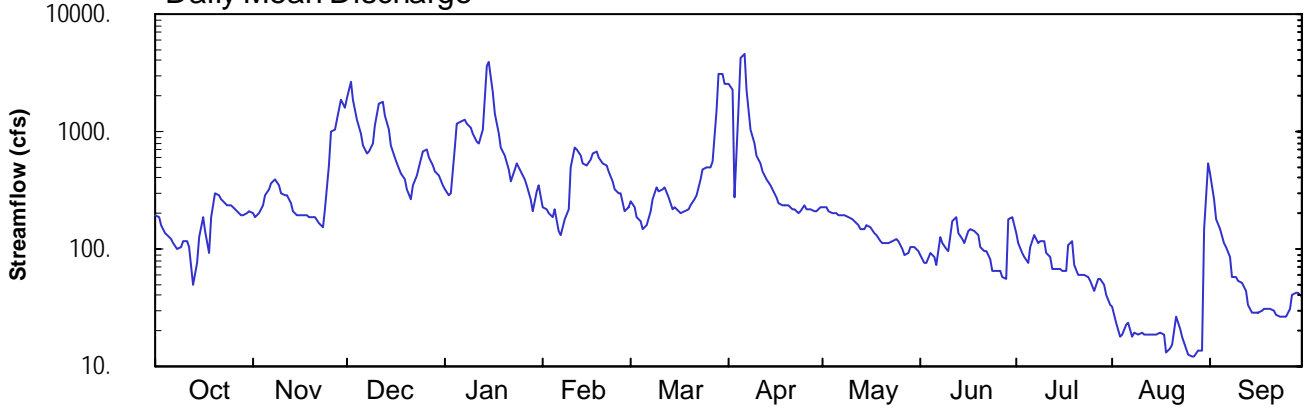
2005 Water Year
WEST BRANCH SUSQUEHANNA RIVER BASIN
01545000 Kettle Creek near Westport, PA

Latitude: 41° 19' 10"
Clinton County

Longitude: 077° 52' 27"
Datum: 728.24 feet

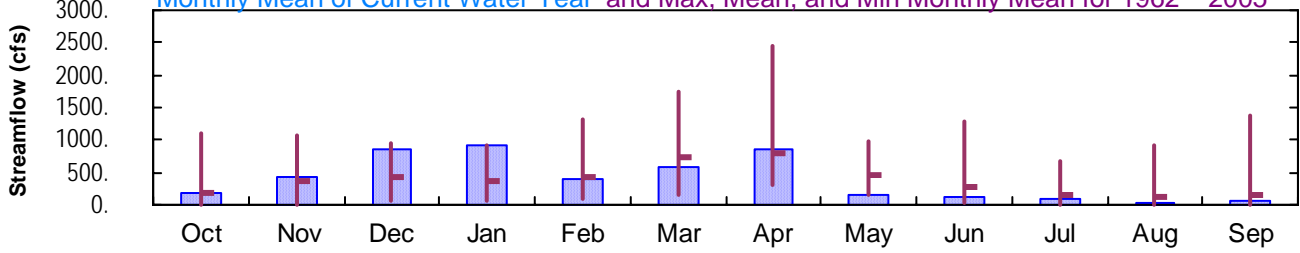
Hydrologic Unit Code: 02050203
Drainage Area: 233. mi²

Daily Mean Discharge

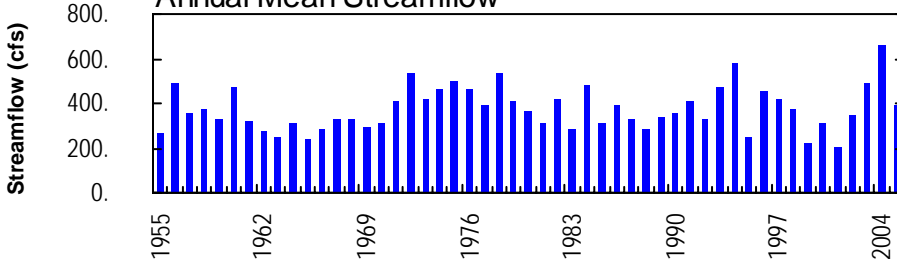


Monthly Statistics

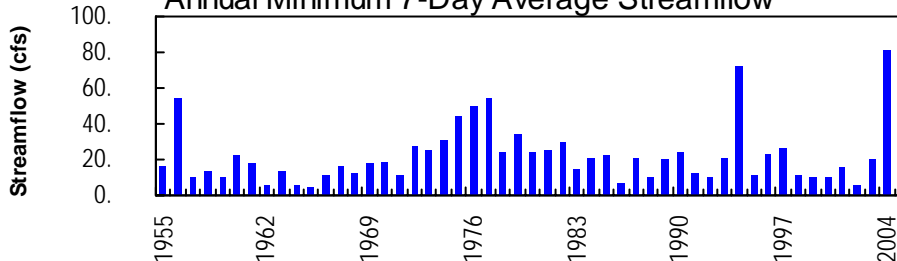
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1962 – 2005



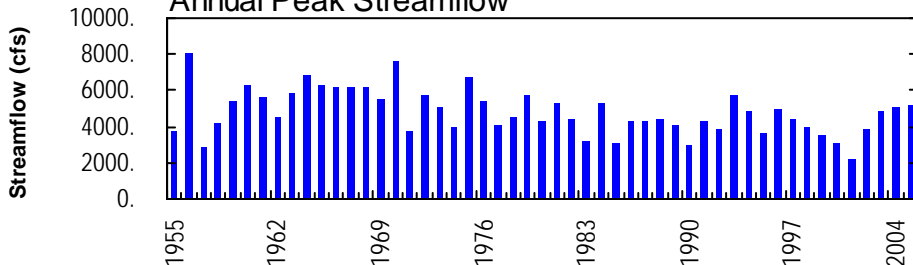
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



WEST BRANCH SUSQUEHANNA RIVER BASIN

01545000 KETTLE CREEK NEAR WESTPORT, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°19'10", long 77°52'27", Clinton County, Hydrologic Unit 02050203, on left bank on SR 4001, 0.4 mi upstream from Short Bend Run, 3.5 mi upstream from mouth and Westport, and 5.0 mi downstream from Alvin R. Bush Dam (Kettle Creek Lake).

DRAINAGE AREA.--233 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 728.24 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1956, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since February 1962 by Alvin R. Bush Dam (station 01544800). Several measurements of water temperature were made during the year. Satellite telemetry at station.

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	191	199	1970	317	e230	256	2510	230	89	139	32	441
2	189	185	2610	284	e220	231	2310	223	75	113	24	269
3	157	203	1860	301	e200	e190	278	210	77	93	18	178
4	138	235	1280	723	e190	e170	1600	205	91	84	18	147
5	132	287	971	1150	e220	e150	4270	203	84	77	23	112
6	120	324	747	1230	e140	e160	4640	198	73	105	24	104
7	114	366	648	1250	132	209	2290	194	126	130	18	85
8	99	385	683	1170	180	e270	1040	192	112	112	19	58
9	106	349	776	1080	218	e330	798	187	98	118	19	58
10	117	303	1140	950	491	313	616	177	96	118	19	54
11	118	292	1740	827	724	318	527	174	174	94	19	52
12	104	284	1780	777	715	340	463	161	183	84	19	44
13	50	245	1390	1020	623	e280	398	147	138	67	19	34
14	75	206	1040	3560	533	e220	349	147	124	68	19	28
15	128	195	765	3980	508	e230	317	159	113	66	19	28
16	187	194	609	2210	586	e210	275	152	141	65	19	28
17	141	194	527	1420	655	e200	248	139	150	65	19	29
18	93	195	444	950	682	210	237	134	142	109	13	30
19	188	188	389	727	592	220	237	117	129	116	14	31
20	295	185	318	636	536	237	232	112	104	73	15	31
21	288	185	264	e480	522	269	218	112	96	60	27	29
22	265	165	351	e370	452	290	214	112	94	61	21	28
23	247	152	431	e480	381	397	202	119	81	60	18	27
24	237	220	493	e530	324	473	211	120	65	58	14	27
25	233	509	681	e450	298	490	231	117	66	53	13	27
26	224	1000	713	e390	293	495	216	98	65	44	12	31
27	210	1040	e610	e350	e210	559	215	88	59	55	12	41
28	193	1240	e520	e270	225	1530	211	92	55	55	13	42
29	193	1840	462	e210	---	3120	214	102	177	49	14	43
30	198	1580	426	e310	---	3090	228	105	189	41	151	39
31	208	---	348	e350	---	2510	---	95	---	34	539	---
TOTAL	5238	12945	26986	28752	11080	17967	25795	4621	3266	2466	1223	2175
MEAN	169	432	871	927	396	580	860	149	109	79.5	39.5	72.5
MAX	295	1840	2610	3980	724	3120	4640	230	189	139	539	441
MIN	50	152	264	210	132	150	202	88	55	34	12	27

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545000 KETTLE CREEK NEAR WESTPORT, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	190	358	433	364	438	739	800	474	278	157	117	158
MAX	1096	1060	954	927	1330	1739	2453	992	1278	677	927	1390
(WY)	1991	1971	1973	2005	1981	1979	1993	2002	1972	1972	1994	2004
MIN	13.5	5.37	55.4	63.8	78.8	167	309	141	39.8	8.06	7.69	13.0
(WY)	1965	1965	1999	1981	1963	1968	1976	1999	1999	1962	1962	1991

SUMMARY STATISTICS FOR 2004 CALENDAR YEAR FOR 2005 WATER YEAR WATER YEARS 1962 - 2005

ANNUAL TOTAL	219919		142514		375	
ANNUAL MEAN	601		390		203	
HIGHEST ANNUAL MEAN					655 2004	
LOWEST ANNUAL MEAN					203 2001	
HIGHEST DAILY MEAN	4900	Sep 21	4640	Apr 6	7200	Apr 14 1970
LOWEST DAILY MEAN	50	Oct 13	12	Aug 26,27	4.4	Nov 3 1964a
ANNUAL SEVEN-DAY MINIMUM	81	Jul 5	14	Aug 23	4.6	Nov 2 1964
MAXIMUM PEAK FLOW			5210	Apr 5	7540	Apr 13 1970
MAXIMUM PEAK STAGE			8.26	Apr 5	10.17	Apr 13 1970
INSTANTANEOUS LOW FLOW					3.0	Dec 6 1964
10 PERCENT EXCEEDS	1380		958		881	
50 PERCENT EXCEEDS	321		195		186	
90 PERCENT EXCEEDS	129		29		30	

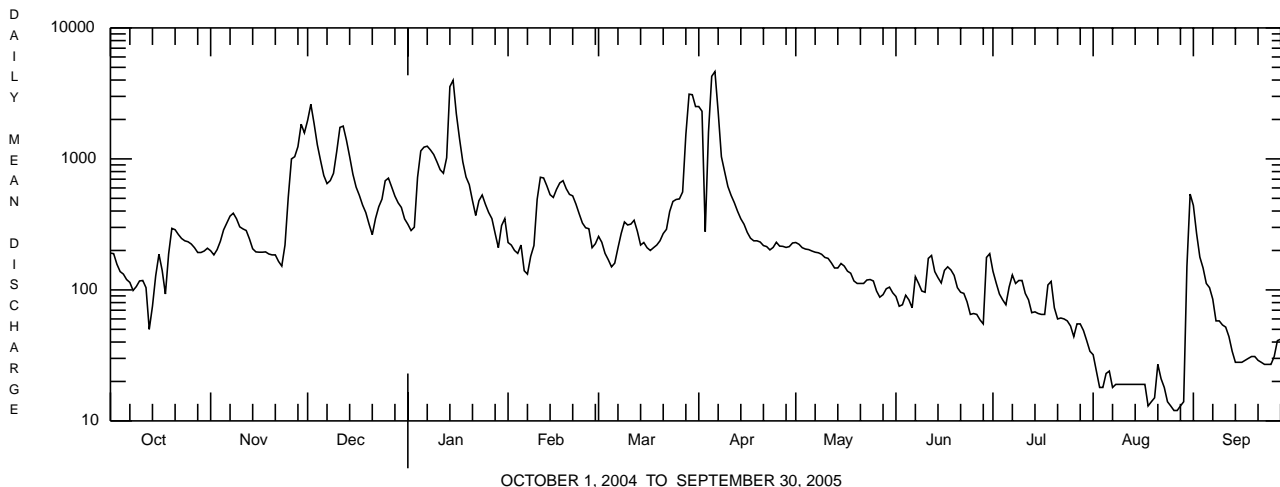
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1961, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	192	247	373	297	387	837	1066	541	204	131	120	72.8
MAX	709	647	708	564	713	1373	1496	1103	631	318	276	177
(WY)	1956	1960	1957	1959	1961	1955	1958	1960	1960	1958	1956	1958
MIN	23.7	41.3	27.0	27.6	127	394	411	151	63.9	25.1	16.9	24.3
(WY)	1958	1961	1961	1961	1958	1960	1955	1955	1955	1955	1957	1957

SUMMARY STATISTICS WATER YEARS 1955 - 1961

ANNUAL MEAN	372
HIGHEST ANNUAL MEAN	492 1956
LOWEST ANNUAL MEAN	266 1955
HIGHEST DAILY MEAN	5970 Mar 8 1956
LOWEST DAILY MEAN	8.9 Sep 10 1957
ANNUAL SEVEN-DAY MINIMUM	10 Sep 24 1959
MAXIMUM PEAK FLOW	b7970 Mar 8 1956
MAXIMUM PEAK STAGE	c13.31 Jan 22 1959
INSTANTANEOUS LOW FLOW	8.9 Sep 9,10 1957
ANNUAL RUNOFF (CFSM)	1.60
ANNUAL RUNOFF (INCHES)	21.69
10 PERCENT EXCEEDS	942
50 PERCENT EXCEEDS	160
90 PERCENT EXCEEDS	26

- a Also Nov. 6, 12, 1964, Sept. 14, 2002.
- b Gage height 10.48 ft.
- c Backwater from ice.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545000 KETTLE CREEK NEAR WESTPORT, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

REMARKS.--Some values for "dissolved" parameters exceed values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods.

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. conductance, wat unfltrd lab, μS/cm 25 degC (90095)	Specif. conductance, wat unfltrd lab, μS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, unfltrd, mg/L (00915)	
Date		Calcium water unfltrd recoverable, mg/L (00916)	Magnesium water, unfltrd, mg/L (00925)	Magnesium water, unfltrd recoverable, mg/L (00927)	ANC, wat unfltrd fixed end pt, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Sulfate water, unfltrd, mg/L (00945)	Residue on evap. at 105degC, wat fltrd (00515)	Residue total at 105 deg. C, suspended, 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)	Orthophosphate, water, unfltrd, mg/L as P (70507)	Phosphorus, water, unfltrd, mg/L (00665)
NOV 2004	29...	4.7	1.2	1.2	10	15	8.2	66	2	<.020	.42	<.040	.01	.019
JAN 2005	26...	4.9	1.3	1.3	11	17	9.9	38	2	<.020	.48	<.040	.01	<.010
MAR	23...	5.2	1.4	1.4	11	7.6	10.1	62	<2	.030	.29	<.040	<.01	<.010
MAY	04...	5.2	1.4	1.4	10	11	9.3	52	<2	.030	.29	<.040	<.01	<.010
JUL	27...	7.9	1.9	2.0	17	--	10.9	46	<2	<.020	.09	<.040	.01	.013
SEP	08...	6.8	1.7	1.7	17	.40	10.0	58	<2	.030	.36	<.040	<.01	.014

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545000 KETTLE CREEK NEAR WESTPORT, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Total nitrogen, water, unfltrd mg/L (00600)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover-able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover-able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover-able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover-able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)
NOV 2004 29...	.57	.9	10	210	<4	<4	30	280	<1.0	<1.0	30	90	<4.0
JAN 2005 26...	.51	.7	10	130	<4	<4	<20	120	<1.0	<1.0	30	40	<4.0
MAR 23...	.27	.9	40	110	<4	<4	30	130	<1.0	<1.0	50	50	<4.0
MAY 04...	.39	.6	30	60	<4	<4	60	120	<1.0	<1.0	40	80	<4.0
JUL 27...	.09	.6	60	80	<4	<4	40	80	<1.0	<1.0	10	20	<4.0
SEP 08...	.43	.8	70	80	<4	<4	60	100	<1.0	<1.0	10	10	<4.0

Date	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover-able, µg/L (01092)
NOV 2004 29...	<4.0	<5.0	<5.0
JAN 2005 26...	<4.0	<5.0	<5.0
MAR 23...	<4.0	<5.0	<5.0
MAY 04...	<4.0	<5.0	<5.0
JUL 27...	<4.0	<5.0	7.5
SEP 08...	<4.0	<5.0	<5.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545000 KETTLE CREEK NEAR WESTPORT, 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	10/20/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Nematoda (NEMATODES)	3
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<i>Prostoma</i>	5
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancyliidae	
<i>Ferrissia</i>	3
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
<i>Sphaerium</i>	14
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbricina	1
Lumbriculida	
Lumbriculidae	2
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	1
Ephemerellidae	
<i>Ephemerella</i>	2
<i>Eurylophella</i>	4
<i>Serratella</i>	1
Heptageniidae	
<i>Stenonema</i>	13
Isonychiidae	
<i>Isonychia</i>	9
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Gomphidae	1
Plecoptera (STONEFLIES)	
Perlidae	
<i>Acroneuria</i>	3
Taeniopterygidae	
<i>Taeniopteryx</i>	2
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<i>Nigronia</i>	2

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545000 KETTLE CREEK NEAR WESTPORT, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/20/04
Benthic macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Apataniidae	
<i>Apatania</i>	5
Brachycentridae	
<i>Micrasema</i>	1
Hydropsychidae	
<i>Cheumatopsyche</i>	3
<i>Hydropsyche</i>	27
Lepidostomatidae	
<i>Lepidostoma</i>	2
Leptoceridae	
<i>Oecetis</i>	2
Polycentropodidae	
<i>Neureclipsis</i>	3
Rhyacophilidae	
<i>Rhyacophila</i>	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	1
<i>Stenelmis</i>	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	
Empididae (DANCE FLIES)	6
<i>Hemerodromia</i>	4
Total Organisms	123
Total Taxa	29