

## REDBANK CREEK BASIN

## 03032500 REDBANK CREEK AT ST. CHARLES, PA

**LOCATION.**--Lat 40°59'40", long 79°23'40", Armstrong County, Hydrologic Unit 05010006, on left bank 400 ft downstream from highway bridge on SR 1005 at St. Charles, 0.3 mi downstream from Leatherwood Creek, and 3 mi west of New Bethlehem.

**DRAINAGE AREA.**--528 mi<sup>2</sup>.

**PERIOD OF RECORD.**--Annual maximums, water years 1910-18. October 1918 to current year. Monthly discharge only for some periods, published in WSP 1305. Figures of daily discharge for November 1920 to June 1921, published in WSP 523, are unreliable and should not be used.

**REVISED RECORDS.**--WSP 743: Drainage area. WSP 1385: 1919, 1936-39. WDR PA-72-1: 1923 (M), 1926 (M), 1928 (M), 1936, 1937 (M), 1938 (M), 1943, 1945 (P), 1952 (M), 1953 (M), 1955 (M), 1956 (P), 1958 (M), 1959 (M), 1964, 1966 (M). See also PERIOD OF RECORD.

**GAGE.**--Water-stage recorder and crest-stage gage. Datum of gage is 973.14 ft above sea level. Prior to July 10, 1940, nonrecording gage at site 500 ft upstream at datum 3.10 ft higher.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 7,000 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)
Mar. 22	0730	*7,600	*9.59	Apr. 16	1500	7,030	9.30

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	373	254	644	e300	2210	552	915	621	295	341	39	707
2	320	244	576	e270	1600	e500	814	578	427	290	38	443
3	283	237	442	e280	1140	e470	747	536	718	246	40	232
4	254	232	332	e280	969	e460	741	492	788	207	47	140
5	271	227	381	e290	934	e440	703	453	594	184	60	113
6	858	219	399	e300	865	e370	908	414	462	161	85	93
7	1040	210	341	e320	836	e410	1430	374	409	138	56	79
8	678	206	377	e300	769	e420	1980	347	361	198	46	70
9	556	207	349	e260	1360	e400	1970	356	309	149	37	62
10	650	300	314	e240	4200	e380	2280	345	267	119	41	60
11	747	564	374	e230	3320	e360	1780	330	266	105	45	56
12	591	644	1530	e230	2220	e340	1530	392	256	88	51	50
13	492	496	1410	e220	1650	1100	1290	417	232	91	68	46
14	426	419	1110	e220	1520	2890	1080	365	209	81	56	81
15	383	381	1000	e220	3110	2180	990	304	186	71	41	87
16	350	353	996	e250	2780	1700	4580	276	172	65	43	91
17	332	328	4000	e260	2490	2320	4470	259	191	61	73	86
18	409	317	3580	e280	1830	2220	3250	249	162	60	67	69
19	566	332	2280	e290	1380	1750	2290	246	128	55	69	56
20	505	316	1610	e300	1260	1480	1830	230	113	50	81	78
21	410	e260	1180	e280	1150	1710	2170	241	107	45	63	79
22	364	e210	996	e260	894	5850	2010	361	201	42	51	70
23	325	e170	e520	e230	821	3890	1630	524	393	45	52	71
24	302	e180	e470	e240	738	2720	1430	682	567	46	59	76
25	306	e190	e450	e250	747	1980	1230	496	506	50	55	110
26	325	e330	e420	e240	770	1570	1060	437	306	58	50	115
27	304	720	e410	e230	711	1250	945	397	221	64	114	164
28	332	768	e400	e220	625	1070	847	440	180	51	137	151
29	318	658	e380	e210	---	960	741	446	168	45	147	121
30	286	650	e350	e300	---	945	668	377	207	43	127	104
31	266	---	e320	1850	---	1030	---	321	---	41	229	---
TOTAL	13622	10622	27941	9650	42899	43717	48309	12306	9401	3290	2167	3760
MEAN	439	354	901	311	1532	1410	1610	397	313	106	69.9	125
MAX	1040	768	4000	1850	4200	5850	4580	682	788	341	229	707
MIN	254	170	314	210	625	340	668	230	107	41	37	46
CFSM	.83	.67	1.71	.59	2.90	2.67	3.05	.75	.59	.20	.13	.24
IN.	.96	.75	1.97	.68	3.02	3.08	3.40	.87	.66	.23	.15	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2001, BY WATER YEAR (WY)

MEAN	379	746	1071	1130	1216	1800	1502	1056	676	413	279	284
MAX	1385	2806	3151	4616	2707	5016	3337	2603	3887	2238	1498	2091
(WY)	1927	1922	1928	1937	1990	1936	1940	1919	1972	1996	1956	1996
MIN	40.3	50.9	75.9	96.8	179	358	367	180	123	61.1	33.5	29.2
(WY)	1931	1931	1961	1931	1934	1969	1925	1926	1936	1966	1930	1939

e Estimated.

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SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1919 - 2001	
ANNUAL TOTAL	281879		227684		877	
ANNUAL MEAN	770		624		1333	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					430	
HIGHEST DAILY MEAN	9970	Apr 4	5850	Mar 22	28100	Jul 19 1996
LOWEST DAILY MEAN	60	Sep 9	37	Aug 9	20	Sep 28 1922
ANNUAL SEVEN-DAY MINIMUM	74	Sep 4	42	Jul 29	24	Aug 30 1939
MAXIMUM PEAK FLOW			7600	Mar 22	a66300	Jul 19 1996
MAXIMUM PEAK STAGE			9.59	Mar 22	b23.90	Jul 19 1996
INSTANTANEOUS LOW FLOW			34	Aug 9c	d19	Oct 1 1918
ANNUAL RUNOFF (CFSM)	1.46		1.18		1.66	
ANNUAL RUNOFF (INCHES)	19.86		16.04		22.57	
10 PERCENT EXCEEDS	1640		1620		2100	
50 PERCENT EXCEEDS	446		332		462	
90 PERCENT EXCEEDS	163		60		83	

- a From rating curve extended above 35,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.
- b From floodmarks.
- c Also Aug. 10, 16.
- d Minimum observed.

