

## CROOKED CREEK BASIN

## 03038000 CROOKED CREEK AT IDAHO, PA

**LOCATION.**--Lat 40°39'17", long 79°20'56", Armstrong County, Hydrologic Unit 05010006, on right bank at downstream end of old bridge abutment at Idaho, 0.4 mi downstream from Keystone Generation Station, 1.5 mi downstream from Plum Creek, 1.8 mi upstream of bridge on SR 210, and 2.4 mi west of Shelocla.

**DRAINAGE AREA.**--191 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1937 to current year. Monthly discharge only for some periods published in WSP 1305.

**REVISED RECORDS.**--WSP 1385: 1938, 1945.

**GAGE.**--Water-stage recorder and concrete weir control. Datum of gage is 961.04 ft above National Geodetic Vertical Datum of 1929 (Baltimore and Ohio Railroad bench mark).

**REMARKS.**--Records good. Flow regulated to some extent since March 1968 by Keystone Lake 7 mi upstream, usable capacity, 22,010 acre-ft. Evaporation from operation of steam-electric plant 0.4 mi upstream, which began during July 1967, can amount to as much as 30 ft<sup>3</sup>/s. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of March 1936 reached a stage of 18.6 ft, from floodmark, discharge, about 19,000 ft<sup>3</sup>/s.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 2,500 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)
Jan. 2	0230	3,360	7.50	Aug. 31	0230	*4,610	*9.06
Feb. 23	0930	2,610	6.56				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	69	88	1770	e38	275	181	56	363	54	1080	982
2	35	52	71	2730	e38	370	197	52	218	31	631	1810
3	32	39	52	1300	e40	381	175	48	214	27	507	1270
4	42	33	45	853	e600	335	171	38	385	26	478	1570
5	57	29	71	557	e680	550	604	52	335	37	408	1140
6	51	144	68	435	e220	715	609	85	275	142	314	645
7	35	163	48	e330	e180	487	500	305	409	362	244	438
8	30	135	57	e260	e160	497	474	390	465	456	201	320
9	30	100	36	e220	e130	1210	390	351	808	228	176	248
10	31	81	32	e180	e110	830	334	747	520	215	281	198
11	29	99	45	e150	e90	552	890	702	392	1230	184	155
12	30	106	109	e120	e80	466	955	486	376	483	143	123
13	30	100	187	e110	e75	663	620	406	607	297	132	104
14	32	87	911	e95	e70	904	468	314	425	201	106	95
15	32	75	760	e80	e60	679	380	251	328	142	92	110
16	44	75	692	e70	e55	622	319	236	255	159	93	164
17	40	336	470	e65	e50	575	268	200	203	109	105	94
18	34	321	350	e60	e60	500	222	187	341	90	78	75
19	35	239	300	e55	e65	416	188	163	259	226	46	109
20	65	244	1440	e50	e70	403	163	130	212	127	35	146
21	43	195	989	e50	e80	479	188	466	182	92	29	90
22	25	171	573	e45	e200	422	181	363	166	1430	24	82
23	30	162	499	e42	2030	364	149	297	121	772	33	343
24	26	129	366	e40	1030	316	114	278	92	575	29	205
25	20	108	e290	e38	523	276	99	226	73	592	24	173
26	125	94	e240	e36	376	253	95	196	58	365	275	184
27	93	91	e190	e35	313	225	90	158	51	264	700	140
28	43	83	e155	e34	287	197	75	141	44	561	287	222
29	29	76	e150	e34	---	183	72	128	33	366	180	183
30	91	88	e140	e36	---	196	67	104	44	258	2840	148
31	107	---	352	e36	---	196	---	162	---	193	2680	---
TOTAL	1384	3724	9776	9916	7710	14537	9238	7718	8254	10110	12435	11566
MEAN	44.6	124	315	320	275	469	308	249	275	326	401	386
MAX	125	336	1440	2730	2030	1210	955	747	808	1430	2840	1810
MIN	20	29	32	34	38	183	67	38	33	26	24	75
CFSM	0.23	0.65	1.65	1.67	1.44	2.46	1.61	1.30	1.44	1.71	2.10	2.02
IN.	0.27	0.73	1.90	1.93	1.50	2.83	1.80	1.50	1.61	1.97	2.42	2.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2003, BY WATER YEAR (WY)

MEAN	120	218	352	375	485	585	464	305	198	133	99.8	92.6
MAX	839	820	827	1000	1260	1340	1052	746	1072	987	549	497
(WY)	1955	1986	1991	1952	1956	1994	1940	1989	1972	1956	1984	1945
MIN	7.15	23.8	33.5	59.7	120	83.9	85.1	38.0	25.3	13.9	11.3	6.07
(WY)	1953	1954	1961	1977	1980	1969	1946	1941	1949	1962	1942	1952

e Estimated.

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03038000 CROOKED CREEK AT IDAHO, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1938 - 2003	
ANNUAL TOTAL	77130		106368			
ANNUAL MEAN	211		291		285	
HIGHEST ANNUAL MEAN					511	1956
LOWEST ANNUAL MEAN					148	1992
HIGHEST DAILY MEAN	2730	Mar 27	2840	Aug 30	9800	Jun 23 1972
LOWEST DAILY MEAN	20	Jul 15 <sup>a</sup>	20	Oct 25	<b>b</b> 1.0	Oct 22 1966
ANNUAL SEVEN-DAY MINIMUM	23	Jul 12	30	Oct 8	4.1	Sep 19 1939
MAXIMUM PEAK FLOW			4610	Aug 31	<b>c</b> 13200	Jun 23 1972
MAXIMUM PEAK STAGE			9.06	Aug 31	15.93	Jun 23 1972
INSTANTANEOUS LOW FLOW			15	Oct 25 <sup>d</sup>	4.6	Nov 1 1968
ANNUAL RUNOFF (CFSM)	1.11		1.53		1.49	
ANNUAL RUNOFF (INCHES)	15.02		20.72		20.24	
10 PERCENT EXCEEDS	491		637		682	
50 PERCENT EXCEEDS	108		175		126	
90 PERCENT EXCEEDS	28		36		24	

- a** Also Oct. 25.
- b** Result of upstream pumping.
- c** From rating curve extended above 12,800 ft<sup>3</sup>/s.
- d** Also Dec. 4 (result of abnormal diversion).

