

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 mi².

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 sea level (Baltimore and Ohio Railroad bench mark).

REMARKS.--Records good except those for estimated daily discharges, which are poor. 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 ft³/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, 19,400 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Jan. 24	1100	*4,960	*9.66	Apr. 10	0300	3,500	7.74

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	36	32	e13	207	288	116	159	42	34	34	32
2	39	36	27	e12	381	226	119	140	39	35	30	32
3	42	36	29	e15	391	272	108	120	68	32	31	29
4	50	37	30	e23	334	564	147	109	57	29	29	30
5	50	36	30	e13	315	428	783	101	40	27	29	33
6	39	39	30	e12	275	447	466	93	35	26	28	39
7	36	42	26	e12	301	480	379	85	37	28	29	55
8	52	36	28	e13	1090	354	292	188	50	29	36	45
9	67	33	28	e100	659	331	1250	172	36	31	32	36
10	45	45	30	327	469	285	2900	161	27	40	30	35
11	38	57	27	180	356	230	1430	124	27	42	26	35
12	33	45	28	155	316	218	1030	104	25	29	27	34
13	40	38	29	563	289	205	709	114	27	31	48	31
14	38	38	28	895	224	212	544	120	29	31	99	38
15	39	39	26	760	198	213	451	89	32	32	43	40
16	36	29	25	511	191	270	457	77	28	30	31	44
17	36	32	27	486	180	506	441	68	28	45	25	38
18	35	30	29	1180	169	1080	417	57	31	41	28	38
19	38	32	27	1260	150	775	389	77	30	28	28	35
20	41	32	30	638	132	526	434	66	33	30	31	40
21	38	32	30	520	111	457	429	51	30	29	47	44
22	38	33	497	1070	90	535	711	52	29	35	43	48
23	35	30	202	2900	80	413	709	81	27	30	30	36
24	35	30	87	4600	88	336	601	270	30	32	31	34
25	38	30	e50	2070	85	279	476	391	29	32	30	34
26	36	35	e40	826	83	232	399	227	29	30	29	33
27	38	33	e36	544	78	202	324	167	29	29	38	33
28	37	33	e28	534	194	182	261	121	54	30	40	29
29	38	40	e23	460	---	168	213	93	85	49	33	45
30	34	40	e20	331	---	145	181	73	63	43	33	243
31	36	---	e15	249	---	124	---	53	---	35	31	---
TOTAL	1233	1084	1594	21272	7436	10983	17166	3803	1126	1024	1079	1318
MEAN	39.8	36.1	51.4	686	266	354	572	123	37.5	33.0	34.8	43.9
MAX	67	57	497	4600	1090	1080	2900	391	85	49	99	243
MIN	33	29	15	12	78	124	108	51	25	26	25	29
CFSM	.21	.19	.27	3.59	1.39	1.85	3.00	.64	.20	.17	.18	.23
IN.	.24	.21	.31	4.14	1.45	2.14	3.34	.74	.22	.20	.21	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1999, BY WATER YEAR (WY)

MEAN	124	224	360	387	495	595	470	307	199	134	96.9	90.3
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

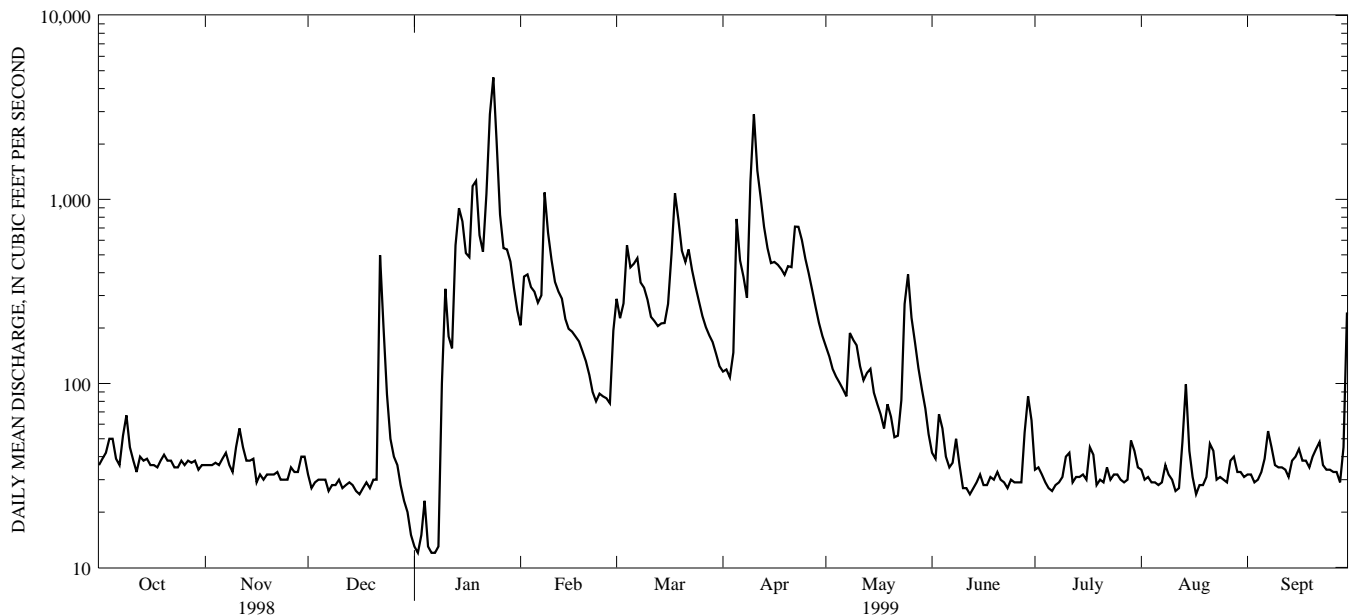
e Estimated.

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03038000 CROOKED CREEK AT IDAHO, PA--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1938 - 1999	
ANNUAL TOTAL	81952		69118		289	
ANNUAL MEAN	225		189		511	
HIGHEST ANNUAL MEAN					148	
LOWEST ANNUAL MEAN					1956	
HIGHEST DAILY MEAN	3210	Apr 27	4600	Jan 24	9800	Jun 23 1972
LOWEST DAILY MEAN	e15	Dec 31	e12	Jan 2,6,7	a1.0	Oct 22 1966
ANNUAL SEVEN-DAY MINIMUM	27	Dec 11	b14	Jan 1	4.1	Sep 19 1939
INSTANTANEOUS PEAK FLOW			4960	Jan 24	c13200	Jun 23 1972
INSTANTANEOUS PEAK STAGE			9.66	Jan 24	15.93	Jun 23 1972
INSTANTANEOUS LOW FLOW					4.6	Nov 1 1968
ANNUAL RUNOFF (CFSM)	1.18		.99		1.51	
ANNUAL RUNOFF (INCHES)	15.96		13.46		20.58	
10 PERCENT EXCEEDS	561		478		694	
50 PERCENT EXCEEDS	50		40		129	
90 PERCENT EXCEEDS	29		28		23	

- a Result of upstream pumping.
- b Computed using estimated daily discharges.
- c From rating curve extended above 12,800 ft³/s.
- e Estimated.



1-YEAR HYDROGRAPH
OCTOBER 1, 1998 TO SEPTEMBER 30, 1999