



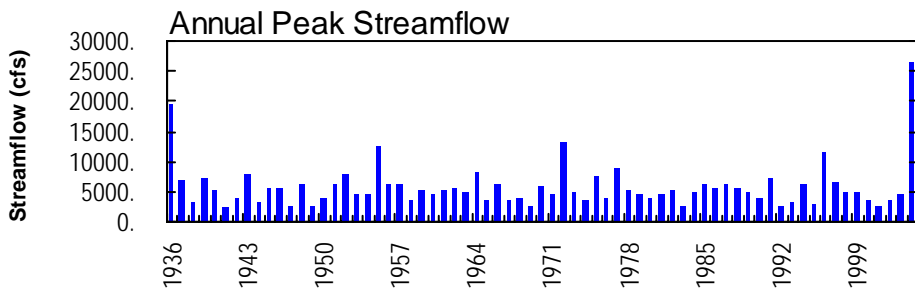
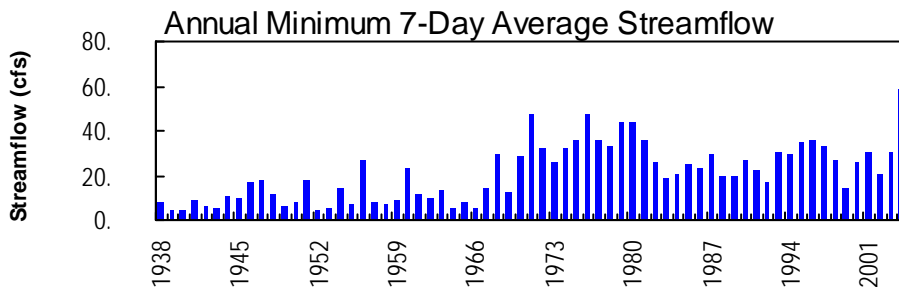
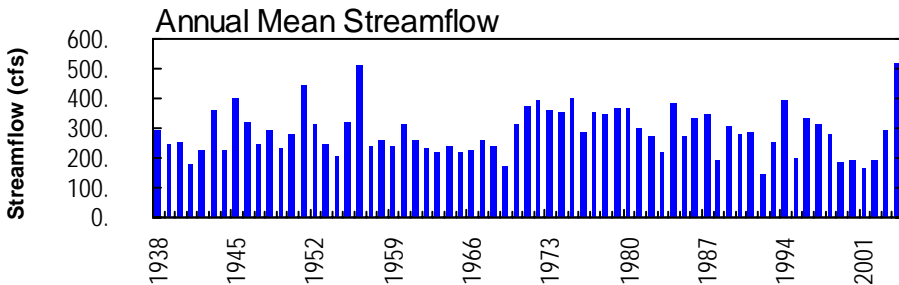
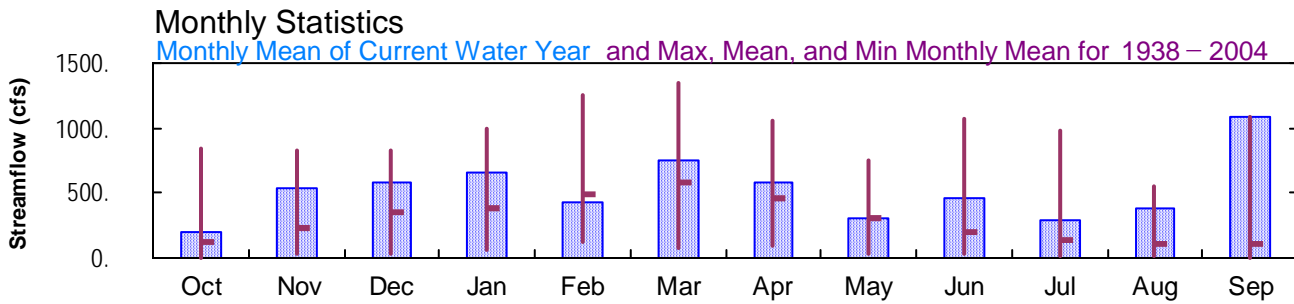
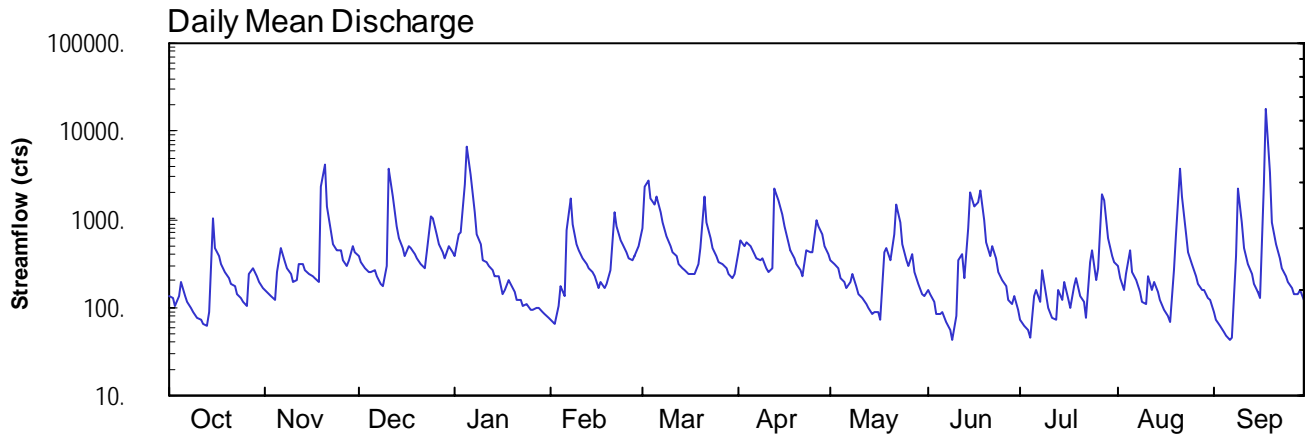
2004 Water Year CROOKED CREEK BASIN

03038000 Crooked Creek at Idaho, PA

Latitude: 40° 39' 17"
Armstrong County

Longitude: 079° 20' 56"
Datum: 961.04 feet

Hydrologic Unit Code: 05010006
Drainage Area: 191. mi²



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 Shelocta.

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 National Geodetic Vertical Datum of 1929 (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, about 19,000 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)
Nov. 20	0330	5,380	10.02	June 18	0445	2,600	6.55
Dec. 11	1230	4,090	8.41	July 27	2045	2,550	6.49
Jan. 5	1530	7,950	12.66	Aug. 21	1200	4,260	8.63
Mar. 3	0330	3,560	7.75	Sept. 9	0915	2,540	6.48
Apr. 14	0430	5,060	9.63	Sept. 18	0715	*26,400	*19.29
June 15	1345	2,640	6.60				

**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	137	155	375	373	70	795	425	343	157	73	295	89
2	125	145	322	665	65	2340	575	312	139	61	211	73
3	104	133	277	705	105	2720	483	277	114	55	161	61
4	138	121	247	2460	178	1700	557	221	86	46	245	54
5	191	255	246	6820	138	1480	485	191	86	136	452	48
6	134	473	261	3170	748	1800	400	166	87	162	252	42
7	115	334	222	1170	1750	1170	356	190	68	116	200	45
8	100	283	184	690	857	930	349	244	55	261	148	390
9	88	235	177	511	535	659	357	173	43	134	113	2230
10	77	199	298	350	440	505	285	145	79	97	108	918
11	71	210	3680	323	362	416	253	129	341	74	225	466
12	65	304	1810	299	304	382	285	112	403	71	158	318
13	60	315	853	271	278	318	2240	97	216	157	193	237
14	88	264	597	230	249	276	e1640	85	796	124	150	184
15	1050	238	480	222	228	265	e1150	89	2030	196	120	151
16	468	225	387	141	170	245	e840	88	1370	129	96	127
17	377	219	484	158	190	241	560	72	1590	97	80	2440
18	311	196	462	207	169	234	444	413	2080	174	68	17900
19	257	2320	401	185	184	309	355	462	967	213	262	3420
20	216	4140	356	147	265	465	303	339	538	134	646	923
21	187	1380	306	122	1180	1800	260	660	378	114	3680	522
22	171	749	285	122	833	927	227	1500	484	76	1810	368
23	144	524	421	104	573	598	440	915	354	323	674	282
24	130	448	1060	109	522	466	422	524	255	451	416	231
25	113	436	1010	93	423	391	415	348	201	210	314	194
26	106	348	675	94	371	329	997	294	172	278	228	166
27	234	301	509	100	340	307	839	395	124	1950	184	143
28	273	344	417	100	374	274	680	257	110	1600	162	143
29	230	489	361	89	506	236	505	186	137	616	155	156
30	199	414	491	83	---	220	412	142	93	386	131	123
31	170	---	431	74	---	237	---	135	---	324	121	---
TOTAL	6129	16197	18085	20187	12407	23035	17539	9504	13553	8838	12058	32444
MEAN	198	540	583	651	428	743	585	307	452	285	389	1081
MAX	1050	4140	3680	6820	1750	2720	2240	1500	2080	1950	3680	17900
MIN	60	121	177	74	65	220	227	72	43	46	68	42
CFM	1.04	2.83	3.05	3.41	2.24	3.89	3.06	1.61	2.37	1.49	2.04	5.66
IN.	1.19	3.15	3.52	3.93	2.42	4.49	3.42	1.85	2.64	1.72	2.35	6.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2004, BY WATER YEAR (WY)

MEAN	122	222	355	379	484	587	466	305	201	135	104	107
MAX	839	820	827	1000	1260	1340	1052	746	1072	987	549	1081
(WY)	1955	1986	1991	1952	1956	1994	1940	1989	1972	1956	1984	2004
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.

CROOKED CREEK BASIN

03038000 CROOKED CREEK AT IDAHO, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1938 - 2004	
ANNUAL TOTAL	131895		189976			
ANNUAL MEAN	361		519		288	
HIGHEST ANNUAL MEAN					519	
LOWEST ANNUAL MEAN					148	
HIGHEST DAILY MEAN	4140	Nov 20	17900	Sep 18	17900	Sep 18 2004
LOWEST DAILY MEAN	24	Aug 22	42	Sep 6	a2.8	Oct 8 1939
ANNUAL SEVEN-DAY MINIMUM	31	Aug 19	59	Sep 1	4.1	Sep 19 1939
MAXIMUM PEAK FLOW			b26400	Sep 18	b26400	Sep 18 2004
MAXIMUM PEAK STAGE			19.29	Sep 18	19.29	Sep 18 2004
INSTANTANEOUS LOW FLOW			37	Jun 9	2.4	Oct 8 1939
ANNUAL RUNOFF (CFSM)	1.89		2.72		1.51	
ANNUAL RUNOFF (INCHES)	25.69		37.00		20.49	
10 PERCENT EXCEEDS	701		1020		686	
50 PERCENT EXCEEDS	225		264		129	
90 PERCENT EXCEEDS	55		89		24	

a 1.0 ft³/s Oct. 22, 1966. Result of upstream pumping.
b From rating curve extended above 18,700 ft³/s.