

CHRISTINA RIVER BASIN

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°02'05", long 75°42'32", Chester County, Hydrologic Unit 02040205, on right bank 20 ft downstream from bridge on Dowlin Forge Road, 200 ft east of State Highway 282, 0.4 mi downstream from Shamona Creek, 1.5 mi downstream from Marsh Creek, 2.0 mi upstream from Beaver Creek, and 2.2 mi north of Downingtown.

DRAINAGE AREA.--60.6 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1948-57. October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 30, 1966, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) 1.9 mi upstream. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

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	17	54	35	297	e52	124	98	115	227	99	70	36
2	13	45	30	316	e57	227	113	100	107	96	64	127
3	12	39	47	212	e55	289	139	51	93	102	73	121
4	19	36	88	240	e63	199	134	50	751	96	167	225
5	19	34	89	162	e73	222	137	53	415	92	136	147
6	17	74	97	152	e66	404	129	58	274	94	108	81
7	15	47	91	144	e67	316	115	56	383	108	102	50
8	14	38	94	145	e64	256	116	74	302	99	129	45
9	14	36	92	205	e58	368	150	71	259	88	137	41
10	24	38	89	141	e60	261	153	70	254	88	496	38
11	227	55	289	127	e59	219	256	66	202	91	152	37
12	115	130	366	119	e58	214	215	63	115	91	130	36
13	45	143	210	117	e57	258	179	59	281	82	120	94
14	33	116	416	115	e51	241	145	56	222	73	126	98
15	27	103	197	113	e48	252	137	54	205	70	98	1330
16	138	123	149	108	e50	265	132	56	217	67	68	438
17	91	301	127	112	e45	280	127	65	147	63	69	462
18	40	231	116	102	e47	189	128	58	160	61	68	317
19	29	129	113	105	e51	157	101	56	127	61	68	356
20	31	126	300	109	e56	329	62	53	1110	56	61	138
21	29	104	175	104	e52	388	63	70	976	54	57	133
22	29	77	136	e34	e150	263	78	66	660	66	52	153
23	27	95	124	e35	e400	235	68	64	399	92	46	674
24	26	114	117	e37	352	213	63	81	375	71	40	248
25	27	107	216	e38	290	179	64	92	323	63	37	209
26	66	102	187	e40	230	155	100	501	216	59	37	186
27	32	110	148	e39	144	162	113	208	116	56	38	175
28	23	76	135	e36	132	143	130	171	108	54	35	230
29	31	38	128	e39	---	143	124	138	106	52	34	158
30	124	37	125	e44	---	144	119	80	103	48	49	137
31	139	---	136	e47	---	132	---	77	---	47	39	---
TOTAL	1493	2758	4662	3634	2887	7227	3688	2832	9233	2339	2906	6520
MEAN	48.2	91.9	150	117	103	233	123	91.4	308	75.5	93.7	217
MAX	227	301	416	316	400	404	256	501	1110	108	496	1330
MIN	12	34	30	34	45	124	62	50	93	47	34	36

e Estimated.

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01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2003, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	58.3	73.3	110	118	110	141	129	105	79.4	64.0	44.4	60.3
MAX (WY)	199	169	385	361	242	380	365	246	308	257	93.7	217
MIN (WY)	1997	1997	1997	1979	1979	1994	1983	1989	2003	1984	2003	2003
MIN (WY)	23.2	24.9	23.5	17.5	29.5	35.7	28.9	49.2	29.6	19.7	17.8	17.1
MIN (WY)	1981	2002	1981	1981	2002	1985	1985	1976	1985	2002	2002	1980

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1974 - 2003

ANNUAL TOTAL		19330.8		50179								
ANNUAL MEAN		53.0		137						90.9		
HIGHEST ANNUAL MEAN										150		1984
LOWEST ANNUAL MEAN										35.0		2002
HIGHEST DAILY MEAN				416	Dec 14		1330	Sep 15		2020	Jan 26	1978
LOWEST DAILY MEAN				9.1	Sep 13		12	Oct 3		9.1	Sep 13	2002
ANNUAL SEVEN-DAY MINIMUM				11	Sep 8		16	Oct 2		11	Sep 8	2002
MAXIMUM PEAK FLOW							4450	Jun 20		a5410	Sep 16	1999
MAXIMUM PEAK STAGE							8.65	Jun 20		9.59	Sep 16	1999
INSTANTANEOUS LOW FLOW							10	Oct 3		7.4	Sep 13	2002
10 PERCENT EXCEEDS				124			276			176		
50 PERCENT EXCEEDS				32			103			58		
90 PERCENT EXCEEDS				15			37			25		

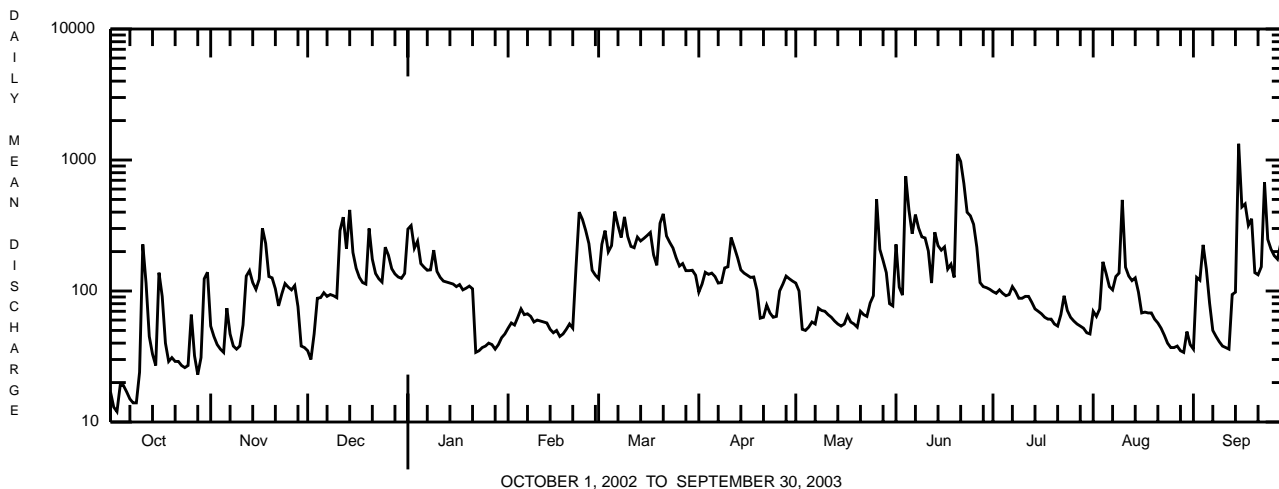
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1973, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	44.3	76.4	92.0	81.4	139	129	123	98.8	99.8	63.1	56.5	45.2
MAX (WY)	120	168	245	168	286	195	238	144	306	128	147	148
(WY)	1972	1973	1973	1973	1971	1972	1973	1973	1972	1972	1971	1971
MIN (WY)	24.8	27.6	32.0	33.3	51.6	70.0	64.3	43.2	30.3	18.3	15.3	20.1
(WY)	1970	1966	1966	1969	1969	1969	1969	1969	1966	1966	1966	1970

SUMMARY STATISTICS WATER YEARS 1966 - 1973

ANNUAL TOTAL ANNUAL MEAN		87.0										
HIGHEST ANNUAL MEAN		139										1973
LOWEST ANNUAL MEAN		51.6										1969
HIGHEST DAILY MEAN		3220						Jun 22				1972
LOWEST DAILY MEAN		7.2						Sep 12				1966
ANNUAL SEVEN DAY MINIMUM		8.0						Sep 7				1966
MAXIMUM PEAK FLOW		a8070						Jun 22				1972
MAXIMUM PEAK STAGE		b12.06						Jun 22				1972
INSTANTANEOUS LOW FLOW		7.2						Sep 2,3,11-13,				1966
ANNUAL RUNOFF (CFSM)		1.44										
ANNUAL RUNOFF (INCHES)		19.51										
10 PERCENT EXCEEDS		163										
50 PERCENT EXCEEDS		56										
90 PERCENT EXCEEDS		23										

- a From rating curve extended above 5,000 ft³/s.
- b From floodmark.



OCTOBER 1, 2002 TO SEPTEMBER 30, 2003