

CHRISTINA RIVER BASIN

01480400 BIRCH RUN NEAR WAGONTOWN, PA

LOCATION.--Lat 40°01'38", long 75°50'43", Chester County, Hydrologic Unit 02040205, on right bank 15 ft upstream from SR 4005, 0.2 mi upstream of mouth, 0.6 mi downstream from Chambers Lake, and 1.1 mi northwest of Wagontown.

DRAINAGE AREA.--4.55 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1995 to current year.

REVISED RECORDS.--WDR PA-99-1: 1996-98 (M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 505.81 ft above North American Vertical Datum of 1988.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Chambers Lake (station 01480399) 0.6 mi upstream. 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	3.2	1.4	1.5	23	4.2	7.0	11	5.2	20	6.2	2.3	2.2
2	5.3	1.4	1.5	41	4.6	12	9.7	5.0	15	5.8	3.4	7.1
3	5.1	1.4	1.6	23	4.6	23	8.6	4.5	10	6.2	3.4	6.5
4	4.9	1.4	1.6	24	5.8	15	7.9	4.3	50	6.1	6.4	11
5	5.0	1.4	1.6	15	6.3	15	8.4	4.3	45	5.7	7.0	10
6	5.0	1.4	1.6	13	5.1	33	7.7	4.4	21	5.7	7.0	6.1
7	4.7	1.4	1.6	10	5.4	25	7.7	4.5	21	6.8	5.2	4.3
8	4.7	1.4	1.6	9.1	4.9	16	8.3	5.2	25	8.3	4.3	3.5
9	4.9	1.4	1.6	10	4.3	25	11	5.4	17	6.4	14	2.8
10	4.6	1.4	1.6	9.7	4.2	26	13	5.6	12	5.6	69	2.3
11	2.9	1.4	2.1	7.9	4.0	14	19	5.3	9.8	5.9	22	2.0
12	1.4	1.5	1.8	6.6	3.8	12	20	5.0	8.6	5.7	12	1.8
13	1.3	1.4	1.9	5.6	3.7	18	13	4.4	15	5.6	7.5	3.4
14	1.3	1.4	24	5.3	3.5	21	10	4.0	31	4.7	5.6	6.5
15	1.1	1.4	21	5.3	3.7	16	8.6	3.8	25	4.3	4.4	32
16	1.4	1.5	14	4.9	4.2	15	8.1	4.0	14	4.1	4.1	27
17	1.3	1.7	9.5	5.0	7.2	17	7.1	4.5	10	3.8	4.3	36
18	1.4	1.6	7.0	4.6	5.7	14	6.9	4.5	15	3.5	3.9	17
19	1.4	1.5	5.8	4.3	4.8	11	6.8	4.4	13	3.5	3.5	7.3
20	1.4	1.5	15	4.2	4.2	21	6.5	4.1	72	3.2	2.9	9.0
21	1.4	1.4	17	4.1	4.4	54	6.4	4.2	163	3.0	2.7	7.5
22	1.4	1.4	11	3.9	22	25	6.8	4.2	52	3.1	2.7	6.5
23	1.4	1.4	7.8	3.7	70	16	6.2	4.2	25	5.4	2.9	41
24	1.3	1.4	6.2	3.6	53	12	5.5	5.1	16	4.7	2.2	25
25	1.4	1.5	14	3.5	25	10	5.2	6.5	12	4.0	1.9	13
26	1.4	1.5	18	3.6	15	9.6	8.8	45	10	3.4	1.9	10
27	1.4	1.5	12	3.7	10	10	9.5	26	8.9	3.2	2.1	7.8
28	1.4	1.5	9.2	3.5	8.2	9.1	7.4	14	7.5	2.7	2.1	9.0
29	1.4	1.5	7.6	3.8	---	10	6.4	9.3	7.0	2.3	2.0	7.9
30	1.5	1.5	7.1	3.9	---	15	5.6	7.1	6.7	2.1	2.1	6.0
31	1.4	---	7.6	3.9	---	15	---	6.3	---	1.9	2.0	---
TOTAL	77.7	43.5	235.4	272.7	301.8	541.7	267.1	224.3	757.5	142.9	216.8	331.5
MEAN	2.51	1.45	7.59	8.80	10.8	17.5	8.90	7.24	25.2	4.61	6.99	11.1
MAX	5.3	1.7	24	41	70	54	20	45	163	8.3	69	41
MIN	1.1	1.4	1.5	3.5	3.5	7.0	5.2	3.8	6.7	1.9	1.9	1.8

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
MEAN	4.90	3.35	7.53	6.35	7.81	11.9	9.15	5.87	6.37	2.68	3.03	3.86
MAX	19.2	11.3	30.3	16.2	10.8	17.5	17.1	8.99	25.2	6.23	6.99	11.1
(WY)	1997	1997	1997	1996	2003	2003	1998	1998	2003	1996	2003	2003
MIN	1.15	1.23	1.21	1.57	2.79	1.86	1.40	2.65	1.50	1.33	1.25	1.45
(WY)	1996	1996	1996	1999	1999	2002	2002	1999	1999	1995	1995	1995

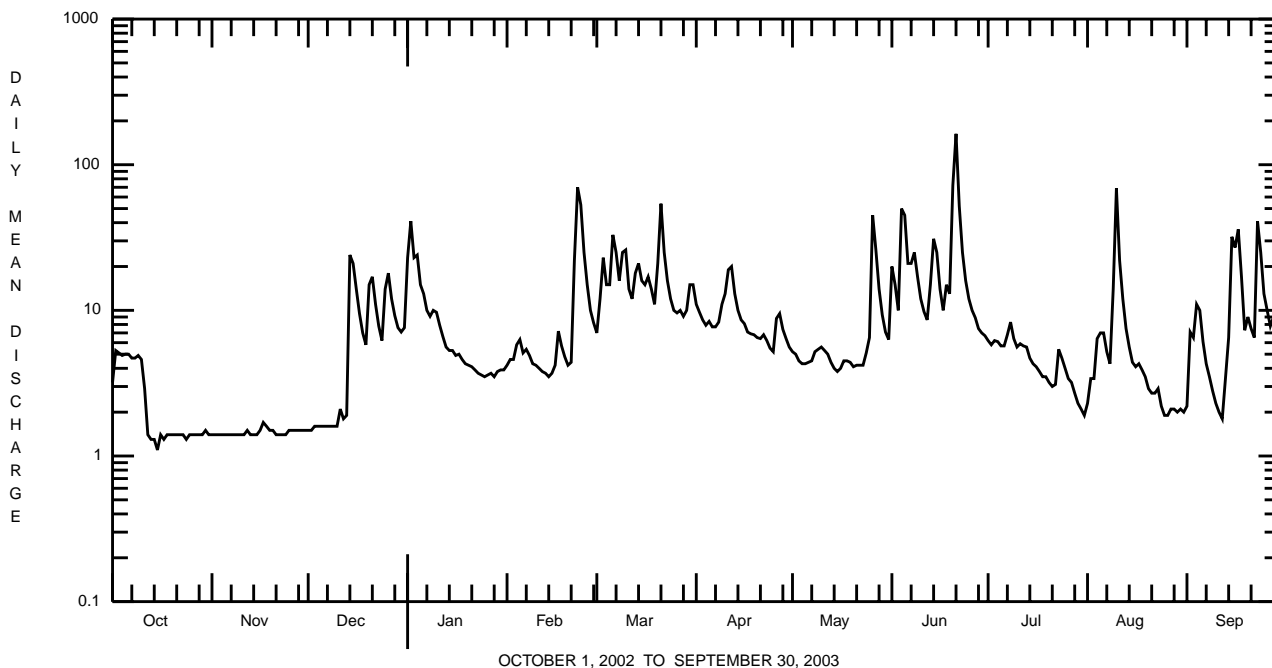
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01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL TOTAL	1144.9		3412.9			
ANNUAL MEAN	3.14		9.35		6.28	
HIGHEST ANNUAL MEAN					9.52	
LOWEST ANNUAL MEAN					2.83	
HIGHEST DAILY MEAN	27	Jun 7	163	Jun 21	250	Oct 19 1996
LOWEST DAILY MEAN	1.1	Jul 31 ^a	1.1	Oct 15	0.10	Feb 15 1995
ANNUAL SEVEN-DAY MINIMUM	1.2	Jul 29	1.3	Oct 12	0.27	Apr 18 1995
MAXIMUM PEAK FLOW			b291	Jun 21	b401	Jan 19 1996
MAXIMUM PEAK STAGE			4.45	Jun 21	4.99	Jan 19 1996
10 PERCENT EXCEEDS	5.1		21		13	
50 PERCENT EXCEEDS	2.1		5.6		3.3	
90 PERCENT EXCEEDS	1.4		1.4		1.5	

^a Also Aug. 1-3, Oct. 15.

^b From rating curve extended above 230 ft³/s based on a slope-conveyance determination of discharge at gage height 4.99 ft.



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01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1996 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 1996 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Water temperature records rated good except for period Dec. 19 to Dec. 30, which is fair and period Jan. 1-6, which is poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 27.0°C, June 26, Aug. 10, 2003; minimum, 0.0°C, several days during winters.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 27.0°C, June 26, Aug. 10; minimum, 0.5°C, Dec. 5, Jan. 11-14.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	21.0	17.5	19.0	10.5	8.0	9.0	4.5	3.0	3.5	2.0	2.0	2.0
2	22.0	19.5	20.5	9.5	8.0	8.5	4.5	3.0	3.5	2.5	2.0	2.5
3	22.0	20.0	21.0	9.0	7.5	8.0	4.0	2.0	2.5	2.5	2.5	2.5
4	21.0	20.0	20.5	9.0	7.5	8.5	3.0	1.5	2.0	2.5	2.0	2.5
5	22.0	20.5	21.0	9.0	7.5	8.0	2.5	0.5	2.0	2.5	2.5	2.5
6	20.5	19.5	20.0	9.5	7.5	8.5	3.5	2.0	2.5	2.5	2.5	2.5
7	21.0	19.5	20.0	8.5	7.0	8.0	3.5	1.5	2.5	2.5	1.5	2.0
8	19.5	18.5	19.0	9.0	7.0	8.0	4.5	2.0	3.0	2.0	1.0	1.5
9	19.0	18.5	18.5	9.5	7.0	8.0	3.5	2.0	2.5	2.5	1.5	2.0
10	18.5	18.0	18.5	10.0	8.0	9.0	4.0	2.0	3.0	2.5	1.5	2.0
11	18.0	16.5	17.0	10.0	8.5	9.5	3.5	2.5	3.0	2.0	0.5	1.5
12	17.0	16.0	16.5	9.0	8.5	8.5	5.0	3.5	4.0	1.0	0.5	0.5
13	17.0	16.0	16.5	9.0	7.5	8.5	4.5	3.0	4.0	1.5	0.5	1.0
14	16.5	14.5	15.5	10.0	7.0	8.5	4.0	2.5	2.5	1.5	0.5	1.0
15	15.5	14.0	14.5	10.0	7.5	8.5	3.0	2.5	2.5	1.5	1.0	1.0
16	14.5	14.0	14.5	8.5	8.0	8.5	3.0	2.5	3.0	2.0	1.0	1.5
17	15.0	13.5	14.0	9.0	8.0	8.5	2.5	2.0	2.5	2.0	1.0	1.5
18	14.5	12.5	13.0	8.0	7.0	7.5	2.5	2.0	2.5	2.0	1.0	1.5
19	14.0	12.5	13.0	8.5	6.5	7.5	3.5	2.5	3.0	2.0	1.5	1.5
20	14.0	12.5	13.5	9.0	6.5	7.5	4.0	2.5	3.0	2.0	1.5	1.5
21	14.0	12.0	13.0	8.0	6.5	7.5	3.0	2.5	2.5	2.5	1.5	2.0
22	14.0	11.5	12.5	8.0	7.0	8.0	3.0	2.5	2.5	2.0	1.5	1.5
23	13.5	11.5	12.0	7.0	5.5	6.5	3.0	2.5	3.0	2.5	1.5	1.5
24	12.0	11.5	12.0	7.5	5.5	6.5	3.0	2.5	3.0	2.5	1.5	2.0
25	12.0	11.5	11.5	8.0	6.0	6.5	3.0	1.5	2.0	3.0	2.0	2.5
26	13.5	11.5	12.0	7.5	6.0	6.5	2.0	1.5	1.5	3.0	2.0	2.5
27	13.0	11.0	12.0	7.0	5.0	6.0	1.5	1.5	1.5	2.5	1.5	2.0
28	12.0	10.5	11.5	6.0	4.5	5.0	1.5	1.5	1.5	3.0	2.0	2.5
29	11.0	10.0	10.5	5.5	4.0	4.5	2.0	1.5	1.5	3.0	2.5	2.5
30	10.0	9.5	9.5	6.0	4.5	5.0	2.5	1.5	2.0	3.5	2.0	2.5
31	10.0	8.5	9.5	---	---	---	2.5	2.0	2.5	3.5	2.5	3.0
MONTH	22.0	8.5	15.2	10.5	4.0	7.6	5.0	0.5	2.6	3.5	0.5	1.9

