

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 510 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.7	3.0	2.6	15	6.4	17	4.2	4.1	1.4	1.6	1.5
2	2.0	1.7	2.6	2.5	13	5.7	13	4.1	7.8	1.4	1.6	1.5
3	1.9	1.7	2.3	2.4	9.9	5.7	11	3.9	6.2	1.4	1.6	1.5
4	e8.0	1.7	2.1	2.3	7.2	6.4	9.5	3.8	4.6	1.4	1.7	1.6
5	e30	1.7	2.2	2.5	11	8.5	8.3	3.8	3.7	1.5	1.5	1.5
6	12	1.7	1.9	2.6	13	7.6	8.4	3.4	3.2	1.5	1.5	1.5
7	6.7	1.7	2.0	2.5	11	6.6	8.7	3.2	3.1	1.5	1.4	1.5
8	3.9	1.7	1.7	2.8	10	7.8	8.0	3.2	2.7	1.4	1.4	1.5
9	3.1	1.6	1.8	3.0	9.8	9.9	8.3	3.3	2.4	1.5	1.4	1.5
10	2.5	1.8	1.7	2.6	24	9.3	11	3.3	2.1	1.5	1.4	1.5
11	2.1	1.7	1.8	2.4	15	7.5	11	3.1	1.9	1.5	1.4	1.5
12	1.8	1.5	2.5	2.5	10	6.7	13	3.0	1.9	1.5	1.7	1.5
13	1.7	1.5	1.6	2.4	8.2	16	11	2.7	1.8	1.5	1.4	1.6
14	1.7	1.6	9.1	2.5	7.7	14	8.7	2.3	1.7	1.5	1.4	1.6
15	1.6	1.7	10	3.6	8.2	10	7.6	2.2	1.7	1.4	1.4	1.6
16	1.6	1.5	7.2	4.2	8.3	9.7	12	2.0	2.5	1.4	1.4	1.6
17	1.9	1.6	77	3.9	12	13	13	2.1	3.4	1.5	1.4	1.8
18	2.8	1.4	41	3.7	9.0	11	14	2.3	2.8	1.5	1.4	2.6
19	3.1	1.4	16	12	7.1	8.2	11	2.6	2.2	1.5	1.4	2.5
20	2.4	1.4	9.9	28	6.5	7.3	8.7	2.6	1.9	1.5	1.5	2.1
21	2.3	1.5	6.1	17	6.2	14	7.6	4.9	1.8	1.5	1.4	3.1
22	2.4	1.5	4.9	e10	5.8	24	7.1	14	1.9	1.5	1.5	3.5
23	2.5	1.4	4.0	e7.0	6.2	15	6.5	15	3.2	1.5	1.5	3.1
24	2.2	1.4	3.7	5.8	5.7	11	6.3	8.8	2.8	1.5	1.5	2.2
25	1.9	1.4	3.4	5.3	6.5	8.7	5.3	5.7	2.2	1.5	1.5	3.1
26	1.8	3.7	3.1	4.6	11	7.7	4.9	12	1.8	1.5	1.5	2.1
27	1.8	6.2	3.0	4.5	9.2	7.1	4.9	28	1.6	1.5	1.5	3.4
28	2.0	4.3	2.9	4.1	7.5	6.5	4.8	15	1.5	1.5	1.5	3.5
29	1.9	3.6	2.8	3.9	---	6.7	4.2	9.0	1.5	1.5	1.5	3.3
30	1.8	3.6	2.8	9.9	---	41	4.2	6.0	1.4	1.5	1.5	3.3
31	1.8	---	2.8	18	---	27	---	4.4	---	1.5	1.6	---
TOTAL	115.3	60.9	236.9	181.1	274.0	346.0	269.0	183.9	81.4	45.8	46.0	64.1
MEAN	3.72	2.03	7.64	5.84	9.79	11.2	8.97	5.93	2.71	1.48	1.48	2.14
MAX	30	6.2	77	28	24	41	17	28	7.8	1.5	1.7	3.5
MIN	1.6	1.4	1.6	2.3	5.7	5.7	4.2	2.0	1.4	1.4	1.4	1.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2001, BY WATER YEAR (WY)

MEAN	5.60	3.88	8.31	6.49	8.04	12.5	10.3	5.93	4.03	2.59	2.48	2.77
MAX	19.2	11.3	30.3	16.2	9.94	17.3	17.1	8.99	10.4	6.23	4.49	6.19
(WY)	1997	1997	1997	1996	1997	2000	1998	1998	1996	1996	1999	1996
MIN	1.15	1.23	1.21	1.57	2.79	8.41	2.90	2.65	1.50	1.33	1.25	1.45
(WY)	1996	1996	1996	1999	1999	1999	1995	1999	1999	1995	1995	1995

e Estimated.

CHRISTINA RIVER BASIN

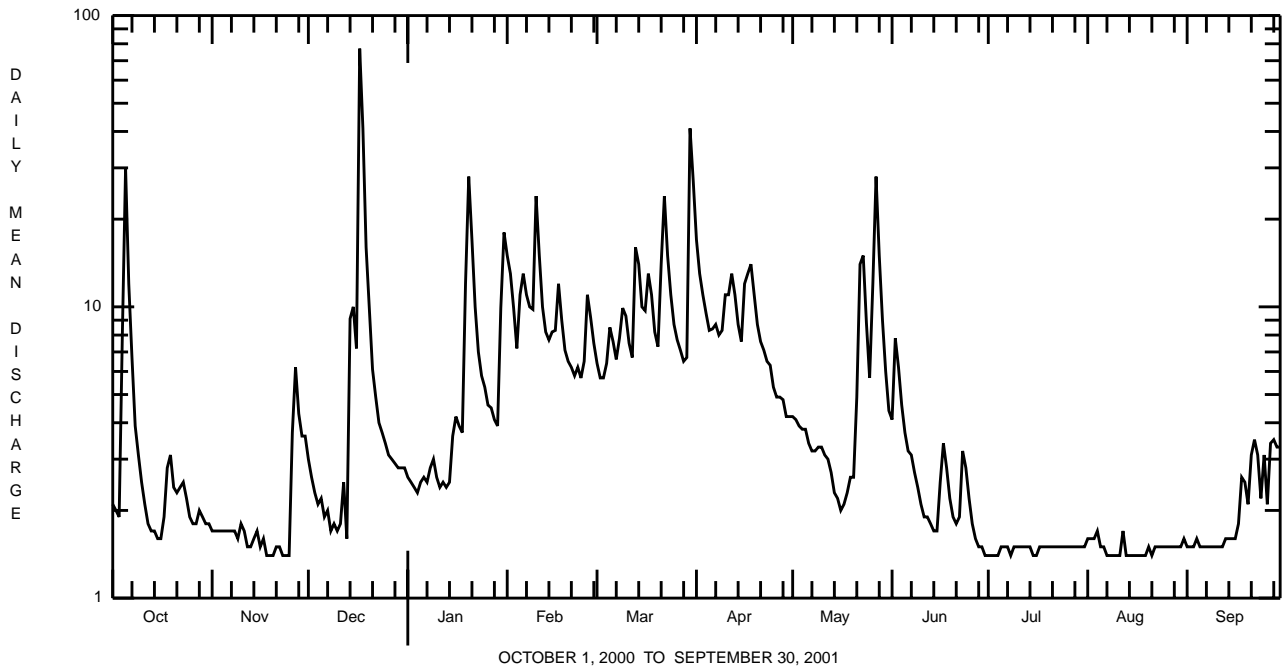
01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1995 - 2001	
ANNUAL TOTAL	2358.2		1904.4			
ANNUAL MEAN	6.44		5.22		6.35	
HIGHEST ANNUAL MEAN					9.52	
LOWEST ANNUAL MEAN					3.31	
HIGHEST DAILY MEAN	183	Mar 22	77	Dec 17	250	Oct 19 1996
LOWEST DAILY MEAN	1.4	Nov 18 ^a	1.4	Nov 18 ^b	.10	Feb 15 1995
ANNUAL SEVEN-DAY MINIMUM	1.4	Nov 18	1.4	Aug 13	.27	Apr 18 1995
MAXIMUM PEAK FLOW			139	Dec 17	c401	Jan 19 1996
MAXIMUM PEAK STAGE			3.58	Dec 17	4.99	Jan 19 1996
10 PERCENT EXCEEDS	13		11		13	
50 PERCENT EXCEEDS	3.7		2.7		3.2	
90 PERCENT EXCEEDS	1.6		1.5		1.4	

^a Also Nov. 19, 20, 23-25.

^b Also Nov. 19, 20, 23-25, June 30, July 1-4, 8, 15, 16, Aug. 7-11, 13-19, 21.

^c From rating curve extended above 230 ft³/s based on a slope-conveyance calculation.



CHRISTINA RIVER BASIN

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.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 26.0°C, July 19, Aug. 1, 1996; minimum, 0.0°C, several days during winters.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 20.5°C, May 4, Sept. 21-23; minimum, 1.0°C, Dec. 23, Jan. 22, 23.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.5	15.5	16.5	13.0	11.0	11.5	5.5	4.5	5.0	3.0	2.0	2.5
2	18.0	15.5	16.5	13.0	11.0	11.5	5.0	4.0	4.5	2.5	2.0	2.0
3	18.5	15.5	16.5	13.0	10.5	11.5	4.5	3.5	4.0	2.5	2.0	2.0
4	19.0	15.0	17.0	12.5	11.0	11.5	4.5	3.0	3.5	3.0	2.0	2.5
5	19.0	18.5	18.5	12.5	10.5	11.0	4.5	3.0	3.5	2.5	2.0	2.5
6	19.0	18.0	18.5	12.0	10.0	10.5	3.5	2.5	3.0	3.0	2.0	2.5
7	18.0	16.0	17.5	12.0	10.0	10.5	3.5	2.5	3.0	3.5	2.0	2.5
8	16.5	15.0	16.0	12.0	10.0	11.0	4.5	3.0	3.5	3.5	2.5	2.5
9	15.5	14.0	14.5	11.5	10.5	11.0	3.5	2.5	3.0	2.5	2.0	2.0
10	14.5	13.5	14.0	12.5	11.0	11.5	4.0	2.5	3.0	3.0	1.5	2.0
11	15.0	13.0	14.0	12.5	10.5	11.5	4.5	3.5	4.0	3.0	1.5	2.5
12	15.5	13.0	14.0	12.0	10.0	11.0	4.5	2.5	3.5	3.0	2.0	2.0
13	15.5	13.5	14.0	12.0	10.0	10.5	3.5	2.0	2.5	3.0	1.5	2.5
14	15.5	13.5	14.5	11.0	9.0	10.5	3.0	2.5	3.0	3.5	2.0	2.5
15	16.0	13.5	14.5	10.0	8.5	9.5	3.0	2.5	2.5	3.0	2.5	2.5
16	15.0	13.5	14.5	10.0	8.0	9.0	3.5	3.0	3.0	3.0	2.5	2.5
17	14.5	14.0	14.0	10.0	8.0	9.0	6.0	3.5	4.0	3.0	2.5	2.5
18	15.0	14.5	14.5	9.0	7.5	8.0	4.5	3.5	4.0	2.5	2.0	2.5
19	15.5	14.0	14.5	8.5	6.5	7.5	3.5	2.5	3.5	2.5	2.0	2.5
20	15.5	13.5	14.5	8.5	6.5	7.0	2.5	1.5	2.0	2.0	1.5	2.0
21	16.0	13.5	14.5	7.0	5.0	6.0	2.5	1.5	2.0	2.0	1.5	1.5
22	15.0	13.0	14.0	5.5	4.5	5.0	2.5	1.5	2.5	2.0	1.0	1.5
23	15.0	12.5	13.5	5.5	4.0	4.5	2.0	1.0	1.5	2.5	1.0	2.0
24	15.0	13.0	14.0	5.5	4.0	4.5	2.5	1.5	2.0	2.5	1.5	2.0
25	15.5	13.5	14.5	5.5	4.0	4.5	2.0	1.5	1.5	3.0	2.0	2.0
26	15.5	13.5	14.0	6.0	5.0	5.5	2.0	1.5	1.5	2.5	1.5	2.0
27	15.5	13.5	14.5	6.0	5.0	5.5	2.5	1.5	2.0	3.0	1.5	2.5
28	15.0	13.0	14.0	6.5	5.5	6.0	2.0	1.5	2.0	3.0	2.0	2.0
29	14.0	12.0	13.0	6.5	5.0	5.5	2.5	1.5	2.0	3.0	1.5	2.5
30	13.5	11.5	12.5	6.0	5.0	5.5	2.5	2.0	2.0	2.5	2.0	2.5
31	13.0	11.5	12.0	---	---	---	2.5	1.5	2.0	2.5	2.0	2.0
MONTH	19.0	11.5	14.8	13.0	4.0	8.6	6.0	1.0	2.9	3.5	1.0	2.2

