



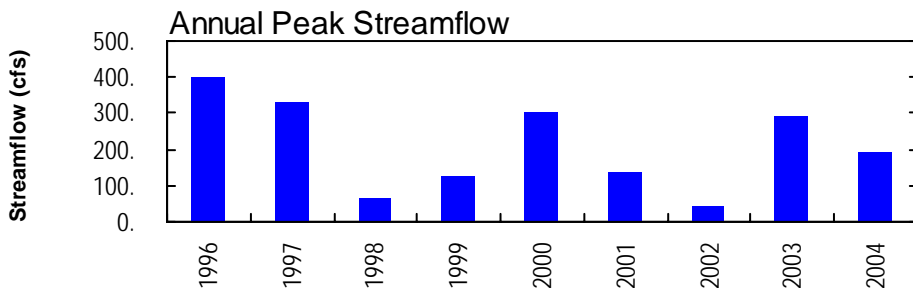
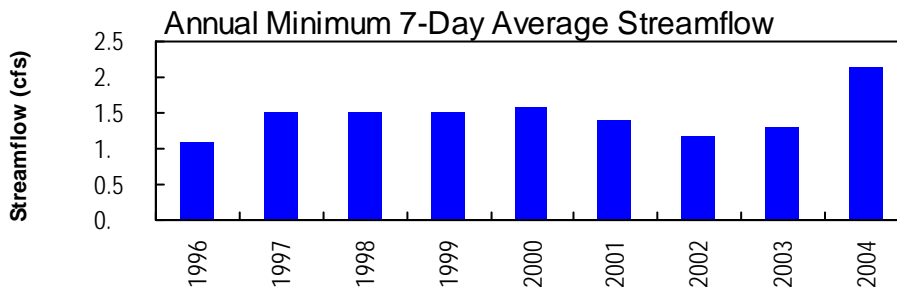
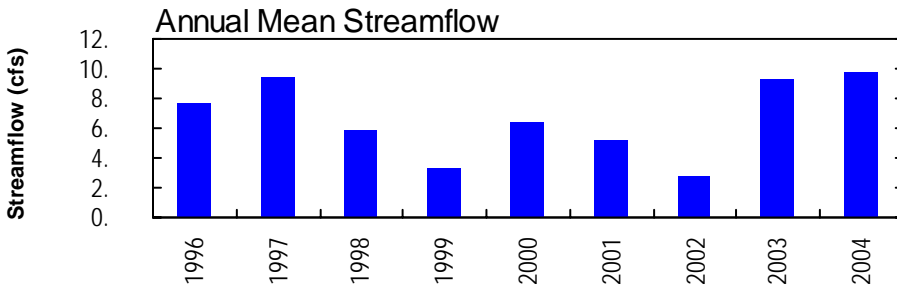
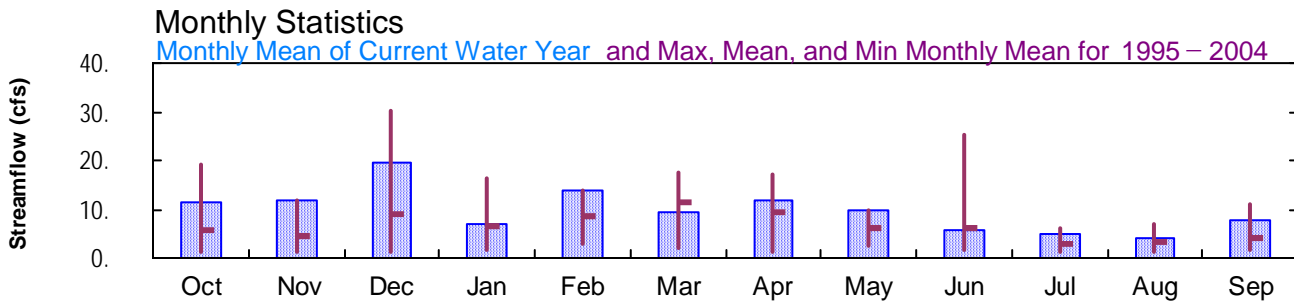
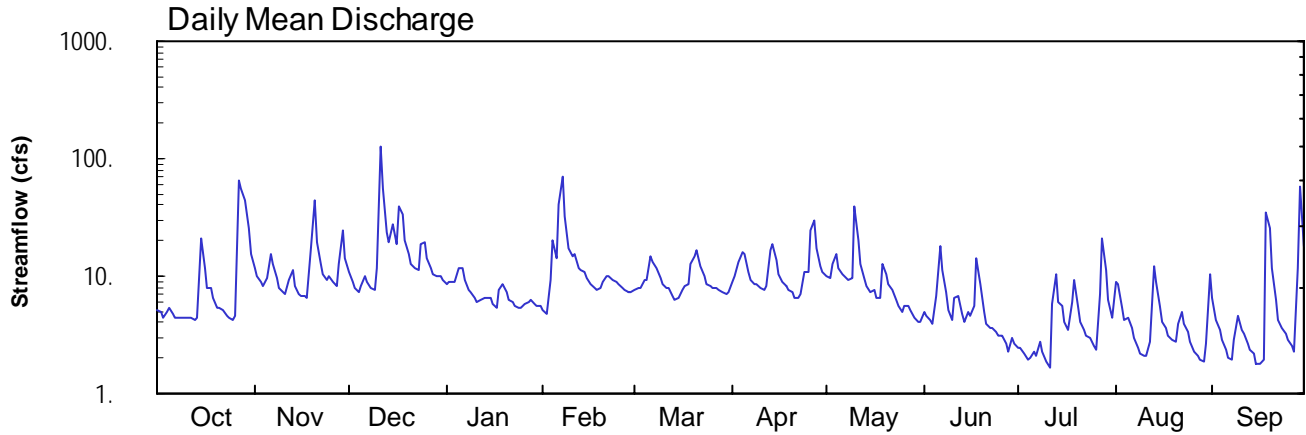
# 2004 Water Year CHRISTINA RIVER BASIN

## 01480400 Birch Run near Wagontown, PA

Latitude: 40° 01' 38"  
Chester County

Longitude: 075° 50' 43"  
Datum: 510 feet

Hydrologic Unit Code: 02040205  
Drainage Area: 4.55 mi<sup>2</sup>



01480400--Birch Run near Wagontown

**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 mi<sup>2</sup>.

**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.**--Records good except those for estimated daily discharges, which are 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 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	12	11	8.7	5.1	7.5	8.9	10	4.9	2.4	8.7	6.5
2	4.9	10	9.0	8.8	4.8	8.0	10	9.6	4.6	2.4	8.7	4.2
3	4.3	9.1	7.8	8.8	9.1	8.1	13	13	4.3	2.2	5.5	3.5
4	5.0	8.3	7.4	9.0	20	9.1	16	15	4.0	1.9	4.3	2.9
5	5.4	9.7	8.3	12	14	9.2	16	12	6.9	2.1	4.4	2.3
6	4.7	16	9.8	12	41	15	11	11	18	2.3	3.7	2.0
7	4.4	13	8.8	9.2	69	13	9.4	9.8	11	2.1	3.0	1.9
8	4.3	9.7	7.9	7.6	33	12	8.7	9.4	7.3	2.8	2.5	2.9
9	4.4	7.9	7.6	7.2	17	9.7	8.7	9.5	5.1	2.2	2.2	e4.5
10	4.4	7.2	12	6.5	15	8.7	7.9	39	4.2	1.8	2.1	e3.5
11	4.4	7.1	125	6.1	15	8.0	7.5	20	6.6	1.6	2.1	3.3
12	4.4	9.3	56	6.2	12	7.8	8.2	13	6.7	5.8	2.7	2.7
13	4.2	11	24	6.6	11	6.9	16	9.6	4.7	10	12	2.4
14	4.4	8.2	19	6.4	11	6.4	18	8.1	4.2	5.9	9.0	2.2
15	21	6.9	28	6.5	9.8	6.5	14	7.4	4.9	5.7	5.5	1.8
16	12	6.7	19	5.8	8.5	7.5	10	7.7	4.5	4.1	4.1	1.8
17	7.8	6.7	39	5.5	7.9	8.3	8.9	6.6	5.6	3.5	3.6	1.9
18	7.8	6.6	34	7.7	7.8	8.7	8.2	6.6	14	6.0	3.2	34
19	6.5	17	20	8.7	8.0	12	7.7	13	8.6	9.3	2.9	26
20	5.4	44	15	7.3	8.8	15	7.3	10	5.0	5.6	2.8	12
21	5.4	19	13	6.4	10	17	6.6	8.6	4.0	4.2	3.9	6.3
22	5.1	13	11	6.0	10	12	6.6	7.6	3.6	3.5	4.9	4.2
23	4.6	10	11	5.6	9.1	9.9	7.0	6.3	3.7	3.1	3.9	3.6
24	4.4	9.2	19	5.5	8.9	8.7	11	5.6	3.4	3.0	3.3	3.3
25	4.3	10	19	5.3	8.5	8.3	11	5.0	3.1	2.5	2.7	2.9
26	4.6	9.0	14	5.8	8.0	8.0	25	5.6	3.1	2.3	2.3	2.5
27	65	8.2	12	6.0	7.7	8.0	30	5.5	2.6	7.1	2.1	2.3
28	57	13	10	6.3	7.4	7.8	17	5.1	2.3	21	2.0	12
29	44	24	9.9	5.8	7.3	7.3	12	4.4	3.0	11	1.8	59
30	25	14	10	5.6	---	6.9	11	4.0	2.7	6.3	2.6	18
31	15	---	9.1	5.5	---	7.4	---	4.1	---	4.3	10	---
TOTAL	359.3	355.8	606.6	220.4	404.7	288.7	352.6	302.1	166.6	148.0	132.5	236.4
MEAN	11.6	11.9	19.6	7.11	14.0	9.31	11.8	9.75	5.55	4.77	4.27	7.88
MAX	65	44	125	12	69	17	30	39	18	21	12	59
MIN	4.2	6.6	7.4	5.3	4.8	6.4	6.6	4.0	2.3	1.6	1.8	1.8

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)**

MEAN	5.64	4.29	8.87	6.43	8.44	11.6	9.41	6.25	6.29	2.89	3.16	4.26
MAX	19.2	11.9	30.3	16.2	14.0	17.5	17.1	9.75	25.2	6.23	6.99	11.1
(WY)	1997	2004	1997	1996	2004	2003	1998	2004	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

e Estimated.

**CHRISTINA RIVER BASIN**

**01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued**

<b>SUMMARY STATISTICS</b>	<b>FOR 2003 CALENDAR YEAR</b>		<b>FOR 2004 WATER YEAR</b>		<b>WATER YEARS 1995 - 2004</b>	
ANNUAL TOTAL	4378.0		3573.7			
ANNUAL MEAN	12.0		9.76		6.67	
HIGHEST ANNUAL MEAN					9.76	
LOWEST ANNUAL MEAN					2.83	
HIGHEST DAILY MEAN	163	Jun 21	125	Dec 11	250	Oct 19 1996
LOWEST DAILY MEAN	1.8	Sep 12	1.6	Jul 11	0.10	Feb 15 1995
ANNUAL SEVEN-DAY MINIMUM	2.0	Aug 25	2.1	Jul 5	0.27	Apr 18 1995
MAXIMUM PEAK FLOW			191	Dec 11	a401	Jan 19 1996
MAXIMUM PEAK STAGE			3.88	Dec 11	4.99	Jan 19 1996
10 PERCENT EXCEEDS	25		17		14	
50 PERCENT EXCEEDS	7.4		7.6		3.6	
90 PERCENT EXCEEDS	3.5		2.7		1.5	

a From rating curve extended above 230 ft<sup>3</sup>/s based on a slope-conveyance determination of discharge at gage height 4.99 ft.

**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, 27.0°C, June 26, Aug. 10, 2003; minimum, 0.0°C, several days during winters.

**EXTREMES FOR CURRENT YEAR**--

WATER TEMPERATURE: Maximum, 26.0°C, Aug. 1; minimum, 0.5°C, Dec. 5, Jan. 10.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	18.0	17.5	17.5	14.5	12.5	13.5	8.0	7.0	7.5	3.5	2.0	2.5
2	18.0	16.5	17.0	15.0	13.5	14.0	7.0	5.5	6.5	3.5	2.5	3.0
3	17.5	15.5	16.5	16.5	14.0	15.0	5.5	5.0	5.5	4.0	3.5	3.5
4	16.5	15.5	15.5	15.5	12.5	14.0	6.0	5.0	5.0	4.0	3.5	4.0
5	16.0	15.0	15.5	15.5	13.5	14.5	5.5	4.5	5.0	4.0	3.5	4.0
6	16.5	14.5	15.5	15.5	14.5	15.5	4.5	3.0	4.0	3.5	2.5	3.5
7	16.0	14.5	15.0	15.0	14.0	14.5	3.0	2.5	3.0	2.5	1.5	2.0
8	17.5	15.0	16.0	14.0	11.5	13.0	2.5	1.5	2.0	2.0	1.0	1.5
9	17.0	15.5	16.0	12.0	10.5	11.5	2.5	2.0	2.5	2.0	1.5	1.5
10	16.5	15.5	16.0	11.5	10.0	10.5	3.5	2.5	3.0	1.5	0.5	1.0
11	16.5	15.5	16.0	11.0	10.0	10.5	4.0	3.0	3.5	2.0	1.0	1.5
12	17.0	15.5	16.0	11.0	10.5	11.0	4.0	3.5	4.0	2.5	2.0	2.0
13	16.5	15.0	16.0	11.0	9.0	10.0	3.5	3.0	3.5	2.5	1.5	2.0
14	16.0	15.0	15.5	9.0	8.0	8.5	3.5	3.5	3.5	2.0	1.5	2.0
15	16.0	15.0	15.5	9.0	8.0	8.5	3.5	2.5	3.0	2.0	1.0	1.5
16	15.5	14.5	15.0	9.0	8.0	8.5	3.0	2.5	2.5	2.0	1.0	1.5
17	15.0	14.0	14.5	10.0	8.5	9.0	3.0	2.5	3.0	2.5	1.0	2.0
18	15.0	14.0	14.5	9.0	8.5	9.0	2.5	2.0	2.5	2.5	1.5	2.0
19	15.0	14.0	14.5	10.0	9.0	9.5	2.0	2.0	2.0	2.0	1.5	1.5
20	15.0	13.5	14.0	10.0	9.5	10.0	2.0	1.5	1.5	2.0	1.5	1.5
21	15.0	13.5	14.0	10.5	9.5	10.0	2.0	1.5	1.5	2.0	1.5	1.5
22	14.0	13.0	13.5	10.5	9.5	10.0	2.0	1.0	1.5	2.5	1.5	2.0
23	13.0	12.0	12.5	10.0	9.0	9.5	3.0	2.0	2.5	1.5	1.0	1.5
24	12.5	11.0	12.0	10.0	9.0	9.5	3.0	2.5	3.0	2.0	1.0	1.5
25	12.5	11.0	11.5	9.5	8.5	9.0	3.0	2.5	2.5	2.0	1.0	1.5
26	13.0	12.0	12.5	9.0	8.5	9.0	2.5	2.0	2.5	2.0	1.0	1.5
27	13.5	13.0	13.0	9.0	8.5	8.5	2.5	2.0	2.5	2.0	1.0	2.0
28	13.0	12.5	13.0	9.0	8.5	9.0	2.5	2.0	2.5	2.0	1.0	1.5
29	13.0	12.5	12.5	8.5	7.5	8.5	3.0	2.5	2.5	2.0	1.0	1.5
30	13.0	12.0	12.5	8.0	7.5	8.0	3.5	2.5	3.0	2.0	1.0	1.5
31	13.0	12.0	12.5	---	---	---	3.5	2.5	3.0	2.0	1.0	1.5
MONTH	18.0	11.0	14.6	16.5	7.5	10.7	8.0	1.0	3.2	4.0	0.5	2.0

