



2005 Water Year  
STREAMS TRIBUTARY TO LAKE ERIE  
04213075 Brandy Run near Girard, PA

Latitude: 41° 59' 31"

Longitude: 080° 17' 29"

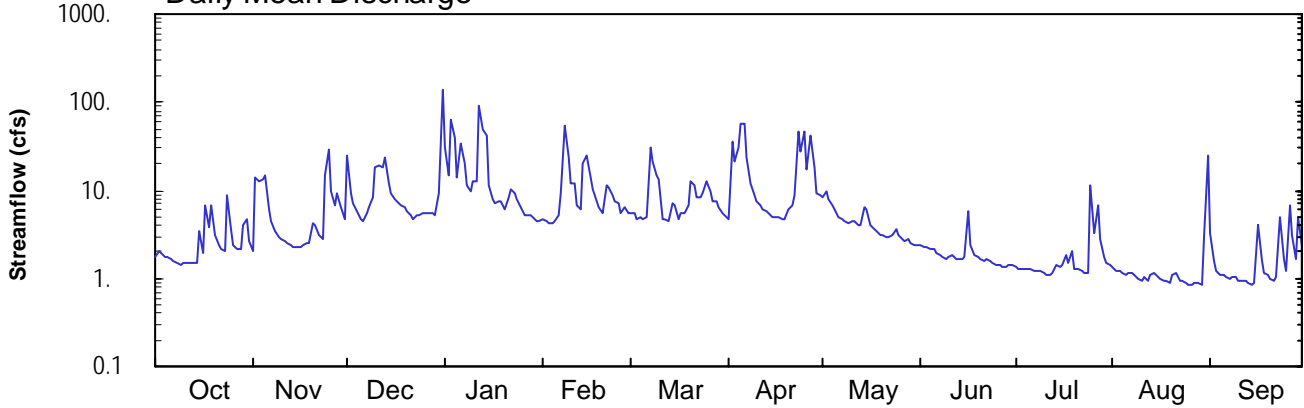
Hydrologic Unit Code: 04120101

Erie County

Datum: 800 feet

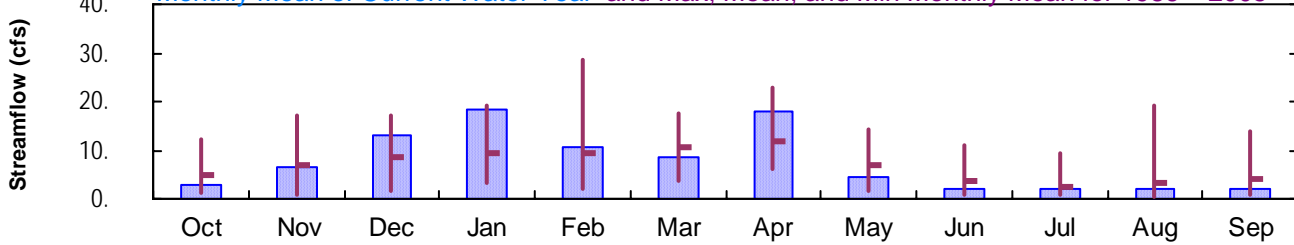
Drainage Area: 4.45 mi<sup>2</sup>

### Daily Mean Discharge

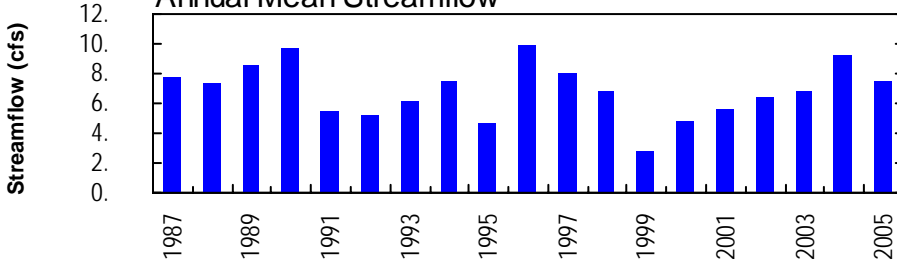


### Monthly Statistics

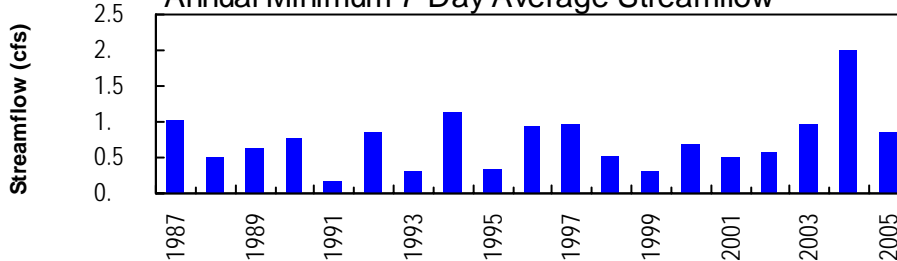
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1986 – 2005



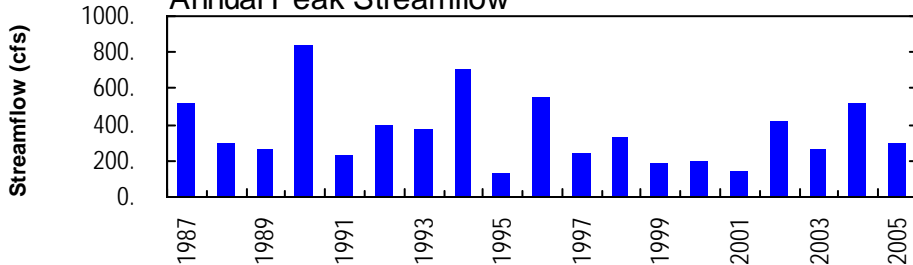
### Annual Mean Streamflow



### Annual Minimum 7-Day Average Streamflow



### Annual Peak Streamflow



## STREAMS TRIBUTARY TO LAKE ERIE

## 04213075 BRANDY RUN NEAR GIRARD, PA

**LOCATION.**--Lat 41°59'31", long 80°17'29", Erie County, Hydrologic Unit 04120101, on left bank 100 ft upstream from highway bridge on Tannery Road, 0.5 mi upstream from mouth, and 1.8 mi southeast of Girard.

**DRAINAGE AREA.**--4.45 mi<sup>2</sup>.

**PERIOD OF RECORD.**--May 1986 to current year.

**GAGE.**--Water-stage recorder. Elevation of gage is 800 ft above National Geodetic Vertical Datum of 1929, from topographic map.

**REVISED RECORDS.**--WDR PA-94-3: 1987-89 (M).

**REMARKS.**--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Jan. 12	1515	*294	*2.14	Dec. 31	1115	255	2.03

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.1	25	31	e4.6	e5.6	4.6	8.3	2.3	1.4	1.3	3.2
2	2.1	14	9.5	15	e4.5	e5.4	35	9.5	2.2	1.3	1.2	1.6
3	1.9	12	7.1	62	e4.3	e4.8	22	7.9	2.3	1.3	1.2	1.2
4	1.8	13	5.7	40	e4.2	e4.9	30	6.7	2.2	1.2	1.1	1.1
5	1.7	15	4.7	14	e4.5	e4.7	58	5.6	2.1	1.3	1.1	1.1
6	1.6	6.0	4.5	34	e5.3	e5.0	56	5.0	1.9	1.3	1.1	1.0
7	1.5	4.4	5.6	21	e9.3	30	23	4.6	1.8	1.2	1.1	0.97
8	1.5	3.5	6.3	11	53	21	12	4.4	1.8	1.2	1.1	1.0
9	1.4	2.9	8.3	10	24	14	8.6	4.3	1.7	1.2	0.99	1.0
10	1.5	2.8	18	13	12	13	7.7	4.4	1.7	1.1	0.93	0.93
11	1.5	2.6	19	13	12	4.6	6.7	4.4	1.9	1.1	1.0	0.93
12	1.5	2.5	18	93	6.9	4.6	6.1	4.1	1.6	1.1	0.94	0.93
13	1.5	2.4	24	49	6.0	4.4	5.7	3.9	1.6	1.1	1.1	0.89
14	1.5	2.3	12	42	20	7.3	5.3	6.4	1.7	1.4	1.2	0.86
15	3.5	2.3	9.0	11	25	6.8	5.1	6.3	1.8	1.3	1.1	0.87
16	1.9	2.3	8.1	8.0	14	4.7	4.9	4.1	5.9	1.4	0.96	4.0
17	6.9	2.4	7.6	7.0	10	5.4	4.8	3.6	2.3	1.9	0.95	1.6
18	3.9	2.5	6.8	7.5	7.5	5.5	4.8	3.4	1.9	1.5	0.92	1.1
19	6.7	2.5	e6.4	7.4	6.5	6.8	4.6	3.2	1.8	2.0	0.87	1.1
20	3.1	4.3	e5.8	6.2	5.6	13	6.1	3.1	1.6	1.3	1.1	1.0
21	2.4	4.0	e5.2	8.2	11	12	6.6	3.0	1.6	1.3	1.1	0.94
22	2.1	3.2	e4.6	e10	11	8.5	8.9	2.9	1.6	1.2	0.93	1.0
23	2.0	2.8	e5.2	e9.1	8.9	8.3	47	3.1	1.6	1.1	0.92	5.0
24	8.6	15	e5.2	e8.0	7.6	9.3	28	3.6	1.5	1.1	0.87	1.7
25	3.7	30	e5.6	e6.6	7.0	13	48	3.1	1.5	1.1	0.83	1.2
26	2.4	9.9	e5.5	e5.2	5.6	9.6	17	2.9	1.4	3.2	0.83	6.9
27	2.2	6.6	e5.4	e5.3	e6.4	7.7	42	2.7	1.4	6.9	0.89	3.1
28	2.1	9.0	e5.4	e5.1	e5.5	7.6	18	2.8	1.4	2.8	0.91	1.6
29	4.0	6.5	e5.2	e4.8	---	6.4	9.1	2.6	1.5	1.8	0.87	4.9
30	4.7	4.8	e9.1	e4.4	---	5.6	8.7	2.4	1.4	1.5	3.1	2.4
31	2.7	---	138	e4.6	---	5.1	---	2.4	---	1.4	25	---
TOTAL	85.7	193.6	405.8	566.4	302.2	264.6	544.3	134.7	57.0	59.9	57.51	55.12
MEAN	2.76	6.45	13.1	18.3	10.8	8.54	18.1	4.35	1.90	1.93	1.86	1.84
MAX	8.6	30	138	93	53	30	58	9.5	5.9	11	25	6.9
MIN	1.4	2.1	4.5	4.4	4.2	4.4	4.6	2.4	1.4	1.1	0.83	0.86
CFSM	0.62	1.45	2.94	4.11	2.43	1.92	4.08	0.98	0.43	0.43	0.42	0.41
IN.	0.72	1.62	3.39	4.73	2.53	2.21	4.55	1.13	0.48	0.50	0.48	0.46

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2005, BY WATER YEAR (WY)

MEAN	4.83	7.08	8.64	9.20	9.37	10.5	12.0	6.84	3.74	2.49	3.38	4.00
MAX	12.1	17.2	17.0	19.2	28.7	17.6	22.8	14.4	10.9	9.49	19.1	13.8
(WY)	1988	1993	1998	1998	1990	1989	1996	1989	1994	2004	1987	2004
MIN	1.24	0.89	1.49	3.13	2.21	3.71	6.24	1.56	0.86	0.71	0.49	0.75
(WY)	1999	1999	1999	1987	1987	1999	1999	1991	1991	1999	1991	1995

e Estimated.

## STREAMS TRIBUTARY TO LAKE ERIE

## 04213075 BRANDY RUN NEAR GIRARD, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1986 - 2005	
ANNUAL TOTAL	3436.8		2726.83			
ANNUAL MEAN	9.39		7.47		6.85	
HIGHEST ANNUAL MEAN					9.84 1996	
LOWEST ANNUAL MEAN					2.82 1999	
HIGHEST DAILY MEAN	194	Jul 31	138	Dec 31	405	Aug 2 1987
LOWEST DAILY MEAN	1.4	Oct 9	0.83	Aug 25,26	0.14	Aug 3 1991
ANNUAL SEVEN-DAY MINIMUM	1.5	Oct 7	0.87	Aug 23	0.16	Aug 1 1991
MAXIMUM PEAK FLOW			a294	Jan 12	a708	Jun 13 1994
MAXIMUM PEAK STAGE			2.14	Jan 12	b3.36	Jun 13 1994
INSTANTANEOUS LOW FLOW			0.76	Aug 18c	0.19	Jun 11 1986
ANNUAL RUNOFF (CFSM)	2.11		1.68		1.54	
ANNUAL RUNOFF (INCHES)	28.73		22.80		20.91	
10 PERCENT EXCEEDS	14		15		14	
50 PERCENT EXCEEDS	5.2		4.4		3.4	
90 PERCENT EXCEEDS	2.1		1.1		0.95	

a From rating curve extended above 160 ft<sup>3</sup>/s.

b Maximum gage height, 4.55 ft., Dec. 19, 1989 (backwater from ice).

c Also Aug. 19, 20, 23-29, Sept. 13-16.

