

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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Sept. 29	0930	*259	*2.04	No other peak greater than base discharge.			

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	1.3	3.4	8.4	20	e4.2	e4.4	7.4	2.4	9.6	0.94	8.9	15
2	1.2	3.0	5.8	11	e3.7	e6.0	6.9	12	2.5	0.93	9.0	9.8
3	2.7	2.5	e5.1	7.1	e4.1	e8.1	4.3	5.4	1.9	0.93	4.8	3.5
4	2.3	2.2	e4.7	6.0	e4.1	e4.9	21	3.6	1.7	1.9	2.8	2.4
5	2.5	2.2	e4.0	5.3	e28	e4.6	62	4.7	2.3	1.8	28	1.9
6	2.2	2.8	e4.0	5.0	e19	e4.0	13	5.5	1.9	1.1	14	1.7
7	2.2	2.6	e3.8	7.0	e7.2	e16	10	4.0	1.5	1.6	4.9	1.5
8	2.5	2.3	e3.6	5.4	e6.2	e4.8	17	4.6	1.9	1.1	2.9	1.5
9	2.2	2.2	e3.5	10	e5.3	e26	11	5.0	3.5	10	2.4	1.5
10	2.2	2.6	e3.5	9.6	e4.7	e43	7.9	16	1.5	1.8	2.4	1.4
11	2.3	11	e3.8	7.9	e4.1	e27	6.1	9.8	1.3	1.9	3.0	1.4
12	2.3	4.2	e6.2	8.4	e3.7	e6.1	5.3	14	4.1	1.7	2.1	1.4
13	2.2	3.0	10	18	e6.5	e7.3	4.2	21	38	1.2	1.9	1.4
14	2.1	2.6	28	7.3	e4.5	e8.4	3.7	12	6.2	1.0	1.7	1.6
15	2.1	2.4	13	e5.9	e3.7	e12	3.3	5.9	2.4	1.0	1.6	3.1
16	4.4	3.3	8.3	e5.7	e4.8	e15	2.8	4.1	1.7	1.2	1.8	2.1
17	4.4	9.2	5.8	e5.5	e9.1	41	3.3	3.1	2.0	1.0	1.8	1.5
18	6.2	11	4.8	e5.3	e5.2	24	2.9	2.4	5.1	1.0	1.5	1.5
19	12	6.2	7.0	e5.2	e4.1	15	2.6	2.2	12	0.93	1.4	8.2
20	4.8	5.4	16	e5.0	e3.5	13	2.9	3.2	3.1	0.92	1.4	3.6
21	2.5	3.3	7.8	e5.1	e3.3	20	20	2.7	2.1	12	1.4	2.0
22	1.9	14	6.4	e5.3	e3.5	e13	9.7	2.2	1.9	4.4	1.3	4.6
23	2.3	11	5.4	e5.5	e5.1	e11	7.0	4.5	1.4	2.0	1.3	7.2
24	2.4	8.9	4.1	e8.8	e7.1	e9.9	4.9	23	1.3	1.7	1.2	2.5
25	2.3	9.3	4.2	e5.5	e13	12	3.9	5.1	1.2	1.2	1.2	2.1
26	6.1	6.7	3.7	e4.5	e57	46	2.9	2.7	1.1	1.1	3.6	1.8
27	3.2	5.2	3.6	e4.2	e28	15	2.5	2.2	1.0	6.0	1.8	32
28	2.3	5.2	5.0	e4.1	e11	9.9	2.4	2.0	1.0	3.2	1.4	10
29	2.0	5.7	3.7	e4.0	---	55	2.3	1.8	1.0	1.5	3.1	62
30	1.9	12	9.2	e13	---	18	2.3	1.7	0.99	1.2	2.1	16
31	1.7	---	45	e6.2	---	8.4	---	7.5	---	17	1.5	---
TOTAL	92.7	165.4	247.4	226.8	263.7	508.8	255.5	196.3	117.19	85.25	118.2	206.2
MEAN	2.99	5.51	7.98	7.32	9.42	16.4	8.52	6.33	3.91	2.75	3.81	6.87
MAX	12	14	45	20	57	55	62	23	38	17	28	62
MIN	1.2	2.2	3.5	4.0	3.3	4.0	2.3	1.7	0.99	0.92	1.2	1.4
CFSM	0.67	1.24	1.79	1.64	2.12	3.69	1.91	1.42	0.88	0.62	0.86	1.54
IN.	0.77	1.38	2.07	1.90	2.20	4.25	2.14	1.64	0.98	0.71	0.99	1.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2003, BY WATER YEAR (WY)

MEAN	4.82	7.19	8.48	8.77	9.25	10.5	11.6	6.61	3.87	2.13	3.32	3.58
MAX	12.1	17.2	17.0	19.2	28.7	17.6	22.8	14.4	10.9	6.13	19.1	11.1
(WY)	1988	1993	1998	1998	1990	1989	1996	1989	1994	1992	1987	1992
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 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1986 - 2003	
ANNUAL TOTAL	2485.56		2483.44			
ANNUAL MEAN	6.81		6.80		6.68	
HIGHEST ANNUAL MEAN					9.84	
LOWEST ANNUAL MEAN					2.82	
HIGHEST DAILY MEAN	132	Feb 1	62	Apr 5 ^a	405	Aug 2 1987
LOWEST DAILY MEAN	0.54	Aug 11	0.92	Jul 20	0.14	Aug 3 1991
ANNUAL SEVEN-DAY MINIMUM	0.57	Aug 8	0.97	Jun 27	0.16	Aug 1 1991
MAXIMUM PEAK FLOW			b259	Sep 29	b708	Jun 13 1994
MAXIMUM PEAK STAGE			2.04	Sep 29	c3.36	Jun 13 1994
ANNUAL RUNOFF (CFSM)	1.53		1.53		1.50	
ANNUAL RUNOFF (INCHES)	20.78		20.76		20.38	
10 PERCENT EXCEEDS	12		14		13	
50 PERCENT EXCEEDS	4.3		4.1		3.3	
90 PERCENT EXCEEDS	0.84		1.4		0.92	

^a Also Sept. 29.

^b From rating curve extended above 140 ft³/s.

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

