

**01463740 SHABAKUNK CREEK AT SYLVA LAKE DAM, AT EWINGVILLE, NJ**

DELAWARE RIVER BASIN

LOCATION.--Lat 40°16'16", long 74°46'24" referenced to North American Datum of 1983, Ewing Township, Mercer County, NJ, Hydrologic Unit 02040105, on upstream left bank of dam at outlet of Sylva Lake, on the campus of The College of New Jersey, 0.3 mi downstream from the outlet of Ceva Lake, 0.4 mi downstream of bridge on Ewingville Road, and 0.6 mi southeast of Ewingville.

DRAINAGE AREA.--3.99 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--November 2008 to current year.

GAGE.--Water-stage and precipitation recorder and crest-stage gage. Datum of gage is 86 ft NAVD of 1988.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of July 21, 1975 reached a stage of 95.3 ft above NGVD of 1929, from flood marks, discharge of 5,550 ft<sup>3</sup>/s computed by a combination of flow-over-dam and flow-over-embankment computations. The flood of Aug 28, 1971 reached a stage of 94.2 ft above NGVD of 1929.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 1	0500	349	3.96
Mar 6	2030	391	4.05
Apr 16	2245	635	4.50
Aug 14	1815	457	4.18
Aug 21	2115	304	3.86
Aug 28	0130	*1,920	*6.17
Sep 6	2045	533	4.32
Sep 8	0545	533	4.32

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	80	e1.2	38	2.4	3.6	8.9	7.8	7.3	1.9	1.1	0.60	5.7
2	12	e1.2	7.8	7.0	20	6.7	6.2	7.0	1.4	1.0	0.54	4.9
3	2.8	e1.3	3.5	5.9	14	5.8	4.8	6.4	1.1	2.4	1.0	4.5
4	2.4	18	2.4	3.5	8.4	5.9	4.8	12	1.2	1.4	6.5	4.2
5	3.7	6.8	1.8	2.7	11	4.6	7.2	7.7	1.4	1.0	0.97	3.6
6	2.8	3.3	1.5	2.6	17	78	5.8	5.8	1.3	3.7	0.82	107
7	1.8	2.5	1.2	2.6	16	54	5.3	5.3	1.2	2.8	1.2	49
8	1.6	e2.3	1.1	2.4	20	17	9.5	5.0	1.4	4.5	0.87	188
9	1.2	e2.4	1.2	2.1	12	11	13	4.5	2.3	3.1	5.2	37
10	1.0	e2.2	1.0	1.9	8.8	27	6.8	4.1	1.7	1.3	1.6	14
11	1.2	e2.1	1.1	1.9	7.2	70	6.2	3.9	0.95	1.1	0.89	8.6
12	7.0	e1.9	18	2.4	6.5	17	12	3.5	2.9	0.98	0.68	6.8
13	2.2	e1.6	16	1.7	6.0	11	34	3.5	0.98	0.99	0.68	5.4
14	4.6	e1.5	4.6	1.9	14	8.9	11	3.5	6.9	0.87	163	4.8
15	4.7	e1.4	3.3	1.9	18	9.3	8.5	7.6	3.0	0.92	51	4.9
16	1.8	e1.7	2.8	1.8	10	21	96	8.5	1.3	0.87	19	3.5
17	2.8	e4.4	2.5	1.7	22	10	116	7.0	40	0.78	5.7	2.9
18	2.5	e1.9	2.1	8.4	29	8.9	23	30	3.7	0.77	4.3	2.7
19	5.7	e1.9	2.0	11	18	7.2	12	12	1.7	1.3	12	2.7
20	3.0	e1.6	2.0	8.5	9.2	6.4	9.5	9.1	1.2	1.6	8.3	2.7
21	e2.2	e1.6	1.9	6.8	8.0	11	7.5	6.7	0.98	0.68	48	2.7
22	e1.7	e1.5	1.9	4.9	6.7	8.0	6.7	5.6	5.9	0.68	30	2.7
23	e1.4	e1.8	1.7	3.9	5.7	12	17	6.7	2.4	0.58	6.0	46
24	e1.2	e1.7	1.8	3.2	5.4	20	26	5.1	24	0.52	3.8	16
25	e1.2	e1.7	2.0	3.5	55	9.6	28	4.3	6.8	1.6	6.7	5.6
26	e1.2	e1.8	2.3	4.4	18	7.7	11	3.8	2.3	1.7	4.0	4.3
27	e2.0	e1.4	2.1	4.7	9.8	6.9	9.4	3.3	1.7	0.64	97	3.4
28	e2.1	e1.2	1.9	3.8	15	6.0	16	4.3	1.5	0.70	481	8.8
29	e1.4	e1.1	2.0	3.5	---	5.6	10	4.3	1.3	3.4	34	29
30	e1.3	e1.5	1.9	3.5	---	5.4	8.0	11	1.2	2.1	13	8.6
31	e1.2	---	2.0	3.2	---	5.9	---	3.2	---	0.67	7.4	---
<b>Total</b>	161.7	76.5	135.4	119.7	394.3	486.7	539.0	212.0	125.61	45.75	1,015.75	590.0
<b>Mean</b>	5.22	2.55	4.37	3.86	14.1	15.7	18.0	6.84	4.19	1.48	32.8	19.7
<b>Max</b>	80	18	38	11	55	78	116	30	40	4.5	481	188
<b>Min</b>	1.0	1.1	1.0	1.7	3.6	4.6	4.8	3.2	0.95	0.52	0.54	2.7
<b>Cfsm</b>	1.31	0.64	1.09	0.97	3.53	3.93	4.50	1.71	1.05	0.37	8.21	4.93
<b>In.</b>	1.51	0.71	1.26	1.12	3.68	4.54	5.03	1.98	1.17	0.43	9.47	5.50

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2011, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	8.31	4.67	13.7	6.62	9.39	16.7	10.1	7.44	5.38	3.35	19.5	9.63
<b>Max</b>	11.4	6.56	22.2	8.90	14.1	32.1	18.0	11.0	10.5	6.42	32.8	19.7
<b>(WY)</b>	(2010)	(2010)	(2010)	(2010)	(2011)	(2010)	(2011)	(2009)	(2009)	(2009)	(2011)	(2011)
<b>Min</b>	5.22	2.55	4.37	3.86	4.03	2.45	5.95	4.48	1.44	1.48	0.69	2.03
<b>(WY)</b>	(2011)	(2011)	(2011)	(2011)	(2009)	(2009)	(2010)	(2010)	(2010)	(2011)	(2010)	(2010)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 2008 - 2011	
<b>Annual total</b>	2,436.43		3,902.41			
<b>Annual mean</b>	6.68		10.7		9.87	
<b>Highest annual mean</b>					10.7	2011
<b>Lowest annual mean</b>					9.05	2010
<b>Highest daily mean</b>	180	Mar 13	481	Aug 28	481	Aug 28, 2011
<b>Lowest daily mean</b>	0.19	Sep 9	0.52	Jul 24	0.19	Sep 9, 2010
<b>Annual seven-day minimum</b>	0.35	Sep 4	0.88	Jul 18	0.35	Sep 4, 2010
<b>Maximum peak flow</b>			1,920	Aug 28	2,040	Aug 22, 2009
<b>Maximum peak stage</b>			6.17	Aug 28	6.30	Aug 22, 2009
<b>Annual runoff (cfsm)</b>	1.67		2.68		2.47	
<b>Annual runoff (inches)</b>	22.72		36.38		33.61	
<b>10 percent exceeds</b>	14		18		19	
<b>50 percent exceeds</b>	2.3		3.9		3.8	
<b>90 percent exceeds</b>	0.63		1.2		0.76	

