



Water-Data Report 2010

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 mi².

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 ft³/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 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 24	2045	431	4.13
Dec 9	0900	*595	*4.43
Jan 25	1245	308	3.87
Mar 13	2015	447	4.16
Mar 29	0445	339	3.94

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES
[*e*, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4.7	9.3	4.2	11	3.9	20	21	2.0	3.1	0.50	0.74	0.49
2	4.4	7.4	4.5	7.6	3.5	21	12	2.0	1.9	0.59	0.74	0.58
3	4.3	6.9	52	5.3	3.6	26	9.0	6.9	1.6	0.63	0.76	0.47
4	4.0	7.4	8.9	e5.0	3.4	24	7.8	2.5	1.4	0.57	0.74	0.32
5	3.5	8.3	11	4.8	3.5	19	7.1	2.1	1.4	0.58	0.67	0.29
6	3.5	7.4	13	4.6	4.4	16	6.0	2.0	1.2	0.62	0.51	0.46
7	2.3	6.4	8.3	4.4	3.0	14	5.1	1.6	1.0	0.59	0.52	0.48
8	2.7	6.6	7.0	4.4	3.0	12	4.3	1.7	1.2	0.61	0.53	0.36
9	3.8	7.0	136	3.9	3.0	11	11	0.72	3.4	0.74	0.51	0.19
10	3.9	9.2	26	3.5	4.8	9.7	4.2	1.0	5.3	1.3	0.60	0.36
11	4.7	9.2	13	3.4	4.5	8.8	4.0	1.1	2.0	1.0	0.62	0.47
12	3.5	7.5	8.2	3.5	3.6	12	3.5	7.2	1.7	0.74	0.75	0.94
13	3.7	5.9	42	3.4	3.4	180	3.5	1.8	1.8	25	0.70	0.75
14	4.8	8.5	26	3.5	2.9	95	3.4	20	2.0	16	0.66	0.61
15	10	7.8	13	3.6	2.9	52	3.5	12	1.5	2.5	0.66	0.54
16	8.2	6.3	10	3.8	3.7	23	3.5	3.3	1.4	1.3	0.79	1.6
17	12	5.3	8.7	15	3.3	14	3.8	2.7	1.1	0.99	0.89	5.6
18	7.8	4.9	7.7	13	3.3	12	2.9	16	1.0	0.89	0.77	5.6
19	4.9	5.2	8.0	7.2	4.5	10	2.6	7.2	1.0	0.76	0.85	5.9
20	3.6	19	7.7	6.2	5.9	9.0	2.6	4.6	0.92	0.71	0.60	3.6
21	3.9	5.7	6.7	5.5	6.4	8.3	3.1	3.5	0.85	0.69	0.49	1.5
22	4.6	4.5	6.3	5.4	6.4	24	4.2	3.4	0.88	1.3	0.96	3.2
23	4.3	4.3	6.2	5.3	44	47	2.3	3.3	0.89	0.71	0.97	2.9
24	59	4.1	5.5	5.4	54	12	2.0	3.7	0.79	0.61	1.1	2.0
25	34	4.5	6.8	78	39	9.8	11	3.3	0.70	2.2	0.82	1.7
26	9.5	4.8	133	25	25	9.2	18	2.7	0.70	1.2	0.59	1.3
27	24	3.4	56	12	18	7.7	8.7	4.4	0.69	0.72	0.54	3.5
28	73	2.5	22	7.6	15	7.3	3.7	5.5	0.64	0.69	0.55	2.3
29	20	2.8	13	5.4	---	96	2.6	3.1	0.64	1.0	0.62	2.0
30	11	4.6	9.2	4.8	---	139	2.2	2.4	0.46	0.79	0.55	11
31	9.7	---	9.7	4.4	---	46	---	5.2	---	0.70	0.51	---
Total	353.3	196.7	689.6	275.9	281.9	994.8	178.6	138.92	43.16	67.23	21.31	61.01
Mean	11.4	6.56	22.2	8.90	10.1	32.1	5.95	4.48	1.44	2.17	0.69	2.03
Max	73	19	136	78	54	180	21	20	5.3	25	1.1	11
Min	2.3	2.5	4.2	3.4	2.9	7.3	2.0	0.72	0.46	0.50	0.49	0.19
Cfsm	2.86	1.64	5.58	2.23	2.52	8.04	1.49	1.12	0.36	0.54	0.17	0.51
In.	3.29	1.83	6.43	2.57	2.63	9.27	1.67	1.30	0.40	0.63	0.20	0.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	11.4	5.74	18.4	8.01	7.05	17.3	6.13	7.74	5.97	4.29	12.9	4.61
Max	11.4	6.56	22.2	8.90	10.1	32.1	6.31	11.0	10.5	6.42	25.0	7.19
(WY)	(2010)	(2010)	(2010)	(2010)	(2010)	(2010)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)
Min	11.4	4.91	14.5	7.11	4.03	2.45	5.95	4.48	1.44	2.17	0.69	2.03
(WY)	(2010)	(2009)	(2009)	(2009)	(2009)	(2009)	(2010)	(2010)	(2010)	(2010)	(2010)	(2010)

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	Calendar Year 2009	Water Year 2010	Water Years 2008 - 2010
Annual total	3,684.0	3,302.43	
Annual mean	10.1	9.05	9.05
Highest annual mean			9.05
Lowest annual mean			9.05
Highest daily mean	314	Aug 22	314 Aug 22, 2009
Lowest daily mean	1.1	Jul 20	0.19 Sep 9, 2010
Annual seven-day minimum	1.3	Jul 14	0.35 Sep 4, 2010
Maximum peak flow			595 Dec 9, 2,040 Aug 22, 2009
Maximum peak stage			4.43 Dec 9, 6.30 Aug 22, 2009
Annual runoff (cfs/m)	2.53	2.27	2.27
Annual runoff (inches)	34.35	30.79	30.81
10 percent exceeds	19	19	19
50 percent exceeds	4.9	3.8	3.8
90 percent exceeds	2.0	0.63	0.63

