Water-Data Report 2011

01515000 SUSQUEHANNA RIVER NEAR WAVERLY, NY

Upper Susquehanna Basin
Owego-Wappasening Subbasin

LOCATION.--Lat 41°59′05″, long 76°30′05″ referenced to North American Datum of 1927, Bradford County, PA, Hydrologic Unit 02050103, on left bank 0.2 mi upstream from Cayuta Creek, 0.4 mi upstream from bridge on East Lockhart Street at Sayre, Pa., 1 mi downstream from New York-Pennsylvania State line, and 2 mi southeast of Waverly.

DRAINAGE AREA.--4,773 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--February 1937 to March 1995, April 1995 to September 2000 (annual maximum only), October 2000 to current year.

REVISED RECORDS.--WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 743.96 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to November 1939, at datum 1.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minor regulation by upstream lakes and reservoirs. Slight diversion from upstream tributaries for operation of Erie (Barge) Canal. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 167,000 ft^3/s, Sept. 8, 2011, gage height 26.67, ft from floodmark in gage house; minimum discharge, 224 ft^3/s, Sept. 23, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of about 21.4 ft, present datum, from flood profile (discharge, 128,000 ft^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 52,000 ft^3/s and (or) maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 7	0330	52,200	12.59
Mar 11	2330	76,800	16.17
Apr 28	2200	80,800	16.70
Sep 8	1615	*167,000	a*26.67

a From floodmark in gage house.

Minimum discharge, 1,250 ft^3/s, Aug. 3, gage height, 1.37 ft.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 01515000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/01515000.2011.pdf

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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	36,200	9,520	17,400	4,940	3,090	20,800	11,800	41,700	12,600	8,800	1,420	14,800
2	38,800	8,580	34,700	5,490	e2,700	19,400	12,500	29,400	9,690	6,950	1,350	10,200
3	32,600	7,810	28,000	7,070	e2,650	16,200	12,300	24,500	7,790	5,780	1,300	7,460
4	21,300	7,280	21,900	7,810	e3,000	13,400	13,400	38,400	6,630	5,040	1,340	6,060
5	17,700	9,270	16,800	7,020	e3,100	12,700	30,800	38,600	5,930	7,220	1,420	6,770
6	23,400	12,200	14,600	5,660	3,520	31,100	43,100	32,200	5,320	6,450	1,430	11,500
7	21,900	11,700	13,100	5,400	e4,800	49,300	38,000	23,800	4,770	5,120	1,530	49,200
8	17,600	9,870	11,800	4,700	5,800	41,400	28,800	19,000	4,340	4,370	4,270	e156,000
9	16,000	8,940	10,400	e4,500	e5,900	34,100	22,700	16,100	3,970	4,420	3,590	139,000
10	13,100	8,680	9,160	e4,900	e5,400	30,800	19,400	13,900	4,350	4,470	3,310	97,000
11	10,200	8,680	8,500	4,800	4,680	63,700	18,800	12,000	4,170	4,100	3,790	66,300
12	9,220	8,340	8,540	4,430	e4,350	69,500	19,300	10,400	10,500	3,630	2,970	40,600
13	8,260	7,710	13,700	e4,050	e4,450	58,500	23,300	9,330	10,200	3,140	2,170	26,300
14	7,300	7,230	16,900	e3,900	4,260	47,400	26,000	8,360	8,100	2,790	1,750	21,000
15	7,100	6,910	14,000	e3,900	e4,550	36,300	21,500	7,880	6,370	2,540	1,720	18,300
16	8,690	6,580	11,600	e3,700	e4,900	31,300	18,300	10,400	5,270	2,290	2,330	17,600
17	16,400	11,500	e10,200	e3,650	5,060	33,100	39,000	12,300	4,760	2,090	2,230	16,200
18	14,500	16,300	e9,600	3,600	7,370	37,600	34,200	12,200	4,530	1,960	1,860	14,100
19	11,200	14,000	e9,000	3,970	14,700	45,400	30,000	13,100	4,260	1,970	2,030	11,500
20	9,830	12,000	8,000	4,270	15,100	42,400	26,200	19,300	4,200	1,920	2,370	9,500
21	8,480	10,600	7,210	e4,300	13,400	37,800	22,600	23,900	3,740	1,860	1,990	8,340
22	7,900	9,520	7,150	e4,100	11,600	34,500	19,300	20,600	3,390	1,810	1,650	7,640
23	7,590	9,000	7,000	e3,500	10,100	30,100	20,600	15,200	3,940	1,630	1,490	7,200
24	7,500	10,200	6,490	e3,000	8,890	26,000	27,100	12,800	15,500	1,560	1,360	8,640
25	7,050	10,500	6,110	3,070	8,770	22,600	25,800	11,600	20,300	1,480	1,310	12,300
26	7,690	10,600	5,630	e3,250	8,650	18,500	38,200	10,600	14,700	1,560	1,530	11,100
27	12,700	13,600	e4,300	3,610	8,400	15,700	56,000	16,400	11,600	1,470	1,430	9,220
28	17,500	12,900	e4,050	3,800	11,900	14,000	71,200	28,500	9,030	1,450	12,300	18,500
29	15,500	10,800	4,480	e3,650	---	12,600	71,300	22,600	9,600	1,670	41,800	42,700
30	12,100	9,590	4,580	e3,500	---	11,700	55,000	24,100	11,400	1,750	25,600	35,300
31	10,500	---	4,890	e3,400	---	11,500	---	18,400	---	1,720	19,400	---
Total	455,810	300,410	349,790	136,940	191,090	969,400	896,500	597,570	230,950	103,010	154,040	900,330
Mean	14,700	10,010	11,280	4,417	6,825	31,270	29,880	19,280	7,698	3,323	4,969	30,010
Max	38,800	16,300	34,700	7,810	15,100	69,500	71,300	41,700	20,300	8,800	41,800	156,000
Min	7,050	6,580	4,050	3,000	2,650	11,500	11,800	7,880	3,390	1,450	1,300	6,060
Cfsm	3.08	2.10	2.36	0.93	1.43	6.55	6.26	4.04	1.61	0.70	1.04	6.29
In.	3.55	2.34	2.73	1.07	1.49	7.56	6.99	4.66	1.80	0.80	1.20	7.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	4,486	7,382	9,345	8,054	8,752	16,470	18,290	9,053	5,361	2,873	2,227	3,129
Max	25,090	19,600	19,820	19,310	23,870	33,430	46,500	22,140	22,550	16,770	11,660	30,010
(WY)	(1978)	(2007)	(1973)	(2006)	(1976)	(1945)	(1993)	(1943)	(1972)	(2006)	(2004)	(2011)
Min	392	382	1,835	1,319	1,472	6,763	3,962	2,418	1,155	589	384	326
(WY)	(1965)	(1965)	(1965)	(1961)	(1980)	(1941)	(1946)	(1985)	(1939)	(1962)	(1964)	(1964)

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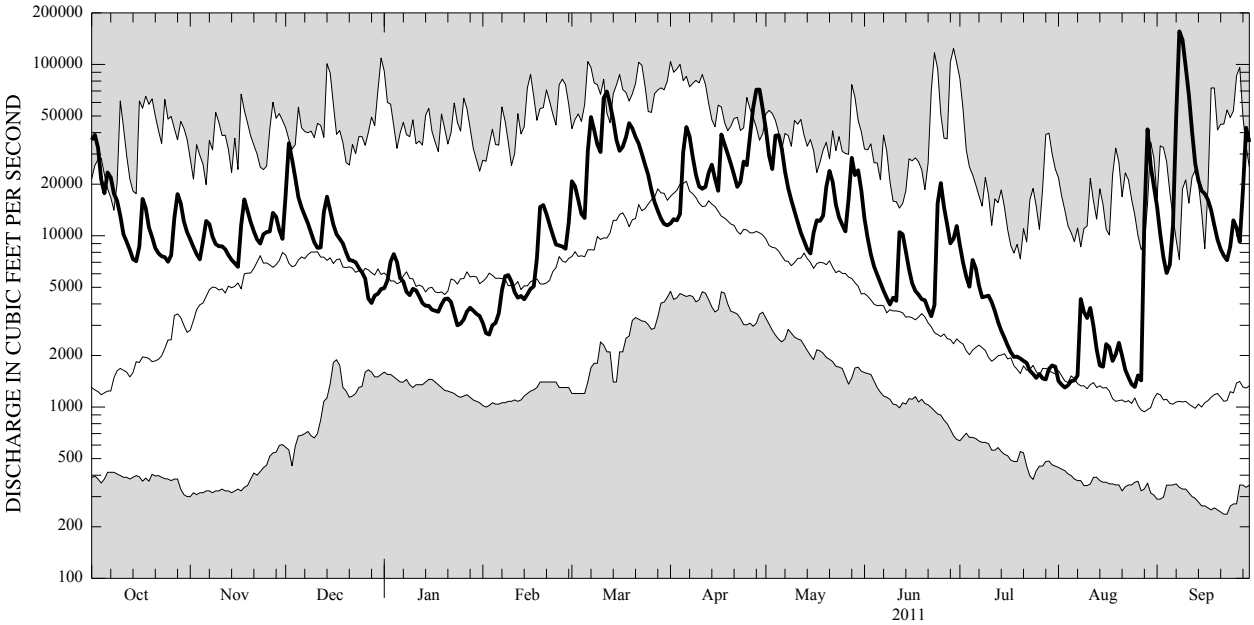
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1937 - 2011	
Annual total	2,985,145		5,285,840			
Annual mean	8,178		14,480		7,960	
Highest annual mean					14,480	2011
Lowest annual mean					3,745	1965
Highest daily mean	63,500	Jan 26	156,000	Sep 8	156,000	Sep 8, 2011
Lowest daily mean	911	Sep 26	1,300	Aug 3	237	Sep 22, 1964
Annual seven-day minimum	961	Sep 23	1,400	Aug 1	248	Sep 17, 1964
Maximum peak flow					121,000	Jun 23, 1972
Maximum peak stage					21.24	Jun 23, 1972
Annual runoff (cfsm)	1.71		3.03		1.67	
Annual runoff (inches)	23.27		41.20		22.66	
10 percent exceeds	17,700		34,100		18,500	
50 percent exceeds	5,930		9,500		4,600	
90 percent exceeds	1,260		2,310		886	



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.