

Water-Data Report 2011

01446500 DELAWARE RIVER AT BELVIDERE, NJ

DELAWARE RIVER BASIN

LOCATION.--Lat 40°49'35", long 75°04'57" referenced to North American Datum of 1983, Belvidere Town, Warren County, NJ, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft downstream from Pequest River, 1,200 ft southeast of Riverton, PA, and at river mile 197.7.

DRAINAGE AREA.--4,535 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781:1933(M). WSP 951:1940-41, Drainage area. WSP 1432:1923, 1924(M). WDR US-2006:1904(M).

GAGE.--Water-stage recorder. Datum of gage 226.43 ft above NGVD of 1929. Prior to Jan 1, 1929, non-recording gage at site 200 ft upstream at same datum.

REMARKS.--Records good, except for estimated daily discharges which are fair. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see 01431700) and by Pepacton (see 01416900), Cannonsville (see 01424997), Neversink (see 01435900) Reservoirs, and many smaller reservoirs. Diversion from Pepacton (see 01415200), Cannonsville (see 01423900), and Neversink (see 01435800) Reservoirs. Several measurements of water temperature were made during the year. National Weather Service telephone and USGS satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct 10, 1903 reached a stage of 28.6 ft (from floodmark), discharge, 250,000 ft³/s (from rating curve extended above 170,000 ft³/s).

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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	30,700	4,910	11,300	4,650	2,980	17,000	11,100	32,400	13,400	10,900	3,690	27,400
2	77,200	4,490	40,500	4,490	3,170	19,100	12,000	25,300	11,300	8,620	3,600	21,200
3	29,300	4,350	36,800	4,570	3,390	16,500	12,100	21,100	8,750	7,660	3,350	17,600
4	17,800	4,440	23,000	4,760	3,250	14,200	11,500	19,500	7,490	21,300	3,140	15,100
5	15,000	6,330	17,600	4,800	3,560	13,400	12,000	24,200	6,200	23,100	3,380	15,100
6	19,600	8,220	14,300	4,450	4,050	19,200	15,100	23,100	5,590	15,800	3,600	27,400
7	17,400	7,270	12,300	4,160	3,660	85,300	17,200	19,000	5,370	12,900	6,160	69,100
8	13,300	6,250	11,100	3,590	4,120	70,700	15,900	15,800	5,130	10,800	10,800	129,000
9	10,800	5,960	9,910	3,410	3,990	41,000	14,500	13,900	5,210	13,300	9,900	135,000
10	8,940	5,760	8,430	2,620	3,980	34,700	12,900	12,400	5,080	11,600	7,790	81,400
11	7,760	5,490	8,100	3,340	3,600	84,400	12,000	10,900	4,810	8,950	8,040	50,700
12	7,350	5,100	8,870	3,920	3,460	107,000	11,900	9,820	4,720	7,600	7,190	36,200
13	7,340	4,800	12,300	3,580	3,440	64,900	14,300	9,010	6,620	e6,540	6,070	30,000
14	7,110	4,450	16,500	3,230	3,420	47,500	15,800	7,750	7,250	e5,900	7,530	25,300
15	6,890	4,260	14,200	3,110	3,760	36,300	14,900	7,250	6,340	5,330	8,910	21,900
16	7,140	4,130	12,200	3,180	3,970	30,100	13,500	8,210	6,080	5,020	16,200	19,500
17	8,210	5,550	10,900	2,680	4,360	28,900	31,000	10,300	6,470	4,390	17,200	17,200
18	8,440	9,050	9,660	2,990	4,690	27,600	38,900	11,900	7,220	3,950	13,200	15,600
19	6,430	9,760	8,520	3,860	6,530	28,200	29,700	22,100	6,330	4,120	10,500	13,800
20	5,600	8,070	7,870	4,550	7,360	29,400	25,800	36,900	5,570	3,950	9,360	11,200
21	5,140	6,960	7,550	4,620	8,490	25,100	24,500	40,000	5,100	3,790	8,930	10,400
22	4,560	6,320	7,530	3,800	7,660	23,400	20,600	33,100	5,120	e3,710	8,150	10,700
23	4,350	6,040	7,320	3,700	6,870	22,700	18,100	25,600	9,580	e3,620	6,970	11,900
24	3,950	6,160	6,920	3,180	6,430	21,300	21,700	21,900	28,500	3,650	6,310	18,500
25	3,700	7,260	6,320	3,960	8,130	19,000	21,300	20,500	33,700	3,600	6,220	24,800
26	3,790	6,810	6,110	3,860	11,400	16,800	22,000	16,900	25,900	e5,850	6,810	18,100
27	4,480	7,760	5,630	3,990	12,700	14,600	28,200	14,600	17,400	e4,810	7,740	15,000
28	6,540	8,200	4,860	4,000	12,700	13,100	36,500	13,900	13,200	4,730	50,300	23,500
29	7,390	7,380	5,100	3,950	---	12,600	57,700	12,200	11,300	4,130	120,000	65,600
30	6,100	7,070	4,910	3,780	---	11,900	44,500	10,900	12,800	4,040	72,000	66,200
31	5,320	---	4,770	3,110	---	11,600	---	12,100	---	4,030	41,600	---
Total	367,630	188,600	361,380	117,890	155,120	1,007,500	637,200	562,540	297,530	237,690	494,640	1,044,400
Mean	11,860	6,287	11,660	3,803	5,540	32,500	21,240	18,150	9,918	7,667	15,960	34,810
Max	77,200	9,760	40,500	4,800	12,700	107,000	57,700	40,000	33,700	23,100	120,000	135,000
Min	3,700	4,130	4,770	2,620	2,980	11,600	11,100	7,250	4,720	3,600	3,140	10,400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	5,061	7,331	8,885	8,395	8,342	14,290	15,760	9,734	6,361	4,394	3,949	4,424
Max	19,570	21,140	27,730	22,770	21,960	42,520	40,720	21,470	24,110	16,840	19,260	34,810
(WY)	(1956)	(1928)	(1997)	(2006)	(2008)	(1936)	(1940)	(1989)	(2006)	(1928)	(1955)	(2011)
Min	1,055	1,226	1,481	1,683	2,452	4,889	4,512	3,261	1,590	1,017	881	1,199
(WY)	(1942)	(1965)	(1923)	(1981)	(1980)	(2006)	(1985)	(1965)	(1965)	(1965)	(1954)	(1941)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1923 - 2011	
Annual total	3,029,950		5,472,120			
Annual mean	8,301		14,990		8,070	
Highest annual mean					14,990	2011
Lowest annual mean					2,990	1965
Highest daily mean	77,200	Oct 2	135,000	Sep 9	211,000	Jun 29, 2006
Lowest daily mean	1,670	Sep 20	2,620	Jan 10	610	Aug 25, 1954
Annual seven-day minimum	1,810	Sep 18	3,230	Jan 13	782	Aug 14, 1954
Maximum peak flow			147,000	Sep 9	^a 273,000	Aug 19, 1955
Maximum peak stage			21.55	Sep 9	^b 30.21	Aug 19, 1955
Instantaneous low flow			2,200	Jan 10	609	Sep 28, 1943
10 percent exceeds	17,200		30,000		17,000	
50 percent exceeds	5,880		8,750		5,160	
90 percent exceeds	2,200		3,790		2,000	

^a From rating curve extended above 170,000 ft³/s on basis of flood-routing study.

^b From high-water mark in gage house.

