

Delaware River Flow and Storage Data- November 2018



DAY	Delaware at Montague		Lehigh River		Delaware at Trenton		Schuylkill River		Salt Front	New York City	
	Flow (cfs)		Flow (cfs)		Flow (cfs)		Flow (cfs)			Delaware River Basin Storage	
	8:00 AM	Mean	Lehighton	Bethlehem	8:00 AM	Mean	Pottstown	Philadelphia		River Mile	(BG)*
11/1/2018	9,770	9,480	1,460	2,550	17,200	16,900	1,700	2,810	69	252.9	94.6%
11/2/2018	9,490	9,960	1,650	3,430	15,800	15,400	2,290	2,720	69	252.5	94.4%
11/3/2018	17,100	22,300	4,120	13,000	47,800	45,700	12,500	23,400	68	254.6	95.2%
11/4/2018	24,500	23,400	4,750	8,020	52,100	50,300	8,150	12,100	67	257.2	96.2%
11/5/2018	17,200	17,500	4,710	7,620	42,000	40,800	6,580	8,810	66	258.6	96.7%
11/6/2018	18,100	19,200	4,170	9,170	35,500	37,300	8,620	10,300	65	259.8	97.1%
11/7/2018	23,700	23,200	4,290	9,390	44,600	44,500	10,100	13,800	63	261.3	97.7%
11/8/2018	19,100	18,700	3,800	7,760	42,800	41,600	7,830	10,600	61	261.9	97.9%
11/9/2018	16,300	15,900	3,210	6,810	34,900	35,000	6,290	8,690	56	262.1	98.0%
11/10/2018	20,200	20,500	4,030	8,110	38,300	38,100	7,670	13,600	<54	262.9	98.3%
11/11/2018	20,200	19,600	3,830	7,040	39,300	38,900	6,020	8,800	<54	263.5	98.5%
11/12/2018	16,000	15,800	3,210	6,250	35,200	34,200	5,160	7,210	<54	263.6	98.6%
11/13/2018	14,700	16,500	3,800	7,350	31,900	34,000	6,630	10,800	<54	263.7	98.6%
11/14/2018	20,300	19,700	3,990	7,300	36,300	37,200	6,300	10,200	<54	264.1	98.8%
11/15/2018	16,500	16,400	3,460	6,670	36,300	35,700	5,190	7,550	<54	264.1	98.7%
11/16/2018	15,600	15,100	3,140	6,150	33,500	33,800	5,970	11,000	57	264.3	98.8%
11/17/2018	14,500	14,500	2,820	5,850	32,700	32,200	5,870	11,400	60	264.1	98.7%
11/18/2018	13,400	13,400	2,680	5,680	31,100	30,600	5,560	9,910	62	263.8	98.6%
11/19/2018	12,900	12,900	2,460	5,420	28,600	28,300	5,320	8,260	64	263.5	98.5%
11/20/2018	12,100	13,200	2,400	5,220	27,500	27,400	5,440	7,900	65	263.3	98.4%
11/21/2018	14,600	14,300	2,530	5,400	26,200	27,000	5,150	7,380	65	262.9	98.3%
11/22/2018	13,000	12,700	2,170	4,920	27,300	26,700	4,500	6,540	65	262.4	98.1%
11/23/2018	11,400	11,000	2,040	4,460	24,100	23,600	4,000	5,820	64	261.8	97.9%
11/24/2018	10,200	10,300	1,870	4,470	21,500	21,600	4,150	5,770	63	261.1	97.6%
11/25/2018	14,100	16,300	4,560	10,500	53,600	47,500	11,100	25,400	63	261.1	97.6%
11/26/2018	20,700	20,400	5,580	9,940	42,700	45,100	9,840	14,600	61	261.5	97.8%
11/27/2018	31,400	31,700	6,360	13,000	54,000	54,600	10,200	16,000	59	263.1	98.4%
11/28/2018	30,300	28,900	5,520	9,720	60,900	59,300	8,370	11,900	56	264.1	98.7%
11/29/2018	22,600	21,900	6,060	9,070	50,600	48,700	6,400	9,090	55	264.3	98.8%
11/30/2018	18,600	18,200	6,070	8,910	41,500	40,400	5,340	7,560	<54	264.3	98.8%

Observed Average	17,431	3,691	7,306		36,413	6,608	10,331	70		
Mean Monthly	4,555	1,293	2,375		10,038	1,707	2,363			
% of Normal	382.7%	285.5%	307.6%		362.8%	387.1%	437.2%			

TODAY'S RESERVOIR OBSERVATIONS: 11/30/2018

Lower Delaware Basin**:		New York City 24-hr, as of 8 am:						NYC Daily Storage (BG)=	264.3	98.8%	
Blue Marsh	Beltzville	Vol. (BG)	Capacity	7-Day Precip	Usable	Storage	Draft	Directed Release	NYC Daily Storage Median (BG)=	194.5	72.7%
		4.40	99.3%	(inches)	(BG)	(%)	(MG)	(MG)	BG Above Daily Storage Median =	69.8	35.92%
		13.69	101.5%						BG Above Drought Watch =	154.3	
Directed Releases from Basin Reservoirs (cfs):		Neversink		1.51	34.8	100.4%	0	0	BG Above Drought Warning =	174.3	
Blue Marsh	Merrill Creek	0	0	Pepacton	1.33	140.0	100.5%	199	0	BG Above Drought =	194.3
Beltzville	Wallenpaupack	0	0	Cannonsville	1.28	89.5	95.8%	0	0	BG Above One Year Ago =	70.8

\* As of June 1, 2018, the NYC Delaware reservoir statistics have been changed to reflect the 2016 USGS bathymetry tables.

\*\*Percent capacity in Blue Marsh Reservoir is based upon the normal WINTER POOL storage of 4.43 BG. Percent capacity for Beltzville Reservoir is based upon the year-round, normal pool storage of 13.49 BG. Directed Release from NYC Reservoirs is the amount of water needed to meet the Montague Flow Objective.

**DATA SOURCES:**  
 Storage data provided by New York City Department of Environmental Protection, Bureau of Water Supply. [http://www.nyc.gov/html/dep/html/drinking\\_water/maplevels\\_wide.shtml](http://www.nyc.gov/html/dep/html/drinking_water/maplevels_wide.shtml)  
 Flow data provided by U.S. Geological Survey <http://waterdata.usgs.gov/nwis/rt>  
 Chloride data for the salt front calculation provided by U.S. Geological Survey and Kimberly Clark Corporation.  
 Lower Basin reservoir storage data provided by Philadelphia District Corps of Engineers. See basin summaries at <http://www.nap-wc.usace.army.mil/nap/>  
 ALL DATA ARE PROVISIONAL

**NOTES:**  
 The Salt Front is the estimated location of the 7-day average chloride concentration of 250 milligrams/liter (mg/L).  
 Releases from F.E. Walter are requested from the U.S. Army Corps of Engineers and are made from the reservoir's temporary drought storage.  
 Directed releases from Lake Wallenpaupack are estimated values supplied by PPL.  
 Lower Basin reservoir percentages are a percent of allocated storage, not total storage. More than 19.3 billion gallons of flood control is available in Beltzville and Blue Marsh reservoirs.  
 cfs=Cubic Feet per Second; DO= Dissolved Oxygen; MG= Million Gallons; BG=Billion Gallons

1. During cold weather, ice effects on stage and discharge determinations at some stream-gaging stations are likely. Flow values reported on this report may be significantly higher or lower than actual streamflow. Revisions will be made as needed when adjusted data becomes available.
2. The location of the salt front is estimated. The salt front river mile location will be updated as chloride data is received. DRBC does not track the salt front below river mile 54. The normal location of the salt front represents the median monthly calculated value based upon values from 1/1998 through 2/28/2013.
3. Normal flow values represent the median of monthly means for the period of record after construction completion of major reservoirs regulating their flow (NYC Reservoirs: Montague 1956-2011; FE Walter and Beltzville: Bethlehem and Trenton 1971-2011, Lehighton 1983-2011; Blue Marsh: Pottstown and Philadelphia 1980-2011).
4. Minimum dissolved oxygen for the Lehigh River at Glendon and the maximum temperature at the Schuylkill River at Vincent Dam will be reported for the period June through September.
5. NYC Storage Median based on beginning of month values reported to the Delaware River Master from June 1967 - May 2013.
6. Drought Watch, Warning and Drought are defined by Figure 1 of Article 2 in the Delaware River Basin Water Code 18 CFR Part 410.