Delaware River Flow and Storage Data- December 2018

Delaware River Basin Commission
DELAWARE • NEW JERSEY
PENNSYLVANIA • NEW YORK
UNITED STATES OF AMERICA

	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	
DAY	8:00 AM	Mean	Lehighton	Bethlehem	8:00 AM	Mean	Pottstown	Philadelphia	River Mile	(BG)*	Capacity
12/1/2018	16,300	16,000	3,970	7,040	36,100	34,900	4,620	6,630	<54	264.2	98.8%
12/2/2018	15,300	16,100	4,130	7,780	32,600	34,700	5,680	8,160	<54	264.3	98.8%
12/3/2018	18,400	17,900	3,770	7,080	35,600	35,800	5,420	8,740	<54	265.2	99.2%
12/4/2018	17,500	17,300	3,210	6,250	34,100	33,400	4,870	7,100	<54	266.1	99.5%
12/5/2018	15,900	15,400	2,490	5,240	31,200	30,700	4,250	6,250	<54	266.5	99.7%
12/6/2018	12,800	12,700	2,320	4,860	28,000	27,300	3,750	5,530	<54	266.6	99.7%
12/7/2018	11,200	11,200	2,070	4,360	24,100	23,700	3,550	5,110	<54	266.4	99.6%
12/8/2018	10,100	9,850	1,710	3,860	21,600	21,400	3,280	4,760	<54	266.2	99.5%
12/9/2018	8,530	8,540	1,640	3,580	19,500	19,100	3,070	4,440	<54	265.9	99.4%
12/10/2018	7,750	8,440	1,590	3,460	17,500	17,300	2,890	4,230	<54	265.3	99.2%
12/11/2018	7,940	8,370	1,530	3,320	16,400	16,700	2,540	3,900	<54	264.7	99.0%
12/12/2018	7,590	8,020	1,480	3,160	16,100	16,200	2,450	3,640	<54	263.8	98.6%
12/13/2018	7,400	7,740	1,330	2,930	15,600	15,500	2,460	3,590	<54	263.0	98.3%
12/14/2018	7,120	7,410	1,260	2,750	15,100	14,900	2,370	3,530	55	261.9	97.9%
12/15/2018	6,960	6,760	1,320	2,920	14,700	14,700	2,480	3,640	58	261.0	97.6%
12/16/2018	6,480	7,520	1,940	4,740	15,800	18,000	3,960	8,150	62	260.1	97.2%
12/17/2018	13,200	13,100	2,550	5,260	27,000	26,700	4,170	8,560	64	259.5	97.0%
12/18/2018	12,200	12,300	3,340	6,060	28,300	28,200	3,660	6,060	65	258.4	96.6%
12/19/2018	10,100	10,400	2,580	5,260	25,700	25,200	3,290	5,150	66	257.3	96.2%
12/20/2018	9,560	10,000	1,860	4,060	21,900	21,700	2,990	4,610	67	256.2	95.8%
12/21/2018	10,800	14,700	5,900	11,500	29,700	33,100	8,280	17,600	67	256.2	95.8%
12/22/2018	34,400	32,600	5,330	11,300	51,500	53,200	10,600	15,600	67	260.0	97.2%
12/23/2018	26,600	25,100	6,990	10,600	58,700	56,400	7,670	11,300	67	261.9	97.9%
12/24/2018	19,300	18,800	6,290	9,330	45,700	44,300	5,860	8,480	65	263.2	98.4%
12/25/2018	16,300	15,900	5,460	8,250	37,000	36,200	4,960	7,190	65	264.0	98.7%
12/26/2018	14,100	14,000	3,860	7,230	32,000	31,400	4,290	6,240	63	264.3	98.8%
12/27/2018	13,000	12,500	2,390	5,580	28,000	27,200	3,810	5,580	60	264.3	98.8%
12/28/2018	11,300	11,900	3,060	6,760	25,200	29,100	5,710	10,300	<54	264.1	98.8%
12/29/2018	12,900	13,400	3,130	7,510	35,700	33,800	7,460	12,700	<54	264.3	98.8%
12/30/2018	11,600	12,200	2,760	6,340	30,000	29,700	6,010	8,860	<54	264.2	98.8%
12/31/2018	11,600	11,700	2,690	6,020	26,100	26,300	5,500	7,630	<54	263.9	98.7%
Observed Average		13,156	3,031	5,948		28,284	4,577	7,202	69		
Mean Monthly		5,050	1,878	3,228		12,925	2,427	3,612			
% of Normal		260.5%	161.4%	184.3%		218.8%	188.6%	199.4%			

TODAY'S RESERVOIR OBSERVATIONS: 12/31/2018

Lower Delaware Basin**:			New York City 24-hr, as of 8 am:					NYC Daily Storage (BG)=	263.9	98.7%
	Vol. (BG)	Capacity					Directed	NYC Daily Storage Median (BG)=	221.4	82.8%
Blue Marsh	4.83	108.9%		7-Day Precip	Usable	Storage	Draft	Release	BG Above Daily Storage Median =	42.4	19.16%
Beltzville	13.76	102.0%		(inches)	(BG)	(%)	(MG)	(MG)	BG Above Drought Watch =	138.0	
Directed Releases from Basin Reservoirs (cfs):			Neversink	1.62	34.8	100.4%	0	0	BG Above Drought Warning =	158.0	
Blue Marsh 0	Merrill Creek	0	Pepacton	0.96	139.9	100.4%	0	0	BG Above Drought =	178.0	
Beltzville 0	Wallenpaupack	0	Cannonsville	0.93	89.1	95.3%	0	0	BG Above One Year Ago =	78.8	

* 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
Flow data provided by U.S. Geological Survey http://waterdata.usgs.gov/nwis/rt
Chloride data for the salt front calcuation 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.