

## DELAWARE RIVER BASIN

## 01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY

**LOCATION.**--Lat 41°30'32", long 74°59'10", Sullivan County, Hydrologic Unit 02040101, on left bank, 1.6 mi upstream from Lackawaxen River, and 4.6 mi northwest of Barryville. Water-quality sampling site at discharge station.

**DRAINAGE AREA.**--2,020 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--October 1940 to current year.

**REVISED RECORDS.**--WDR NY-82-1: Drainage area.

**GAGE.**--Water-stage recorder. Datum of gage is 600.22 ft above sea level.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> of drainage area controlled by Cannonsville Reservoir. Part of flow of these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. National Weather Service telephone gage-height telemeter at station. Information on the above reservoirs can be found in the annual Water Data Report NY-00-1.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 130,000 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 26.40 ft, from floodmarks in gage house, from rating curve extended above 55,000 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 23.19 ft; minimum discharge, 122 ft<sup>3</sup>/s, Sept. 5, 1953, gage height, 1.11 ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 28,100 ft<sup>3</sup>/s, Feb. 28, gage height, 10.86 ft; minimum, 666 ft<sup>3</sup>/s, Sept. 9, gage height, 2.39 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2140	993	3480	1340	e1300	10800	6030	4610	4580	2840	1730	817
2	1860	981	2890	1260	e1400	9480	5350	4160	3880	2300	1420	1090
3	1400	1780	2530	1350	e1300	8580	4860	3750	3280	1930	1220	1250
4	1410	3060	2280	1530	e1200	7480	7520	3350	2740	2060	1180	1180
5	2370	2290	2150	1900	e1300	6840	12900	3010	2380	2070	1190	979
6	2160	1900	2050	1810	e1200	6270	10700	2730	4430	1610	1090	845
7	1730	1690	2130	1330	e1200	5810	8830	2330	9760	1290	1360	745
8	1450	1520	1930	1290	e1200	6300	7410	2060	8710	1160	1230	688
9	1350	1390	1670	1240	e1100	7840	8950	1770	6830	1080	1110	733
10	1650	1330	1530	1450	e1000	10700	9060	2760	5590	1020	1150	960
11	2510	1290	1510	3230	e980	10900	8250	6000	4750	989	1270	980
12	2700	1250	1440	3350	e1000	19200	7360	5710	5490	945	6000	803
13	2110	1180	1330	2760	e1100	16800	6800	8610	7290	893	4800	2090
14	2110	1130	1350	2000	e1300	12100	6280	9580	8190	855	2770	4440
15	2430	1070	2320	1320	e2000	9400	5960	8870	7790	997	2170	2620
16	2110	1040	3050	e1200	e2800	7720	5730	7540	6860	3030	1910	2520
17	1820	1010	3000	e1200	e3500	9590	5500	6470	5900	4410	1480	1940
18	1660	948	2630	e1100	e3000	9480	8490	5520	5370	3320	1290	1520
19	1490	907	2290	e1300	e2700	8000	11500	7260	5790	2020	1160	1310
20	1440	873	2090	e1400	e2300	7080	9710	10300	5410	1500	1070	1470
21	1620	868	2720	e1400	e2200	6290	8970	9790	4380	1250	973	1290
22	1650	860	2910	e1500	e2000	5640	11400	8480	5010	1160	906	1130
23	1490	841	2470	e1400	e2100	5050	11900	10400	5290	1110	953	1030
24	1660	877	2010	e1500	e2200	4500	11600	16100	4450	1000	1100	1040
25	1650	973	1530	e1500	e4400	3980	9910	20300	3750	939	1260	956
26	1430	1070	1320	e1400	e6200	3800	8560	15800	3840	920	1180	956
27	1290	8570	1590	e1400	9550	3510	7410	12400	4580	892	1050	961
28	1220	8790	1590	e1400	23700	5330	6860	9940	4250	925	937	936
29	1150	5670	1270	e1500	17200	8920	6130	8200	3620	1290	834	878
30	1100	4310	1420	e1400	---	7800	5310	6830	3250	1200	806	823
31	1040	---	1560	e1300	---	6890	---	5680	---	1930	783	---
TOTAL	53200	60461	64040	49060	102430	252080	245240	230310	157440	48935	47382	38980
MEAN	1716	2015	2066	1583	3532	8132	8175	7429	5248	1579	1528	1299
MAX	2700	8790	3480	3350	23700	19200	12900	20300	9760	4410	6000	4440
MIN	1040	841	1270	1100	980	3510	4860	1770	2380	855	783	688

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2000, BY WATER YEAR (WY)

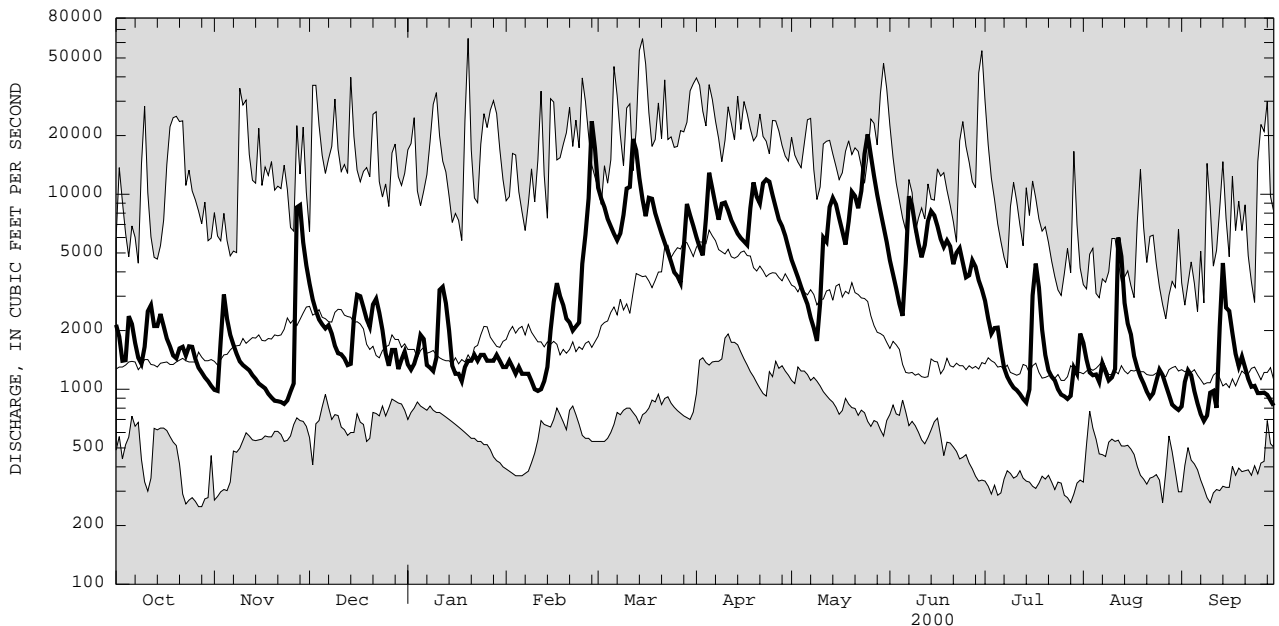
	2016	2758	3080	2803	2993	5201	6479	4129	2314	1649	1395	1492
MEAN	2016	2758	3080	2803	2993	5201	6479	4129	2314	1649	1395	1492
MAX	7404	7448	11940	8335	9389	12050	16500	8615	6701	4087	3033	4186
(WY)	1978	1997	1997	1978	1976	1977	1993	1984	1972	1996	1994	1987
MIN	527	610	1114	687	712	1399	1878	1161	673	328	465	448
(WY)	1964	1965	1999	1977	1980	1981	1985	1965	1965	1965	1965	1965

e Estimated.

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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1964 - 2000	
ANNUAL TOTAL	801820		1349558		3024	
ANNUAL MEAN	2197		3687		4650	
HIGHEST ANNUAL MEAN					1973	
LOWEST ANNUAL MEAN					1297	
HIGHEST DAILY MEAN	25900	Jan 25	23700	Feb 28	63000	Jan 20 1996
LOWEST DAILY MEAN	700	Jan 1	688	Sep 8	250	Oct 27 1963
ANNUAL SEVEN-DAY MINIMUM	882	Nov 18	822	Sep 6	264	Oct 23 1963
10 PERCENT EXCEEDS	4290		8840		6730	
50 PERCENT EXCEEDS	1510		2040		1640	
90 PERCENT EXCEEDS	988		980		865	



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.

## DELAWARE RIVER BASIN

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## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

CHEMICAL DATA: 1971-73 (a).

NUTRIENT DATA: 1971 (a).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-76).

INSTRUMENTATION.--Water-temperature recorder provides 15-minute-interval readings. Prior to October 1995, water-temperature recorder provided one-hour-interval readings. Prior to October 1975, water-temperature recorder provided continuous readings.

REMARKS.--Interruption of record was due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-75, 1980-81, 1983, 1985-96, 1999-2000), 32.5°C, July 9, 10, 1993; minimum (water years 1968, 1977-2000), 0.0°C, on many days during winters, each year except water years 1980-82.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C, Aug. 9, 10; minimum, 0.0°C on many days during winter.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	16.5	17.5	13.5	---	---	4.0	2.0	3.0	1.0	.0	.5			
2	18.0	15.5	17.0	---	---	---	2.5	1.0	1.5	1.5	.0	.5			
3	17.0	15.5	16.0	12.0	---	---	2.0	1.0	1.5	1.5	.5	1.0			
4	16.0	14.5	15.0	10.5	---	---	3.5	1.5	2.5	3.0	1.5	2.0			
5	14.5	12.5	13.5	9.5	8.0	9.0	5.5	3.0	4.5	2.0	.5	1.0			
6	13.5	11.5	12.5	9.5	8.0	8.5	6.0	4.5	5.5	1.0	.0	.5			
7	13.0	10.5	11.5	8.5	6.5	7.5	6.5	5.0	6.0	1.5	.0	.5			
8	13.0	9.5	11.0	7.5	6.0	6.5	6.0	4.5	5.0	1.0	.0	.5			
9	13.5	11.0	12.5	8.5	6.0	7.0	5.5	4.0	4.5	1.5	.0	.5			
10	13.5	12.5	13.0	8.5	6.5	8.0	4.0	3.5	3.5	1.0	.5	1.0			
11	15.5	13.0	14.0	9.5	7.5	8.5	4.0	2.0	3.0	1.5	.5	1.0			
12	---	---	---	7.5	6.5	7.0	3.0	1.5	2.0	2.5	1.5	1.5			
13	14.5	---	---	7.0	6.5	7.0	2.0	1.0	1.5	2.0	.0	1.5			
14	14.5	---	---	7.0	6.0	6.5	2.5	2.0	2.0	.0	.0	.0			
15	13.5	---	---	6.0	4.5	5.5	3.0	2.5	2.5	.5	.0	.0			
16	13.0	---	---	4.5	3.5	4.0	4.0	3.0	3.5	.5	.0	.0			
17	---	---	---	5.0	2.5	3.5	3.5	3.0	3.0	.0	.0	.0			
18	15.0	---	---	4.5	1.5	3.0	3.0	2.0	2.5	.5	.0	.0			
19	14.0	---	---	5.5	3.0	4.0	2.5	1.5	2.0	.5	.0	.0			
20	---	---	---	5.5	3.5	4.5	1.5	1.0	1.5	.0	.0	.0			
21	14.0	---	---	6.5	5.0	5.5	2.0	1.5	1.5	.0	.0	.0			
22	---	---	---	7.5	5.5	6.5	2.5	1.5	2.0	.0	.0	.0			
23	11.5	---	---	8.5	7.0	8.0	1.5	.5	1.0	.0	.0	.0			
24	10.5	---	---	10.5	8.5	9.5	.5	.0	.0	.0	.0	.0			
25	11.5	---	---	10.0	9.5	9.5	.5	.0	.0	.0	.0	.0			
26	11.5	---	---	10.5	9.5	10.0	.5	.0	.0	.0	.0	.0			
27	---	---	---	10.5	9.5	10.0	.5	.0	.0	.0	.0	.0			
28	11.0	---	---	9.5	8.0	9.0	.5	.0	.0	.0	.0	.0			
29	11.0	---	---	8.0	6.0	6.5	.5	.0	.5	.0	.0	.0			
30	12.0	---	---	6.0	4.0	5.0	.5	.0	.5	.0	.0	.0			
31	13.0	---	---	---	---	---	.5	.0	.5	.0	.0	.0			
MONTH	---	---	---	---	---	---	6.5	.0	2.0	3.0	.0	.5			

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WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	<b>FEBRUARY</b>			<b>MARCH</b>			<b>APRIL</b>			<b>MAY</b>		
1	.0	.0	.0	3.0	2.5	3.0	7.5	5.5	6.5	12.0	11.0	11.5
2	.0	.0	.0	3.0	3.0	3.0	8.0	6.5	7.5	12.5	11.5	12.0
3	.0	.0	.0	3.0	2.0	2.5	8.5	7.5	8.0	14.0	11.5	12.5
4	.0	.0	.0	3.0	1.5	2.5	9.5	8.5	9.0	15.5	13.0	14.0
5	.0	.0	.0	4.0	2.5	3.5	9.5	6.5	8.0	17.5	14.5	16.0
6	.0	.0	.0	4.5	3.0	3.5	6.5	5.0	5.5	19.0	16.0	17.5
7	.0	.0	.0	5.0	3.5	4.5	7.5	6.0	6.5	21.5	17.5	19.0
8	.0	.0	.0	6.5	4.5	5.5	10.0	7.5	8.5	23.0	19.5	21.0
9	.0	.0	.0	7.0	6.0	6.5	10.0	6.0	8.0	24.5	20.5	22.0
10	.0	.0	.0	7.0	6.0	6.5	6.0	4.5	5.5	22.5	18.0	20.5
11	.0	.0	.0	6.0	4.0	5.0	5.5	5.0	5.0	18.0	16.5	17.0
12	.5	.0	.0	4.0	3.5	4.0	6.0	4.5	5.0	17.0	15.5	16.0
13	.0	.0	.0	3.5	2.5	3.0	7.0	4.5	5.5	15.5	14.5	15.0
14	.5	.0	.0	4.0	2.5	3.5	9.0	6.0	7.5	16.5	15.0	15.5
15	.0	.0	.0	5.0	3.5	4.5	10.5	7.5	9.0	16.0	14.0	14.5
16	.0	.0	.0	6.0	4.5	5.0	12.5	10.0	11.0	14.0	12.5	13.5
17	.5	.0	.0	6.0	4.0	5.5	12.5	10.0	11.0	15.0	13.0	14.0
18	.0	.0	.0	4.0	2.5	3.5	10.0	7.0	8.5	16.5	14.5	15.5
19	.0	.0	.0	4.5	2.5	3.5	8.0	6.5	7.5	16.0	13.5	15.0
20	.0	.0	.0	5.5	3.5	4.5	9.5	8.0	9.0	13.5	11.5	12.5
21	.5	.0	.0	5.5	4.5	5.0	9.5	9.0	9.5	11.5	11.0	11.0
22	.5	.0	.0	7.0	5.0	6.0	9.0	8.0	8.5	11.5	11.0	11.5
23	.5	.0	.0	8.5	6.0	7.0	8.5	8.0	8.0	12.5	11.5	12.0
24	.5	.0	.0	9.5	7.5	8.5	9.5	7.5	8.5	14.0	12.5	13.5
25	.0	.0	.0	9.5	8.5	8.5	11.0	9.0	10.0	14.5	13.5	14.0
26	.5	.0	.0	10.0	8.5	9.0	10.5	9.0	10.0	14.0	13.5	14.0
27	1.0	.0	.5	9.5	8.5	9.0	10.0	8.5	9.5	14.0	12.5	13.5
28	1.0	.0	.5	9.0	8.0	8.5	10.5	8.5	9.5	15.0	13.5	14.0
29	3.0	1.0	2.0	8.0	6.5	7.0	11.5	9.0	10.5	15.0	14.0	14.5
30	---	---	---	6.5	5.5	6.0	12.5	10.5	11.5	16.5	14.0	15.0
31	---	---	---	6.5	5.0	6.0	---	---	---	17.5	15.0	16.5
MONTH	3.0	.0	.0	10.0	1.5	5.0	12.5	4.5	8.0	24.5	11.0	15.0
	<b>JUNE</b>			<b>JULY</b>			<b>AUGUST</b>			<b>SEPTEMBER</b>		
1	19.0	17.0	18.0	23.5	20.0	21.5	22.5	21.5	22.0	25.5	23.0	24.0
2	21.0	18.5	19.5	24.5	21.0	22.5	25.0	21.5	23.0	26.5	23.5	24.5
3	21.0	19.0	20.0	23.5	21.5	22.5	26.5	23.0	24.5	26.5	23.5	24.5
4	20.5	18.5	19.5	25.0	21.5	23.0	27.0	23.0	25.0	26.0	22.5	24.5
5	19.0	17.0	18.0	25.5	22.0	23.5	26.0	22.0	24.0	24.5	20.0	22.0
6	17.0	13.5	15.0	24.5	21.0	22.5	23.5	22.0	22.5	23.5	18.5	21.0
7	15.0	13.0	14.0	23.5	20.5	22.0	24.0	21.5	22.5	23.0	18.5	20.5
8	16.0	14.0	15.0	24.0	19.0	21.5	26.5	21.5	24.0	22.5	18.5	20.5
9	18.0	15.5	16.5	23.5	19.5	21.5	27.5	23.5	25.5	23.0	20.0	21.0
10	20.0	17.5	19.0	26.0	21.0	23.0	27.5	24.0	25.5	23.0	20.5	21.5
11	21.5	20.0	20.5	26.0	21.0	23.5	26.5	24.0	25.0	22.0	20.5	21.0
12	21.0	20.0	20.5	27.0	20.5	23.5	24.5	17.5	21.0	21.5	20.0	20.5
13	20.0	17.0	18.5	26.0	22.0	24.0	19.0	17.5	18.0	21.5	19.5	20.5
14	17.0	15.0	16.0	26.0	22.5	24.0	20.0	18.5	19.0	20.0	19.0	19.5
15	16.5	15.0	15.5	23.5	22.0	22.5	22.5	18.5	20.5	20.0	18.5	19.0
16	19.5	16.5	18.0	23.0	21.0	22.0	23.5	20.5	21.5	18.5	16.5	18.0
17	21.0	19.5	20.0	21.5	20.0	20.5	23.5	20.0	21.5	18.0	15.0	16.5
18	20.5	18.0	19.0	23.0	20.5	21.5	21.0	19.5	20.0	19.0	15.0	17.0
19	18.5	17.0	17.5	21.5	20.0	21.0	21.5	18.5	20.0	18.0	16.5	17.0
20	20.0	17.0	18.5	24.0	19.0	21.5	23.0	18.0	20.0	21.0	17.0	19.0
21	20.0	19.5	20.0	23.5	20.0	22.0	23.5	18.0	20.5	21.5	18.5	19.5
22	21.0	19.5	20.5	24.0	20.5	22.0	24.0	18.5	21.0	21.0	17.0	19.0
23	21.0	19.5	20.0	23.5	19.5	21.5	21.0	20.0	20.5	18.0	16.5	17.0
24	21.0	19.5	20.5	23.0	20.0	21.5	23.5	19.5	21.5	17.5	15.5	17.0
25	23.0	20.5	21.5	24.0	20.5	22.0	24.5	20.0	22.0	17.5	14.5	15.5
26	24.0	22.0	23.0	22.0	20.5	21.5	25.0	20.5	22.5	15.5	13.5	14.5
27	23.0	21.5	22.5	22.0	20.5	21.0	25.0	21.0	23.0	17.5	12.5	14.5
28	22.0	20.5	21.5	26.0	20.5	22.5	24.5	21.5	22.5	17.0	13.5	15.0
29	21.5	20.5	21.0	24.5	23.0	23.5	24.5	22.0	23.0	17.0	12.0	14.0
30	22.5	20.5	21.0	23.5	22.0	22.5	25.0	21.0	22.5	16.5	12.5	14.5
31	---	---	---	24.0	21.5	22.5	26.0	22.5	24.0	---	---	---
MONTH	24.0	13.0	19.0	27.0	19.0	22.5	27.5	17.5	22.0	26.5	12.0	19.0