

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, PA, Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, PA, 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River.

DRAINAGE AREA.--3,070 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area. WDR NY-86-1: 1979-80.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft above National Geodetic Vertical Datum of 1929. October 1904 to August 13, 1928, non-recording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Service prior to June 20, 1914.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Lake Wallenpaupack (station 01431700) and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir. Information on the above lakes and reservoirs can be found in the annual Water-Data Report NY-03-1. Part of flow from 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. Satellite and telephone gage-height telemeters and National Weather Service telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge prior to current degree of regulation, 233,000 ft³/s, Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft³/s, on basis of slope-area measurement of peak flow; maximum discharge since current degree of regulation, 134,000 ft³/s, Jan. 20, 1996, gage height, 18.37 ft; maximum gage height, 26.6 ft, Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft³/s, Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft³/s, Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft³/s, by velocity-area studies; maximum gage height, 25.5 ft, Mar. 8, 1904 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46,500 ft³/s, Mar. 22, gage height, 10.51 ft; minimum, 977 ft³/s, Oct. 3, gage height, 1.93 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,430	2,950	4,210	e5,000	e2,300	e2,500	16,000	5,240	10,100	5,180	2,370	1,970
2	1,190	2,890	e3,800	14,800	e2,200	e2,400	14,000	5,170	16,700	4,760	2,840	13,200
3	1,140	2,730	e3,200	15,800	e2,300	e2,400	13,500	8,510	12,300	4,110	3,720	25,300
4	1,370	2,380	e2,300	11,700	e2,400	e2,400	12,500	9,050	10,900	3,410	3,520	31,700
5	1,840	2,250	e2,100	9,600	e2,500	e2,300	12,200	7,800	10,200	3,320	5,720	31,900
6	1,730	2,460	e2,200	8,440	e2,300	e2,300	12,400	6,920	9,040	3,330	7,070	20,100
7	1,690	3,730	e2,100	7,540	e2,100	e2,200	12,000	6,190	8,290	3,070	7,080	14,100
8	1,740	3,660	e1,900	e5,800	e2,000	e2,200	11,300	5,520	9,750	2,870	5,460	11,100
9	1,540	3,090	e1,800	e4,700	e1,800	e2,100	10,500	5,180	8,390	2,650	5,830	8,830
10	1,710	2,560	e1,600	e4,000	e1,700	e2,100	9,800	4,440	7,210	2,540	5,760	7,450
11	2,100	2,530	e1,400	e3,700	e1,700	e2,100	9,860	3,880	6,430	2,610	5,820	6,600
12	7,980	2,600	e1,500	e3,500	e1,700	e2,100	10,300	4,310	6,800	4,090	13,400	5,570
13	11,700	4,070	e2,100	e3,000	e1,700	e2,000	9,520	5,560	8,760	2,740	10,500	4,300
14	7,270	5,070	5,700	e2,700	e1,700	e2,000	8,670	5,250	11,200	2,340	9,100	3,880
15	5,260	4,370	7,510	e2,500	e1,600	e2,000	8,040	4,980	14,000	2,510	8,320	5,360
16	5,090	4,270	7,410	e2,400	e1,500	e2,600	7,450	4,610	10,800	2,160	6,850	13,300
17	20,300	8,130	6,340	e2,300	e1,500	6,420	6,860	4,310	8,780	2,260	4,970	10,800
18	14,700	14,200	5,270	e2,400	e1,500	13,900	6,330	3,840	7,770	2,430	4,650	8,670
19	9,330	12,400	4,590	e2,500	e1,500	24,300	5,590	3,560	7,230	2,200	4,180	8,180
20	7,030	9,680	5,310	e2,600	e1,500	21,200	4,950	3,450	6,330	1,840	3,760	7,640
21	5,650	8,570	10,300	e2,600	e1,600	36,500	4,830	3,250	11,800	1,930	3,430	6,510
22	4,640	8,250	9,150	e2,600	e1,800	45,600	5,140	3,100	19,500	2,690	3,140	5,530
23	3,900	9,620	8,030	e2,500	e2,500	41,900	5,090	3,000	18,800	5,120	2,570	13,000
24	3,070	9,480	7,050	e2,500	e2,700	30,700	4,860	2,690	14,500	5,170	2,020	23,900
25	2,940	8,110	e6,200	e2,400	e2,900	23,900	4,290	2,780	11,000	4,130	2,080	15,700
26	3,590	7,040	e5,000	e2,400	e3,000	21,300	3,970	3,630	9,230	3,090	2,530	12,500
27	5,820	6,460	e5,200	e2,400	e3,100	19,300	6,110	4,890	8,070	2,880	2,320	10,100
28	4,840	5,740	e4,800	e2,400	e2,800	15,800	6,990	4,610	7,190	3,300	2,270	11,600
29	3,950	4,860	e4,500	e2,400	---	14,300	6,210	4,290	6,170	3,370	1,840	17,600
30	3,530	4,420	e4,300	e2,400	---	18,700	5,590	3,920	5,670	3,100	2,360	13,700
31	3,200	---	e4,200	e2,400	---	18,800	---	3,480	---	3,010	1,980	---
TOTAL	151,270	168,570	141,070	141,980	57,900	388,320	254,850	147,410	302,910	98,210	147,460	370,090
MEAN	4,880	5,619	4,551	4,580	2,068	12,530	8,495	4,755	10,100	3,168	4,757	12,340
MAX	20,300	14,200	10,300	15,800	3,100	45,600	16,000	9,050	19,500	5,180	13,400	31,900
MIN	1,140	2,250	1,400	2,300	1,500	2,000	3,970	2,690	5,670	1,840	1,840	1,970

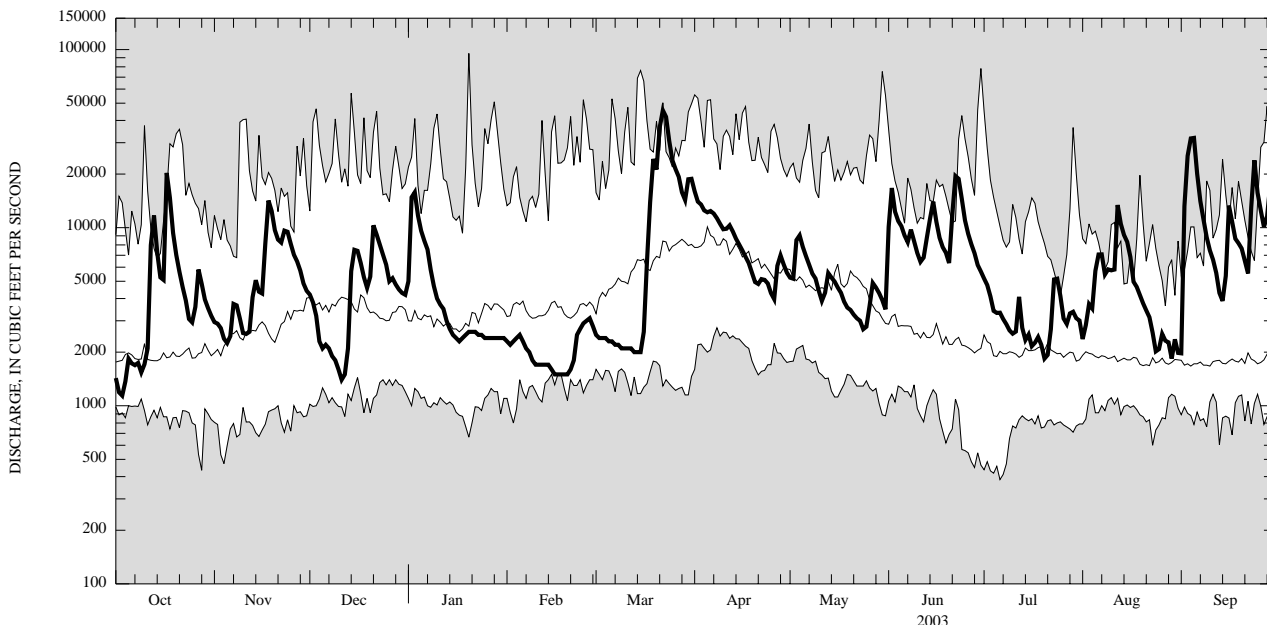
e Estimated.

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)												
MEAN	2,981	4,026	5,052	4,704	4,997	8,040	9,380	6,100	4,102	2,684	2,277	2,629
MAX	10,440	10,310	17,280	12,980	13,730	17,520	23,650	12,670	12,650	6,680	4,757	12,340
(WY)	(1978)	(1973)	(1997)	(1996)	(1976)	(1977)	(1993)	(1984)	(1972)	(1973)	(2003)	(2003)
MIN	1,001	884	1,475	1,216	1,601	2,583	2,954	1,890	993	699	963	1,144
(WY)	(1965)	(1965)	(1999)	(1981)	(1980)	(1981)	(1985)	(1995)	(1965)	(1965)	(1965)	(1965)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	1,469,665		2,370,040			
ANNUAL MEAN	4,026		6,493		4,743	
HIGHEST ANNUAL MEAN					7,216	
LOWEST ANNUAL MEAN					2,028	
HIGHEST DAILY MEAN	23,900	May 14	45,600	Mar 22	95,200	Jan 20, 1996
LOWEST DAILY MEAN	666	Jan 20	1,140	Oct 3	385	Jul 6, 1965
ANNUAL SEVEN-DAY MINIMUM	842	Jan 16	1,480	Oct 1	432	Jul 1, 1965
10 PERCENT EXCEEDS	8,470		13,400		10,300	
50 PERCENT EXCEEDS	2,690		4,610		2,830	
90 PERCENT EXCEEDS	1,430		2,000		1,500	



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

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to January 1994, June 1997, 1999 to August 2001, April 2002 to current year.

CHEMICAL DATA: 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d), 1987 (b), 1988-89 (c), 1990-91 (b), 1992, 1997 (a), 1999-2001 (d).

MINOR ELEMENTS DATA: 1970, 1972-73 (a), 1974-76 (c), 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).

PESTICIDE DATA: 1974 (a), 1987 (b), 1988-89 (c), 1990 (b), 1997 (a), 1999 (c), 2000-01 (d).

ORGANIC DATA: OC--1974 (b), 1975, 1999-2001 (d).

NUTRIENT DATA: 1968 (a), 1969-76 (d), 1987 (b), 1988-89 (c), 1990 (b), 1999-2001 (d).

BIOLOGICAL DATA:

Bacteria--1973-76 (d).

Phytoplankton--1974 (b), 1975-76 (c).

Periphyton--1976 (a).

SEDIMENT DATA: 1959, 1976 (c), 1988 (b), 1989 (c), 1990-91 (b), 1992 (a), 1999-2001 (d).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January to September 1973

WATER TEMPERATURE: February 1957 to September 1960, January to September 1973, June 1974 to January 1994, October 1998 to August 2001.

SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

REMARKS.--Other data for the Water-Quality Network can be found on pages 430-470.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum (water years 1957-59, 1973-81, 1983-84, 1988-93, 1999-2000), 30.5°C, July 5, 1999; minimum (water years 1958-60, 1973, 1975-93, 1999, 2001), 0.0°C on many days during winter periods, except 1984.

SUSPENDED-SEDIMENT CONCENTRATION: (water years 1957-60, 1970-76): Maximum daily mean, 760 mg/L, June 29, 1973; minimum daily mean, less than 1 mg/L on many days.

SUSPENDED-SEDIMENT DISCHARGE: (water years 1957-60, 1970-76): Maximum daily, 187,000 tons, June 29, 1973; minimum daily, 1 ton, Aug. 29, 1957.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, μ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO ₃ (00900)	Calcium, water, unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unfltrd end pt, lab, mg/L as CaCO ₃ (00417)
NOV 2002													
06...	0900	1028	9813	--	40	12.8	7.2	75	5.8	22	6.6	1.3	13
JAN 2003													
08...	1000	1028	9813	--	40	13.2	6.3	76	.8	19	5.9	1.1	10
MAR													
06...	1230	1028	9813	--	40	13.9	7.0	101	.2	22	6.5	1.3	13
MAY													
07...	1030	1028	9813	--	40	11.7	6.8	76	11.1	21	5.9	1.4	14
JUL													
16...	1250	1028	9813	--	40	11.7	8.5	82	23.6	22	6.6	1.3	17
SEP													
10...	1620	1028	9813	--	40	9.7	8.1	73	19.9	21	6.4	1.3	16

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Alum- inum, water, unfltrd recover -able, µg/L (01105)	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, unfltrd recover -able, µg/L (01045)
NOV 2002 06...	8.0	138	<2	<.020	.13	<.040	<.01	<.010	.38	2.5	<200	<10	70
JAN 2003 08...	7.3	88	<2	<.020	.27	<.040	<.01	<.010	.40	2.8	<200	<10	90
MAR 06...	7.9	60	<2	<.020	.33	<.040	.01	<.010	.39	2.1	<200	<10	80
MAY 07...	6.7	72	<2	<.020	.18	<.040	.01	.010	.43	2.2	<200	<10	90
JUL 16...	6.2	70	<2	<.020	.12	<.040	.01	.015	.52	3.4	<200	<10	90
SEP 10...	5.8	78	<2	<.020	.15	<.040	.01	.022	.35	3.0	<200	<10	160

Date	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2002 06...	<1.0	<10	<50	<10
JAN 2003 08...	<1.0	20	<50	10
MAR 06...	<1.0	20	<50	20
MAY 07...	<1.0	30	<50	10
JUL 16...	<1.0	30	<50	<10
SEP 10...	<1.0	40	<50	20

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using rapid bioassessment protocols for benthic macroinvertebrates using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 (approximate) subsamples.

Date	8/07/02
Benthic Macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Valvatidae	
<u>Valvata</u> sp	25
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
<u>Sphaerium</u> sp	11
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<u>Acentrella</u> sp	7
<u>Baetis</u> sp	4
Ephemerellidae	
<u>Serratella</u> sp	8
Heptageniidae	
<u>Stenonema</u> sp	9
Isonychiidae	
<u>Isonychia</u> sp	1
Polymitarcyidae	
<u>Ephoron</u> sp	2
Tricorythidae	
<u>Tricorythodes</u> sp	2
Odonata	
Coenagrionidae (DAMSELFLIES)	
<u>Argia</u> sp	1
Plecoptera (STONEFLIES)	
Perlidae	
<u>Acroneuria</u> sp	1
<u>Agnetina</u> sp	2
Trichoptera (CADDISFLIES)	
Apataniidae	
<u>Apatania</u> sp	1
Brachycentridae	
<u>Brachycentrus</u> sp	1
Helicopsychidae	
<u>Helicopsyche</u> sp	12
Hydropsychidae	
<u>Cheumatopsyche</u> sp	2
<u>Potamyia</u> sp	3
Hydroptilidae	
<u>Leucotrichia</u> sp	5
Philopotamidae	
<u>Chimarra</u> sp	1
Rhyacophilidae	
<u>Rhyacophila</u> sp	1

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	8/07/02
Benthic Macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Promoresia</u> sp	3
<u>Stenelmis</u> sp	3
Psephenidae (WATER PENNIES)	
<u>Psephenus</u> sp	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	8
Empididae (DANCE FLIES)	
<u>Hemerodromia</u> sp	1
Tipulidae (CRANE FLIES)	
<u>Antocha</u> sp	3
Total Organisms	120