



Water-Data Report 2007

01412800 COHANSEY RIVER AT SEELEY, NJ

COHANSEY RIVER BASIN

LOCATION.--Lat 39°28'21", long 75°15'20" referenced to North American Datum of 1983, Stow Creek Township, Cumberland County, NJ, Hydrologic Unit 02040206, on right bank just downstream from bridge on Silver Lake Road (County Route 704), 0.6 mi south of Seeley, 2.6 mi east of Shiloh, 4.1 mi north of Bridgeton, and 22.5 mi upstream from mouth.

DRAINAGE AREA.--28.0 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1977 to September 1988. Operated as crest-stage partial-record station, water years 1989-95. August 2003 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 26.9 ft above NGVD of 1929.

REMARKS.--Records fair. Occasional regulation from lake gate operations, irrigation, or other activities upstream. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 16	0130	*678	*5.87
No other peak greater than base discharge			

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	23	28	33	98	31	35	34	42	36	27	28	20
2	23	28	33	126	33	80	34	42	37	23	27	20
3	23	27	31	49	33	64	34	41	47	24	23	20
4	21	27	31	36	30	38	74	40	108	29	23	20
5	20	26	30	38	28	34	78	39	54	30	21	18
6	40	26	30	46	27	31	41	38	35	29	24	19
7	41	27	30	37	28	30	37	38	33	22	25	19
8	28	105	30	203	28	30	35	38	32	22	24	18
9	24	123	29	136	28	31	34	38	32	22	28	18
10	24	52	29	51	28	32	34	39	29	23	41	18
11	28	33	29	40	28	33	33	39	32	23	29	20
12	39	46	29	39	29	31	90	39	36	21	26	20
13	28	154	31	38	30	31	81	51	37	20	24	19
14	25	90	31	38	97	31	36	40	31	20	23	19
15	24	42	30	37	69	32	278	39	32	20	23	20
16	24	39	29	36	35	76	496	48	32	17	23	19
17	41	54	29	34	31	143	164	87	30	16	23	19
18	71	40	28	34	32	71	66	45	28	16	21	17
19	35	34	28	37	30	42	55	41	27	20	23	17
20	57	33	28	35	31	39	52	41	30	34	35	18
21	41	32	29	33	36	36	49	39	30	29	63	18
22	29	39	30	35	35	36	47	38	28	27	47	18
23	27	68	65	35	33	41	46	37	28	29	31	18
24	26	47	40	34	31	47	45	36	27	23	27	17
25	26	37	36	33	31	39	43	36	44	24	26	17
26	26	34	57	32	58	36	43	35	38	23	26	17
27	26	33	39	31	50	36	73	35	30	25	25	18
28	87	33	32	33	38	35	102	41	29	25	24	18
29	66	32	30	33	---	33	51	42	29	26	23	17
30	33	32	29	31	---	33	45	37	30	32	22	16
31	29	---	29	31	---	34	---	36	---	34	21	---
Total	1,055	1,421	1,014	1,549	1,018	1,340	2,330	1,277	1,071	755	849	552
Mean	34.0	47.4	32.7	50.0	36.4	43.2	77.7	41.2	35.7	24.4	27.4	18.4
Max	87	154	65	203	97	143	496	87	108	34	63	20
Min	20	26	28	31	27	30	33	35	27	16	21	16
Cfsm	1.22	1.69	1.17	1.78	1.30	1.54	2.77	1.47	1.27	0.87	0.98	0.66
In.	1.40	1.89	1.35	2.06	1.35	1.78	3.10	1.70	1.42	1.00	1.13	0.73

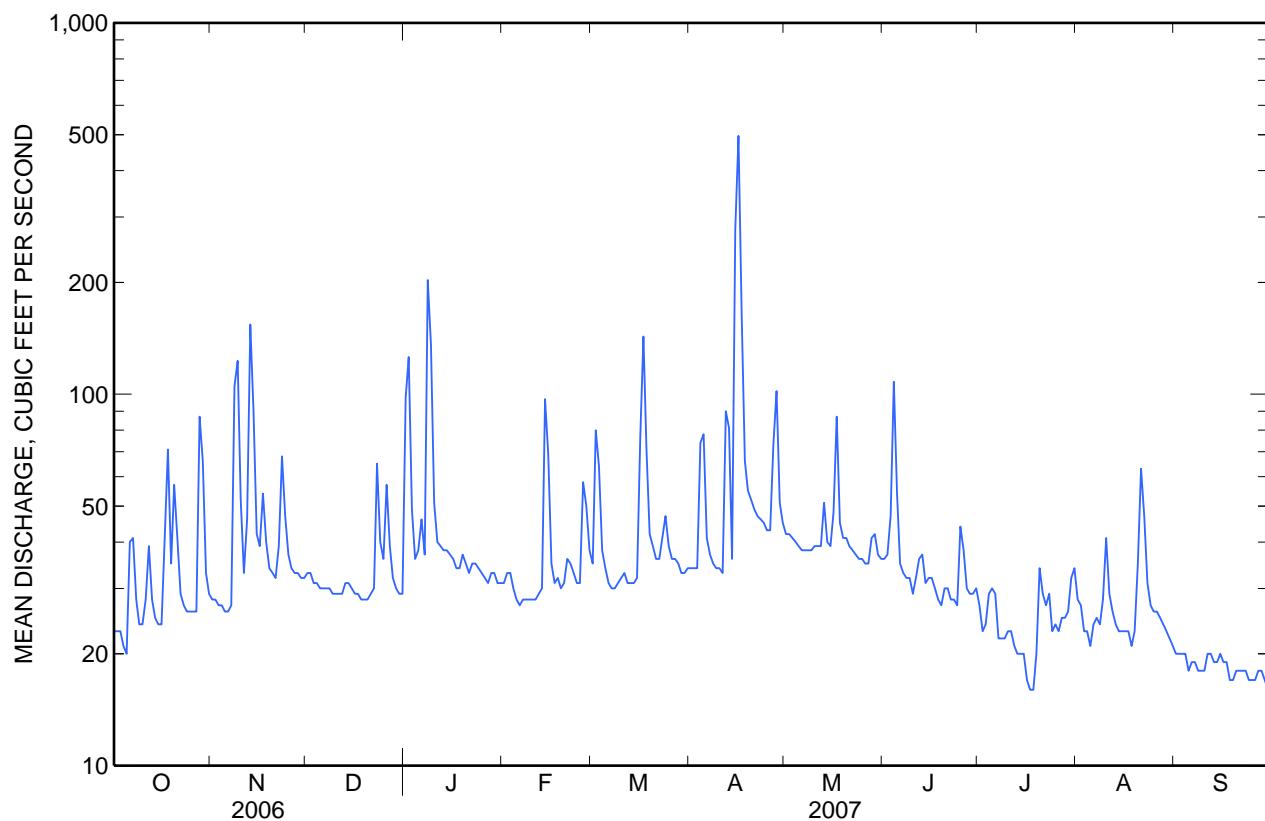
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	30.5	34.1	37.5	40.8	43.3	39.2	46.6	40.5	41.5	31.6	26.8	27.5
Max	58.4	48.1	59.0	84.7	105	58.4	77.7	57.3	121	50.0	43.0	43.5
(WY)	(1980)	(1984)	(2004)	(1978)	(1979)	(1978)	(2007)	(1983)	(1983)	(1984)	(1979)	(1979)
Min	20.5	20.5	25.1	20.8	24.5	19.3	22.2	27.9	15.3	14.9	14.8	17.8
(WY)	(1987)	(1982)	(1981)	(1981)	(1983)	(1981)	(1985)	(1986)	(1988)	(1988)	(1988)	(1988)

01412800 COHANSEY RIVER AT SEELEY, NJ—Continued**SUMMARY STATISTICS**

	Calendar Year 2006	Water Year 2007		Water Years 1978 - 2007	
Annual total	13,195		14,231		
Annual mean	36.2		39.0		36.5
Highest annual mean				46.3	1979
Lowest annual mean				24.4	1988
Highest daily mean	280	Jul 23	496	Apr 16	2,150 Jun 21, 1983
Lowest daily mean	17	Aug 7	16	Jul 17	5.3 Jul 9, 1988
Annual seven-day minimum	17	Aug 18	17	Sep 24	5.8 Jul 5, 1988
Maximum peak flow			678	Apr 16	^a 10,000 Jun 21, 1983
Maximum peak stage			5.87	Apr 16	8.50 Jun 21, 1983
Instantaneous low flow			14	Jul 16-18	4.7 Jul 9, 1988
Annual runoff (cfsm)	1.29		1.39		1.30
Annual runoff (inches)	17.53		18.91		17.72
10 percent exceeds	49		56		53
50 percent exceeds	30		32		29
90 percent exceeds	22		20		19

^a Discharge partially the a result of dam break at Seeley Lake, 3.1 mi upstream, from rating curve extended above 600 ft³/s based on step-backwater computation of peak flow.



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Total nitrogen (00600) equals the sum of filtered ammonia-plus-organic nitrogen (00623), filtered nitrite-plus-nitrate nitrogen (00631), and total particulate nitrogen (49570). Cooperative Network Site Descriptor: Agricultural Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 17.

COOPERATION.--Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 1 of 3

[Remark codes: <, less than; E, estimated.]

Date	Time	Turbdty white light, det ang 90+/-30 dis- charge, corrctd	UV absorb- ance, 254 nm, wat flt units	UV absorb- ance, 280 nm, wat flt units	Baro- metric pres- sure, mm Hg (61726)	Dis- solved oxygen, mg/L (00025)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units	Specif- ic conduc- tance, μS/cm (00400)	Temper- ature, wat unf μS/cm (25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)
Nov 21...	1000	32	11	.202	.159	773	10.2	87	6.5	212	8.0	8.7	59
Feb 06...	1040	27	8.9	.038	.030	760	12.9	94	6.6	245	-7.0	2.1	67
May 15...	1010	40	5.7	.125	.097	764	8.5	87	6.6	229	21.0	16.6	65
Aug 13...	1010	26	15	.088	.065	757	7.2	82	6.6	238	23.5	22.1	70

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 2 of 3

[Remark codes: <, less than; E, estimated.]

Date	Calcium water, filtrd, mg/L (00915)	Magnes- ium, water, filtrd, mg/L (00925)	Potas- sium, water, filtrd, mg/L (00935)	Sodium, water, filtrd, mg/L (00930)	ANC, fixed end pt, lab, mg/L as CaCO ₃ (90410)	Chlor- ide, water, filtrd, mg/L (00940)	Fluor- ide, water, filtrd, mg/L (00950)	Silica, water, filtrd, mg/L (00955)	Sulfate water, filtrd, mg/L (00945)	Residue water, filtrd, sum of consti- tuents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total non- filter- able, mg/L (00530)	Ammonia + org-N, water, filtrd, mg/L as N (00623)
Nov 21...	12.2	6.92	6.74	9.62	20	21.5	<.10	9.3	21.7	120	127	8	.47
Feb 06...	13.4	8.07	5.48	10.5	14	24.1	E.05	9.3	26.8	137	125	5	.28
May 15...	13.2	7.83	5.53	9.57	20	22.6	.10	5.2	25.3	124	149	3	.44
Aug 13...	14.3	8.33	7.11	11.2	25	26.1	E.06	5.8	24.7	134	149	17	.41

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 3

[Remark codes: <, less than; E, estimated.]

Date	Nitrate	Partic-	Ortho-				Total	Inor-	Organic	Organic	Boron,		
	+ nitrite	ulate	Total	nitro-	phosphate,	Phos-	carbon,	carbon,	water,				
Ammonia	water,	nitro-	nitro-	water,	water,	phorus,	suspnd	suspnd	water,	water,			
water,	fltrd,	gen,	gen,	water,	fltrd,	phorus,	sedimnt	sedimnt	fltrd,	fltrd,			
mg/L	mg/L	susp,	water,	mg/L	unfltrd	mg/L	total,	total,	fltrd,	fltrd,			
Date	as N	as N	(49570)	(00602)	(00600)	(00671)	mg/L	mg/L	mg/L	mg/L	(01020)		
	(00608)	(00631)					(00694)	(00688)	(00689)	(00681)			
Nov 21...	.085	4.44	.07	4.9	5.0	E.008	.017	.076	.8	<.1	.8	4.3	20
Feb 06...	.067	7.00	.08	7.3	7.4	E.003	<.008	.032	.7	<.1	.7	1.2	15
May 15...	.058	5.11	.08	5.5	5.6	E.007	.014	.048	.6	<.1	.6	3.1	18
Aug 13...	.065	4.82	.10	5.2	5.3	E.004	.013	.090	.9	<.1	.9	2.5	19