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 mi^2.

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 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Sep 29	0000	*150	*4.55

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	15	23	22	35	45	27	31	26	30	25	16	11
2	17	22	24	30	65	26	31	26	28	23	15	9.9
3	18	22	60	27	36	26	29	26	26	22	15	11
4	17	22	37	26	30	27	43	26	69	23	12	11
5	17	22	29	26	29	46	36	25	78	31	11	12
6	16	25	27	28	29	35	36	24	38	29	11	34
7	16	23	26	28	31	34	35	23	33	29	9.6	57
8	17	22	31	27	29	77	31	25	31	26	10	23
9	20	22	30	27	27	71	30	72	29	25	11	22
10	39	22	29	26	27	37	30	69	27	25	14	27
11	38	22	29	37	25	33	29	36	26	22	21	21
12	28	22	27	37	25	31	31	51	26	22	16	22
13	23	24	29	30	58	30	35	57	27	20	15	27
14	21	23	31	32	67	30	30	35	25	23	16	21
15	20	25	27	29	36	30	28	31	25	22	21	19
16	20	25	86	27	30	31	28	37	25	20	17	18
17	20	23	56	28	29	29	28	38	25	18	15	18
18	20	23	32	57	30	29	27	35	24	15	12	17
19	24	27	29	40	29	33	27	35	25	14	12	17
20	24	28	28	31	28	41	27	37	23	14	12	17
21	20	26	27	27	28	33	26	41	24	16	11	16
22	19	25	28	27	29	29	25	33	24	12	11	16
23	20	25	30	29	32	28	25	30	25	14	11	16
24	29	24	35	28	31	28	25	29	22	32	12	15
25	43	23	29	26	30	29	25	28	22	23	13	16
26	32	28	27	26	30	29	24	28	22	19	12	17
27	129	27	28	26	31	29	27	28	28	20	11	19
28	75	24	27	26	28	29	30	29	53	21	12	39
29	30	24	71	26	27	28	35	26	28	19	11	66
30	25	23	49	27	---	28	28	27	26	17	11	24
31	24	---	45	26	---	28	---	27	---	15	11	---
Total	876	716	1,085	922	971	1,041	892	1,060	914	656	407.6	658.9
Mean	28.3	23.9	35.0	29.7	33.5	33.6	29.7	34.2	30.5	21.2	13.1	22.0
Max	129	28	86	57	67	77	43	72	78	32	21	66
Min	15	22	22	26	25	26	24	23	22	12	9.6	9.9
Cfsm	1.01	0.85	1.25	1.06	1.20	1.20	1.06	1.22	1.09	0.76	0.47	0.78
In.	1.16	0.95	1.44	1.22	1.29	1.38	1.19	1.41	1.21	0.87	0.54	0.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	30.4	33.4	37.4	40.1	42.7	38.9	45.5	40.1	40.8	30.9	25.9	27.2
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	13.1	17.8
(WY)	(1987)	(1982)	(1981)	(1981)	(1983)	(1981)	(1985)	(1986)	(1988)	(1988)	(2008)	(1988)

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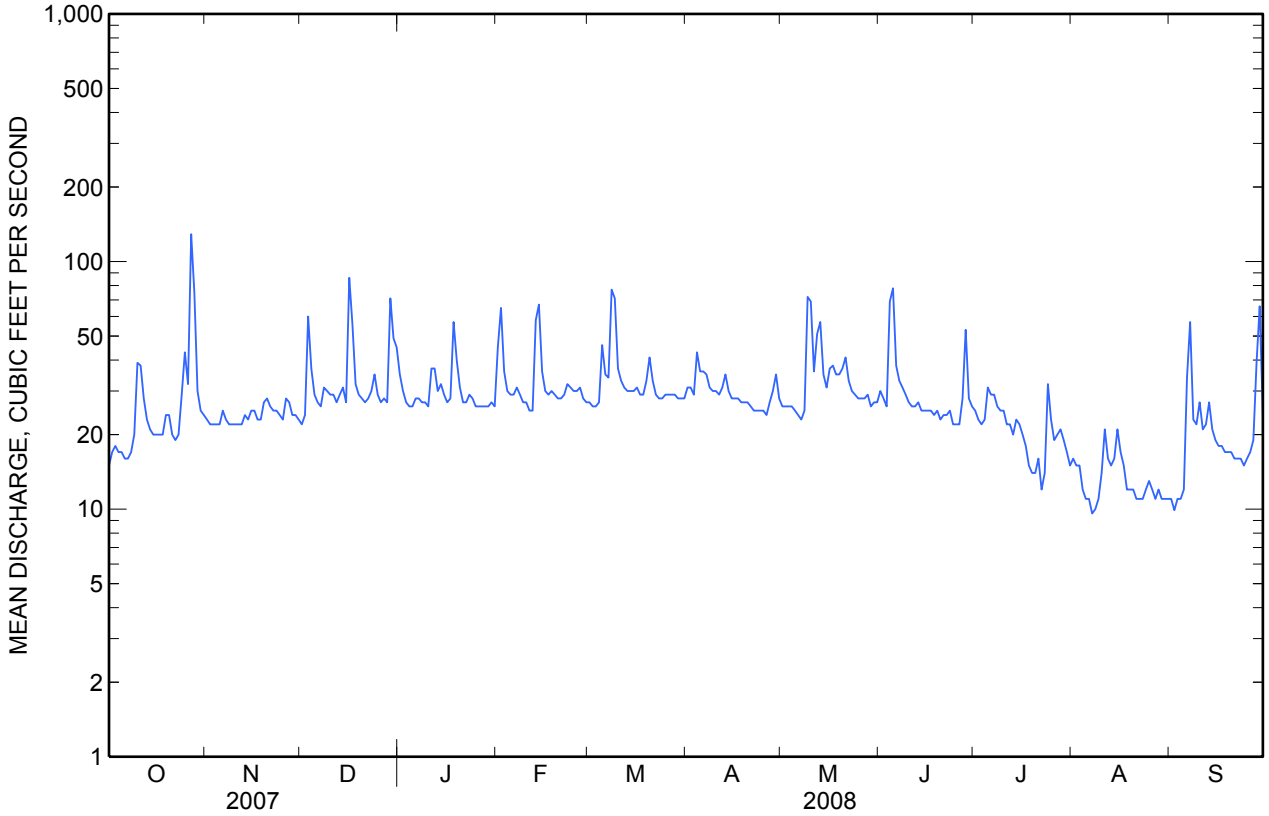
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1978 - 2008	
Annual total	13,418		10,199.5			
Annual mean	36.8		27.9		36.0	
Highest annual mean					46.3	1979
Lowest annual mean					24.4	1988
Highest daily mean	496	Apr 16	129	Oct 27	2,150	Jun 21, 1983
Lowest daily mean	15	Oct 1	9.6	Aug 7	5.3	Jul 9, 1988
Annual seven-day minimum	17	Sep 30	11	Aug 29	5.8	Jul 5, 1988
Maximum peak flow			150	Oct 27, Sep 29	[a]10,000	Jun 21, 1983
Maximum peak stage			4.55	Sep 29	8.50	Jun 21, 1983
Instantaneous low flow			8.8	Aug 7	4.7	Jul 9, 1988
Annual runoff (cfsm)	1.31		0.995		1.29	
Annual runoff (inches)	17.83		13.55		17.46	
10 percent exceeds	51		37		53	
50 percent exceeds	30		27		29	
90 percent exceeds	20		15		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.--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 analyses were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, suspended residue, ammonia-plus-organic nitrogen in bed sediment, and phosphorus in bed sediment were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 1 of 3
[Remark codes: <, less than; E, estimated.]

Date	Time	Instantaneous discharge, ft3/s (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
Nov													
08...	1030	22	5.7	.071	.055	768	9.4	82	6.6	242	11.2	9.0	65
Feb													
05...	1000	30	24	.117	.093	760	10.4	87	6.5	221	10.3	7.3	61
May													
01...	0900	27	6.8	.080	.063	768	9.2	89	7.1	230	15.3	13.5	67
Aug													
07...	1000	10	3.0	.062	.049	758	6.4	70	6.5	268	23.3	19.9	62

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 2 of 3
[Remark codes: <, less than; E, estimated.]

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO2 (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total non-filterable, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
Nov													
08...	12.9	7.82	7.00	11.4	17	24.6	E.06	9.5	26.1	E135	145	7	.35
Feb													
05...	12.4	7.17	5.57	10.6	14	21.6	<.12	8.6	25.2	122	116	10	.31
May													
01...	13.7	8.03	5.54	10.5	19	22.9	E.07	7.3	24.3	E127	154	10	.33
Aug													
07...	12.4	7.57	9.72	14.3	19	29.0	<.12	9.5	26.1	E144	161	4	.33

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 3 of 3
[Remark codes: <, less than; E, estimated.]

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L as P (00666)	Phosphorus, water, unfltrd mg/L as P (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Boron, water, fltrd, µg/L (01020)
Nov													
08...	.035	5.63	.07	6.0	6.1	<.010	.009	.042	.6	<.04	.6	2.1	19
Feb													
05...	.062	5.19	.12	5.5	5.6	<.010	.009	.094	.8	<.04	.8	3.3	17
May													
01...	.047	5.15	.09	5.5	5.6	E.005	E.007	.045	.8	<.04	.8	2.6	18
Aug													
07...	.030	5.32	.04	5.6	5.7	E.007	.014	.040	.4	<.04	.4	2.0	20

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 1 of 4
[Remark codes: <, less than; E, estimated.]

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg as N (00626)	Phosphorus, bed sedimnt total, mg/kg as P (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, g/kg (00686)	Arsenic bed sedimnt recoverable, ug/g (64847)	Cadmium bed sedimnt recoverable, ug/g (01028)	Chromium, bed sedimnt recoverable, ug/g (01029)	Cobalt bed sedimnt recoverable, ug/g (01038)	Copper, bed sedimnt recoverable, ug/g (01043)	Iron, bed sedimnt total digest, ug/g (01170)	Lead, bed sedimnt recoverable, ug/g (01052)
Aug													
07...	1000	7.04	460	2,800	5.1	.3	2.2	.100	8.0	1.2	5	4,200	30

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 2 of 4
[Remark codes: <, less than; E, estimated.]

Date	Manganese, bed sedimnt recoverable, ug/g (01053)	Mercury bed sedimnt recoverable, ug/g (71921)	Nickel, bed sedimnt recoverable, ug/g (01068)	Selenium, bed sedimnt recoverable, ug/g (64848)	Zinc, bed sedimnt recoverable, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Trimethylnaphthalene, bed sed <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)	2-Ethylnaphthalene bed sed <2 mm wsv nat ug/kg (49948)
Aug													
07...	69	.012	2.0	.1	11	<50	E3	E3	E15	E13	E2	E4	<50

01412800 COHANSEY RIVER AT SEELEY, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 3 of 4
[Remark codes: <, less than; E, estimated.]

Date	2-Methyl-anthra-cene, bed sed <2 mm, ug/kg (49435)	4H-Cyc-lopenta-[def]-phenan-threne, bs <2mm ug/kg (49411)	9H-Fluor-ene, bed sed <2 mm, wsv nat ug/kg (49399)	Ace-naphth-ene, bed sed <2 mm, wsv nat ug/kg (49429)	Ace-naphth-ylene, bed sed <2 mm, wsv nat ug/kg (49428)	Anthra-cene, bed sed <2 mm, wsv nat field, ug/kg (49434)	Benzo-[a]-anthra-cene, bed sed <2 mm, ug/kg (49436)	Benzo-[a]-pyrene, bed sed <2 mm, wsv nat ug/kg (49389)	Benzo-[b]-fluor-anthene bed sed <2 mm ug/kg (49458)	Benzo-[ghi]-peryl-ene, bed sed <2 mm, ug/kg (49408)	Benzo-[k]-fluor-anthene bed sed <2 mm ug/kg (49397)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthra-cene, bed sed <2 mm, ug/kg (49461)
Aug 07...	E8	E14	E9	E5	E17	E24	E46	57	120	E34	E47	97	<50

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 4 of 4
[Remark codes: <, less than; E, estimated.]

Date	Fluor-anthene bed sed <2 mm wsv nat field, ug/kg (49466)	Indeno-[1,2,-3-cd]-pyrene, bed sed <2 mm ug/kg (49390)	Iso-phorone bed sed <2 mm, wsv nat field, ug/kg (49400)	Naphth-alene, bed sed <2 mm wsv nat ug/kg (49402)	PCBs, bed sedimnt ug/kg (39519)	p-Cresol, bed sed <2 mm, wsv nat field, ug/kg (49451)	Phenan-threne, bed sed <2 mm, wsv nat field, ug/kg (49409)	Phenan-thri-dine, bed sed <2 mm, wsv nat ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd sve dia percent <62.5um (80164)
Aug 07...	160	E30	<50	E3	E2.94	<50	82	<50	140	3