

Water-Data Report 2006

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ

DELAWARE RIVER BASIN

LOCATION.--Lat 39°44'26", long 75°15'33" referenced to North American Datum of 1983, Harrison Township, Gloucester County, NJ, Hydrologic Unit 02040202, on right bank 25 ft downstream from bridge on County Route 607 (Tomlin Station Road), 1.8 mi west of Mullica Hill, and 2.8 mi east of Swedesboro.

DRAINAGE AREA.--26.9 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1966 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is NGVD of 1929. Prior to July 28, 1969, at datum 7.96 ft higher. July 28, 1969 to Sept. 30, 1969, at datum 5.96 ft higher.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Occasional regulation from irrigation upstream of gage. 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 300 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 09	0115	755	13.44
Dec 16	1315	326	11.79
Jun 25	0930	415	12.30
Jun 28	1430	530	12.75
Jul 06	0900	*1,130	*14.32
Jul 28	0530	703	13.29

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01477120 RACCOON CREEK NEAR SWEDESBORO, NJ—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES
[*e*, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	12	25	54	36	35	34	27	29	20	35	31	30
2	11	24	38	43	35	47	24	29	24	31	29	193
3	11	24	33	211	44	57	23	28	31	64	28	101
4	11	24	39	75	47	38	25	28	26	44	26	43
5	12	24	38	49	48	34	23	27	35	66	25	106
6	12	24	37	42	38	34	23	26	27	674	24	107
7	13	24	33	38	35	33	24	25	24	170	23	46
8	149	24	31	36	34	32	47	24	26	68	24	35
9	375	24	41	35	33	32	49	25	42	52	23	30
10	49	24	41	33	33	32	33	24	28	40	23	26
11	36	24	35	34	34	31	29	24	20	40	23	23
12	36	23	34	36	45	33	28	34	18	38	21	21
13	196	24	31	33	43	33	27	29	18	38	21	20
14	174	24	28	56	41	32	26	26	17	36	20	28
15	62	24	29	47	45	30	27	37	17	33	20	30
16	35	31	242	35	59	29	25	40	16	33	20	26
17	28	50	92	33	67	29	25	35	15	30	20	23
18	25	30	48	106	48	29	24	29	15	28	19	21
19	24	26	e41	83	39	29	23	30	15	28	19	20
20	23	25	e36	46	38	29	24	27	14	27	18	19
21	24	27	e34	41	38	29	23	25	14	27	18	18
22	46	e165	e33	37	38	29	58	24	14	33	18	18
23	48	e105	e32	165	39	29	116	23	14	38	18	18
24	33	e43	32	88	38	29	75	23	15	33	18	20
25	114	e35	36	57	36	29	49	23	251	29	18	26
26	77	e31	49	44	35	34	42	24	110	27	18	21
27	39	e30	38	39	34	31	37	24	66	44	27	20
28	32	29	33	39	34	29	33	22	327	419	43	20
29	29	29	38	40	---	28	31	22	137	73	79	30
30	27	116	45	40	---	28	30	21	54	42	132	23
31	25	---	37	38	---	27	---	20	---	35	38	---
Total	1,788	1,132	1,408	1,735	1,133	999	1,050	827	1,450	2,375	884	1,162
Mean	57.7	37.7	45.4	56.0	40.5	32.2	35.0	26.7	48.3	76.6	28.5	38.7
Max	375	165	242	211	67	57	116	40	327	674	132	193
Min	11	23	28	33	33	27	23	20	14	27	18	18
Cfsm	2.14	1.40	1.69	2.08	1.50	1.20	1.30	0.99	1.80	2.85	1.06	1.44
In.	2.47	1.57	1.95	2.40	1.57	1.38	1.45	1.14	2.01	3.28	1.22	1.61

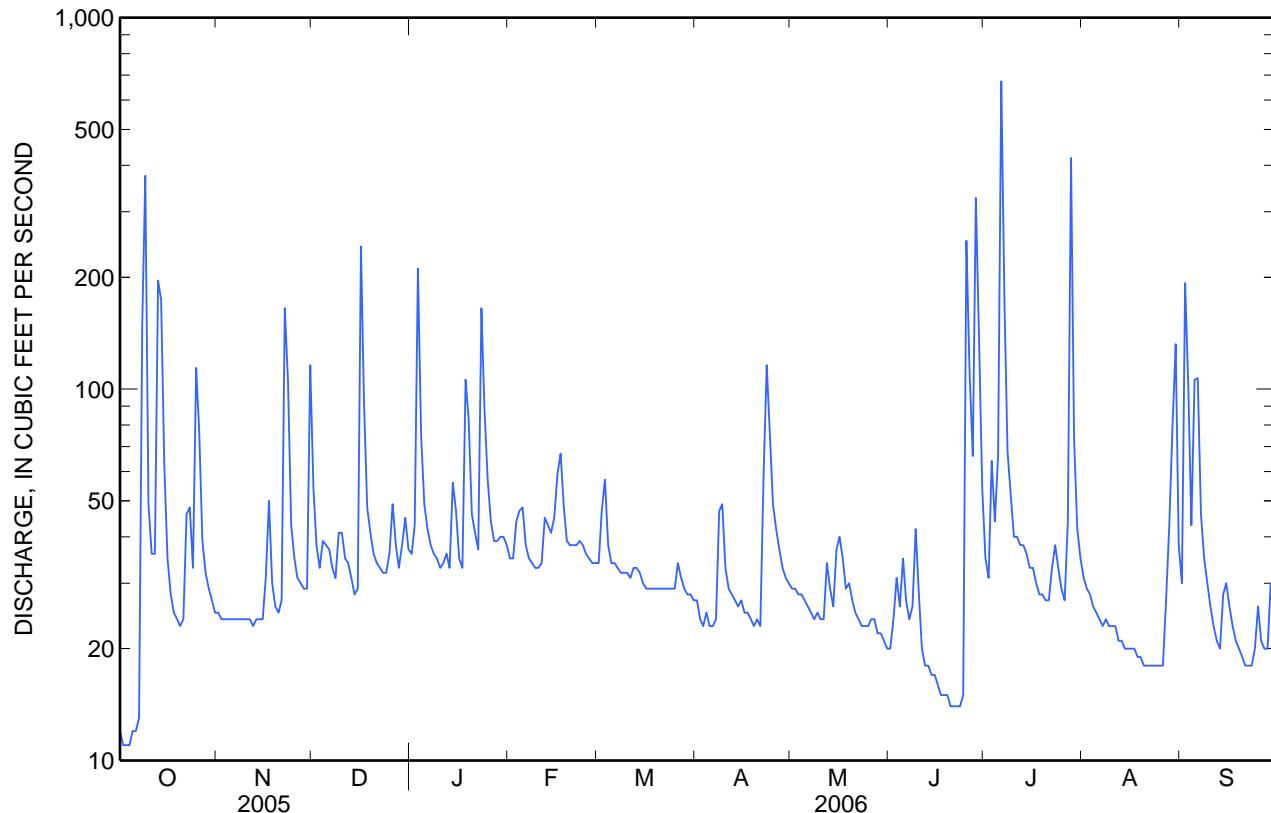
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	28.2	34.4	46.1	48.9	49.6	55.8	51.9	40.0	35.0	31.5	27.3	25.8
Max	65.2	93.9	144	123	115	132	134	72.6	95.5	112	121	71.9
(WY)	(1990)	(1973)	(1997)	(1978)	(1979)	(1994)	(1983)	(1989)	(2003)	(1975)	(1967)	(1971)
Min	13.0	15.3	16.3	20.2	16.5	22.7	21.3	15.9	10.7	6.01	5.89	8.98
(WY)	(1993)	(1999)	(1999)	(2002)	(2002)	(1981)	(1985)	(1977)	(1966)	(1966)	(1966)	(2002)

SUMMARY STATISTICS

	Calendar Year 2005	Water Year 2006		Water Years 1966 - 2006	
Annual total	14,958	15,943			
Annual mean	41.0	43.7		39.8	
Highest annual mean				64.7	1973
Lowest annual mean				16.5	2002
Highest daily mean	450	Apr 3	674	Jul 6	1,260 Aug 28, 1971
Lowest daily mean	10	Sep 7	11	Oct 2 - 4	2.9 Jul 14, 1966
Annual seven-day minimum	10	Sep 7	12	Oct 1	3.3 Aug 25, 1966
Maximum peak flow			1,130	Jul 6	3,530 Aug 10, 1967
Maximum peak stage			14.32	Jul 6	^a 17.44 Aug 10, 1967
Instantaneous low flow			11	Many days	2.9 Jul 14, 1966
Annual runoff (cfsm)	1.52		1.62		1.48
Annual runoff (inches)	20.69		22.05		20.09
10 percent exceeds	57		66		66
50 percent exceeds	33		31		29
90 percent exceeds	13		20		14

^a Adjusted to current datum.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: June 1966 to September 1969.

WATER TEMPERATURE: May 1966 to September 1973, daily maximum-minimum; October 1998 to October 2001, recorded hourly.

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). Bacteria samples were collected synoptically over a 30-day period during the summer.

COOPERATIVE NETWORK SITE DESCRIPTOR: Watershed Integrator, New Jersey Department of Environmental Protection (NJDEP) Watershed Management Area 18.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJDEP. Bacteria samples were provided by the local county health department under the direction of the NJDEP through the County Environmental Health Act. Determinations of filtered ammonia, filtered orthophosphorus, BOD, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were performed by the NJ Department of Health and Senior Services.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 4

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

Date	Time	Turbdty white light, det ang 90+/-30 corrctd	UV absorb- ance, 254 nm, wat flt units	UV absorb- ance, 280 nm, wat flt units	Baro- metric pres- sure, mm Hg	Dis- solved oxygen, mg/L	pH, water, unfltrd field, percent of sat- uration	Specif. conduc- tance, wat unf std units	Temper- ature, air, 25 degC uS/cm	Temper- ature, water, deg C (00095)	Temper- ature, water, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃
		NTRU (00061)	/cm (63676)	/cm (50624)	(61726)	(00025)	(00300)	(00400)	(00095)	(00020)	(00010)	(00900)	
Nov 17...	0930	52	14	.218	.173	766	8.1	74	7.0	217	8.0	11.3	68
Feb 08...	0945	34	6.1	.114	.091	764	11.8	88	7.1	219	-.3	3.1	68
May 23...	1000	24	5.0	.145	.117	764	8.8	85	7.5	246	17.5	13.8	75
Aug 14...	1000	20	5.1	.154	.123	763	8.1	89	7.5	223	23.5	19.8	73

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 4

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

Date	ANC, wat unf								Residue water, filtrd, sum of constituents	Residue on evap. at 180degC	Residue total at 105 deg. C, sus- pended,	Ammonia + org-N, water, filtrd, mg/L as N (00623)	
	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)	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)	mg/L (70301)	mg/L (70300)	mg/L (00530)	
Nov 17...	20.7	3.89	5.93	9.09	33	19.5	.19	10.1	27.4	120	146	12	.44
Feb 08...	20.5	4.12	3.58	10.8	27	22.2	.17	9.9	29.1	125	133	3	.59
May 23...	23.7	3.79	3.43	9.06	37	19.6	.18	10.5	25.4	122	155	5	.49
Aug 14...	22.5	4.13	4.22	10.1	42	20.2	.16	9.6	24.2	124	135	3	.70

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 4

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

Date	Ortho- phosphate, water, filtrd, mg/L as P (00671)								Total carbon, suspnd sediment	Inor- ganic carbon, suspnd sediment	Organic carbon, suspnd sediment	Organic carbon, water, filtrd, mg/L (00681)	BOD, water, unfiltrd 5 day 20 degC mg/L (00310)
	Nitrite + nitrate water, filtrd, mg/L as N (00631)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, water, filtrd, mg/L (00602)	Total nitro- gen, water, unfiltrd mg/L (00600)	Phos- phorus, water, filtrd, mg/L (00666)	Phos- phorus, water, unfiltrd mg/L (00665)	Total mg/L (00694)	Total mg/L (00688)	Total mg/L (00689)				
Nov 17...	.040	.81	.11	1.2	1.4	.020	.046	.190	.9	<.1	.9	6.3	3.2
Feb 08...	.050	1.82	.05	2.4	2.5	E.008	.037	.091	.4	<.1	.4	2.5	<1.0
May 23...	.051	.93	.04	1.4	1.5	.020	.057	.103	.2	<.1	.2	2.9	<1.0
Aug 14...	.043	.81	<.02	1.5	--	.039	.176	.18	.3	<.1	.3	3.2	E1.0

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ—Continued

**WATER-QUALITY
DATA
WATER YEAR
OCTOBER 2005 TO
SEPTEMBER 2006**

Part 4 of 4

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

Date	Boron, water, fltrd, ug/L (01020)
Nov	
17...	33
Feb	
08...	24
May	
23...	28
Aug	
14...	37

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

[Remark codes: <, less than.]

Date	Time	Instan-		Enter-		Fecal
		stanteous	dis-	coccoi,	E coli,	
		Temper-	m-E	m-TEC	coli-	
		ature,	MF,	MF,	form,	
		dis-	water,	water,	water,	
		charge,	water,	col/	col/	MPN/
Date	Time	Instantaneous	Temperature, deg C	100 mL	100 mL	100 mL
		(00061)	(00010)	(31649)	(31633)	(31615)
May						
31...	1045	21	22.3	270	<10	300
Jun						
07...	1025	24	19.2	440	<10	270
14...	1025	17	20.2	220	160	300
21...	1030	15	22.5	230	620	1,300
28...	1030	389	22.7	5,500	1,400	2,400