

YORK RIVER BASIN

01671020 NORTH ANNA RIVER AT HART CORNER, NEAR DOSWELL, VA

LOCATION.--Lat 37°51'01", long 77°25'40", NAD83, Hanover County, Hydrologic Unit 02080106, on right bank at downstream side of bridge on State Highway 30, 0.3 mi west of Hart Corner, 2.1 mi east of Doswell, and 5.4 mi upstream from confluence with South Anna River.

DRAINAGE AREA.--463 mi².

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 43 ft above sea level, from topographic map.

REMARKS.--Records good except those for periods with ice effect, Dec. 24-27 and Jan. 3-6, 11-13, and periods of no gage-height record, Jan. 22-31, Feb. 4, 5, Feb. 8 to Mar. 4, and Aug. 6, which are fair. Flow regulated since January 1972 by Lake Anna, capacity, 373,000 acre-ft, 27.7 mi upstream. At a point 0.8 mi upstream from station, there is diversion for municipal water supply by Hanover County Department of Public Utilities since June 1975. Maximum discharge, 12,000 ft³/s, from rating curve extended above 10,100 ft³/s. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

COOPERATION.--Records were provided by the Virginia Department of Environmental Quality - Water Division.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1969 reached a stage of 28.02 ft, from floodmark, discharge not determined.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	53	64	68	89	e271	1930	68	222	46	54	42
2	58	57	62	64	81	e127	870	66	267	51	57	42
3	56	52	62	e60	81	e93	700	65	239	46	50	41
4	54	52	58	e56	e80	e86	653	63	223	48	47	42
5	52	53	60	e59	e87	145	381	61	191	47	45	40
6	54	54	58	e61	96	274	267	60	288	46	e44	40
7	53	53	58	63	210	268	254	59	1740	44	43	40
8	53	53	57	65	e280	250	246	59	1230	44	42	41
9	52	54	58	71	e268	126	238	58	605	45	42	38
10	52	59	58	80	e273	79	234	58	350	43	39	39
11	55	61	57	e67	e271	77	411	57	285	41	40	40
12	55	60	59	e64	e265	73	474	55	122	43	50	39
13	53	60	58	e60	e155	79	341	53	143	52	78	39
14	53	62	59	61	e82	235	314	52	209	40	61	39
15	53	63	61	65	e86	255	299	50	243	40	46	39
16	53	63	72	65	e102	269	285	50	331	41	43	41
17	54	62	353	64	e285	265	282	52	276	46	42	40
18	53	60	328	63	e350	268	274	52	232	46	41	41
19	53	58	176	88	e314	251	267	57	144	44	40	41
20	52	59	126	445	e294	242	261	62	62	66	40	41
21	52	58	94	701	e230	579	254	69	57	45	40	66
22	52	58	79	e476	e103	2550	251	88	54	41	38	52
23	52	59	77	e344	e200	1820	247	135	64	41	40	43
24	53	59	e75	e332	e292	908	243	156	68	40	58	41
25	53	61	e70	e310	e276	724	246	229	73	38	47	44
26	53	95	e64	e296	e137	665	239	579	68	41	42	44
27	53	96	e65	e283	e211	617	237	976	98	45	48	40
28	53	81	66	e287	e285	434	121	617	161	44	131	39
29	54	75	67	e216	---	310	72	282	58	78	53	38
30	52	68	68	e118	---	2720	69	238	46	88	45	38
31	50	---	65	e116	---	3670	---	219	---	60	43	---
TOTAL	1658	1858	2734	5168	5483	18730	10960	4745	8149	1480	1529	1250
MEAN	53.5	61.9	88.2	167	196	604	365	153	272	47.7	49.3	41.7
MAX	63	96	353	701	350	3670	1930	976	1740	88	131	66
MIN	50	52	57	56	80	73	69	50	46	38	38	38
(+)	102	95.1	104	110	92.3	106	62.3	133	171	184	182	176
MEAN‡	56.8	65.1	91.6	170	199	608	367	157	277	53.7	55.2	47.5
CFSM‡	.12	.14	.20	.37	.43	1.31	.79	.34	.60	.12	.12	.10
IN.‡	.14	.16	.23	.42	.45	1.51	.89	.39	.67	.13	.14	.11

CAL YR 2000 MEAN‡ 199 CFSM‡ .43 IN.‡ 5.86
WTR YR 2001 MEAN‡ 179 CFSM‡ .39 IN.‡ 5.24

† Total diversion, equivalent in cubic feet per second, per month, provided by Hanover County Department of Public Utilities.

‡ Adjusted for diversion.

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	207	315	377	536	677	820	648	424	244	159	155	144
MAX	1428	1561	1320	1389	2660	2345	1887	1217	795	591	614	1185
(WY)	1980	1986	1997	1998	1998	1994	1983	1990	1995	1984	1984	1996
MIN	43.7	46.7	75.2	71.9	100	90.5	108	61.9	50.6	47.7	49.3	41.7
(WY)	1992	1992	1981	1981	1999	1981	1981	1999	1999	2001	2001	2001

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1980 - 2001
ANNUAL TOTAL	71554	63744	
ANNUAL MEAN	196	175	390
HIGHEST ANNUAL MEAN			731
LOWEST ANNUAL MEAN			85.7
HIGHEST DAILY MEAN	2350	Apr 18	10900
LOWEST DAILY MEAN	50	Oct 31	36
ANNUAL SEVEN-DAY MINIMUM	52	bOct 18	aOct 4
MAXIMUM PEAK FLOW			12000
MAXIMUM PEAK STAGE			Mar 29 1994
INSTANTANEOUS LOW FLOW			21.80
ANNUAL RUNOFF (CFSM)	.42	.38	.84
ANNUAL RUNOFF (INCHES)	5.75	5.12	11.46
10 PERCENT EXCEEDS	433	312	819
50 PERCENT EXCEEDS	90	63	148
90 PERCENT EXCEEDS	55	41	56

a Also Aug. 22 and Sept. 9, 29, 30, 2001.

b Also Oct. 19, 20, 2000

c Also Aug. 6, 1999.

d Also Aug. 22, 23 and Sept. 9, 2001

e Estimated.

f May have been lower.

g Also Aug. 11-12, 1999.

