

02053800 SOUTH FORK ROANOKE RIVER NEAR SHAWSVILLE, VA

LOCATION.--Lat 37°08'24", long 80°15'59", NAD83, Montgomery County, Hydrologic Unit 03010101, on right bank 95 ft downstream from bridge on State Highway 637, 0.3 mi downstream from Georges Run, 1.3 mi downstream from Elliott Creek, and 2.0 mi southwest of Shawsville.

DRAINAGE AREA.--110 mi².

PERIOD OF RECORD.--October 1960 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,361.87 ft NGVD of 1929. Prior to Aug. 26, 1974, water-stage recorder, and Aug. 26, 1974, to July 24, 1975, nonrecording gage at site 95 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Virginia Department of Emergency Services gage-height radio transmitter at station. Maximum discharge, 14,200 ft³/s, from rating curve extended above 3,700 ft³/s on basis of slope-area measurement of peak flow. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location by the Virginia Department of Environmental Quality - Water Division.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1959, reached a stage of 9.89 ft, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 24	2200	1,620	4.07	Mar 28	1115	1,600	4.05
Jan 14	0545	*1,730	*4.19	Apr 2	1115	839	3.03

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	327	101	198	123	118	126	294	126	70	59	72	36
2	247	99	179	117	114	114	546	115	84	52	54	31
3	202	97	171	114	118	112	483	112	94	50	47	29
4	172	131	158	113	120	116	353	108	85	49	43	27
5	152	142	148	114	122	157	280	105	78	48	40	26
6	137	127	221	111	120	212	239	103	72	47	41	25
7	124	121	263	107	122	220	221	101	77	67	39	25
8	116	115	235	117	128	305	214	99	72	121	40	24
9	112	106	259	108	136	284	194	95	78	62	51	24
10	108	101	359	104	147	234	173	94	102	52	51	23
11	103	99	326	102	130	204	162	93	98	50	41	23
12	100	220	264	103	125	186	157	90	81	51	37	23
13	241	295	225	101	121	169	161	87	78	52	34	23
14	293	223	189	1,100	146	206	150	103	74	62	33	22
15	202	181	164	522	136	199	138	103	66	93	32	22
16	164	157	151	334	134	202	129	91	62	163	36	22
17	140	142	145	249	131	207	126	88	59	119	46	23
18	126	132	138	192	122	207	124	86	58	71	36	23
19	135	124	134	178	115	218	122	86	58	60	45	22
20	125	120	109	170	114	209	120	134	56	54	42	22
21	132	113	e115	158	139	191	117	99	56	48	40	22
22	122	109	119	145	138	174	127	88	56	48	34	21
23	119	264	271	127	129	247	159	84	53	46	33	21
24	126	648	276	e120	131	414	127	89	51	42	33	21
25	120	917	210	e125	127	317	120	89	50	39	31	22
26	117	413	179	127	120	255	114	82	49	39	31	24
27	116	273	156	126	116	221	114	78	48	41	33	27
28	114	237	139	108	131	1,040	109	76	55	73	38	24
29	112	186	136	104	---	1,010	115	74	51	57	32	24
30	110	168	133	126	---	539	123	71	59	50	31	24
31	106	---	127	123	---	375	---	71	---	89	54	---
TOTAL	4,620	6,161	5,897	5,568	3,550	8,670	5,611	2,920	2,030	1,954	1,250	725
MEAN	149	205	190	180	127	280	187	94.2	67.7	63.0	40.3	24.2
MAX	327	917	359	1,100	147	1,040	546	134	102	163	72	36
MIN	100	97	109	101	114	112	109	71	48	39	31	21
CFSM	1.35	1.87	1.73	1.63	1.15	2.54	1.70	0.86	0.62	0.57	0.37	0.22
IN.	1.56	2.08	1.99	1.88	1.20	2.93	1.90	0.99	0.69	0.66	0.42	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2005, BY WATER YEAR (WY)

	MEAN	71.0	92.1	99.8	131	165	205	184	134	102	61.8	52.9	69.3
MAX	294	407	232	299	523	571	750	334	483	274	174	358	
(WY)	(1972)	(1986)	(1973)	(1996)	(1998)	(1993)	(1987)	(1978)	(1972)	(2003)	(1994)	(2004)	
MIN	18.4	21.5	22.1	18.9	29.4	55.6	51.0	50.7	24.0	18.6	12.4	17.2	
(WY)	(2002)	(2002)	(1966)	(1966)	(2002)	(1981)	(1966)	(1963)	(1999)	(2002)	(2002)	(2002)	

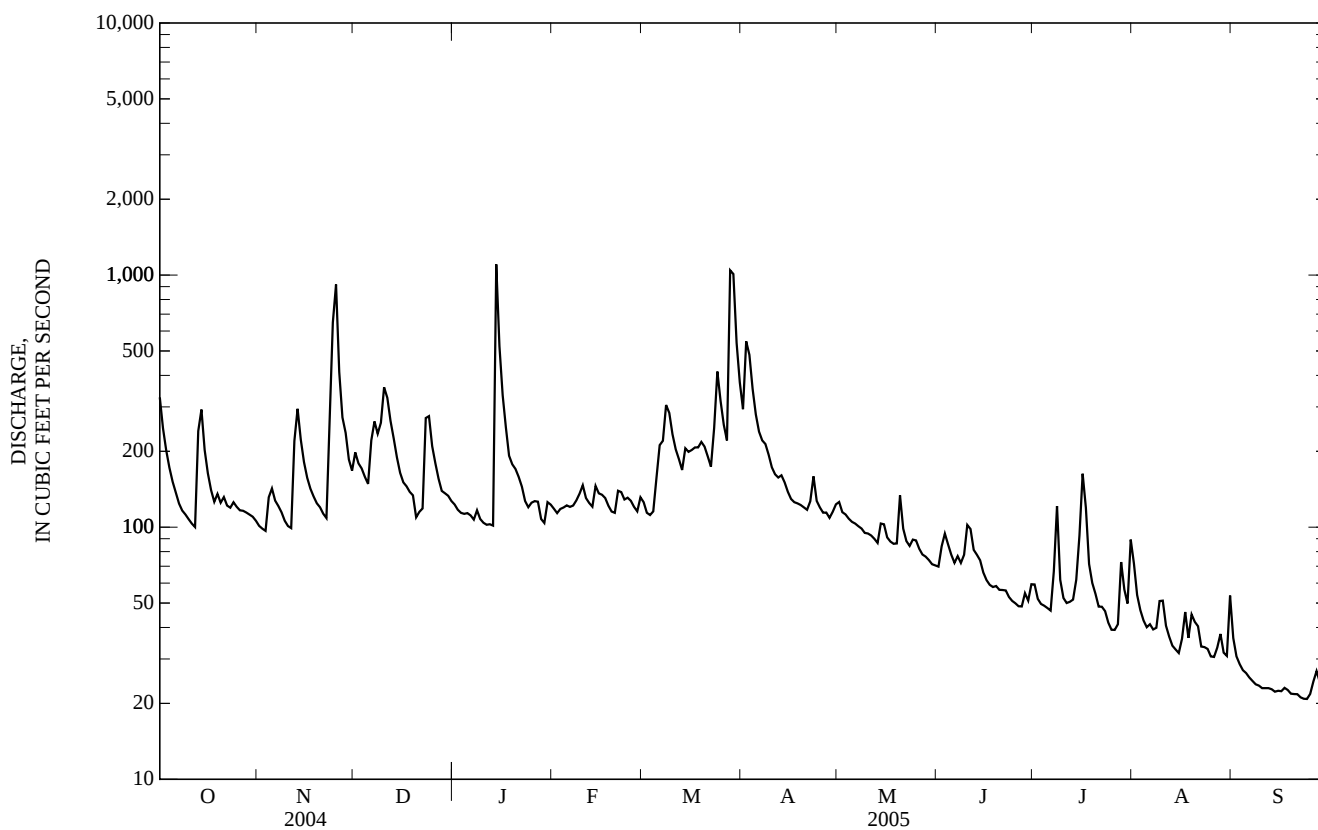
02053800 SOUTH FORK ROANOKE RIVER NEAR SHAWSVILLE, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1961 - 2005	
ANNUAL TOTAL	58,717		48,956		114	
ANNUAL MEAN	160		134		205	1972
HIGHEST ANNUAL MEAN					38.8	2002
LOWEST ANNUAL MEAN					6,840	Jun 21, 1972
HIGHEST DAILY MEAN	4,000	Sep 28	1,100	Jan 14	14,200	Jun 21, 1972
LOWEST DAILY MEAN	30	Sep 5	21	aSep 22	7.0	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	32	Aug 31	22	Sep 19	7.5	Aug 8, 2002
MAXIMUM PEAK FLOW			1,730	Jan 14	b11.12	Jun 21, 1972
MAXIMUM PEAK STAGE			4.19	Jan 14	6.3	Aug 12, 2002
INSTANTANEOUS LOW FLOW			20	aSep 22	1.03	
ANNUAL RUNOFF (CFSM)	1.46		1.22		14.03	
ANNUAL RUNOFF (INCHES)	19.86		16.56		218	
10 PERCENT EXCEEDS	263		240		70	
50 PERCENT EXCEEDS	119		114		27	
90 PERCENT EXCEEDS	53		33			

a Also Sept. 23, 24, 2005.

a From high-water mark in gage house.

e Estimated.



02054500 ROANOKE RIVER AT LAFAYETTE, VA

LOCATION.--Lat 37°14'11", long 80°12'33", NAD83, Montgomery County, Hydrologic Unit 03010101, on right bank 120 ft upstream from bridge on State Highway 626 (corrected) at Lafayette, 0.4 mi downstream from confluence of North and South Forks, and 1.1 mi upstream from Cove Hollow.

DRAINAGE AREA.--257 mi².

PERIOD OF RECORD.--September 1943 to current year.

REVISED RECORDS.--WSP 1333: 1944-47(M), 1948-49.

GAGE.--Water-stage recorder. Datum of gage is 1,174.47 ft NGVD of 1929. Prior to July 30, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional diurnal fluctuation caused by meat-processing plant upstream from station. Virginia Department of Emergency Services gage-height radio transmitter at station. Maximum discharge, 24,500 ft³/s, from rating curve extended above 12,000 ft³/s on basis of slope-area measurement of peak flow. 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 1940 reached a stage of 12.2 ft, from information by local residents, discharge, 19,000 ft³/s, from rating curve extended above 12,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0730	3,820	6.62	Mar 28	1315	*4,650	*7.29

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	545	164	569	204	258	277	677	226	116	122	120	62
2	412	159	513	196	250	253	1,160	204	128	103	88	53
3	337	157	438	191	258	250	1,020	200	149	96	76	50
4	290	215	378	186	275	264	770	193	139	92	71	48
5	253	334	334	187	282	337	633	187	126	89	67	47
6	228	276	423	185	279	463	547	183	117	85	67	45
7	206	246	567	181	278	450	496	180	119	106	74	44
8	188	223	508	189	283	542	469	177	125	327	68	43
9	178	201	548	183	296	531	423	171	134	152	72	42
10	170	185	885	178	308	458	373	168	197	111	90	41
11	159	176	789	175	279	404	345	167	169	96	70	41
12	153	505	624	178	265	377	330	160	135	91	62	41
13	291	720	517	178	254	346	337	155	127	86	59	41
14	417	475	426	2,410	286	388	318	174	124	98	56	40
15	298	370	362	1,100	284	381	288	186	112	106	54	40
16	248	319	327	702	278	377	268	164	105	208	53	40
17	216	281	305	534	272	396	259	153	101	190	69	40
18	194	255	286	412	255	398	251	148	98	115	59	40
19	208	235	274	368	242	402	246	146	98	97	76	39
20	200	227	233	352	235	390	238	216	95	105	73	38
21	203	210	e220	328	284	365	230	188	95	83	66	38
22	198	196	235	298	300	337	231	163	95	78	59	38
23	190	326	336	271	280	448	288	151	90	90	54	38
24	198	1,010	396	e210	281	681	240	151	86	76	56	37
25	196	1,910	314	e220	277	570	228	153	85	69	53	37
26	187	849	278	251	263	498	217	139	82	66	51	40
27	186	590	251	250	251	443	215	131	101	64	54	44
28	186	508	229	213	274	2,700	206	127	166	96	62	42
29	179	400	225	205	---	2,270	210	124	105	90	57	40
30	176	356	220	234	---	1,170	221	120	131	80	53	40
31	171	---	212	246	---	839	---	120	---	123	70	---
TOTAL	7,261	12,078	12,222	11,015	7,627	18,005	11,734	5,125	3,550	3,390	2,059	1,269
MEAN	234	403	394	355	272	581	391	165	118	109	66.4	42.3
MAX	545	1,910	885	2,410	308	2,700	1,160	226	197	327	120	62
MIN	153	157	212	175	235	250	206	120	82	64	51	37
CFSM	0.91	1.57	1.53	1.38	1.06	2.26	1.52	0.64	0.46	0.43	0.26	0.16
IN.	1.05	1.75	1.77	1.59	1.10	2.61	1.70	0.74	0.51	0.49	0.30	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2005, BY WATER YEAR (WY)

	133	173	227	300	392	457	412	285	192	120	110	129
MEAN	133	173	227	300	392	457	412	285	192	120	110	129
MAX	603	770	913	682	1,214	1,309	1,497	716	872	590	551	645
(WY)	(1977)	(1978)	(1949)	(1947)	(1998)	(1993)	(1987)	(1978)	(2003)	(1949)	(1948)	(2004)
MIN	32.8	32.3	44.7	52.0	47.9	103	102	99.1	48.0	43.0	23.4	29.4
(WY)	(2002)	(2002)	(2002)	(1981)	(2002)	(1981)	(1966)	(1963)	(1999)	(2002)	(2002)	(1954)

02054500 ROANOKE RIVER AT LAFAYETTE, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1944 - 2005	
ANNUAL TOTAL	114,312		95,335		243	
ANNUAL MEAN	312		261		461	
HIGHEST ANNUAL MEAN					73.8	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	7,420	Sep 28	2,700	Mar 28	11,700	Jun 21, 1972
LOWEST DAILY MEAN	56	Sep 5	37	aSep 24	b10	cJan 14, 1959
ANNUAL SEVEN-DAY MINIMUM	59	Aug 31	38	Sep 19	b11	Jan 14, 1959
MAXIMUM PEAK FLOW			4,650	Mar 28	24,500	Jun 21, 1972
MAXIMUM PEAK STAGE			7.29	Mar 28	d15.60	Jun 21, 1972
INSTANTANEOUS LOW FLOW			37	fSep 23	b8.0	gJan 19, 1959
ANNUAL RUNOFF (CFSM)	1.22		1.02		0.946	
ANNUAL RUNOFF (INCHES)	16.55		13.80		12.85	
10 PERCENT EXCEEDS	509		497		495	
50 PERCENT EXCEEDS	224		200		132	
90 PERCENT EXCEEDS	93		55		49	

a Also Sept. 25, 2005.

b Result of freeze up.

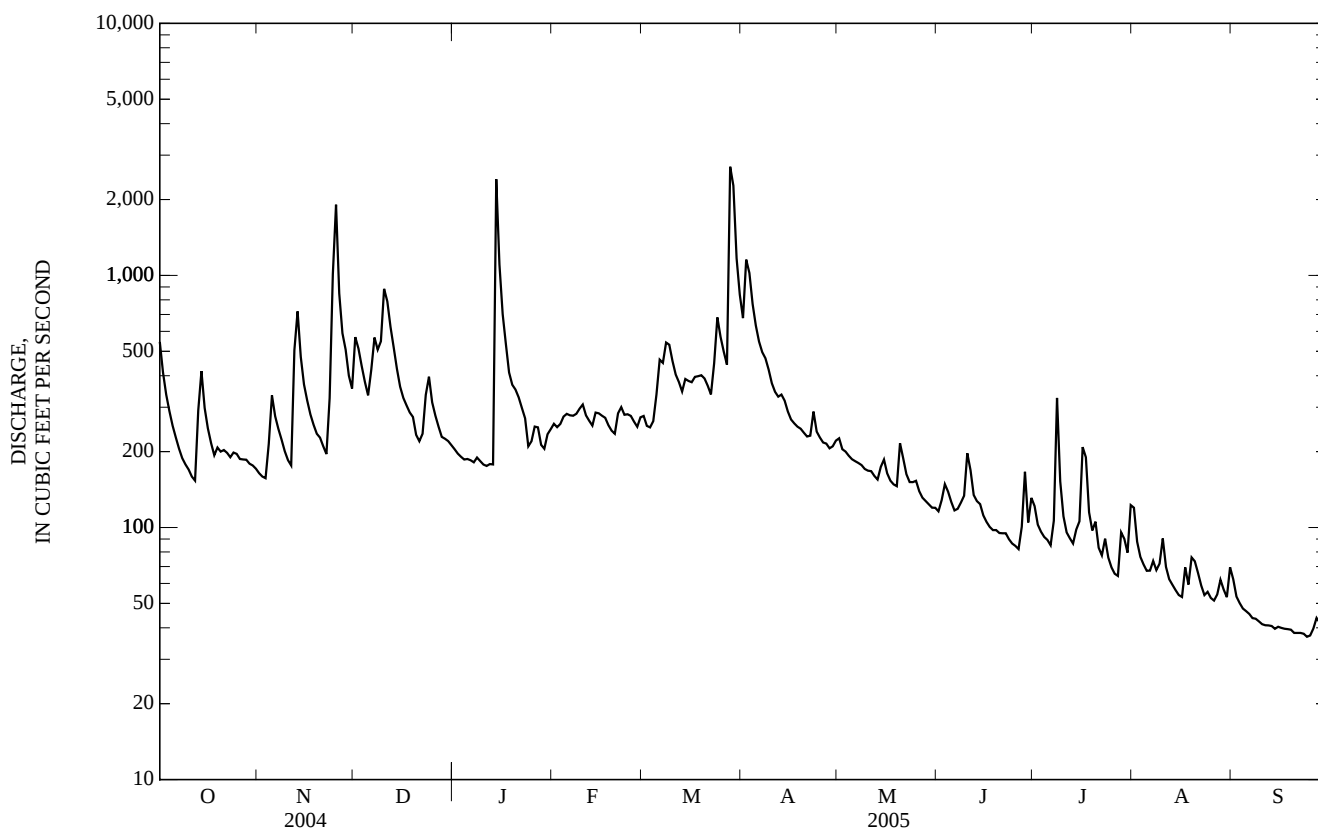
c Also Jan. 15, 18, 19, 1959.

d From high-water mark in gage house.

e Estimated.

f Also Sept. 24, 25, 2005.

g Also Jan. 3, 2001.



02054530 ROANOKE RIVER AT GLENVAR, VA

LOCATION.--Lat 37°16'04", long 80°08'22", NAD83, Roanoke County, Hydrologic Unit 03010101, on left bank 150 ft downstream from bridge on State Highway 1154, 0.2 mi downstream from mouth of Callahan Branch, 0.3 mi south of Glenvar, and 2.5 mi upstream from mouth of Mill Creek.

DRAINAGE AREA.--284 mi².

PERIOD OF RECORD.--December 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,100 ft NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Roanoke County gage-height transmitter at station. Maximum discharge, 19,800 ft³/s, from rating curve extended above 10,900 ft³/s. Several observations of water temperature were made during the year.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 21, 1972, reached a stage of about 20.2 ft, from information by local resident, discharge, about 25,000 ft³/s, from rating curve extended above 10,900 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 25	0130	3,670	7.67	Mar 28	1515	*6,050	*9.62
Jan 14	0900	4,710	8.61				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	651	170	599	211	255	282	703	227	119	132	173	81
2	480	164	558	201	249	255	1,180	206	122	112	118	67
3	392	159	479	195	255	246	1,130	199	147	106	93	62
4	334	196	417	191	273	263	811	192	141	99	93	58
5	275	368	366	192	285	336	641	185	128	98	93	56
6	240	307	426	190	280	487	543	181	117	93	86	55
7	214	264	602	185	278	477	482	178	115	102	101	53
8	192	236	534	190	285	562	463	176	116	318	89	51
9	178	212	542	189	301	564	420	169	138	181	91	50
10	169	194	998	182	312	486	374	164	191	132	110	49
11	156	183	907	177	287	430	345	164	184	107	88	49
12	150	473	710	180	268	399	330	156	151	94	82	47
13	267	858	572	178	254	365	336	151	142	91	77	46
14	465	555	468	2,840	288	396	321	166	139	100	73	46
15	338	425	400	1,390	302	388	291	182	120	116	70	47
16	273	356	355	810	292	383	271	162	103	201	68	46
17	232	310	329	592	288	409	260	150	97	256	83	46
18	207	280	307	447	271	419	254	146	93	148	77	44
19	213	257	291	393	254	427	247	142	93	115	93	44
20	213	242	252	374	247	417	240	198	91	120	96	43
21	208	226	e238	346	283	385	231	189	90	97	84	42
22	207	208	249	310	299	350	231	159	91	94	76	42
23	198	309	319	284	281	436	287	149	93	113	69	44
24	202	976	448	e215	280	730	245	147	94	101	70	41
25	206	2,460	351	e225	280	623	231	150	92	92	67	42
26	196	1,050	310	250	262	546	219	137	89	85	65	45
27	192	684	274	250	250	481	216	129	88	82	68	50
28	194	576	238	214	274	3,180	208	123	183	106	75	50
29	187	454	234	202	---	2,770	206	118	118	101	72	46
30	184	391	226	230	---	1,320	222	114	140	90	67	45
31	178	---	220	243	---	898	---	128	---	172	78	---
TOTAL	7,791	13,543	13,219	12,076	7,733	19,710	11,938	5,037	3,625	3,854	2,645	1,487
MEAN	251	451	426	390	276	636	398	162	121	124	85.3	49.6
MAX	651	2,460	998	2,840	312	3,180	1,180	227	191	318	173	81
MIN	150	159	220	177	247	246	206	114	88	82	65	41
CFSM	0.88	1.59	1.50	1.37	0.97	2.24	1.40	0.57	0.43	0.44	0.30	0.17
IN.	1.02	1.77	1.73	1.58	1.01	2.58	1.56	0.66	0.47	0.50	0.35	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2005, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	94.6	170	245	363	496	533	433	306	284	155	121	187		
MAX	251	451	715	784	1,400	1,667	914	658	953	646	295	867		
(WY)	(2005)	(2005)	(1997)	(1996)	(1998)	(1993)	(2003)	(2003)	(2003)	(2003)	(1996)	(2004)		
MIN	40.1	48.0	58.3	62.8	61.8	124	99.5	125	54.9	46.1	26.1	33.7		
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1999)	(2002)	(2002)	(2002)	(2002)		

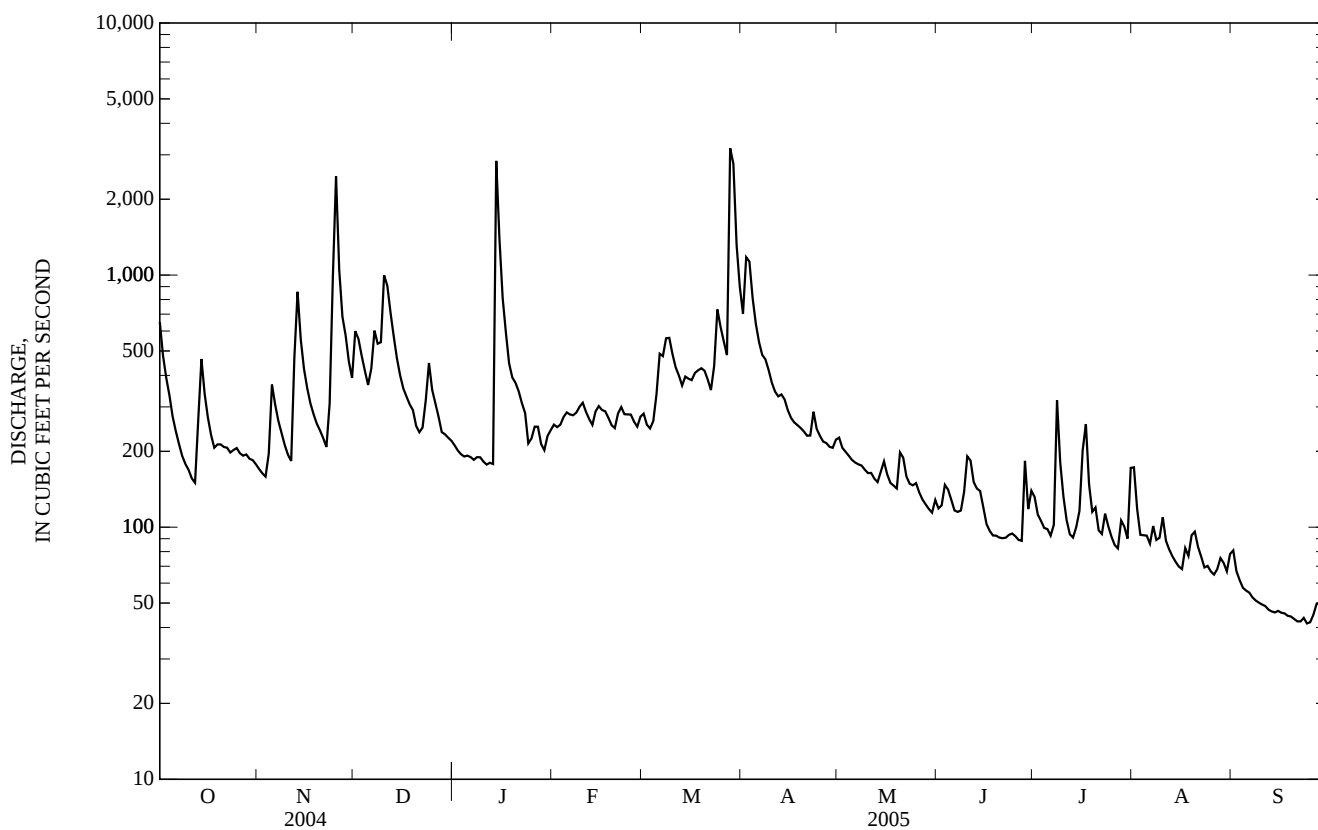
02054530 ROANOKE RIVER AT GLENVAR, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1992 - 2005	
ANNUAL TOTAL	129,462		102,658		276	
ANNUAL MEAN	354		281		499	
HIGHEST ANNUAL MEAN					77.7	
LOWEST ANNUAL MEAN					10,500	
HIGHEST DAILY MEAN	10,500	Sep 28	3,180	Mar 28	10,500	Sep 28, 2004
LOWEST DAILY MEAN	65	Sep 5	41	Sep 24	15	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	69	Aug 31	43	Sep 19	18	Sep 8, 2002
MAXIMUM PEAK FLOW			6,050	Mar 28	19,800	Apr 21, 1992
MAXIMUM PEAK STAGE			9.62	Mar 28	17.73	Apr 21, 1992
INSTANTANEOUS LOW FLOW			41	aSep 24	15	bSep 12, 2002
ANNUAL RUNOFF (CFSM)	1.25		0.990		0.970	
ANNUAL RUNOFF (INCHES)	16.96		13.45		13.18	
10 PERCENT EXCEEDS	545		506		542	
50 PERCENT EXCEEDS	236		206		128	
90 PERCENT EXCEEDS	98		70		54	

a Also Sept. 25, 2005.

b Also Sept. 13, 14, 2004.

e Estimated.



WATER-QUALITY RECORDS

WATER TEMPERATURE: Maximum, 28.5°C, July 27; minimum, 9.3°C, Apr. 25.

[illegible]

02054750 ROANOKE RIVER AT ROUTE 117 AT ROANOKE, VA—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

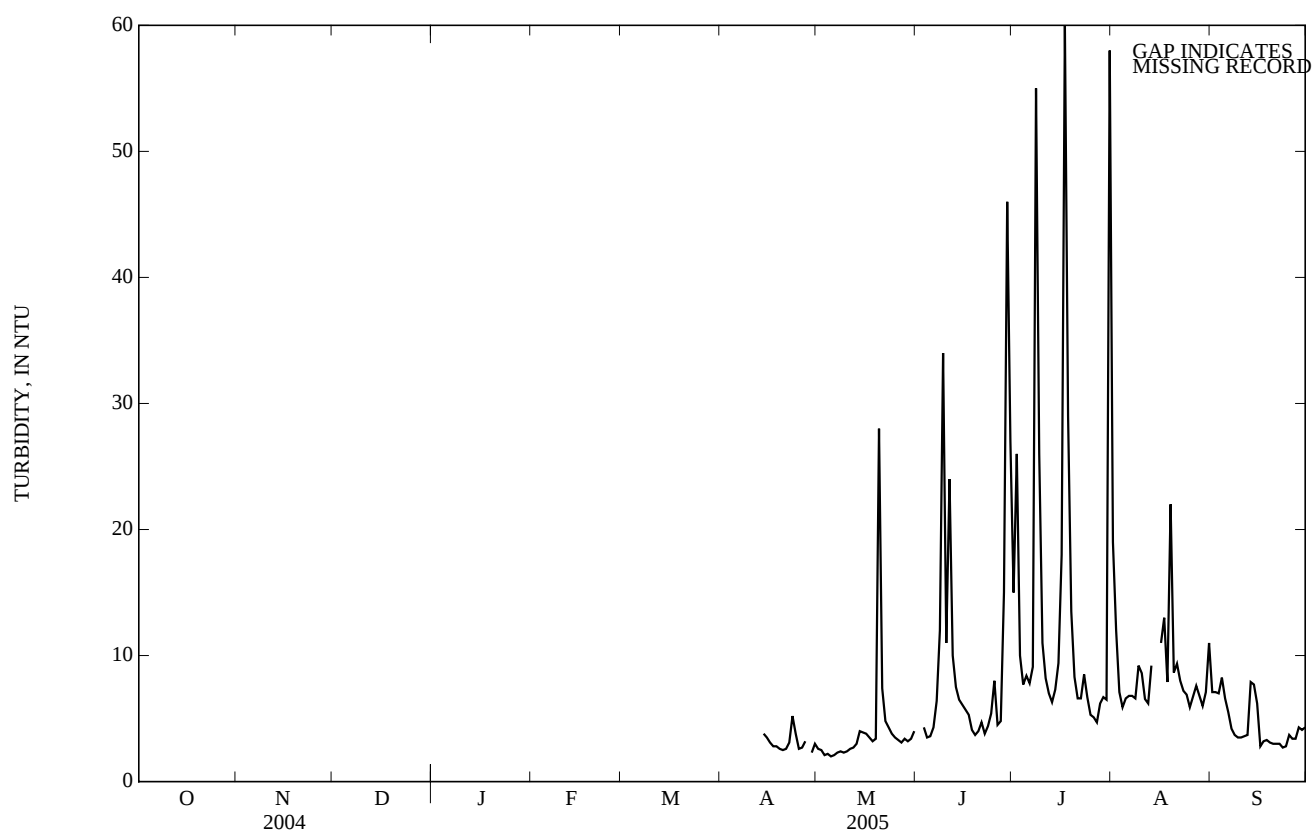
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	3.7	1.7	2.6
2	---	---	---	---	---	---	---	---	---	3.5	1.8	2.5
3	---	---	---	---	---	---	---	---	---	7.7	1.4	2.1
4	---	---	---	---	---	---	---	---	---	2.9	1.6	2.2
5	---	---	---	---	---	---	---	---	---	3.2	1.6	2.0
6	---	---	---	---	---	---	---	---	---	2.7	1.6	2.1
7	---	---	---	---	---	---	---	---	---	6.9	1.7	2.3
8	---	---	---	---	---	---	---	---	---	3.5	1.8	2.4
9	---	---	---	---	---	---	---	---	---	3.2	1.6	2.3
10	---	---	---	---	---	---	---	---	---	12	1.8	2.4
11	---	---	---	---	---	---	---	---	---	3.4	2.0	2.6
12	---	---	---	---	---	---	---	---	---	4.1	1.8	2.7
13	---	---	---	---	---	---	---	---	---	4.3	2.3	3.0
14	---	---	---	---	---	---	4.6	2.9	3.8	5.9	2.6	4.0
15	---	---	---	---	---	---	4.5	2.5	3.5	5.3	2.3	3.9
16	---	---	---	---	---	---	4.7	2.1	3.1	4.9	3.1	3.8
17	---	---	---	---	---	---	3.9	2.0	2.8	14	2.1	3.5
18	---	---	---	---	---	---	4.4	2.0	2.8	4.5	2.3	3.2
19	---	---	---	---	---	---	4.0	2.0	2.6	6.8	1.9	3.4
20	---	---	---	---	---	---	3.9	1.8	2.5	230	4.9	28
21	---	---	---	---	---	---	3.7	1.9	2.6	12	5.5	7.4
22	---	---	---	---	---	---	28	2.2	3.1	6.7	3.5	4.8
23	---	---	---	---	---	---	18	4.0	5.2	6.2	3.2	4.3
24	---	---	---	---	---	---	7.2	2.4	3.8	5.2	2.8	3.8
25	---	---	---	---	---	---	9.6	1.9	2.6	5.1	3.0	3.5
26	---	---	---	---	---	---	3.7	2.1	2.7	6.1	2.3	3.3
27	---	---	---	---	---	---	17	2.0	3.2	4.9	2.1	3.1
28	---	---	---	---	---	---	---	---	---	5.3	2.5	3.4
29	---	---	---	---	---	---	---	---	2.3	5.3	1.8	3.2
30	---	---	---	---	---	---	5.2	2.3	3.0	4.7	2.2	3.4
31	---	---	---	---	---	---	---	---	---	6.5	2.0	4.0
MAX	---	---	---	---	---	---	28	4.0	5.2	230	5.5	28
MIN	---	---	---	---	---	---	3.7	1.8	2.3	2.7	1.4	2.0

02054750 ROANOKE RIVER AT ROUTE 117 AT ROANOKE, VA—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	110	12	15	29	7.7	19	57	2.3	7.1
2	---	---	---	230	11	26	18	5.0	12	14	2.2	7.1
3	7.5	2.9	4.3	15	6.3	10	11	2.4	7.1	38	1.3	7.0
4	6.9	2.0	3.5	13	4.9	7.7	12	2.2	5.9	25	2.7	8.2
5	5.2	1.7	3.6	13	4.4	8.4	23	2.0	6.6	17	1.2	6.6
6	150	1.4	4.3	13	4.4	7.8	13	1.8	6.8	27	1.4	5.5
7	51	3.0	6.4	250	7.0	9.1	18	2.7	6.8	8.6	0.2	4.2
8	550	5.9	12	260	49	55	12	2.7	6.6	6.4	0.9	3.7
9	550	11	34	50	16	26	77	5.9	9.2	5.8	0.8	3.5
10	25	8.1	11	18	6.6	11	16	3.5	8.6	7.7	0.7	3.5
11	31	11	24	12	5.4	8.2	92	2.6	6.5	12	0.8	3.6
12	15	6.3	10	18	3.6	7.0	9.5	2.1	6.2	7.3	1.0	3.7
13	11	4.2	7.5	9.8	3.4	6.3	34	3.4	9.2	22	2.3	7.9
14	10	4.2	6.5	11	4.8	7.3	---	---	---	25	2.3	7.7
15	9.3	2.8	6.1	21	5.0	9.4	---	---	---	20	0.5	6.2
16	9.8	3.1	5.7	210	10	18	160	1.1	11	4.3	1.1	2.8
17	11	3.1	5.3	140	44	60	160	5.5	13	5.7	1.3	3.2
18	7.6	1.9	4.1	100	12	29	15	2.7	7.9	6.0	1.7	3.3
19	5.7	1.8	3.7	18	4.9	14	96	7.9	22	5.3	1.3	3.1
20	5.9	1.8	4.0	12	4.2	8.3	15	3.2	8.7	7.3	1.8	3.0
21	84	1.5	4.7	11	2.7	6.6	17	2.4	9.3	31	1.5	3.0
22	11	1.7	3.8	9.0	4.3	6.6	21	2.3	8.0	5.3	1.6	3.0
23	9.7	2.2	4.4	17	3.7	8.5	14	2.3	7.2	4.6	1.4	2.7
24	28	1.7	5.4	10	2.5	6.7	10	1.9	6.9	6.4	1.4	2.8
25	29	2.2	8.0	8.8	1.9	5.3	14	2.2	5.9	20	1.2	3.7
26	12	2.0	4.5	8.3	1.9	5.1	9.1	3.2	6.8	5.7	1.6	3.4
27	950	1.8	4.8	8.4	1.3	4.7	12	3.9	7.6	5.1	1.6	3.4
28	120	7.7	15	9.4	4.2	6.2	11	2.3	6.8	7.3	2.3	4.3
29	110	30	46	11	3.7	6.7	11	1.7	6.0	9.5	2.1	4.1
30	100	14	27	11	2.1	6.5	27	2.6	7.1	9.2	2.0	4.3
31	---	---	---	270	5.5	58	27	1.9	11	---	---	---
MAX	950	30	46	270	49	60	160	7.9	22	57	2.7	8.2
MIN	5.2	1.4	3.5	8.3	1.3	4.7	9.1	1.1	5.9	4.3	0.2	2.7

02054750 ROANOKE RIVER AT ROUTE 117 AT ROANOKE, VA—Continued



PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[illegible]

02054750 ROANOKE RIVER AT ROUTE 117 AT ROANOKE, VA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

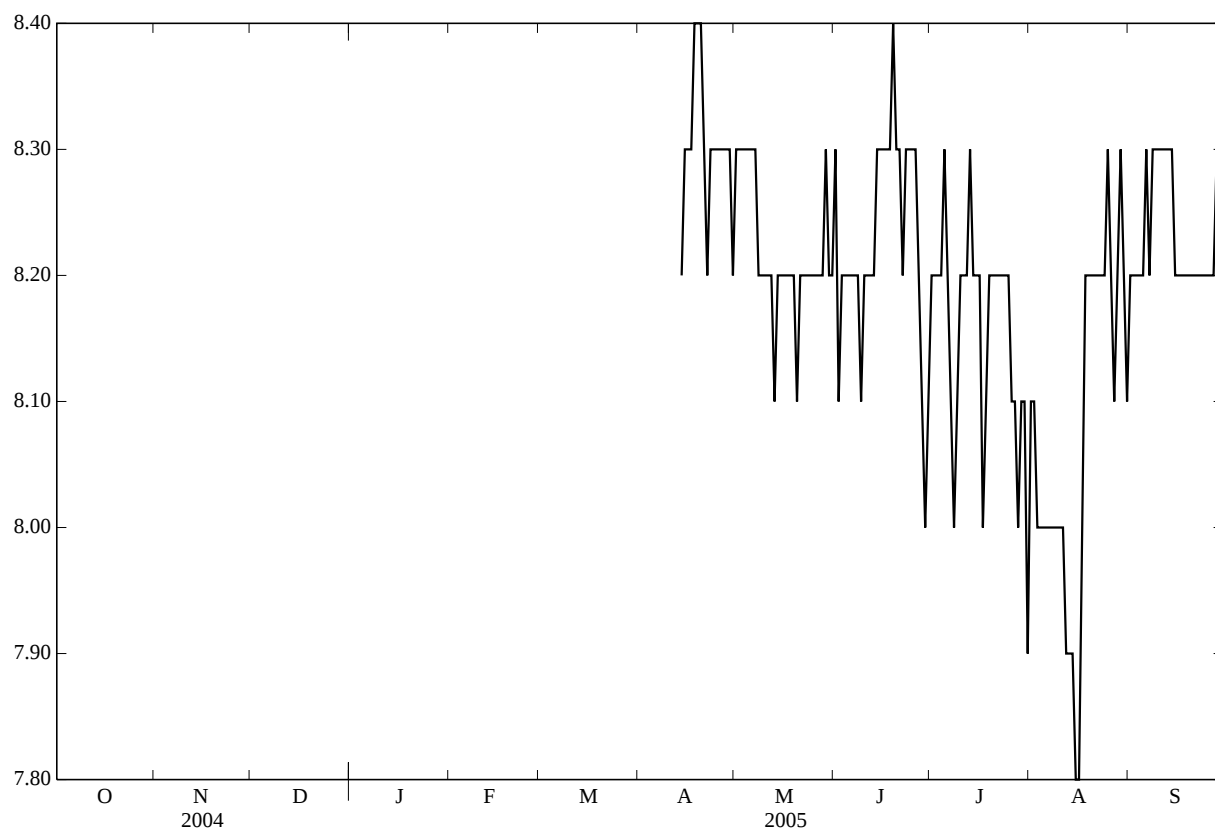
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	8.6	8.1	8.3
2	---	---	---	---	---	---	---	---	---	8.6	8.1	8.3
3	---	---	---	---	---	---	---	---	---	8.5	8.1	8.3
4	---	---	---	---	---	---	---	---	---	8.5	8.1	8.3
5	---	---	---	---	---	---	---	---	---	8.5	8.1	8.3
6	---	---	---	---	---	---	---	---	---	8.5	8.1	8.3
7	---	---	---	---	---	---	---	---	---	8.4	8.1	8.3
8	---	---	---	---	---	---	---	---	---	8.4	8.1	8.2
9	---	---	---	---	---	---	---	---	---	8.4	8.1	8.2
10	---	---	---	---	---	---	---	---	---	8.3	8.1	8.2
11	---	---	---	---	---	---	---	---	---	8.3	8.0	8.2
12	---	---	---	---	---	---	---	---	---	8.3	8.0	8.2
13	---	---	---	---	---	---	---	---	---	8.2	8.0	8.1
14	---	---	---	---	---	---	8.4	8.1	8.2	8.3	8.0	8.2
15	---	---	---	---	---	---	8.5	8.1	8.3	8.3	8.0	8.2
16	---	---	---	---	---	---	8.6	8.1	8.3	8.3	8.1	8.2
17	---	---	---	---	---	---	8.6	8.1	8.3	8.3	8.0	8.2
18	---	---	---	---	---	---	8.6	8.1	8.4	8.3	8.0	8.2
19	---	---	---	---	---	---	8.6	8.1	8.4	8.3	8.1	8.2
20	---	---	---	---	---	---	8.7	8.1	8.4	8.3	7.9	8.1
21	---	---	---	---	---	---	8.6	8.1	8.3	8.3	8.1	8.2
22	---	---	---	---	---	---	8.5	8.0	8.2	8.3	8.0	8.2
23	---	---	---	---	---	---	8.6	8.0	8.3	8.3	8.0	8.2
24	---	---	---	---	---	---	8.5	8.0	8.3	8.3	8.1	8.2
25	---	---	---	---	---	---	8.5	8.1	8.3	8.4	8.1	8.2
26	---	---	---	---	---	---	8.6	8.1	8.3	8.3	8.1	8.2
27	---	---	---	---	---	---	8.6	8.1	8.3	8.4	8.1	8.2
28	---	---	---	---	---	---	8.6	8.1	8.3	8.3	8.1	8.2
29	---	---	---	---	---	---	---	---	8.3	8.4	8.1	8.3
30	---	---	---	---	---	---	8.5	8.0	8.2	8.4	8.1	8.2
31	---	---	---	---	---	---	---	---	---	8.4	8.0	8.2
MAX	---	---	---	---	---	---	8.7	8.1	8.4	8.6	8.1	8.3
MIN	---	---	---	---	---	---	8.4	8.0	8.2	8.2	7.9	8.1

02054750 ROANOKE RIVER AT ROUTE 117 AT ROANOKE, VA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.4	8.1	8.3	8.4	8.0	8.2	8.3	8.0	8.1	8.4	8.1	8.2
2	8.2	8.1	8.1	8.4	7.9	8.2	8.2	7.8	8.1	8.4	8.1	8.2
3	8.4	8.1	8.2	8.5	8.0	8.2	8.2	7.8	8.0	8.3	8.1	8.2
4	8.4	8.1	8.2	8.5	8.0	8.2	8.2	7.8	8.0	8.4	8.1	8.2
5	8.4	8.0	8.2	8.4	8.1	8.3	8.2	7.8	8.0	8.4	8.1	8.2
6	8.4	8.0	8.2	8.4	8.0	8.2	8.2	7.8	8.0	8.4	8.2	8.3
7	8.4	8.0	8.2	8.2	7.8	8.1	8.2	7.9	8.0	8.4	8.2	8.2
8	8.3	7.9	8.2	8.1	7.7	8.0	8.2	7.8	8.0	8.4	8.2	8.3
9	8.3	7.8	8.1	8.3	8.0	8.1	8.0	7.8	8.0	8.4	8.2	8.3
10	8.3	8.0	8.2	8.4	8.0	8.2	8.2	7.9	8.0	8.4	8.2	8.3
11	8.3	8.0	8.2	8.4	8.0	8.2	8.1	7.8	8.0	8.4	8.2	8.3
12	8.4	8.0	8.2	8.4	8.0	8.2	8.1	7.8	7.9	8.4	8.2	8.3
13	8.4	8.0	8.2	8.4	8.0	8.3	8.1	7.7	7.9	8.4	8.2	8.3
14	8.5	8.0	8.3	8.3	8.0	8.2	8.0	7.7	7.9	8.4	8.2	8.3
15	8.5	8.1	8.3	8.4	8.1	8.2	8.0	7.6	7.8	8.4	8.2	8.2
16	8.5	8.1	8.3	8.4	8.0	8.2	8.3	7.6	7.8	8.3	8.1	8.2
17	8.5	8.1	8.3	8.2	7.9	8.0	8.3	7.9	8.0	8.3	8.1	8.2
18	8.5	8.1	8.3	8.3	7.9	8.1	8.3	8.1	8.2	8.3	8.1	8.2
19	8.5	8.2	8.4	8.4	8.0	8.2	8.3	7.9	8.2	8.4	8.1	8.2
20	8.5	8.1	8.3	8.4	8.0	8.2	8.3	8.1	8.2	8.3	8.1	8.2
21	8.5	8.2	8.3	8.4	8.0	8.2	8.3	8.1	8.2	8.4	8.1	8.2
22	8.5	8.0	8.2	8.3	8.0	8.2	8.4	8.0	8.2	8.4	8.1	8.2
23	8.5	8.1	8.3	8.4	7.9	8.2	8.4	8.1	8.2	8.3	8.1	8.2
24	8.5	8.1	8.3	8.3	8.0	8.2	8.4	8.1	8.2	8.3	8.1	8.2
25	8.5	8.1	8.3	8.3	8.0	8.2	8.4	8.1	8.3	8.3	8.1	8.2
26	8.5	8.1	8.3	8.3	7.9	8.1	8.3	8.2	8.2	8.3	8.1	8.2
27	8.5	8.0	8.2	8.3	7.9	8.1	8.2	8.0	8.1	8.3	8.2	8.2
28	8.3	7.9	8.1	8.2	7.9	8.0	8.4	8.1	8.2	8.4	8.2	8.3
29	8.2	7.8	8.0	8.2	7.9	8.1	8.4	8.1	8.3	8.3	8.2	8.2
30	8.3	7.8	8.1	8.3	7.9	8.1	8.2	8.1	8.2	8.4	8.2	8.3
31	---	---	---	8.2	7.8	7.9	8.3	8.0	8.1	---	---	---
MAX	8.5	8.2	8.4	8.5	8.1	8.3	8.4	8.2	8.3	8.4	8.2	8.3
MIN	8.2	7.8	8.0	8.1	7.7	7.9	8.0	7.6	7.8	8.3	8.1	8.2

PH, IN STANDARD UNITS



SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[illegible]

02054750 ROANOKE RIVER AT ROUTE 117 AT ROANOKE, VA—Continued

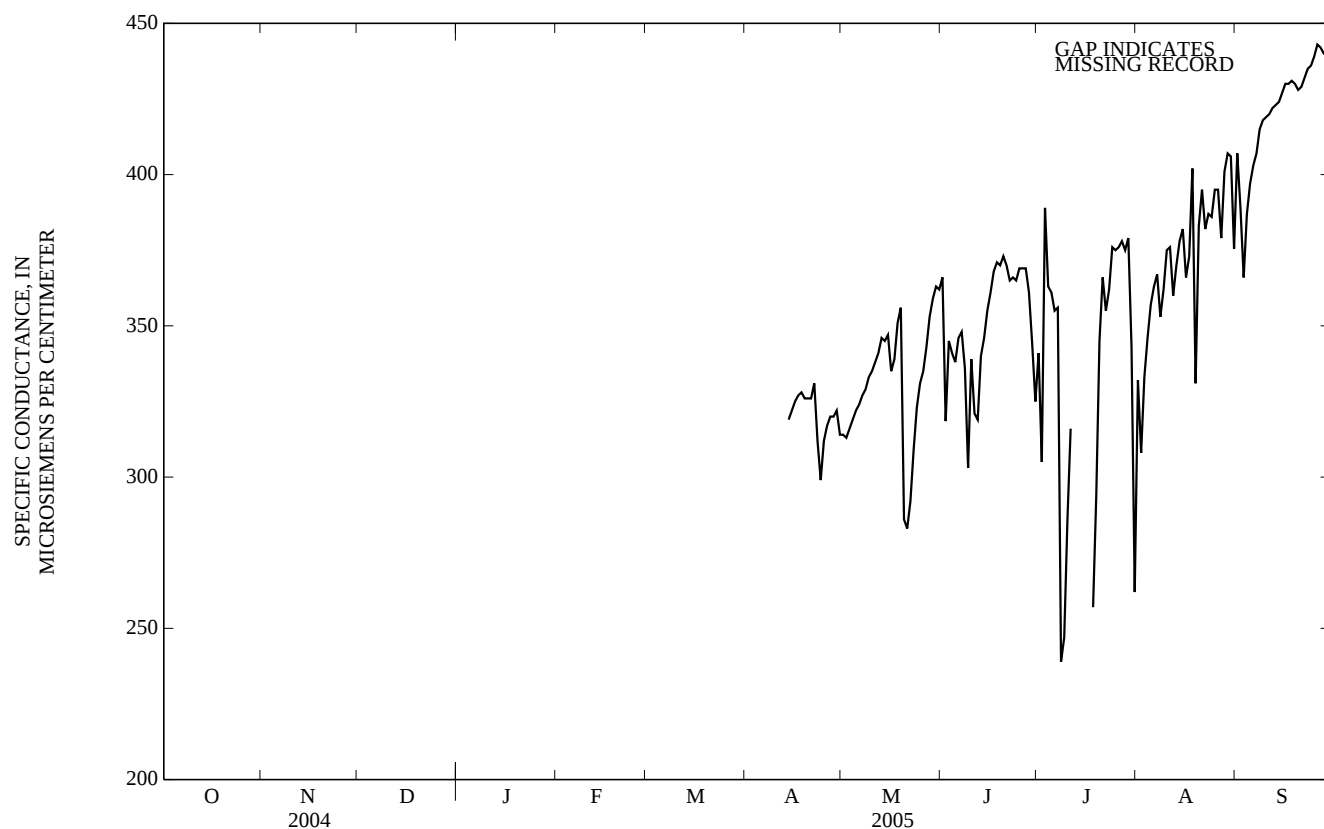
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	318	306	314
2	---	---	---	---	---	---	---	---	---	316	310	313
3	---	---	---	---	---	---	---	---	---	319	311	316
4	---	---	---	---	---	---	---	---	---	322	317	319
5	---	---	---	---	---	---	---	---	---	325	319	322
6	---	---	---	---	---	---	---	---	---	327	321	324
7	---	---	---	---	---	---	---	---	---	329	324	327
8	---	---	---	---	---	---	---	---	---	332	328	329
9	---	---	---	---	---	---	---	---	---	336	330	333
10	---	---	---	---	---	---	---	---	---	337	333	335
11	---	---	---	---	---	---	---	---	---	339	336	338
12	---	---	---	---	---	---	---	---	---	343	339	341
13	---	---	---	---	---	---	---	---	---	348	343	346
14	---	---	---	---	---	---	322	314	319	348	343	345
15	---	---	---	---	---	---	324	319	322	350	332	347
16	---	---	---	---	---	---	328	322	325	337	331	335
17	---	---	---	---	---	---	334	324	327	342	333	339
18	---	---	---	---	---	---	331	322	328	353	342	351
19	---	---	---	---	---	---	329	321	326	357	344	356
20	---	---	---	---	---	---	329	321	326	349	241	286
21	---	---	---	---	---	---	329	322	326	295	274	283
22	---	---	---	---	---	---	336	271	331	302	284	292
23	---	---	---	---	---	---	322	275	312	318	302	309
24	---	---	---	---	---	---	304	293	299	328	316	323
25	---	---	---	---	---	---	315	302	312	333	328	331
26	---	---	---	---	---	---	319	312	317	339	333	335
27	---	---	---	---	---	---	322	317	320	344	323	343
28	---	---	---	---	---	---	324	316	320	356	343	353
29	---	---	---	---	---	---	324	319	322	363	355	359
30	---	---	---	---	---	---	326	307	314	366	359	363
31	---	---	---	---	---	---	---	---	---	366	359	362
MAX	---	---	---	---	---	---	336	324	331	366	359	363
MIN	---	---	---	---	---	---	304	271	299	295	241	283

02054750 ROANOKE RIVER AT ROUTE 117 AT ROANOKE, VA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	368	360	366	357	272	341	351	303	332	409	398	407
2	367	290	318	316	248	305	314	300	308	404	363	389
3	353	323	345	415	315	389	337	314	333	379	361	366
4	354	334	341	380	355	363	348	337	346	394	379	387
5	343	335	338	399	340	361	359	344	357	400	394	397
6	351	231	346	359	335	355	366	348	363	405	400	403
7	355	289	348	362	141	356	368	361	367	413	405	407
8	351	225	336	261	159	239	364	348	353	418	413	415
9	326	219	303	269	238	247	370	328	362	421	416	418
10	362	323	339	300	269	286	380	365	375	421	416	419
11	361	315	321	320	300	316	383	366	376	422	416	420
12	329	312	319	---	---	---	366	358	360	425	420	422
13	347	328	340	---	---	---	380	364	370	425	420	423
14	352	341	346	---	---	---	383	374	378	427	420	424
15	361	348	355	---	---	---	384	316	382	431	423	427
16	365	354	361	---	---	---	391	281	366	433	426	430
17	372	360	368	---	---	---	395	278	373	432	425	430
18	376	365	371	281	223	257	406	395	402	433	426	431
19	372	366	370	327	278	294	400	257	331	431	424	430
20	375	370	373	348	327	345	390	363	383	430	422	428
21	373	328	370	375	347	366	398	389	395	432	424	429
22	367	318	365	361	343	355	389	377	382	438	429	432
23	368	362	366	369	332	362	389	386	387	439	428	435
24	367	362	365	380	368	376	390	385	386	441	435	436
25	371	366	369	381	370	375	398	390	395	443	437	439
26	372	367	369	377	370	376	398	391	395	444	441	443
27	370	251	369	379	369	378	396	374	379	444	437	442
28	375	303	361	378	371	375	402	396	401	442	437	440
29	351	257	344	383	360	379	409	401	407	442	435	440
30	334	265	325	360	339	343	409	338	406	440	433	438
31	---	---	---	354	212	262	398	318	376	---	---	---
MAX	376	370	373	415	371	389	409	401	407	444	441	443
MIN	326	219	303	261	141	239	314	257	308	379	361	366



TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[illegible]

02054750 ROANOKE RIVER AT ROUTE 117 AT ROANOKE, VA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	17.4	13.6	15.1
2	---	---	---	---	---	---	---	---	---	16.1	12.9	13.8
3	---	---	---	---	---	---	---	---	---	15.6	11.0	12.9
4	---	---	---	---	---	---	---	---	---	16.4	12.3	14.0
5	---	---	---	---	---	---	---	---	---	15.2	12.4	13.9
6	---	---	---	---	---	---	---	---	---	15.5	12.5	13.5
7	---	---	---	---	---	---	---	---	---	16.3	12.5	14.5
8	---	---	---	---	---	---	---	---	---	18.7	13.7	15.5
9	---	---	---	---	---	---	---	---	---	19.6	14.6	16.9
10	---	---	---	---	---	---	---	---	---	19.6	15.5	17.9
11	---	---	---	---	---	---	---	---	---	21.0	16.6	18.6
12	---	---	---	---	---	---	---	---	---	22.0	18.3	20.2
13	---	---	---	---	---	---	---	---	---	21.2	17.5	18.2
14	---	---	---	---	---	---	14.0	9.5	10.7	20.1	16.6	18.0
15	---	---	---	---	---	---	15.1	11.0	12.7	19.4	17.6	18.4
16	---	---	---	---	---	---	14.9	10.6	12.7	19.5	15.8	17.6
17	---	---	---	---	---	---	15.1	10.7	12.9	18.7	15.9	17.4
18	---	---	---	---	---	---	15.6	12.1	13.8	20.0	16.1	18.0
19	---	---	---	---	---	---	16.9	12.9	14.8	19.8	17.7	19.1
20	---	---	---	---	---	---	18.7	14.0	15.6	19.7	17.6	18.5
21	---	---	---	---	---	---	18.4	15.2	17.2	19.8	16.0	17.6
22	---	---	---	---	---	---	17.4	15.8	16.3	19.6	16.0	18.1
23	---	---	---	---	---	---	16.6	14.5	15.7	19.9	16.6	18.2
24	---	---	---	---	---	---	14.5	10.8	11.6	19.1	15.8	16.8
25	---	---	---	---	---	---	13.8	9.3	10.8	17.0	14.6	15.7
26	---	---	---	---	---	---	14.4	11.0	12.7	19.8	14.8	16.1
27	---	---	---	---	---	---	15.4	12.2	13.4	19.5	16.8	18.3
28	---	---	---	---	---	---	15.2	11.4	13.1	20.0	16.9	18.6
29	---	---	---	---	---	---	14.6	12.5	13.4	19.9	16.8	18.7
30	---	---	---	---	---	---	15.4	13.5	14.1	21.0	17.4	19.2
31	---	---	---	---	---	---	---	---	---	21.0	18.4	20.0
MAX	---	---	---	---	---	---	18.7	15.8	17.2	22.0	18.4	20.2
MIN	---	---	---	---	---	---	13.8	9.3	10.7	15.2	11.0	12.9

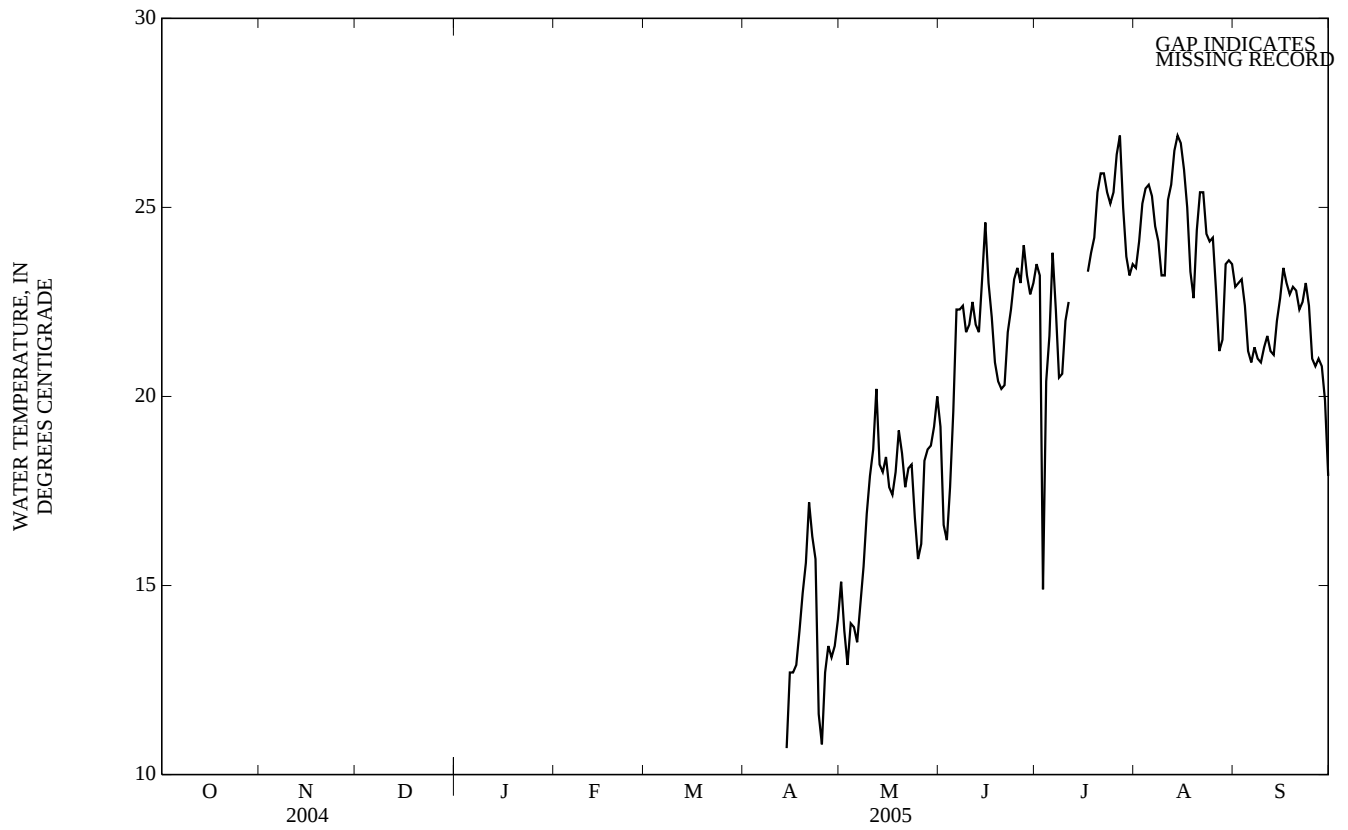
ROANOKE RIVER BASIN

02054750 ROANOKE RIVER AT ROUTE 117 AT ROANOKE, VA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.4	18.3	19.2	25.0	22.1	23.5	25.4	21.8	23.4	24.3	21.6	22.9
2	18.7	16.4	16.6	24.4	22.2	23.2	26.0	22.2	24.1	24.3	21.3	23.0
3	17.5	15.8	16.2	24.1	12.5	14.9	26.7	23.4	25.1	24.4	21.3	23.1
4	19.9	16.6	17.6	22.1	17.8	20.4	26.8	23.9	25.5	23.5	20.9	22.4
5	22.9	18.0	19.6	24.4	18.4	21.6	26.5	23.9	25.6	22.2	20.1	21.2
6	24.2	20.4	22.3	24.7	22.6	23.8	26.6	24.0	25.3	22.7	19.7	20.9
7	22.9	21.0	22.3	23.8	20.7	22.3	25.5	23.5	24.5	22.7	19.5	21.3
8	23.6	21.1	22.4	21.8	19.3	20.5	24.8	23.1	24.1	22.4	18.9	21.0
9	22.8	20.8	21.7	22.9	19.2	20.6	24.1	22.8	23.2	22.7	19.0	20.9
10	23.1	21.0	21.9	23.7	20.5	22.0	25.6	22.7	23.2	22.4	19.7	21.3
11	23.7	21.4	22.5	23.2	21.6	22.5	26.7	23.5	25.2	23.1	20.4	21.6
12	23.0	20.6	21.9	---	---	---	27.5	24.0	25.6	22.7	19.4	21.2
13	23.8	20.9	21.7	---	---	---	27.7	25.0	26.5	22.7	19.2	21.1
14	26.0	21.5	23.1	---	---	---	28.0	25.4	26.9	23.5	21.4	22.0
15	25.6	22.6	24.6	---	---	---	27.5	25.6	26.7	24.5	21.3	22.6
16	24.7	22.0	23.0	---	---	---	27.4	25.0	26.0	24.2	22.0	23.4
17	23.0	20.3	22.1	25.1	22.2	23.3	25.8	24.2	25.0	24.1	21.8	23.0
18	22.1	19.7	20.9	24.9	22.4	23.8	25.0	22.8	23.3	24.0	21.2	22.7
19	21.0	19.2	20.4	26.6	22.8	24.2	24.5	21.9	22.6	23.8	21.4	22.9
20	20.7	19.4	20.2	26.9	24.0	25.4	26.0	23.4	24.4	23.7	21.6	22.8
21	22.3	19.0	20.3	27.3	24.2	25.9	27.4	24.4	25.4	23.7	20.9	22.3
22	23.2	20.4	21.7	26.6	24.9	25.9	26.2	23.9	25.4	23.9	21.4	22.5
23	24.1	20.6	22.3	27.0	23.9	25.4	25.3	23.4	24.3	24.6	21.7	23.0
24	24.7	21.2	23.1	26.1	23.1	25.1	25.6	23.1	24.1	23.7	21.8	22.4
25	24.2	21.7	23.4	27.7	24.0	25.4	25.0	23.1	24.2	21.8	20.8	21.0
26	24.5	21.6	23.0	27.3	24.6	26.4	24.0	22.1	22.8	21.3	20.5	20.8
27	26.0	22.6	24.0	28.5	25.4	26.9	22.1	20.9	21.2	22.6	20.0	21.0
28	24.1	22.2	23.2	26.9	24.5	25.0	24.1	20.7	21.5	21.7	19.4	20.8
29	23.7	21.4	22.7	24.6	23.3	23.7	24.1	22.3	23.5	20.9	18.9	19.9
30	24.5	21.7	23.0	24.4	22.7	23.2	23.8	23.1	23.6	18.9	16.6	17.9
31	---	---	---	24.2	22.3	23.5	24.8	22.9	23.5	---	---	---
MAX	26.0	22.6	24.6	28.5	25.4	26.9	28.0	25.6	26.9	24.6	22.0	23.4
MIN	17.5	15.8	16.2	21.8	12.5	14.9	22.1	20.7	21.2	18.9	16.6	17.9

02054750 ROANOKE RIVER AT ROUTE 117 AT ROANOKE, VA—Continued



02055000 ROANOKE RIVER AT ROANOKE, VA

LOCATION.--Lat 37°15'30", long 79°56'19", NAD83, Roanoke City, Hydrologic Unit 03010101, on left bank 50 ft downstream from Walnut Avenue bridge, 3.2 mi upstream from Tinker Creek, and at mile 360.6.

DRAINAGE AREA.--395 mi².

PERIOD OF RECORD.--February 1899 to current year. Monthly discharge only for some periods, published in WSP 1303. Records for July 1896 to January 1899 published in WSP 11, 15, 27, and 20th Annual Report, Part 4, are unreliable, due to doubtful gage-height record, and should not be used.

REVISED RECORDS.--WSP 972: 1928, 1930, 1933. WSP 1433: 1899-1904, 1914-17(M), 1918-24, 1925-27(M), 1929-34(M), 1935, 1936-39(M). WSP 2104: Drainage area. WDR VA-72-1: 1928(M), 1940(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 906.84 ft NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to June 7, 1937, nonrecording gage on downstream side of highway bridge 50 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Prior to 1949, diurnal fluctuation at low flow caused by powerplants upstream from station. Since March 1994, water withdrawn upstream by the city of Roanoke, amount unknown. American Electric Power and Virginia Department of Emergency Services gage-height radio transmitters at station. Maximum discharge, 32,300 ft³/s, from rating curve extended above 26,000 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 25	0415	3,110	5.46	Mar 28	1945	*4,800	*7.11
Jan 14	1315	3,280	5.64				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,050	246	820	273	378	405	1,040	344	172	225	257	120
2	775	238	827	260	378	342	1,570	313	248	248	180	99
3	629	233	716	248	388	320	1,570	297	238	175	134	86
4	560	341	632	241	405	336	1,190	286	212	154	120	80
5	505	493	561	244	412	427	951	273	191	148	125	78
6	457	455	574	243	413	634	805	267	280	139	136	75
7	413	385	777	237	410	643	727	262	231	402	130	72
8	372	347	718	249	418	739	701	253	229	901	123	70
9	336	313	753	252	435	755	639	244	382	407	139	67
10	301	287	1,220	237	442	648	579	235	399	259	156	67
11	252	270	1,190	235	421	566	545	234	307	205	123	66
12	232	516	971	236	396	520	524	224	248	166	113	64
13	497	1,140	799	236	373	471	540	217	218	151	104	63
14	613	775	643	2,400	410	495	502	236	210	158	100	62
15	462	591	547	1,810	428	481	448	258	184	200	109	60
16	371	492	480	1,190	408	465	412	232	156	368	123	64
17	324	427	444	911	403	514	391	211	143	385	123	62
18	293	384	416	692	386	507	382	200	136	249	114	60
19	304	353	393	581	362	514	370	200	133	179	222	58
20	300	336	357	547	348	506	353	401	132	164	135	57
21	295	316	324	511	352	472	342	350	146	144	121	57
22	287	293	340	458	368	425	397	271	131	132	109	55
23	273	376	459	427	349	562	450	244	125	149	97	55
24	281	1,080	580	352	354	916	379	226	126	144	94	55
25	290	2,620	441	387	351	829	349	223	125	133	92	56
26	280	1,500	385	369	335	733	329	205	120	122	91	58
27	275	967	348	369	324	643	325	191	317	116	113	60
28	275	858	305	339	368	2,940	317	179	258	136	102	65
29	268	684	296	314	---	3,230	306	171	209	141	104	60
30	266	609	289	365	---	1,810	352	163	222	127	129	56
31	254	---	282	377	---	1,300	---	179	---	406	133	---
TOTAL	12,090	17,925	17,887	15,590	10,815	24,148	17,785	7,589	6,228	7,033	3,951	2,007
MEAN	390	598	577	503	386	779	593	245	208	227	127	66.9
MAX	1,050	2,620	1,220	2,400	442	3,230	1,570	401	399	901	257	120
MIN	232	233	282	235	324	320	306	163	120	116	91	55
CFSM	0.99	1.51	1.46	1.27	0.98	1.97	1.50	0.62	0.53	0.57	0.32	0.17
IN.	1.14	1.69	1.68	1.47	1.02	2.27	1.67	0.71	0.59	0.66	0.37	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 2005, BY WATER YEAR (WY)

MEAN	227	248	347	465	564	679	583	421	309	220	221	209
MAX	1,080	1,626	1,425	1,353	1,912	2,521	2,558	1,466	1,206	1,190	2,140	1,569
(WY)	(1907)	(1986)	(1902)	(1937)	(1998)	(1899)	(1987)	(1901)	(1972)	(1905)	(1940)	(1928)
MIN	47.9	43.8	55.2	65.5	52.5	119	108	112	73.8	45.6	39.4	42.6
(WY)	(1992)	(1932)	(1918)	(1981)	(1934)	(1981)	(1942)	(1941)	(2002)	(1930)	(2002)	(1930)

02055000 ROANOKE RIVER AT ROANOKE, VA—Continued

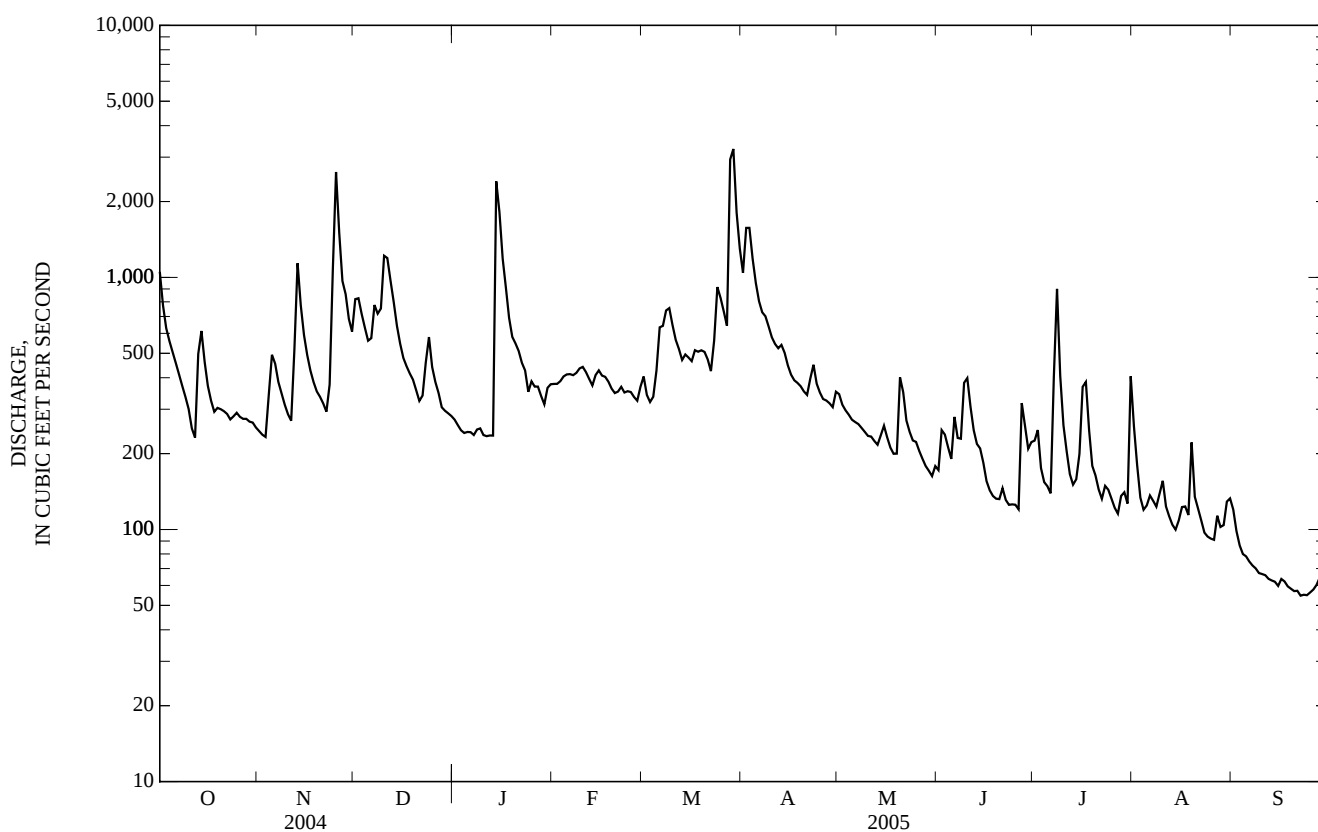
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1899 - 2005	
ANNUAL TOTAL	175,207		143,048		372	
ANNUAL MEAN	479		392		836	
HIGHEST ANNUAL MEAN					110	
LOWEST ANNUAL MEAN					1901	
HIGHEST DAILY MEAN	12,900	Sep 28	3,230	Mar 29	18,200	Aug 15, 1940
LOWEST DAILY MEAN	72	Sep 5	55	aSep 22	16	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	81	Aug 31	56	Sep 19	19	Sep 7, 2002
MAXIMUM PEAK FLOW			4,800	Mar 28	32,300	Nov 4, 1985
MAXIMUM PEAK STAGE			7.11	Mar 28	b23.35	Nov 4, 1985
INSTANTANEOUS LOW FLOW			53	Sep 25	c0.00	dDec 23, 1909
ANNUAL RUNOFF (CFSM)	1.21		0.992		0.941	
ANNUAL RUNOFF (INCHES)	16.50		13.47		12.78	
10 PERCENT EXCEEDS	782		735		745	
50 PERCENT EXCEEDS	324		313		209	
90 PERCENT EXCEEDS	130		104		73	

a Also Sept. 23, 24, 2005.

b From floodmark.

c Practically no flow; retarded by freezing.

d Also Dec. 19, 1963



02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA

WATER-QUALITY RECORDS

PERIOD OF DISCRETE SAMPLE RECORD.--No discrete water-quality samples are collected at this station.

PERIOD OF CONTINUOUS (15-MINUTE INTERVAL) RECORD.--

SPECIFIC CONDUCTANCE: April 2005 to current.

WATER TEMPERATURE: April 2005 to current.

pH: April 2005 to current.

TURBIDITY: April 2005 to current.

INSTRUMENTATION.-- Water-quality monitor April 2005 to current.

REMARKS.--Median daily values have been plotted for continuous turbidity, pH, specific conductance, and water temperature.

EXTREMES FOR CURRENT YEAR.--

TURBIDITY: Maximum, 2,030 NTU, June 27; minimum, 1.1 NTU, May 7.

pH: Maximum, 8.6 standard units, on several days; minimum, 7.5 standard units, July 31, Aug. 17.

SPECIFIC CONDUCTANCE: Maximum, 438 microsiemens/cm, Sept. 29; minimum, 90 microsiemens/cm, June 27.

WATER TEMPERATURE: Maximum, 29.1°C, July 27; minimum, 12.1°C, May 3.

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[illegible]

02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	7.6	1.6	2.5
2	---	---	---	---	---	---	---	---	---	3.3	1.4	1.9
3	---	---	---	---	---	---	---	---	---	8.4	1.3	1.8
4	---	---	---	---	---	---	---	---	---	3.2	1.7	2.3
5	---	---	---	---	---	---	---	---	---	2.8	1.3	2.0
6	---	---	---	---	---	---	---	---	---	3.8	1.4	1.8
7	---	---	---	---	---	---	---	---	---	4.4	1.1	2.1
8	---	---	---	---	---	---	---	---	---	4.3	1.7	2.3
9	---	---	---	---	---	---	---	---	---	4.2	1.7	2.5
10	---	---	---	---	---	---	---	---	---	16	2.1	2.9
11	---	---	---	---	---	---	---	---	---	8.4	1.9	3.0
12	---	---	---	---	---	---	---	---	---	5.5	2.1	3.4
13	---	---	---	---	---	---	---	---	---	4.8	2.5	3.6
14	---	---	---	---	---	---	---	---	---	24	3.4	5.0
15	---	---	---	---	---	---	---	---	---	12	2.8	5.5
16	---	---	---	---	---	---	---	---	---	11	3.3	4.9
17	---	---	---	---	---	---	---	---	---	8.6	2.1	4.5
18	---	---	---	---	---	---	---	---	---	6.3	2.2	3.8
19	---	---	---	---	---	---	---	---	---	7.0	2.4	4.1
20	---	---	---	---	---	---	---	---	---	130	5.1	52
21	---	---	---	---	---	---	---	---	---	28	7.7	12
22	---	---	---	---	---	---	---	---	---	10	5.0	7.5
23	---	---	---	---	---	---	---	---	---	10	4.6	6.6
24	---	---	---	---	---	---	---	---	---	8.6	4.0	5.7
25	---	---	---	---	---	---	---	---	---	7.5	3.8	5.2
26	---	---	---	---	---	---	---	---	---	6.6	1.9	4.5
27	---	---	---	---	---	---	---	---	---	7.0	2.0	4.5
28	---	---	---	---	---	---	---	---	---	22	3.1	4.8
29	---	---	---	---	---	---	3.5	1.4	2.3	9.8	2.1	5.0
30	---	---	---	---	---	---	6.3	2.3	2.8	12	2.1	4.7
31	---	---	---	---	---	---	---	---	---	13	2.5	6.1
MAX	---	---	---	---	---	---	6.3	2.3	2.8	130	7.7	52
MIN	---	---	---	---	---	---	3.5	1.4	2.3	2.8	1.1	1.8

02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.4	3.0	5.4	160	22	28	130	22	42	33	11	20
2	18	4.9	11	140	38	55	28	16	21	26	9.4	19
3	22	5.1	8.6	38	20	28	32	14	18	25	9.3	18
4	8.5	2.5	5.0	25	16	20	23	12	15	24	9.3	16
5	8.7	2.7	5.2	23	15	18	66	10	14	21	9.0	15
6	1,420	2.1	5.3	21	15	18	66	17	22	21	7.8	14
7	300	27	92	370	16	21	23	11	16	25	5.9	13
8	65	12	21	300	62	96	20	10	16	25	5.4	10
9	350	26	150	62	27	47	20	13	17	15	4.6	9.7
10	500	27	68	64	16	25	48	18	29	16	4.4	9.2
11	120	29	36	21	13	16	25	11	17	17	3.6	9.0
12	32	18	25	17	11	13	19	8.1	15	16	4.2	8.4
13	24	15	18	37	8.1	12	17	5.6	12	13	3.5	7.7
14	39	13	15	22	12	15	31	5.3	12	17	2.8	7.3
15	23	10	13	49	13	19	25	6.4	14	13	2.7	6.9
16	15	7.9	11	1,110	20	28	37	6.0	15	14	2.8	6.9
17	14	6.7	10	170	43	81	170	28	44	60	3.6	8.1
18	16	5.2	10	100	33	52	51	11	21	12	2.8	7.7
19	14	3.8	8.5	33	21	26	480	19	56	36	4.3	9.6
20	14	4.1	8.4	22	17	20	54	12	22	89	4.2	8.7
21	46	4.8	12	23	15	17	26	9.9	19	23	4.2	9.1
22	19	6.4	10	19	12	15	67	9.9	19	32	4.2	11
23	16	5.2	10	18	12	16	25	10	18	---	---	---
24	38	7.6	15	18	11	15	23	9.5	18	---	---	---
25	65	8.0	12	16	7.3	13	23	8.3	16	19	7.0	9.4
26	78	9.5	18	22	6.9	13	25	9.6	16	19	6.8	9.9
27	2,030	8.7	20	21	7.0	11	28	15	21	15	6.1	9.5
28	600	27	130	22	11	16	29	8.2	16	26	6.2	9.5
29	72	25	48	21	12	16	20	7.2	14	38	6.6	9.6
30	120	33	41	19	11	15	240	7.7	16	16	6.3	9.0
31	---	---	---	420	14	180	100	20	31	---	---	---
MAX	2,030	33	150	1,110	62	180	480	28	56	89	11	20
MIN	8.4	2.1	5.0	16	6.9	11	17	5.3	12	12	2.7	6.9

The graph displays turbidity levels over a 12-month period. The data shows a period of low turbidity from October 2004 to May 2005, followed by a series of sharp increases. The most prominent peak occurs in July 2005, reaching nearly 180 NTU. Subsequent peaks in June and May 2005 also show high values, while the final months of the period show more moderate, fluctuating levels.

Month	Turbidity (NTU)
Oct 2004	~0
Nov 2004	~0
Dec 2004	~0
Jan 2005	~0
Feb 2005	~0
Mar 2005	~0
Apr 2005	~0
May 2005	~50
Jun 2005	~150
Jul 2005	~180
Aug 2005	~20
Sep 2005	~10

[illegible]

02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

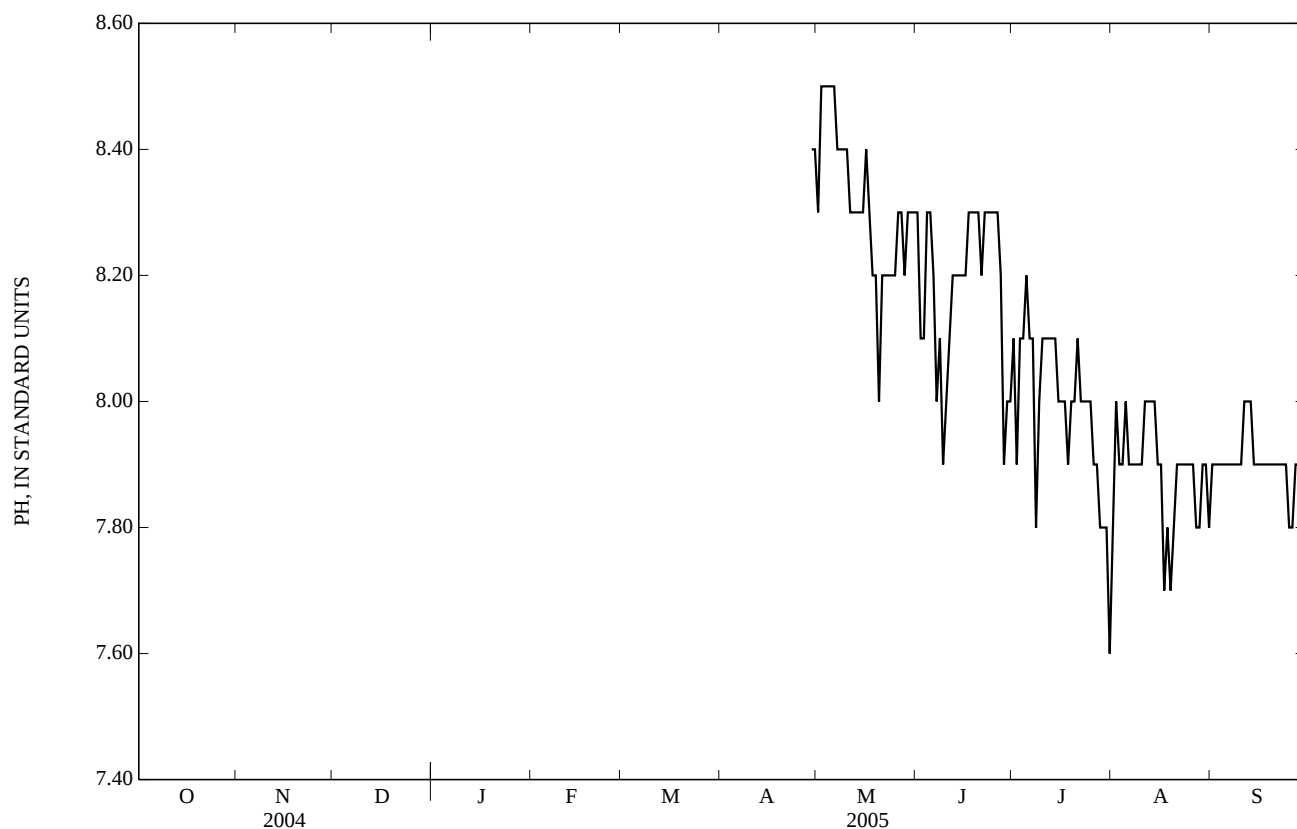
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	8.5	8.3	8.3
2	---	---	---	---	---	---	---	---	---	8.6	8.4	8.5
3	---	---	---	---	---	---	---	---	---	8.6	8.4	8.5
4	---	---	---	---	---	---	---	---	---	8.6	8.3	8.5
5	---	---	---	---	---	---	---	---	---	8.5	8.3	8.5
6	---	---	---	---	---	---	---	---	---	8.6	8.3	8.5
7	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
8	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
9	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
10	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
11	---	---	---	---	---	---	---	---	---	8.5	8.2	8.3
12	---	---	---	---	---	---	---	---	---	8.5	8.2	8.3
13	---	---	---	---	---	---	---	---	---	8.3	8.2	8.3
14	---	---	---	---	---	---	---	---	---	8.4	8.2	8.3
15	---	---	---	---	---	---	---	---	---	8.4	8.2	8.3
16	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
17	---	---	---	---	---	---	---	---	---	8.4	8.2	8.3
18	---	---	---	---	---	---	---	---	---	8.3	8.1	8.2
19	---	---	---	---	---	---	---	---	---	8.3	8.1	8.2
20	---	---	---	---	---	---	---	---	---	8.1	7.9	8.0
21	---	---	---	---	---	---	---	---	---	8.3	8.1	8.2
22	---	---	---	---	---	---	---	---	---	8.3	8.1	8.2
23	---	---	---	---	---	---	---	---	---	8.3	8.0	8.2
24	---	---	---	---	---	---	---	---	---	8.2	8.1	8.2
25	---	---	---	---	---	---	---	---	---	8.3	8.1	8.2
26	---	---	---	---	---	---	---	---	---	8.4	8.2	8.3
27	---	---	---	---	---	---	---	---	---	8.4	8.1	8.3
28	---	---	---	---	---	---	---	---	---	8.3	8.1	8.2
29	---	---	---	---	---	---	8.5	8.3	8.4	8.4	8.2	8.3
30	---	---	---	---	---	---	8.5	8.3	8.4	8.4	8.2	8.3
31	---	---	---	---	---	---	---	---	---	8.4	8.1	8.3
MAX	---	---	---	---	---	---	8.5	8.3	8.4	8.6	8.4	8.5
MIN	---	---	---	---	---	---	8.5	8.3	8.4	8.1	7.9	8.0

02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.4	8.2	8.3	8.2	8.0	8.1	7.9	7.6	7.8	8.0	7.7	7.9
2	8.3	8.0	8.1	8.2	7.9	7.9	8.0	7.9	8.0	8.1	7.9	7.9
3	8.3	8.0	8.1	8.2	8.0	8.1	8.1	7.8	7.9	8.0	7.8	7.9
4	8.4	8.2	8.3	8.2	8.1	8.1	8.1	7.8	7.9	8.0	7.8	7.9
5	8.4	8.2	8.3	8.2	8.1	8.2	8.1	7.9	8.0	8.0	7.8	7.9
6	8.4	7.8	8.2	8.2	8.1	8.1	8.0	7.8	7.9	8.1	7.8	7.9
7	8.1	7.7	8.0	8.1	7.8	8.1	8.0	7.8	7.9	8.0	7.8	7.9
8	8.2	7.9	8.1	8.0	7.7	7.8	8.1	7.9	7.9	8.1	7.8	7.9
9	8.1	7.8	7.9	8.1	8.0	8.0	8.0	7.8	7.9	8.1	7.8	7.9
10	8.1	8.0	8.0	8.2	8.0	8.1	8.0	7.8	7.9	8.1	7.8	7.9
11	8.2	8.0	8.1	8.2	8.0	8.1	8.1	7.9	8.0	8.1	7.8	8.0
12	8.2	8.1	8.2	8.2	8.0	8.1	8.1	7.9	8.0	8.1	7.8	8.0
13	8.2	8.1	8.2	8.3	8.0	8.1	8.1	7.9	8.0	8.1	7.8	8.0
14	8.3	8.2	8.2	8.2	8.0	8.1	8.1	7.8	8.0	8.0	7.8	7.9
15	8.3	8.2	8.2	8.2	8.0	8.0	8.1	7.9	7.9	8.1	7.8	7.9
16	8.4	8.2	8.2	8.1	7.8	8.0	8.0	7.7	7.9	8.0	7.8	7.9
17	8.5	8.2	8.3	8.1	7.7	8.0	7.8	7.5	7.7	8.0	7.7	7.9
18	8.5	8.2	8.3	8.0	7.8	7.9	7.9	7.6	7.8	8.0	7.7	7.9
19	8.5	8.2	8.3	8.1	7.9	8.0	7.9	7.6	7.7	8.0	7.8	7.9
20	8.6	8.2	8.3	8.1	8.0	8.0	8.0	7.6	7.8	8.0	7.8	7.9
21	8.5	8.1	8.2	8.2	8.0	8.1	8.0	7.8	7.9	8.0	7.8	7.9
22	8.4	8.2	8.3	8.2	8.0	8.0	8.0	7.8	7.9	8.0	7.8	7.9
23	8.6	8.2	8.3	8.2	7.9	8.0	8.0	7.8	7.9	8.0	7.8	7.9
24	8.6	8.2	8.3	8.2	7.9	8.0	8.0	7.8	7.9	7.9	7.7	7.9
25	8.6	8.2	8.3	8.2	7.9	8.0	8.1	7.8	7.9	7.9	7.8	7.8
26	8.6	8.2	8.3	8.1	7.8	7.9	8.0	7.8	7.9	7.9	7.8	7.8
27	8.6	7.8	8.2	8.1	7.8	7.9	7.8	7.8	7.8	8.0	7.8	7.9
28	8.2	7.6	7.9	7.9	7.8	7.8	8.0	7.7	7.8	8.1	7.8	7.9
29	8.1	8.0	8.0	7.9	7.8	7.8	8.0	7.9	7.9	8.1	7.9	8.0
30	8.0	7.9	8.0	8.0	7.8	7.8	8.0	7.7	7.9	8.1	7.9	8.0
31	---	---	---	7.9	7.5	7.6	7.9	7.7	7.8	---	---	---
MAX	8.6	8.2	8.3	8.3	8.1	8.2	8.1	7.9	8.0	8.1	7.9	8.0
MIN	8.0	7.6	7.9	7.9	7.5	7.6	7.8	7.5	7.7	7.9	7.7	7.8

02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA—Continued



SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[illegible]

02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA—Continued

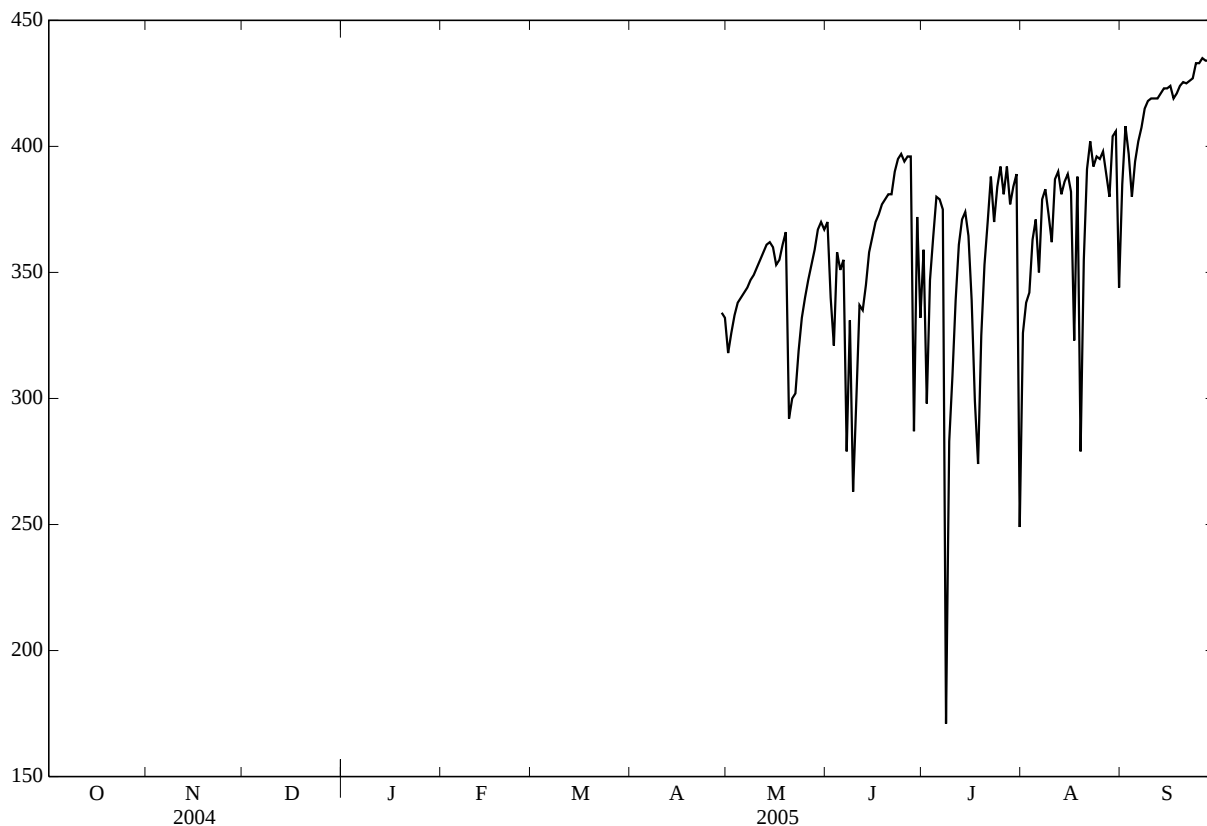
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	326	310	318
2	---	---	---	---	---	---	---	---	---	332	322	326
3	---	---	---	---	---	---	---	---	---	335	331	333
4	---	---	---	---	---	---	---	---	---	338	335	338
5	---	---	---	---	---	---	---	---	---	341	337	340
6	---	---	---	---	---	---	---	---	---	342	340	342
7	---	---	---	---	---	---	---	---	---	347	341	344
8	---	---	---	---	---	---	---	---	---	348	345	347
9	---	---	---	---	---	---	---	---	---	352	348	349
10	---	---	---	---	---	---	---	---	---	355	350	352
11	---	---	---	---	---	---	---	---	---	357	355	355
12	---	---	---	---	---	---	---	---	---	360	357	358
13	---	---	---	---	---	---	---	---	---	364	360	361
14	---	---	---	---	---	---	---	---	---	364	328	362
15	---	---	---	---	---	---	---	---	---	362	357	360
16	---	---	---	---	---	---	---	---	---	361	352	353
17	---	---	---	---	---	---	---	---	---	359	352	355
18	---	---	---	---	---	---	---	---	---	366	359	361
19	---	---	---	---	---	---	---	---	---	370	361	366
20	---	---	---	---	---	---	---	---	---	362	258	292
21	---	---	---	---	---	---	---	---	---	308	291	300
22	---	---	---	---	---	---	---	---	---	309	293	302
23	---	---	---	---	---	---	---	---	---	324	309	319
24	---	---	---	---	---	---	---	---	---	337	324	332
25	---	---	---	---	---	---	---	---	---	346	333	340
26	---	---	---	---	---	---	---	---	---	349	345	347
27	---	---	---	---	---	---	---	---	---	358	349	353
28	---	---	---	---	---	---	---	---	---	364	350	359
29	---	---	---	---	---	---	335	329	334	370	364	367
30	---	---	---	---	---	---	334	315	332	373	368	370
31	---	---	---	---	---	---	---	---	---	372	363	367
MAX	---	---	---	---	---	---	335	329	334	373	368	370
MIN	---	---	---	---	---	---	334	315	332	308	258	292

02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	372	367	370	366	291	359	362	256	326	401	331	385
2	374	297	340	331	281	298	363	329	338	410	401	408
3	349	287	321	356	323	347	352	334	342	408	382	397
4	362	349	358	375	356	364	365	352	363	389	378	380
5	356	348	351	383	375	380	372	332	371	400	389	394
6	360	127	355	384	367	379	372	315	350	405	400	402
7	343	236	279	385	141	375	383	337	379	412	405	408
8	340	275	331	239	131	171	387	375	383	416	412	415
9	337	236	263	286	237	283	376	371	373	419	415	418
10	331	223	299	326	286	309	379	321	362	421	417	419
11	361	293	337	355	326	339	390	379	387	423	417	419
12	337	332	335	369	355	361	392	382	390	423	418	419
13	354	335	345	373	368	371	383	380	381	425	419	421
14	365	354	358	378	359	374	392	373	386	427	420	423
15	373	361	364	370	342	364	396	343	389	427	421	423
16	374	368	370	363	217	339	390	350	382	429	423	424
17	374	371	373	320	222	299	367	276	323	424	414	419
18	380	373	377	298	258	274	402	322	388	423	419	421
19	381	376	379	342	297	325	402	240	279	427	422	424
20	383	378	381	363	342	353	380	282	355	428	423	426
21	398	309	381	380	363	370	400	380	391	428	423	425
22	400	368	390	393	377	388	403	394	402	430	424	426
23	399	376	395	377	358	370	395	388	392	430	425	427
24	399	389	397	388	360	384	398	395	396	434	428	433
25	398	392	394	397	376	392	398	393	395	434	432	433
26	399	394	396	388	348	381	401	397	398	435	433	435
27	399	90	396	394	352	392	401	381	389	436	431	434
28	391	151	287	390	361	377	398	376	380	436	430	434
29	396	349	372	390	377	384	406	398	404	438	433	436
30	363	306	332	394	369	389	412	283	406	437	428	434
31	---	---	---	369	198	249	356	322	344	---	---	---
MAX	400	394	397	397	377	392	412	398	406	438	433	436
MIN	331	90	263	239	131	171	352	240	279	389	331	380

SPECIFIC CONDUCTANCE, IN
MICROSIEMENS PER CENTIMETER

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[illegible]

02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

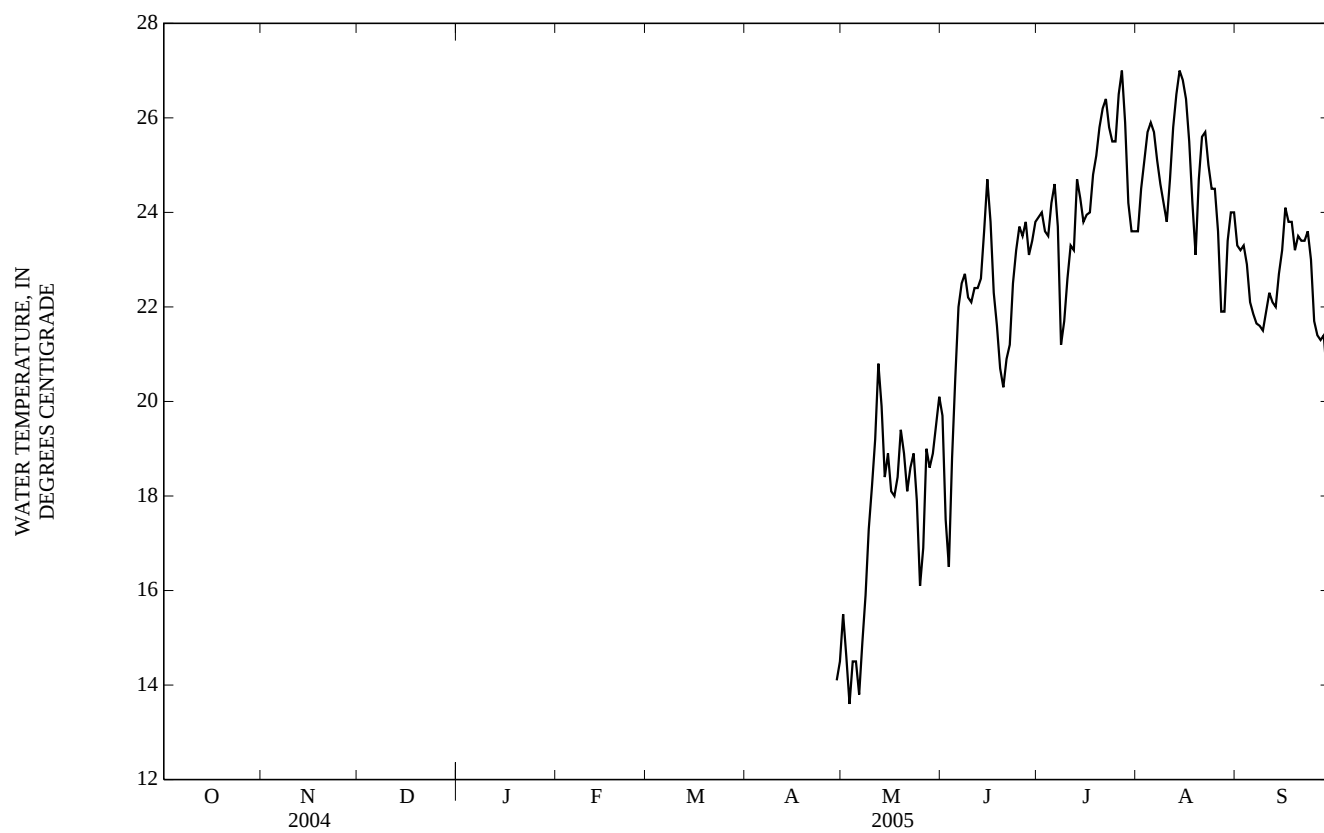
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	16.8	14.5	15.5
2	---	---	---	---	---	---	---	---	---	15.7	13.4	14.6
3	---	---	---	---	---	---	---	---	---	14.8	12.1	13.6
4	---	---	---	---	---	---	---	---	---	15.5	13.7	14.5
5	---	---	---	---	---	---	---	---	---	15.0	13.8	14.5
6	---	---	---	---	---	---	---	---	---	14.7	13.3	13.8
7	---	---	---	---	---	---	---	---	---	15.6	13.6	14.9
8	---	---	---	---	---	---	---	---	---	17.8	14.6	15.9
9	---	---	---	---	---	---	---	---	---	18.9	16.2	17.3
10	---	---	---	---	---	---	---	---	---	19.7	17.2	18.2
11	---	---	---	---	---	---	---	---	---	20.7	18.0	19.2
12	---	---	---	---	---	---	---	---	---	22.1	19.6	20.8
13	---	---	---	---	---	---	---	---	---	21.2	18.1	19.9
14	---	---	---	---	---	---	---	---	---	20.0	17.2	18.4
15	---	---	---	---	---	---	---	---	---	19.3	18.2	18.9
16	---	---	---	---	---	---	---	---	---	19.3	16.9	18.1
17	---	---	---	---	---	---	---	---	---	19.0	17.5	18.0
18	---	---	---	---	---	---	---	---	---	20.3	17.2	18.4
19	---	---	---	---	---	---	---	---	---	20.4	18.9	19.4
20	---	---	---	---	---	---	---	---	---	19.5	18.3	18.9
21	---	---	---	---	---	---	---	---	---	19.1	16.7	18.1
22	---	---	---	---	---	---	---	---	---	19.5	17.4	18.6
23	---	---	---	---	---	---	---	---	---	20.0	17.8	18.9
24	---	---	---	---	---	---	---	---	---	18.9	16.2	17.9
25	---	---	---	---	---	---	---	---	---	16.6	15.4	16.1
26	---	---	---	---	---	---	---	---	---	19.2	15.6	16.9
27	---	---	---	---	---	---	---	---	---	20.4	18.0	19.0
28	---	---	---	---	---	---	---	---	---	19.6	18.1	18.6
29	---	---	---	---	---	---	14.4	13.7	14.1	20.4	17.7	18.9
30	---	---	---	---	---	---	15.2	14.2	14.5	21.4	18.2	19.5
31	---	---	---	---	---	---	---	---	---	21.6	19.3	20.1
MAX	---	---	---	---	---	---	15.2	14.2	14.5	22.1	19.6	20.8
MIN	---	---	---	---	---	---	14.4	13.7	14.1	14.7	12.1	13.6

02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.5	19.1	19.7	25.4	22.9	23.9	25.1	22.9	23.6	24.6	22.4	23.3
2	19.1	16.5	17.5	24.6	23.2	24.0	26.0	23.5	24.5	25.2	22.3	23.2
3	17.3	16.3	16.5	24.4	23.1	23.6	27.4	24.1	25.1	25.4	22.1	23.3
4	20.1	17.1	18.8	24.9	22.7	23.5	27.9	25.0	25.7	24.7	21.8	22.9
5	22.1	19.1	20.5	25.8	23.3	24.2	28.0	25.0	25.9	23.4	21.1	22.1
6	24.8	21.3	22.0	26.2	23.9	24.6	27.3	24.8	25.7	23.8	20.5	21.9
7	23.4	21.4	22.5	24.8	21.5	23.7	25.9	24.7	25.1	23.9	20.1	21.6
8	24.1	21.7	22.7	22.1	20.1	21.2	25.9	23.9	24.6	23.7	19.6	21.6
9	23.1	21.8	22.2	22.8	20.4	21.7	24.5	23.8	24.2	23.8	19.6	21.5
10	23.3	21.7	22.1	24.2	21.8	22.6	25.7	23.0	23.8	23.7	20.1	21.9
11	23.4	22.0	22.4	23.8	22.7	23.3	27.1	23.7	24.7	24.0	20.8	22.3
12	23.0	21.9	22.4	24.9	22.6	23.2	28.2	24.9	25.8	24.0	20.2	22.1
13	23.5	22.1	22.6	26.2	24.2	24.7	28.6	25.7	26.5	23.9	19.8	22.0
14	25.7	22.1	23.6	24.7	23.7	24.3	29.0	26.1	27.0	24.1	21.4	22.7
15	26.2	23.8	24.7	24.4	23.1	23.8	28.3	26.2	26.8	25.4	21.6	23.2
16	24.8	22.6	23.8	25.2	23.2	23.9	28.4	25.7	26.4	25.1	22.3	24.1
17	24.1	21.2	22.3	25.2	23.0	24.0	26.5	24.5	25.5	25.2	22.3	23.8
18	22.5	20.6	21.6	25.4	23.9	24.8	24.8	23.6	24.2	25.1	21.9	23.8
19	21.4	19.9	20.7	27.1	24.0	25.2	24.2	22.2	23.1	24.5	21.6	23.2
20	21.6	19.9	20.3	27.3	24.8	25.8	26.1	23.5	24.7	24.6	21.8	23.5
21	22.0	19.3	20.9	28.0	25.1	26.2	27.7	24.9	25.6	24.7	21.6	23.4
22	22.8	20.5	21.2	27.6	25.8	26.4	27.1	25.0	25.7	24.9	21.8	23.4
23	24.8	21.4	22.5	27.8	24.8	25.8	25.9	24.4	25.0	25.3	22.0	23.6
24	25.7	22.3	23.2	27.0	24.4	25.5	26.3	23.8	24.5	24.5	22.5	23.0
25	25.2	22.6	23.7	28.1	24.6	25.5	26.3	23.6	24.5	22.8	21.4	21.7
26	25.5	22.8	23.5	28.7	25.4	26.5	24.6	22.8	23.6	21.6	21.0	21.4
27	27.0	22.5	23.8	29.1	26.3	27.0	22.8	21.5	21.9	23.1	20.3	21.3
28	23.8	22.6	23.1	27.0	25.0	25.9	24.6	21.2	21.9	22.5	19.7	21.4
29	24.3	22.4	23.4	25.0	23.7	24.2	24.8	22.7	23.4	21.5	19.8	20.5
30	24.5	22.5	23.8	24.5	23.2	23.6	24.8	23.6	24.0	20.0	17.6	19.3
31	---	---	---	24.1	22.9	23.6	24.7	23.4	24.0	---	---	---
MAX	27.0	23.8	24.7	29.1	26.3	27.0	29.0	26.2	27.0	25.4	22.5	24.1
MIN	17.3	16.3	16.5	22.1	20.1	21.2	22.8	21.2	21.9	20.0	17.6	19.3

02055010 ROANOKE RIVER AT NINTH STREET BRIDGE AT ROANOKE, VA—Continued



WATER-QUALITY RECORDS

[illegible]

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

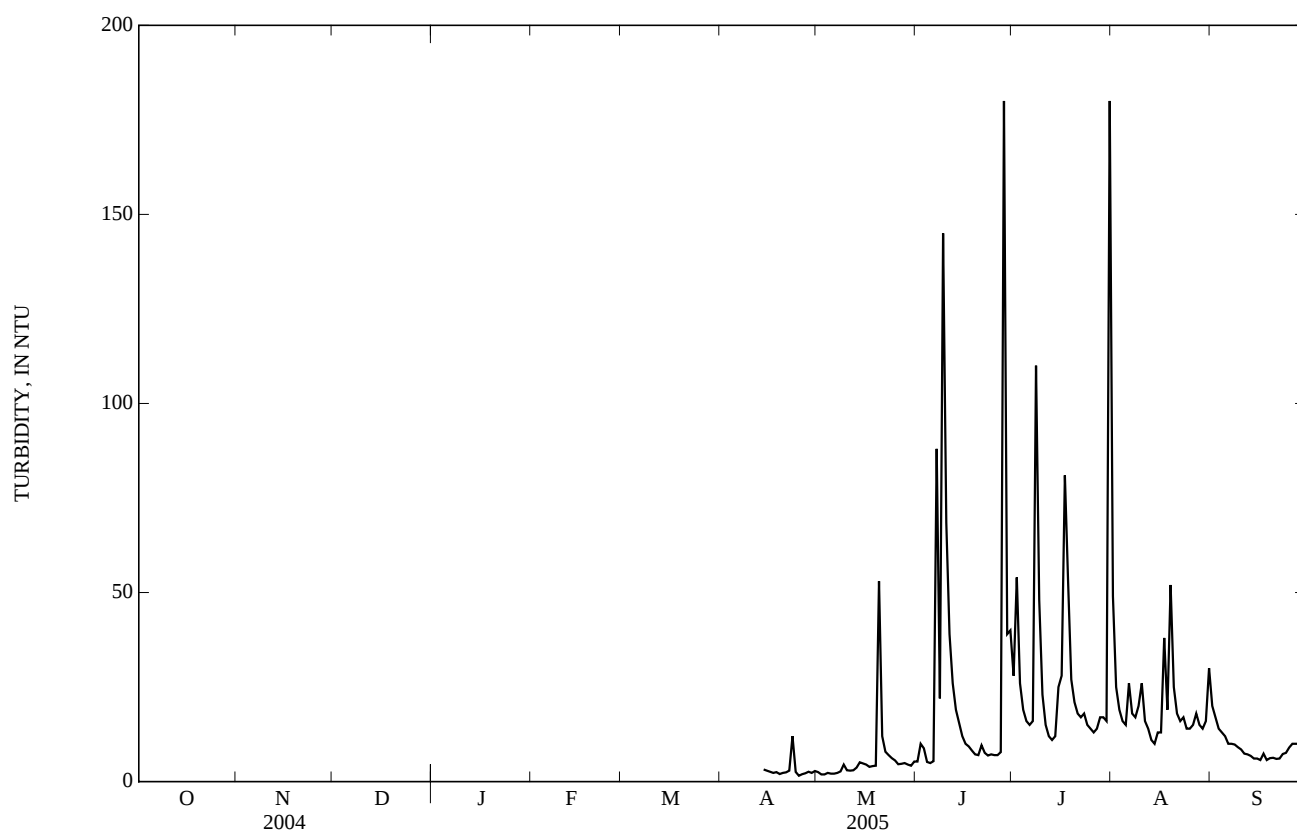
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	7.6	1.6	2.5
2	---	---	---	---	---	---	---	---	---	3.3	1.4	1.9
3	---	---	---	---	---	---	---	---	---	3.2	1.3	1.9
4	---	---	---	---	---	---	---	---	---	5.7	1.6	2.3
5	---	---	---	---	---	---	---	---	---	4.6	1.3	2.1
6	---	---	---	---	---	---	---	---	---	4.5	1.3	2.1
7	---	---	---	---	---	---	---	---	---	5.5	1.4	2.3
8	---	---	---	---	---	---	---	---	---	4.8	1.4	2.7
9	---	---	---	---	---	---	---	---	---	18	0.8	4.5
10	---	---	---	---	---	---	---	---	---	15	1.8	3.0
11	---	---	---	---	---	---	---	---	---	5.0	1.7	2.9
12	---	---	---	---	---	---	---	---	---	6.4	2.1	3.0
13	---	---	---	---	---	---	---	---	---	7.6	2.5	3.7
14	---	---	---	---	---	---	4.5	2.4	3.2	29	3.4	5.1
15	---	---	---	---	---	---	4.7	1.8	2.9	8.3	2.5	4.8
16	---	---	---	---	---	---	3.9	1.7	2.6	5.9	2.8	4.5
17	---	---	---	---	---	---	3.6	1.4	2.3	6.3	2.5	3.9
18	---	---	---	---	---	---	4.0	1.4	2.5	5.6	2.5	4.1
19	---	---	---	---	---	---	5.1	1.4	2.0	6.9	2.3	4.2
20	---	---	---	---	---	---	2.9	1.4	2.3	120	5.7	53
21	---	---	---	---	---	---	6.7	1.6	2.5	36	9.0	12
22	---	---	---	---	---	---	42	1.8	2.9	13	6.0	7.9
23	---	---	---	---	---	---	36	4.4	12	9.9	5.5	7.0
24	---	---	---	---	---	---	5.0	1.7	2.5	8.3	4.2	6.2
25	---	---	---	---	---	---	2.4	1.0	1.6	8.9	4.0	5.6
26	---	---	---	---	---	---	3.0	1.4	1.9	7.1	2.9	4.6
27	---	---	---	---	---	---	3.6	1.4	2.2	7.1	2.6	4.7
28	---	---	---	---	---	---	6.1	1.2	2.6	6.9	3.1	4.9
29	---	---	---	---	---	---	3.5	1.4	2.3	7.7	2.8	4.5
30	---	---	---	---	---	---	6.3	2.3	2.8	11	2.7	4.2
31	---	---	---	---	---	---	---	---	---	8.8	3.3	5.3
MAX	---	---	---	---	---	---	42	4.4	12	120	9.0	53
MIN	---	---	---	---	---	---	2.4	1.0	1.6	3.2	0.8	1.9

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—
CONTINUED

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	13	2.9	5.3	79	20	28	150	26	49	33	12	20
2	28	5.3	10	110	37	54	30	19	25	26	9.9	17
3	17	6.0	8.8	51	20	26	25	16	19	21	8.8	14
4	7.7	3.0	5.2	23	16	19	21	13	16	19	8.0	13
5	7.4	3.1	4.9	23	14	16	21	11	15	18	7.4	12
6	1,330	2.6	5.4	18	13	15	120	14	26	16	6.4	10
7	1,080	31	88	380	14	16	30	12	18	17	6.1	10
8	62	12	22	310	67	110	25	11	17	14	5.2	9.8
9	290	18	140	68	28	48	27	13	20	14	4.9	9.1
10	400	27	68	29	16	23	45	20	26	13	4.9	8.5
11	110	31	39	18	12	15	34	11	16	12	3.7	7.4
12	37	21	26	14	9.9	12	65	8.3	14	12	3.8	7.2
13	23	17	19	14	7.1	11	19	6.4	11	12	3.4	6.8
14	25	14	16	200	9.8	12	18	5.1	10	10	3.1	6.1
15	16	9.9	12	660	16	25	30	5.8	13	22	2.6	6.1
16	13	7.9	10	770	20	28	49	5.9	13	9.9	2.5	5.7
17	17	7.0	9.3	150	46	81	110	25	38	19	3.5	7.4
18	12	6.0	8.2	94	38	53	43	12	19	9.4	2.9	5.7
19	12	4.8	7.2	38	23	27	360	19	52	11	2.9	6.2
20	14	4.4	7.0	24	19	21	49	13	25	21	2.9	6.3
21	33	3.5	9.6	22	14	18	27	10	18	9.0	3.4	6.0
22	33	3.7	7.6	20	12	17	24	10	16	10	3.5	6.1
23	15	3.5	6.9	20	13	18	23	10	17	9.4	3.3	7.3
24	13	4.1	7.2	23	11	15	24	9.5	14	11	3.7	7.6
25	28	4.1	7.0	24	8.3	14	21	8.5	14	11	5.4	9.0
26	10	4.7	7.0	22	7.8	13	20	8.7	15	12	6.6	10
27	1,480	5.1	7.8	41	6.4	14	25	13	18	12	6.8	10
28	470	30	180	23	10	17	22	8.7	15	16	5.9	10
29	71	26	39	25	11	17	20	7.6	14	14	6.1	10
30	58	32	40	22	11	16	150	8.1	16	14	5.8	10
31	---	---	---	350	16	180	150	19	30	---	---	---
MAX	1,480	32	180	770	67	180	360	26	52	33	12	20
MIN	7.4	2.6	4.9	14	6.4	11	18	5.1	10	9.0	2.5	5.7

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued



PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[illegible]

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

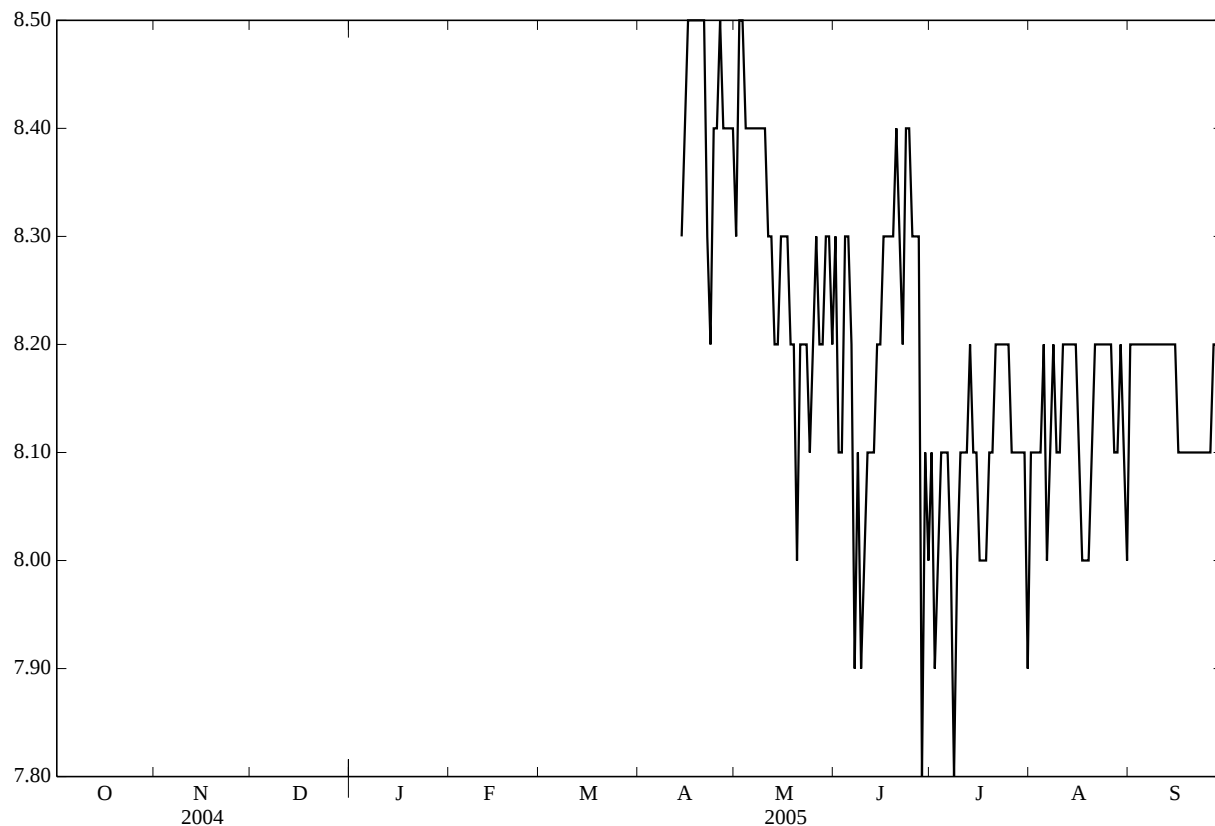
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	8.5	8.3	8.3
2	---	---	---	---	---	---	---	---	---	8.5	8.4	8.5
3	---	---	---	---	---	---	---	---	---	8.5	8.4	8.5
4	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
5	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
6	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
7	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
8	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
9	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
10	---	---	---	---	---	---	---	---	---	8.5	8.2	8.4
11	---	---	---	---	---	---	---	---	---	8.5	8.2	8.3
12	---	---	---	---	---	---	---	---	---	8.5	8.2	8.3
13	---	---	---	---	---	---	---	---	---	8.3	8.2	8.2
14	---	---	---	---	---	---	8.5	8.2	8.3	8.4	8.2	8.2
15	---	---	---	---	---	---	8.5	8.3	8.4	8.4	8.2	8.3
16	---	---	---	---	---	---	8.6	8.3	8.5	8.5	8.2	8.3
17	---	---	---	---	---	---	8.6	8.3	8.5	8.3	8.2	8.3
18	---	---	---	---	---	---	8.6	8.3	8.5	8.4	8.1	8.2
19	---	---	---	---	---	---	8.6	8.3	8.5	8.3	8.1	8.2
20	---	---	---	---	---	---	8.6	8.3	8.5	8.1	7.9	8.0
21	---	---	---	---	---	---	8.5	8.3	8.5	8.3	8.0	8.2
22	---	---	---	---	---	---	8.4	8.2	8.3	8.3	8.0	8.2
23	---	---	---	---	---	---	8.4	8.0	8.2	8.3	8.0	8.2
24	---	---	---	---	---	---	8.5	8.3	8.4	8.2	8.1	8.1
25	---	---	---	---	---	---	8.5	8.3	8.4	8.3	8.1	8.2
26	---	---	---	---	---	---	8.5	8.3	8.5	8.4	8.2	8.3
27	---	---	---	---	---	---	8.6	8.3	8.4	8.4	8.1	8.2
28	---	---	---	---	---	---	8.5	8.3	8.4	8.3	8.1	8.2
29	---	---	---	---	---	---	8.5	8.3	8.4	8.4	8.2	8.3
30	---	---	---	---	---	---	8.5	8.3	8.4	8.4	8.2	8.3
31	---	---	---	---	---	---	---	---	---	8.4	8.1	8.2
MAX	---	---	---	---	---	---	8.6	8.3	8.5	8.5	8.4	8.5
MIN	---	---	---	---	---	---	8.4	8.0	8.2	8.1	7.9	8.0

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.4	8.2	8.3	8.2	8.0	8.1	8.2	7.9	8.1	8.3	8.0	8.2
2	8.2	8.0	8.1	8.1	7.9	7.9	8.2	8.1	8.1	8.3	8.1	8.2
3	8.3	8.0	8.1	8.2	7.9	8.0	8.2	8.0	8.1	8.3	8.1	8.2
4	8.4	8.1	8.3	8.2	8.0	8.1	8.3	8.0	8.1	8.3	8.1	8.2
5	8.4	8.2	8.3	8.2	8.0	8.1	8.3	8.0	8.2	8.3	8.1	8.2
6	8.4	7.8	8.2	8.3	8.1	8.1	8.2	7.9	8.0	8.3	8.1	8.2
7	8.0	7.8	7.9	8.1	7.8	8.0	8.3	7.9	8.1	8.3	8.2	8.2
8	8.2	7.9	8.1	8.0	7.7	7.8	8.3	8.1	8.2	8.3	8.2	8.2
9	8.0	7.8	7.9	8.1	8.0	8.0	8.2	8.0	8.1	8.3	8.2	8.2
10	8.1	7.9	8.0	8.2	8.0	8.1	8.1	8.0	8.1	8.4	8.1	8.2
11	8.1	8.0	8.1	8.2	8.0	8.1	8.3	8.1	8.2	8.3	8.1	8.2
12	8.2	8.1	8.1	8.2	8.0	8.1	8.3	8.1	8.2	8.4	8.2	8.2
13	8.2	8.1	8.1	8.3	8.0	8.2	8.3	8.1	8.2	8.4	8.2	8.2
14	8.3	8.1	8.2	8.3	8.0	8.1	8.3	8.0	8.2	8.3	8.1	8.2
15	8.3	8.2	8.2	8.2	7.8	8.1	8.3	8.0	8.2	8.3	8.1	8.2
16	8.4	8.1	8.3	8.1	7.8	8.0	8.2	8.0	8.1	8.3	8.1	8.1
17	8.4	8.1	8.3	8.1	7.8	8.0	8.1	7.8	8.0	8.3	8.0	8.1
18	8.5	8.2	8.3	8.0	7.9	8.0	8.2	7.9	8.0	8.3	8.0	8.1
19	8.5	8.2	8.3	8.2	8.0	8.1	8.1	7.9	8.0	8.3	8.1	8.1
20	8.5	8.2	8.4	8.2	8.0	8.1	8.2	7.9	8.1	8.3	8.1	8.1
21	8.4	8.0	8.3	8.3	8.1	8.2	8.2	8.0	8.2	8.3	8.1	8.1
22	8.4	8.0	8.2	8.3	8.0	8.2	8.2	8.1	8.2	8.3	8.1	8.1
23	8.5	8.0	8.4	8.2	8.0	8.2	8.3	8.1	8.2	8.3	8.1	8.1
24	8.5	8.1	8.4	8.3	8.0	8.2	8.3	8.1	8.2	8.2	8.0	8.1
25	8.5	8.1	8.3	8.3	8.0	8.2	8.3	8.1	8.2	8.2	8.1	8.1
26	8.5	8.1	8.3	8.2	7.9	8.1	8.3	8.1	8.2	8.2	8.0	8.1
27	8.5	7.7	8.3	8.2	8.0	8.1	8.2	8.1	8.1	8.2	8.1	8.2
28	8.0	7.6	7.8	8.2	7.9	8.1	8.2	8.0	8.1	8.3	8.1	8.2
29	8.1	8.0	8.1	8.2	8.0	8.1	8.3	8.1	8.2	8.3	8.1	8.2
30	8.0	7.9	8.0	8.2	8.0	8.1	8.2	7.9	8.1	8.3	8.2	8.3
31	---	---	---	8.2	7.8	7.9	8.1	7.9	8.0	---	---	---
MAX	8.5	8.2	8.4	8.3	8.1	8.2	8.3	8.1	8.2	8.4	8.2	8.3
MIN	8.0	7.6	7.8	8.0	7.7	7.8	8.1	7.8	8.0	8.2	8.0	8.1

PH, IN STANDARD UNITS



SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[illegible]

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

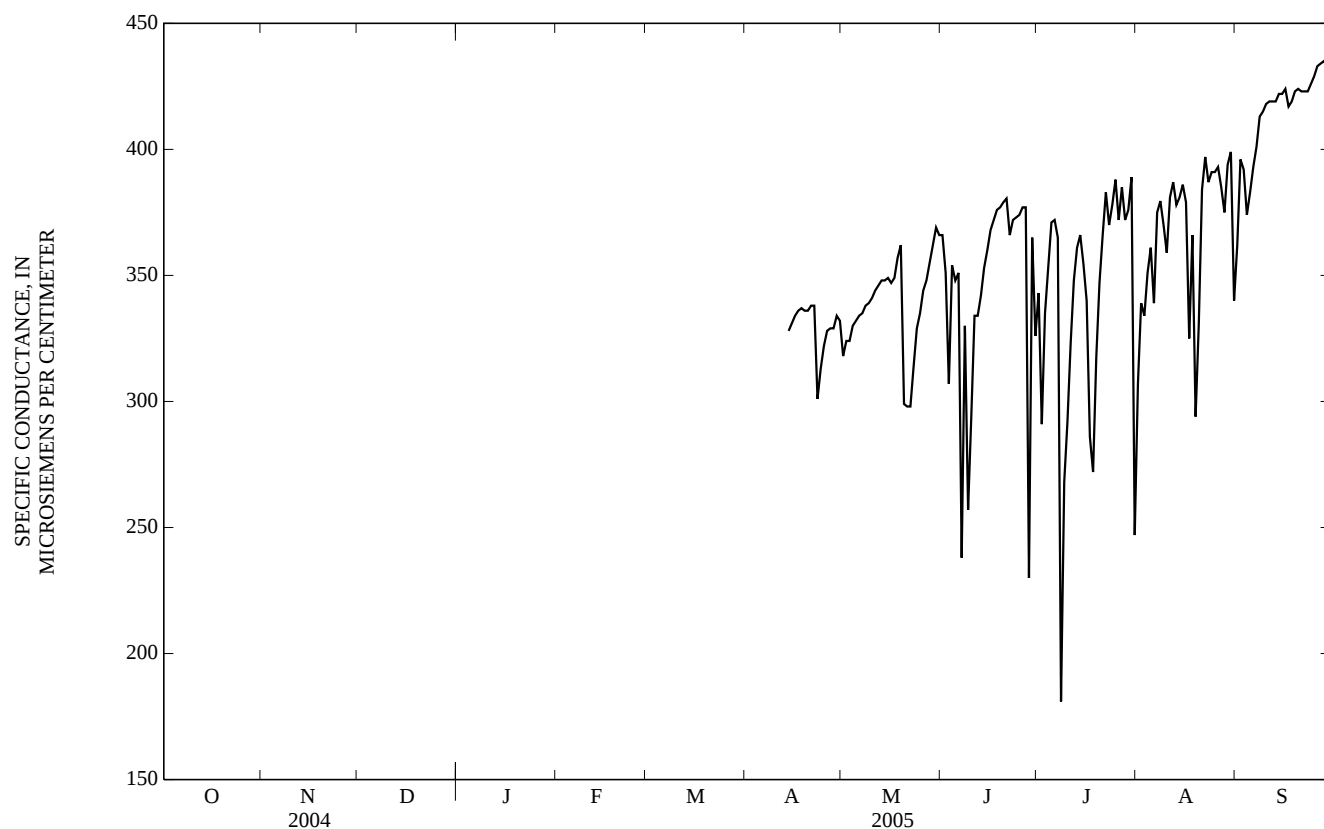
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	326	310	318
2	---	---	---	---	---	---	---	---	---	328	322	324
3	---	---	---	---	---	---	---	---	---	329	322	324
4	---	---	---	---	---	---	---	---	---	333	328	330
5	---	---	---	---	---	---	---	---	---	335	331	332
6	---	---	---	---	---	---	---	---	---	336	333	334
7	---	---	---	---	---	---	---	---	---	339	334	335
8	---	---	---	---	---	---	---	---	---	341	336	338
9	---	---	---	---	---	---	---	---	---	343	337	339
10	---	---	---	---	---	---	---	---	---	344	339	341
11	---	---	---	---	---	---	---	---	---	345	342	344
12	---	---	---	---	---	---	---	---	---	349	344	346
13	---	---	---	---	---	---	---	---	---	350	346	348
14	---	---	---	---	---	---	329	324	328	350	330	348
15	---	---	---	---	---	---	332	328	331	352	343	349
16	---	---	---	---	---	---	336	329	334	352	341	347
17	---	---	---	---	---	---	337	334	336	356	346	349
18	---	---	---	---	---	---	338	336	337	362	355	357
19	---	---	---	---	---	---	338	334	336	366	359	362
20	---	---	---	---	---	---	338	335	336	360	258	299
21	---	---	---	---	---	---	340	336	338	305	285	298
22	---	---	---	---	---	---	340	287	338	307	289	298
23	---	---	---	---	---	---	330	272	301	321	307	314
24	---	---	---	---	---	---	330	306	313	334	321	329
25	---	---	---	---	---	---	324	314	322	344	331	335
26	---	---	---	---	---	---	340	324	328	348	343	344
27	---	---	---	---	---	---	332	325	329	354	346	348
28	---	---	---	---	---	---	336	324	329	359	347	355
29	---	---	---	---	---	---	335	329	334	369	359	362
30	---	---	---	---	---	---	334	315	332	371	366	369
31	---	---	---	---	---	---	---	---	---	370	362	366
MAX	---	---	---	---	---	---	340	336	338	371	366	369
MIN	---	---	---	---	---	---	324	272	301	305	258	298

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	369	364	366	352	305	343	353	252	307	389	327	362
2	370	307	351	326	275	291	354	324	339	402	389	396
3	342	286	307	344	302	335	340	326	334	401	382	392
4	357	342	354	362	343	353	356	340	351	383	369	374
5	355	346	348	373	362	371	365	348	361	389	378	383
6	355	93	351	374	360	372	363	280	339	396	388	393
7	331	106	238	376	172	365	378	325	375	412	394	401
8	339	281	330	266	155	181	384	375	380	415	410	413
9	335	233	257	272	256	268	378	365	370	418	412	415
10	327	198	294	315	271	292	372	322	359	421	414	418
11	360	283	334	340	315	323	387	364	381	422	415	419
12	336	331	334	355	340	348	391	384	387	421	415	419
13	351	332	342	363	349	361	384	374	378	423	417	419
14	359	351	353	370	264	366	391	372	381	426	417	422
15	367	357	360	367	248	354	395	355	386	424	418	422
16	372	365	368	366	160	340	387	355	379	426	421	424
17	375	370	372	322	212	286	363	283	325	426	414	417
18	378	370	376	291	257	272	394	316	366	422	416	419
19	379	376	377	336	288	318	395	252	294	425	419	423
20	384	377	379	358	336	347	371	274	331	427	420	424
21	385	303	380	370	357	366	393	371	384	425	420	423
22	373	308	366	388	370	383	398	393	397	424	419	423
23	375	349	372	378	358	370	395	383	387	424	419	423
24	377	370	373	381	356	378	393	389	391	429	423	426
25	376	373	374	390	381	388	393	386	391	433	428	429
26	380	375	377	384	349	372	396	391	393	435	432	433
27	382	117	377	388	348	385	396	376	385	439	432	434
28	374	197	230	381	357	372	385	370	375	437	432	435
29	383	333	365	389	370	376	400	385	394	435	427	433
30	359	300	326	392	375	389	401	279	399	431	427	429
31	---	---	---	375	204	247	349	280	340	---	---	---
MAX	385	377	380	392	381	389	401	393	399	439	432	435
MIN	327	93	230	266	155	181	340	252	294	383	327	362

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued



TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[illegible]

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

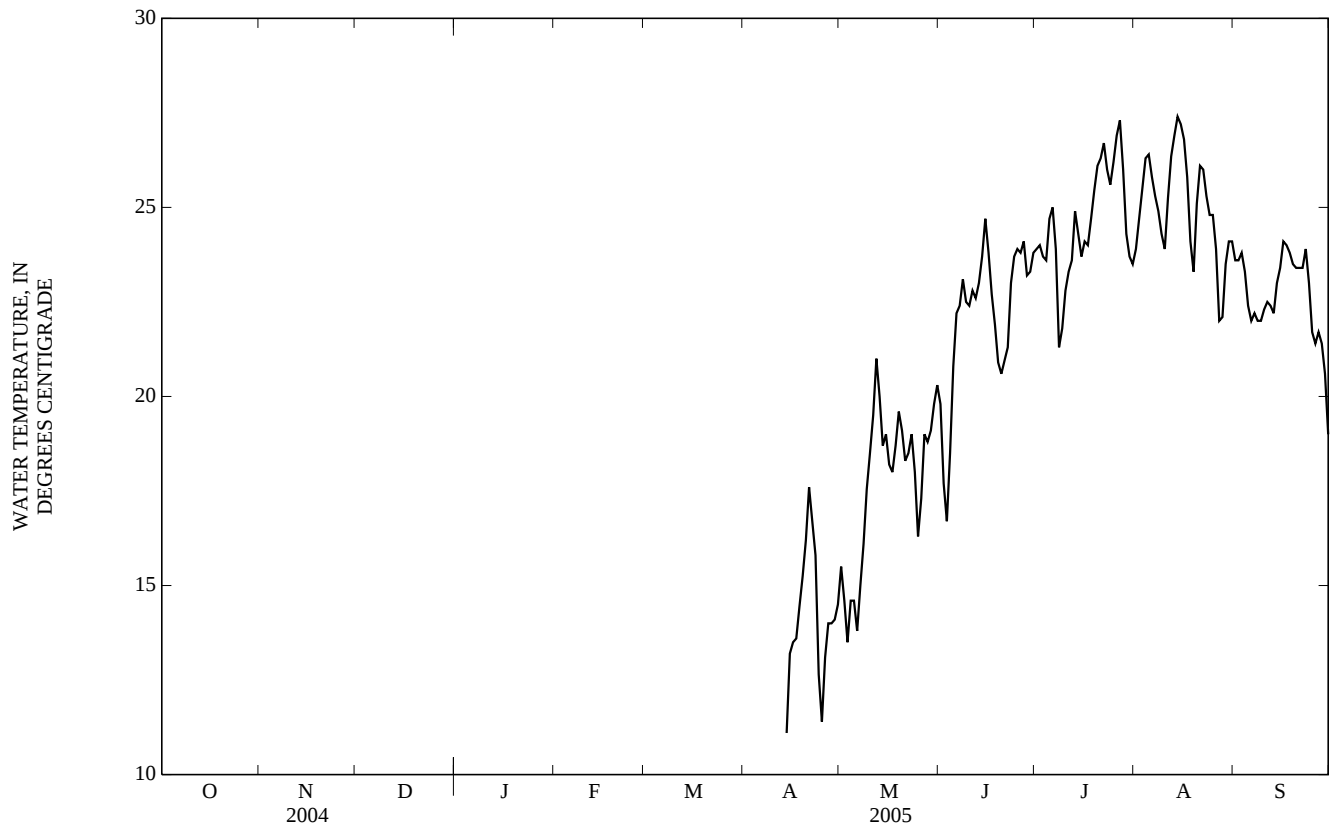
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	16.8	14.5	15.5
2	---	---	---	---	---	---	---	---	---	15.7	13.1	14.6
3	---	---	---	---	---	---	---	---	---	15.1	12.4	13.5
4	---	---	---	---	---	---	---	---	---	16.0	13.8	14.6
5	---	---	---	---	---	---	---	---	---	15.4	13.8	14.6
6	---	---	---	---	---	---	---	---	---	15.0	13.4	13.8
7	---	---	---	---	---	---	---	---	---	16.0	13.6	15.0
8	---	---	---	---	---	---	---	---	---	18.1	14.5	16.1
9	---	---	---	---	---	---	---	---	---	19.4	16.2	17.6
10	---	---	---	---	---	---	---	---	---	20.2	17.1	18.5
11	---	---	---	---	---	---	---	---	---	21.3	17.9	19.5
12	---	---	---	---	---	---	---	---	---	22.5	19.6	21.0
13	---	---	---	---	---	---	---	---	---	21.0	18.4	20.0
14	---	---	---	---	---	---	13.1	10.0	11.1	20.4	17.4	18.7
15	---	---	---	---	---	---	14.1	12.2	13.2	19.4	18.3	19.0
16	---	---	---	---	---	---	14.0	12.2	13.5	19.7	17.1	18.2
17	---	---	---	---	---	---	14.3	12.5	13.6	19.3	17.6	18.0
18	---	---	---	---	---	---	15.2	13.7	14.4	20.6	17.3	18.7
19	---	---	---	---	---	---	16.2	14.3	15.2	20.6	19.1	19.6
20	---	---	---	---	---	---	17.5	15.4	16.2	20.1	18.4	19.1
21	---	---	---	---	---	---	18.5	16.9	17.6	19.2	17.1	18.3
22	---	---	---	---	---	---	17.9	16.1	16.7	20.0	17.6	18.5
23	---	---	---	---	---	---	16.2	14.9	15.8	20.5	17.9	19.0
24	---	---	---	---	---	---	14.9	11.0	12.7	18.9	16.4	18.0
25	---	---	---	---	---	---	12.9	10.3	11.4	16.8	15.6	16.3
26	---	---	---	---	---	---	13.8	12.5	13.1	19.5	15.8	17.3
27	---	---	---	---	---	---	15.2	13.4	14.0	20.6	18.0	19.0
28	---	---	---	---	---	---	14.8	13.0	14.0	19.7	18.1	18.8
29	---	---	---	---	---	---	14.4	13.7	14.1	20.7	17.6	19.1
30	---	---	---	---	---	---	15.2	14.2	14.5	21.6	18.4	19.8
31	---	---	---	---	---	---	---	---	---	21.8	19.3	20.3
MAX	---	---	---	---	---	---	18.5	16.9	17.6	22.5	19.6	21.0
MIN	---	---	---	---	---	---	12.9	10.0	11.1	15.0	12.4	13.5

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.6	19.2	19.8	25.7	23.0	23.9	25.3	22.8	23.9	24.5	22.1	23.6
2	19.2	16.7	17.7	24.8	23.3	24.0	26.5	23.6	24.7	25.1	21.9	23.6
3	17.5	16.4	16.7	24.5	23.1	23.7	27.3	24.1	25.5	24.9	21.6	23.8
4	20.4	17.1	18.5	24.7	23.0	23.6	27.8	24.7	26.3	24.2	21.6	23.3
5	22.6	19.2	20.8	25.7	23.4	24.7	28.0	24.8	26.4	23.1	20.9	22.4
6	25.0	21.0	22.2	26.2	23.9	25.0	27.4	24.8	25.8	23.4	20.5	22.0
7	23.4	21.6	22.4	25.0	21.6	23.9	26.0	24.5	25.3	23.3	19.8	22.2
8	24.4	21.8	23.1	22.0	20.4	21.3	25.9	23.9	24.9	23.0	19.6	22.0
9	23.2	22.0	22.5	22.9	20.7	21.8	24.9	23.8	24.3	23.1	19.7	22.0
10	23.4	21.7	22.4	24.4	21.9	22.8	25.8	23.2	23.9	23.3	20.4	22.3
11	23.6	22.0	22.8	24.0	22.7	23.3	26.8	24.1	25.2	23.5	20.9	22.5
12	23.1	22.1	22.6	25.0	22.8	23.6	27.8	24.7	26.4	23.5	20.3	22.4
13	23.8	22.2	23.0	26.3	23.9	24.9	28.4	25.2	26.9	23.4	20.3	22.2
14	25.9	22.1	23.7	24.8	23.9	24.3	28.8	25.6	27.4	24.0	22.0	23.0
15	26.4	24.1	24.7	24.5	23.3	23.7	28.6	25.7	27.2	25.0	21.9	23.4
16	24.9	23.0	23.8	25.2	23.2	24.1	28.1	25.6	26.8	25.1	22.7	24.1
17	24.0	21.3	22.7	25.2	23.4	24.0	26.4	24.7	25.8	25.2	22.3	24.0
18	22.7	20.7	21.9	25.8	24.0	24.7	25.2	23.7	24.1	24.7	22.3	23.8
19	21.4	20.1	20.9	27.0	24.1	25.4	24.3	22.5	23.3	24.6	22.0	23.5
20	21.5	20.0	20.6	27.4	25.0	26.1	26.1	23.3	25.1	24.6	22.2	23.4
21	22.0	19.2	20.9	28.0	25.2	26.3	27.6	24.7	26.1	25.1	21.9	23.4
22	22.6	20.5	21.3	27.9	25.7	26.7	27.0	24.5	26.0	24.8	22.3	23.4
23	24.8	21.0	23.0	27.6	25.0	26.0	25.9	24.1	25.3	25.3	22.5	23.9
24	25.4	21.9	23.7	26.9	24.4	25.6	26.0	23.6	24.8	24.1	22.4	23.0
25	25.0	22.5	23.9	28.0	24.5	26.2	25.8	23.2	24.8	22.4	21.4	21.7
26	25.3	22.6	23.8	28.4	25.0	26.9	24.8	22.7	23.9	21.8	21.2	21.4
27	26.7	22.6	24.1	29.0	25.9	27.3	23.3	21.6	22.0	23.5	20.2	21.7
28	23.9	22.7	23.2	27.1	25.1	26.0	24.3	21.2	22.1	22.2	19.8	21.4
29	24.7	22.4	23.3	25.1	23.8	24.3	24.8	22.3	23.5	22.0	19.5	20.6
30	25.0	22.6	23.8	24.4	23.2	23.7	24.8	23.3	24.1	20.3	17.7	19.0
31	---	---	---	24.2	23.0	23.5	24.7	23.6	24.1	---	---	---
MAX	26.7	24.1	24.7	29.0	25.9	27.3	28.8	25.7	27.4	25.3	22.7	24.1
MIN	17.5	16.4	16.7	22.0	20.4	21.3	23.3	21.2	22.0	20.3	17.7	19.0

02055080 ROANOKE RIVER AT THIRTEENTH STREET BRIDGE AT ROANOKE, VA—Continued



02055100 TINKER CREEK NEAR DALEVILLE, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1956 - 2005	
ANNUAL TOTAL	5,790.5		5,360.3		12.3	
ANNUAL MEAN	15.8		14.7		28.6	
HIGHEST ANNUAL MEAN					1.96	
LOWEST ANNUAL MEAN					2,560	
HIGHEST DAILY MEAN	577	Sep 28	170	Mar 28		Nov 4, 1985
LOWEST DAILY MEAN	3.0	Jul 31	4.3	aSep 12	0.41	bAug 7, 2002
ANNUAL SEVEN-DAY MINIMUM	3.4	Jul 25	4.4	Sep 9	0.42	Aug 7, 2002
MAXIMUM PEAK FLOW			702	Mar 28	10,400	Nov 4, 1985
MAXIMUM PEAK STAGE			5.52	Mar 28	c13.36	Nov 4, 1985
INSTANTANEOUS LOW FLOW			3.8	Jun 27	d0.20	Jan 24, 1961
ANNUAL RUNOFF (CFSM)	1.35		1.26		1.05	
ANNUAL RUNOFF (INCHES)	18.41		17.04		14.32	
10 PERCENT EXCEEDS	24		23		24	
50 PERCENT EXCEEDS	12		13		7.0	
90 PERCENT EXCEEDS	4.4		5.3		2.4	

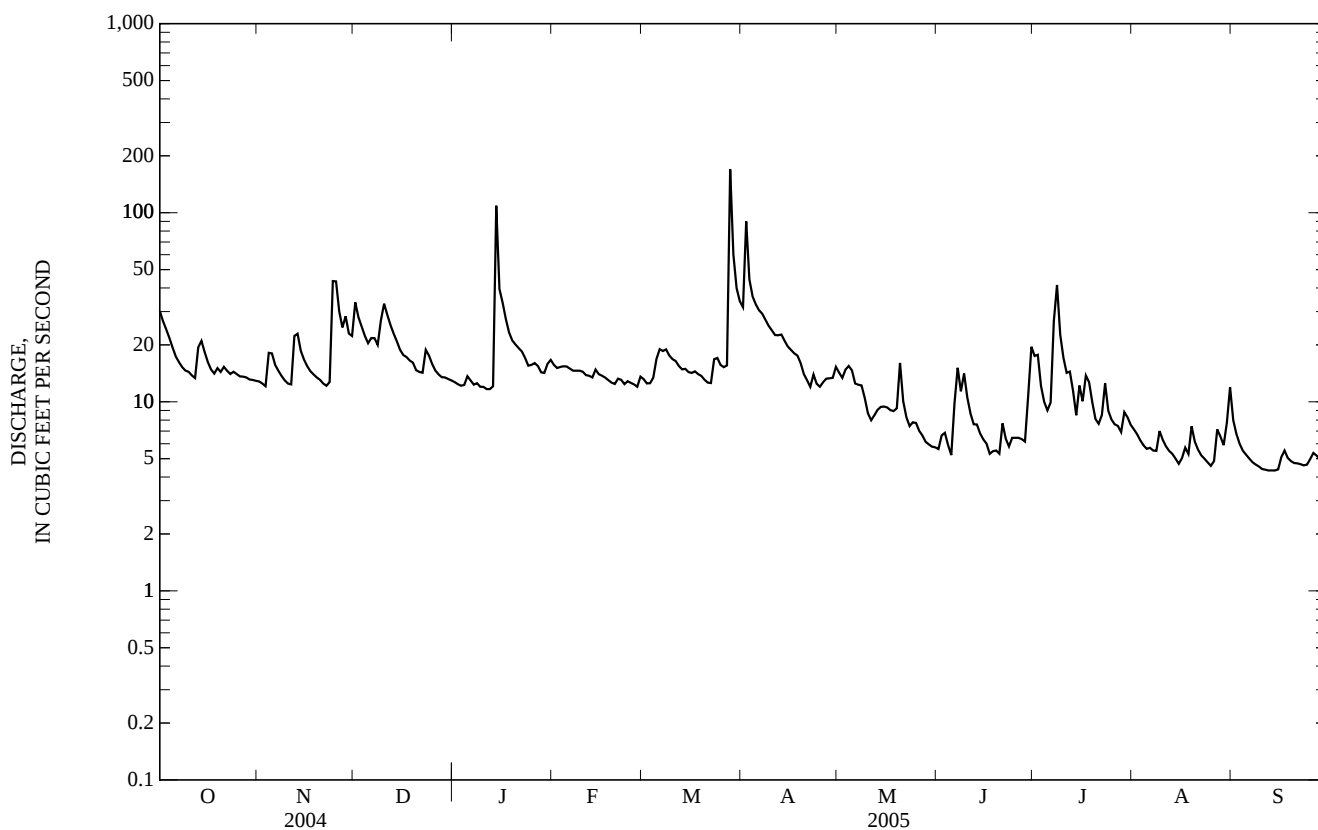
a Also Sept. 13, 14, 2005

b Also Aug. 10, 13, 14, 2002.

c From floodmarks.

d Result of freezeup.

e Estimated.



02056000 ROANOKE RIVER AT NIAGARA, VA

LOCATION.--Lat 37°15'18", long 79°52'17", NAD83, Roanoke County, Hydrologic Unit 03010101, on right bank 200 ft downstream from powerplant of American Electric Power at Niagara, 2 mi downstream from Tinker Creek, 2.1 mi southeast of Vinton, and at mile 355.3.

DRAINAGE AREA.--512 mi².

PERIOD OF RECORD.--July 1926 to current year.

REVISED RECORDS.--WSP 972: 1927(M), 1929(M), 1934(M), 1937(M). WSP 1303: 1928, 1930, 1933-38, 1940. WSP 2104: Drainage area. WDR VA-72-1: 1928(M), 1930(M), 1933(M), 1935-36(M), 1938(M), 1940, 1944-45(M), 1948-49(M), 1951(M), 1955(M), 1960(M), 1967(M), 1969(M).

GAGE.--Water-stage recorder. Datum of gage is 820.15 ft NGVD of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Flow regulated by dam and powerplant 200 ft upstream from station. Maximum discharge, 52,300 ft³/s, from rating curve extended above 12,000 ft³/s on basis of slope-area measurements at gage heights 18.98 ft and 25.30 ft. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 25	0530	4,770	8.79	Apr 2	1030	3,610	7.81
Jan 14	1300	5,860	9.61	Jun 6	2215	3,580	7.78
Mar 28	1830	*9,010	*11.53				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,350	388	1,160	441	528	596	1,440	483	285	440	369	241
2	1,060	375	1,150	429	526	539	2,670	436	392	516	308	215
3	884	368	1,020	415	544	513	2,360	415	398	303	262	207
4	764	588	899	405	560	536	1,700	418	338	271	231	190
5	654	688	797	412	569	663	1,340	398	304	264	245	188
6	582	647	824	405	567	873	1,130	383	597	252	349	170
7	529	574	1,050	391	558	891	1,010	382	590	628	258	181
8	478	524	979	416	558	1,000	966	374	491	1,370	242	177
9	442	481	1,090	404	577	1,000	869	365	565	559	263	175
10	433	445	1,610	384	587	887	771	353	727	393	287	170
11	408	418	1,560	381	562	800	714	339	494	340	243	169
12	391	798	1,280	382	530	732	688	345	405	319	232	169
13	881	1,380	1,100	379	508	693	709	320	356	287	226	184
14	1,000	1,020	941	4,010	572	717	666	366	348	340	204	164
15	713	823	818	2,400	571	684	604	367	312	494	281	159
16	588	707	728	1,490	544	678	562	350	281	660	318	219
17	520	637	689	1,140	534	742	541	327	259	613	306	178
18	473	587	650	878	517	730	529	300	248	419	241	161
19	505	557	619	764	493	715	515	325	246	332	443	158
20	481	521	579	737	481	704	513	663	240	325	267	158
21	489	486	520	695	523	673	493	489	278	289	244	156
22	463	457	544	632	549	622	581	386	250	269	226	155
23	443	571	972	602	523	802	663	368	233	290	218	155
24	456	1,560	858	503	516	1,140	526	356	232	280	205	153
25	457	3,630	690	541	535	1,040	485	341	226	279	205	153
26	439	1,820	616	520	507	955	467	319	224	261	197	157
27	422	1,260	569	516	489	873	455	299	537	257	273	159
28	432	1,220	510	468	564	5,700	453	291	491	268	220	161
29	424	974	488	441	---	5,160	443	272	350	271	221	159
30	419	870	475	537	---	2,620	503	275	379	259	292	154
31	399	---	457	543	---	1,820	---	293	---	538	336	---
TOTAL	17,979	25,374	26,242	22,661	15,092	36,098	25,366	11,398	11,076	12,386	8,212	5,195
MEAN	580	846	847	731	539	1,164	846	368	369	400	265	173
MAX	1,350	3,630	1,610	4,010	587	5,700	2,670	663	727	1,370	443	241
MIN	391	368	457	379	481	513	443	272	224	252	197	153
CFSM	1.13	1.65	1.65	1.43	1.05	2.27	1.65	0.72	0.72	0.78	0.52	0.34
IN.	1.31	1.84	1.91	1.65	1.10	2.62	1.84	0.83	0.80	0.90	0.60	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2005, BY WATER YEAR (WY)

	345	372	474	620	773	895	826	569	432	300	337	333
MEAN	345	372	474	620	773	895	826	569	432	300	337	333
MAX	1,722	2,100	2,065	1,941	2,805	2,846	3,661	1,600	1,859	1,396	2,456	2,051
(WY)	(1938)	(1986)	(1949)	(1937)	(1998)	(1993)	(1987)	(2003)	(2003)	(1949)	(1940)	(1928)
MIN	86.0	101	115	110	117	210	157	193	135	109	92.2	84.0
(WY)	(1931)	(1942)	(1966)	(1966)	(1934)	(1981)	(1942)	(1930)	(1999)	(1930)	(1956)	(1954)

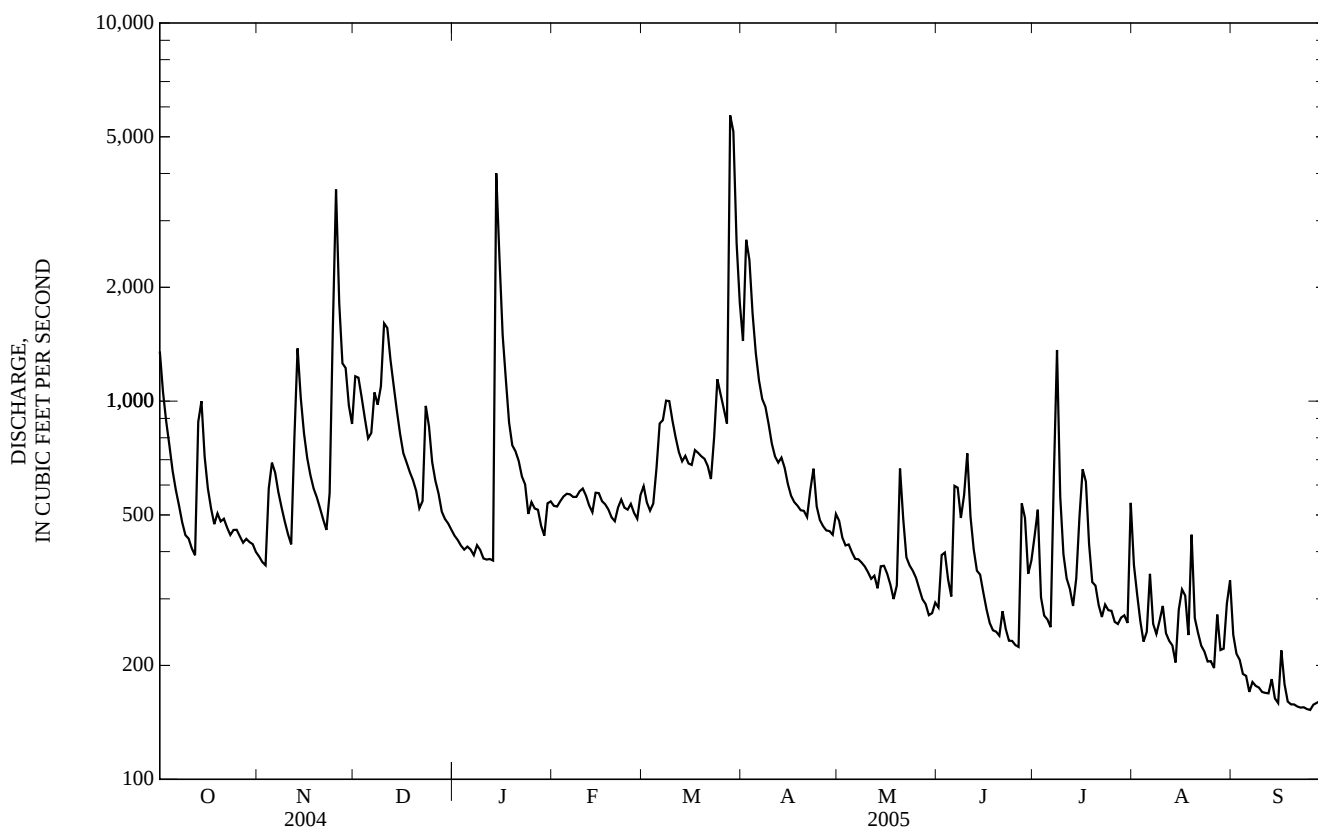
02056000 ROANOKE RIVER AT NIAGARA, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1927 - 2005	
ANNUAL TOTAL	250,642		217,079		522	
ANNUAL MEAN	685		595		984	
HIGHEST ANNUAL MEAN					176	
LOWEST ANNUAL MEAN					19,700	
HIGHEST DAILY MEAN	16,800	Sep 28	5,700	Mar 28	Nov 4, 1985	
LOWEST DAILY MEAN	134	Sep 1	153	aSep 24	Oct 9, 1954	
ANNUAL SEVEN-DAY MINIMUM	163	Aug 31	155	Sep 20	Jan 28, 1966	
MAXIMUM PEAK FLOW			9,010	Mar 28	Nov 4, 1985	
MAXIMUM PEAK STAGE			11.53	Mar 28	b25.30	Nov 4, 1985
INSTANTANEOUS LOW FLOW			37	Sep 6	1.0	cOct 16, 1956
ANNUAL RUNOFF (CFSM)	1.34		1.16		1.02	
ANNUAL RUNOFF (INCHES)	18.21		15.77		13.84	
10 PERCENT EXCEEDS	1,020		1,000		985	
50 PERCENT EXCEEDS	472		486		309	
90 PERCENT EXCEEDS	237		223		136	

a Also Sept. 25, 2005

b From floodmark.

c Also Oct. 20, 1956, and Nov. 25, 26, 1990.



02056650 BACK CREEK NEAR DUNDEE, VA

LOCATION.--Lat 37°13'40", long 79°52'05", NAD83, Roanoke County, Hydrologic Unit 03010101, on right bank 65 ft upstream from bridge on State Highway 660, 0.9 mi upstream from Horseshoe Branch, 1.1 mi southeast of Dundee, 2.8 mi west of Hardy Post Office, and at mile 2.4.

DRAINAGE AREA.--56.8 mi².

PERIOD OF RECORD.--July 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 822.67 ft NGVD of 1929. Prior to Apr. 4, 1975, nonrecording gage, and Apr. 4, 1975, to Nov. 4, 1985, water-stage recorder, at site 80 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 20,000 ft³/s, from rating curve extended above 5,900 ft³/s on basis of slope-area measurement of peak flow. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 30, 1971, and Jun. 21, 1972, reached a stage of 17.5 ft and 20.0 ft, respectively, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 24	2315	692	5.58	Apr 2	1100	785	5.80
Dec 23	1500	1,200	6.73	Jul 15	0200	1,030	6.34
Jan 14	0445	1,110	6.52	Jul 31	0900	1,660	7.69
Mar 28	1130	*1,930	*8.18				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	44	128	75	69	65	163	71	37	31	125	28
2	130	44	109	72	66	60	431	64	65	29	68	22
3	107	44	100	70	69	59	274	61	88	27	50	20
4	92	65	89	69	71	64	196	59	61	28	40	18
5	77	73	82	68	69	101	159	58	49	27	35	17
6	68	58	86	66	66	134	139	57	62	25	38	17
7	62	55	89	63	66	130	130	57	70	53	47	16
8	57	51	80	69	67	145	127	56	57	190	35	15
9	54	47	103	63	68	125	119	54	137	51	51	15
10	52	45	161	61	68	109	106	52	154	37	61	14
11	48	44	135	60	63	98	100	51	120	33	38	14
12	47	112	113	61	61	91	96	50	72	36	31	13
13	96	130	100	59	60	83	99	50	61	41	28	13
14	131	90	87	e520	73	91	91	57	54	47	26	13
15	79	76	78	e180	65	80	85	57	45	254	24	13
16	65	69	73	136	61	79	79	49	41	72	24	13
17	57	63	70	e109	59	93	77	45	37	81	27	18
18	51	59	67	e92	55	97	77	44	36	47	24	14
19	55	56	66	e88	54	90	75	46	35	38	48	13
20	52	54	61	e85	53	86	73	55	35	33	30	12
21	54	51	e56	82	63	81	74	46	35	30	28	13
22	51	49	e58	76	60	76	88	42	35	28	23	12
23	e50	88	405	e72	56	108	123	43	32	36	24	12
24	e51	281	237	e70	58	187	85	43	30	27	22	12
25	e52	347	144	e72	58	136	77	44	29	25	21	12
26	54	183	116	68	55	121	72	40	28	25	20	15
27	50	135	101	67	53	113	71	38	30	23	24	16
28	48	159	89	58	67	822	67	37	55	32	26	13
29	48	116	85	63	---	459	68	36	33	30	22	12
30	47	103	82	73	---	262	74	35	32	27	28	11
31	46	---	78	78	---	198	---	41	---	460	59	---
TOTAL	2,100	2,791	3,328	2,845	1,753	4,443	3,495	1,538	1,655	1,923	1,147	446
MEAN	67.7	93.0	107	91.8	62.6	143	116	49.6	55.2	62.0	37.0	14.9
MAX	169	347	405	520	73	822	431	71	154	460	125	28
MIN	46	44	56	58	53	59	67	35	28	23	20	11
CFSM	1.19	1.64	1.89	1.62	1.10	2.52	2.05	0.87	0.97	1.09	0.65	0.26
IN.	1.38	1.83	2.18	1.86	1.15	2.91	2.29	1.01	1.08	1.26	0.75	0.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

MEAN	33.2	48.1	49.5	65.4	80.9	105	109	65.8	55.4	31.7	27.7	46.3
MAX	154	292	117	146	317	265	396	190	221	150	121	314
(WY)	(1977)	(1986)	(1987)	(1996)	(1998)	(1993)	(1987)	(1978)	(2003)	(2003)	(1985)	(1979)
MIN	5.61	6.58	11.4	11.6	12.6	20.5	22.4	20.8	6.16	6.96	3.47	5.03
(WY)	(1992)	(1982)	(1999)	(1981)	(2002)	(1981)	(1981)	(1981)	(2002)	(1981)	(1981)	(1998)

02056650 BACK CREEK NEAR DUNDEE, VA—Continued

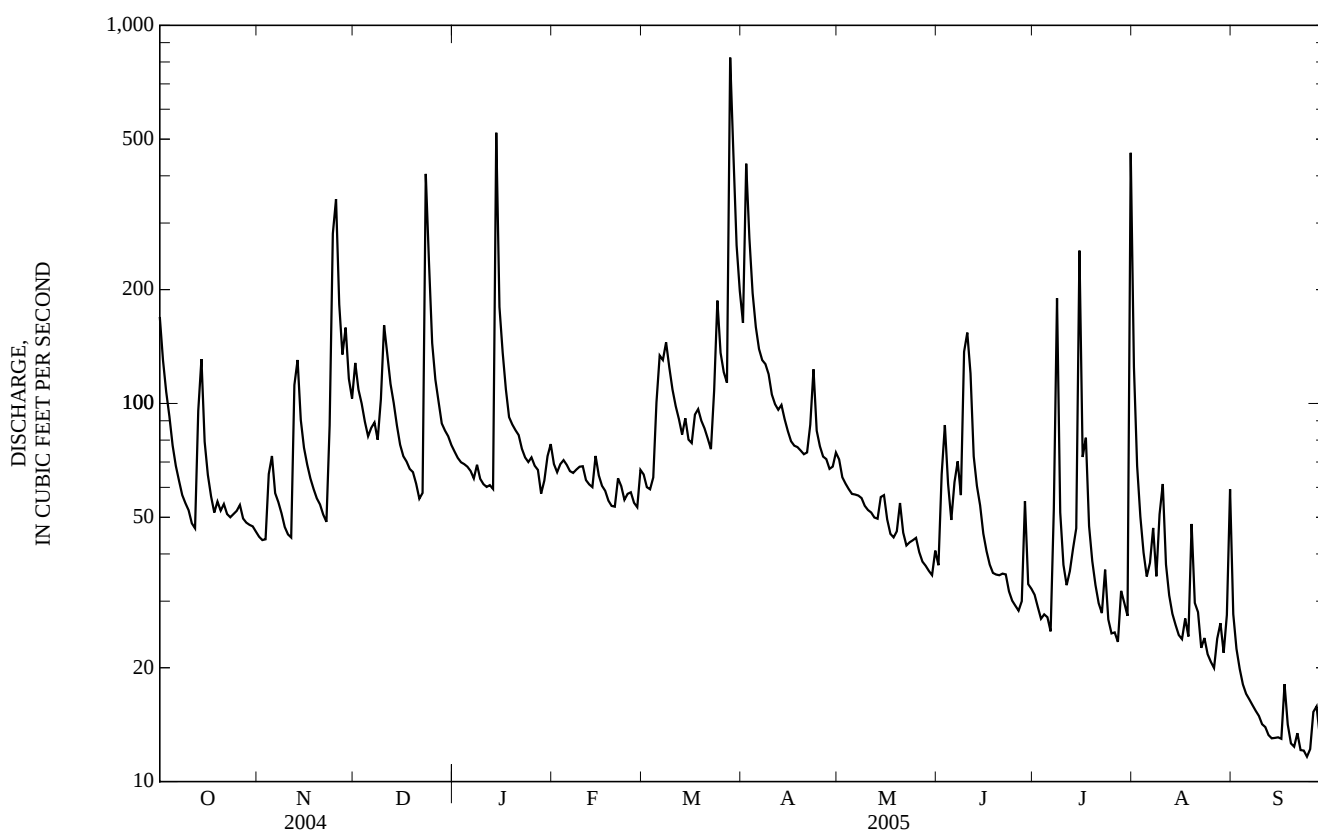
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	30,844		27,464		59.7	
ANNUAL MEAN	84.3		75.2		110	
HIGHEST ANNUAL MEAN					14.2	
LOWEST ANNUAL MEAN					4,000	
HIGHEST DAILY MEAN	2,760	Sep 28	822	Mar 28	Nov 4, 1985	
LOWEST DAILY MEAN	11	Aug 1	11	Sep 30	0.32	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	13	Jul 26	12	Sep 19	0.59	Aug 8, 2002
MAXIMUM PEAK FLOW			1,930	Mar 28	20,000	Nov 4, 1985
MAXIMUM PEAK STAGE			8.18	Mar 28	a25.10	Nov 4, 1985
INSTANTANEOUS LOW FLOW			11	bSep 22	0.24	cAug 14, 2002
ANNUAL RUNOFF (CFSM)	1.48		1.32		1.05	
ANNUAL RUNOFF (INCHES)	20.20		17.99		14.29	
10 PERCENT EXCEEDS	124		130		115	
50 PERCENT EXCEEDS	54		60		33	
90 PERCENT EXCEEDS	19		24		9.3	

a From floodmark, present site.

b Also Sept. 23-25, 29, 30, 2005.

c Also Aug. 15, 2002.

e Estimated.



02056900 BLACKWATER RIVER NEAR ROCKY MOUNT, VA

LOCATION.--Lat 37°02'43", long 79°50'39", NAD83, Franklin County, Hydrologic Unit 03010101, on right bank 45 ft downstream from bridge on State Highway 122, 3.0 mi northeast of Rocky Mount, and 4.1 mi upstream from Maggodee Creek.

DRAINAGE AREA.--115 mi².

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 876.45 ft NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. American Electric Power gage-height transmitter at station with recorder at Roanoke. Maximum discharge, 20,800 ft³/s, from rating curve extended above 7,000 ft³/s on basis of slope-area measurement of peak flow. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location by the Virginia Department of Environmental Quality - Water Division.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0930	*3,170	*8.94	Apr 2	1130	1,850	6.58
Mar 28	1230	2,760	8.24				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	331	103	239	162	160	156	277	145	81	61	166	63
2	254	102	213	155	152	141	928	134	106	57	93	49
3	211	100	196	150	154	137	539	131	153	55	74	45
4	186	115	182	147	159	143	391	127	120	63	64	41
5	165	151	172	145	152	183	325	124	101	64	58	39
6	152	119	185	142	147	229	286	125	93	57	55	38
7	142	112	210	139	144	214	260	123	93	61	54	36
8	134	108	182	154	143	232	255	121	92	263	54	35
9	128	102	197	147	143	207	234	116	95	94	57	34
10	124	100	403	137	142	186	213	114	187	69	76	32
11	116	99	278	133	135	175	202	112	147	60	67	31
12	113	160	233	132	132	170	195	111	126	58	54	31
13	192	283	208	130	131	162	196	112	112	63	51	30
14	254	172	187	1,380	150	190	189	121	100	67	48	29
15	152	150	173	493	147	176	178	119	87	599	45	29
16	131	140	165	320	138	168	168	117	77	232	47	30
17	120	132	161	257	134	195	165	106	72	146	56	35
18	111	126	156	e210	129	209	163	107	69	106	52	36
19	112	122	152	e200	125	188	161	104	69	88	51	30
20	119	120	137	192	125	178	156	131	68	78	53	33
21	115	116	e130	190	142	169	151	119	70	70	47	36
22	115	111	147	177	142	160	160	103	66	66	43	30
23	120	269	413	e162	132	201	208	99	62	71	122	29
24	123	609	497	e135	134	279	161	97	58	61	97	28
25	127	788	303	e165	138	222	153	100	56	57	58	28
26	117	382	244	e155	130	209	147	94	55	55	50	33
27	113	281	214	e150	127	203	147	89	53	55	49	37
28	114	353	191	e138	153	1,200	142	87	57	64	53	35
29	112	251	183	e135	---	727	143	86	61	65	50	30
30	111	218	176	162	---	428	151	83	76	66	48	29
31	106	---	168	188	---	328	---	81	---	167	86	---
TOTAL	4,520	5,994	6,695	6,682	3,940	7,765	7,044	3,438	2,662	3,138	1,978	1,041
MEAN	146	200	216	216	141	250	235	111	88.7	101	63.8	34.7
MAX	331	788	497	1,380	160	1,200	928	145	187	599	166	63
MIN	106	99	130	130	125	137	142	81	53	55	43	28
CFSM	1.27	1.74	1.88	1.87	1.22	2.18	2.04	0.96	0.77	0.88	0.55	0.30
IN.	1.46	1.94	2.17	2.16	1.27	2.51	2.28	1.11	0.86	1.02	0.64	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1977	94.3	544	(1977)	17.3	(2002)
1978	115	584	(1986)	21.9	(2002)
1979	115	272	(1997)	34.2	(2002)
1980	150	349	(1996)	42.0	(2002)
1981	165	495	(1998)	39.6	(2002)
1982	214	585	(1993)	60.1	(1981)
1983	230	821	(1987)	56.2	(2002)
1984	136	346	(1978)	53.6	(1981)
1985	123	416	(1992)	17.1	(2002)
1986	82.2	261	(1989)	24.6	(1977)
1987	71.0	248	(2003)	12.4	(1981)
1988	101	375	(1979)	23.0	(1983)

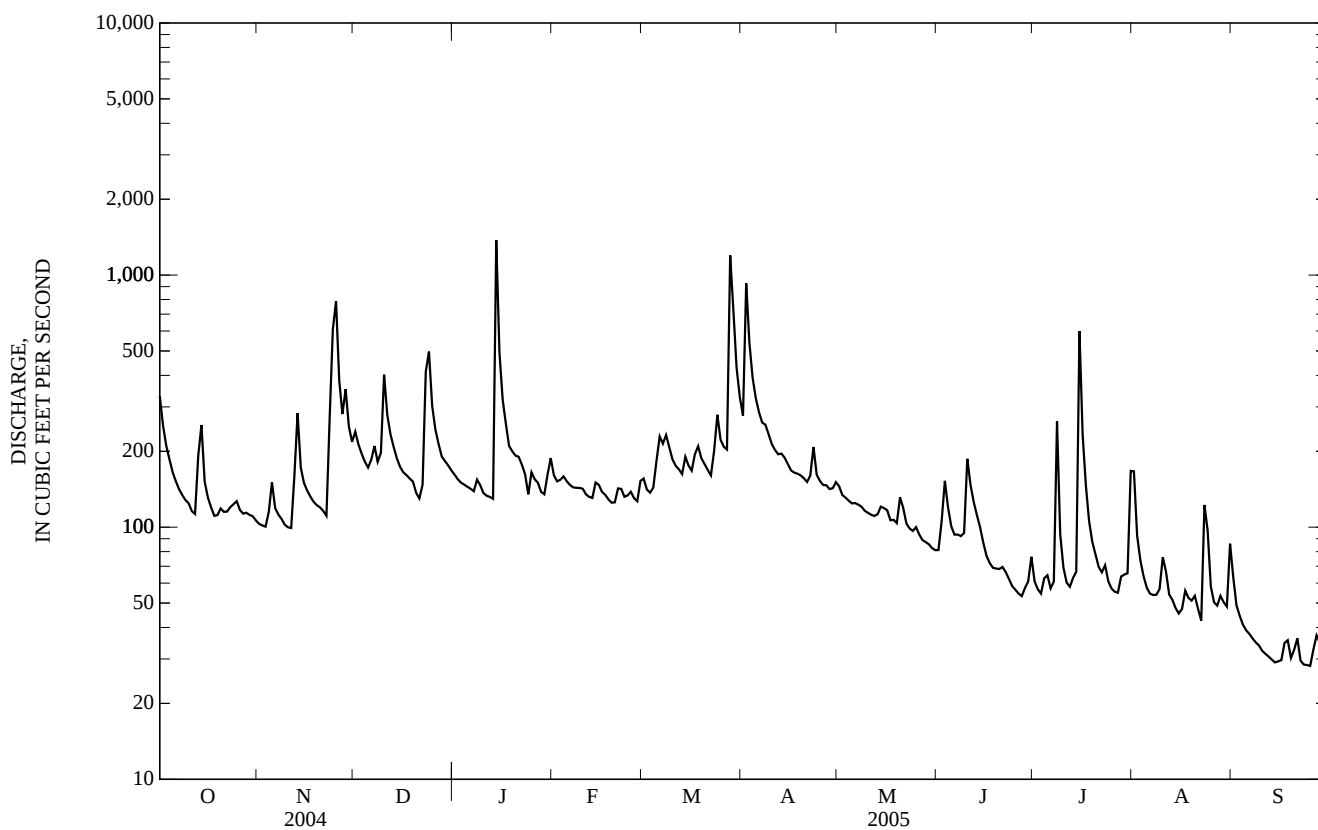
02056900 BLACKWATER RIVER NEAR ROCKY MOUNT, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	60,516		54,897		133	
ANNUAL MEAN	165		150		234	
HIGHEST ANNUAL MEAN					37.1	
LOWEST ANNUAL MEAN					5,410	
HIGHEST DAILY MEAN	3,010	Sep 28	1,380	Jan 14	20,800	Nov 5, 1985
LOWEST DAILY MEAN	37	Sep 5	28	aSep 24	3.8	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	39	Aug 31	30	Sep 10	4.6	Aug 9, 2002
MAXIMUM PEAK FLOW			3,170	Jan 14	21.92	Nov 5, 1985
MAXIMUM PEAK STAGE			8.94	Jan 14	3.2	bAug 13, 2002
INSTANTANEOUS LOW FLOW			26	Sep 24	1.15	
ANNUAL RUNOFF (CFSM)	1.44		1.31		15.66	
ANNUAL RUNOFF (INCHES)	19.58		17.76		230	
10 PERCENT EXCEEDS	241		241		86	
50 PERCENT EXCEEDS	122		131		32	
90 PERCENT EXCEEDS	57		50			

a Also Sept. 25, 2005.

b Also Aug. 14, 2002.

e Estimated.



02058400 PIGG RIVER NEAR SANDY LEVEL, VA

LOCATION.--Lat 36°56'46", long 79°31'29", NAD83, Pittsylvania County, Hydrologic Unit 03010101, on left bank 300 ft downstream from Harpen Creek, 0.5 mi upstream from bridge on State Highway 40, and 1.1 mi south of Sandy Level.

DRAINAGE AREA.--350 mi².

PERIOD OF RECORD.--May 1963 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 617.00 ft NGVD of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 18, 1963, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. American Electric Power gage-height transmitter at station, recorder at Roanoke. Maximum discharge, 65,600 ft³/s, from rating curve extended above 25,500 ft³/s on basis of slope-area measurement of peak flow. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1445	4,760	8.68	Mar 28	1815	*4,880	*8.82

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	537	280	528	346	416	413	618	404	241	256	1,090	215
2	463	279	528	340	381	373	1,100	372	299	220	388	177
3	417	279	458	333	390	360	1,560	355	429	207	287	163
4	378	343	422	334	436	372	813	344	375	305	241	155
5	346	412	399	332	411	460	e625	338	306	391	220	149
6	325	345	417	329	392	568	e530	338	271	271	211	145
7	311	310	519	323	379	556	506	338	269	383	235	142
8	301	299	462	315	372	615	525	334	256	1,300	226	140
9	295	285	544	319	371	685	498	324	262	453	236	138
10	292	276	1,820	312	369	497	468	316	280	292	280	133
11	282	275	952	309	350	439	453	312	261	251	253	129
12	278	498	607	306	342	413	447	311	256	238	216	126
13	427	e960	512	307	338	387	451	326	246	230	201	124
14	680	e530	451	3,260	362	402	443	320	245	241	194	125
15	455	e405	413	1,360	377	417	423	315	232	398	186	127
16	353	371	392	663	355	391	404	326	215	370	178	126
17	314	347	383	526	344	495	392	308	203	319	212	141
18	298	333	375	447	333	604	392	306	197	254	270	147
19	304	327	367	e420	325	504	390	328	198	682	211	130
20	329	324	e360	e415	325	450	390	349	200	891	205	122
21	317	318	e355	e410	344	413	386	358	207	378	220	134
22	311	308	e350	e395	351	388	384	310	245	384	185	137
23	306	723	428	e390	334	463	615	289	207	515	206	127
24	309	1,790	885	e380	334	700	488	290	192	325	392	120
25	317	2,260	521	e385	354	534	414	315	183	260	235	119
26	306	884	434	e380	336	471	389	291	179	230	197	126
27	294	585	397	369	325	445	384	271	177	213	188	135
28	294	892	369	339	364	2,630	368	263	226	199	206	134
29	297	662	362	331	---	2,130	381	262	242	220	206	122
30	293	522	362	386	---	905	417	254	282	238	194	114
31	289	---	353	480	---	686	---	250	---	503	219	---
TOTAL	10,718	16,422	15,725	15,541	10,110	19,166	15,654	9,817	7,381	11,417	7,988	4,122
MEAN	346	547	507	501	361	618	522	317	246	368	258	137
MAX	680	2,260	1,820	3,260	436	2,630	1,560	404	429	1,300	1,090	215
MIN	278	275	350	306	325	360	368	250	177	199	178	114
CFSM	0.99	1.56	1.45	1.43	1.03	1.77	1.49	0.90	0.70	1.05	0.74	0.39
IN.	1.14	1.75	1.67	1.65	1.07	2.04	1.66	1.04	0.78	1.21	0.85	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2005, BY WATER YEAR (WY)

MEAN	285	314	357	459	492	580	535	401	334	260	242	315
MAX	1,220	995	836	1,054	1,086	1,578	2,265	989	1,200	814	867	1,864
(WY)	(1991)	(1986)	(1974)	(1978)	(1998)	(1993)	(1987)	(1978)	(1972)	(1972)	(1985)	(1987)
MIN	74.3	96.5	136	157	148	203	172	165	83.7	73.2	36.2	70.0
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(1981)	(2002)	(1981)	(2002)	(2002)	(2002)	(1968)

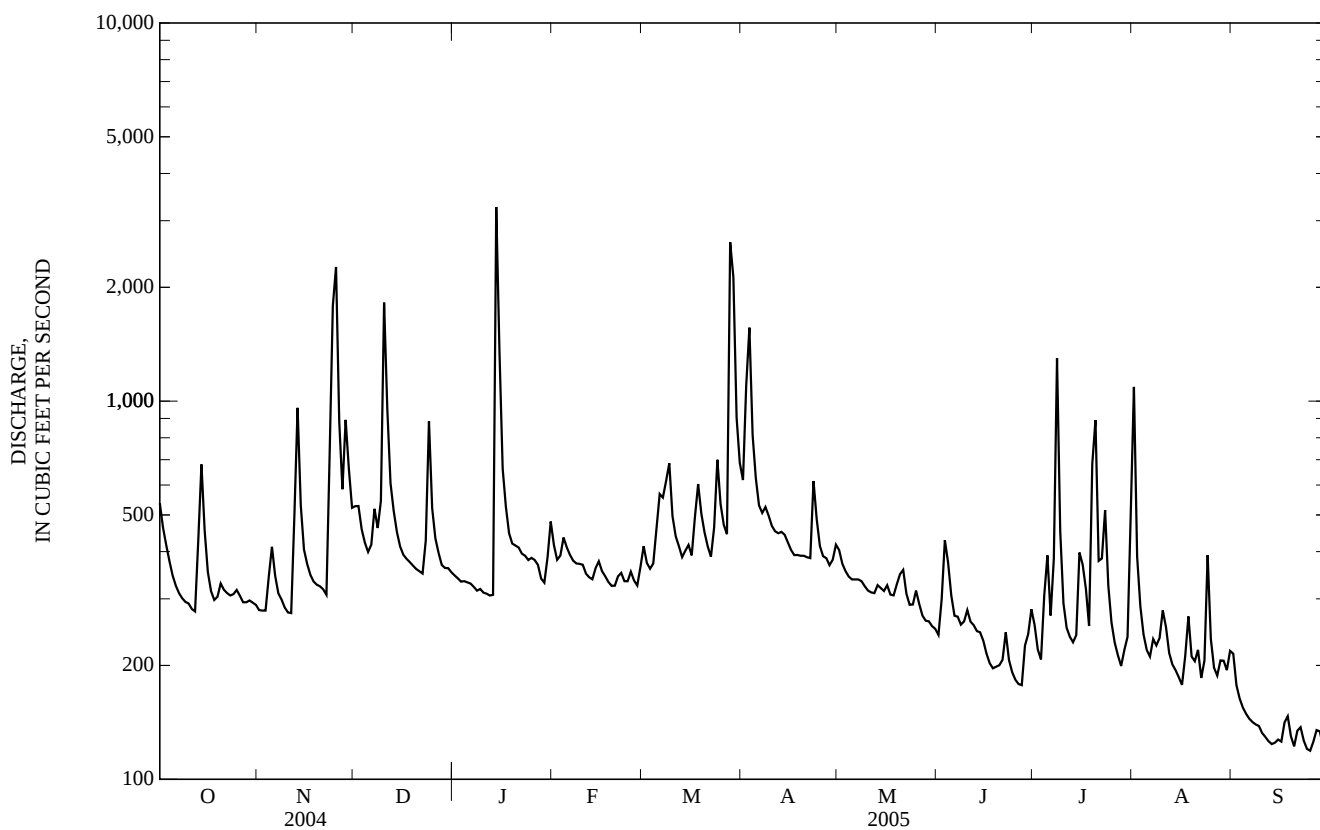
02058400 PIGG RIVER NEAR SANDY LEVEL, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1963 - 2005	
ANNUAL TOTAL	167,320		144,061		382	
ANNUAL MEAN	457		395		709	
HIGHEST ANNUAL MEAN					133	
LOWEST ANNUAL MEAN					17	
HIGHEST DAILY MEAN	6,110	Sep 28	3,260	Jan 14	34,900	Sep 8, 1987
LOWEST DAILY MEAN	193	Jul 26	114	Sep 30	17	Aug 16, 2002
ANNUAL SEVEN-DAY MINIMUM	206	Sep 1	124	Sep 24	19	Aug 11, 2002
MAXIMUM PEAK FLOW			4,880	Mar 28	65,600	Sep 8, 1987
MAXIMUM PEAK STAGE			8.82	Mar 28	a31.12	Sep 8, 1987
INSTANTANEOUS LOW FLOW			110	Sep 30	17	bAug 16, 2002
ANNUAL RUNOFF (CFSM)	1.31		1.13		1.09	
ANNUAL RUNOFF (INCHES)	17.78		15.31		14.82	
10 PERCENT EXCEEDS	585		549		596	
50 PERCENT EXCEEDS	348		338		257	
90 PERCENT EXCEEDS	244		190		121	

a From floodmarks.

b Also Aug. 17, 2002.

e Estimated.



02059500 GOOSE CREEK NEAR HUDDLESTON, VA

LOCATION.--Lat 37°10'24", long 79°31'13", NAD83, Bedford County, Hydrologic Unit 03010101, on left bank 0.3 mi upstream from Haden Bridge on State Highway 732, 0.4 mi upstream from Rockcastle Creek, and 3.5 mi northwest of Huddleston.

DRAINAGE AREA.--188 mi².

PERIOD OF RECORD.--March 1925 to August 1928 (gage heights only), September 1930 to current year.

REVISED RECORDS.--WSP 892: 1933, 1935(M), 1939. WSP 972: 1931-32(M), 1934(M), 1935-38, 1940, 1941(M). WSP 1082: 1940(P). WSP 1142: 1938-40(M). WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 592.91 ft NGVD of 1929. Mar. 15, 1925, to Aug. 4, 1928, nonrecording gage at site 1,300 ft downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to October 1954, diurnal fluctuation at low flow caused by mill upstream from station. American Electric Power gage-height transmitter at station with recorder at Roanoke. Maximum discharge, 53,200 ft³/s, from rating curve extended above 11,000 ft³/s on basis of slope-area measurements at gage heights 19.25 ft, 24.1 ft, 24.89 ft, and 37.49 ft. 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0815	*4,980	*7.98	Mar 28	1445	2,330	5.28

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	99	328	170	197	183	310	174	113	84	130	55
2	194	98	327	162	182	167	742	154	127	127	78	47
3	176	98	262	157	179	167	639	149	153	125	66	43
4	158	123	220	156	180	178	426	142	134	89	59	41
5	144	179	198	164	171	230	327	140	119	97	61	39
6	133	136	192	158	168	291	281	140	114	111	54	38
7	127	126	204	152	168	293	261	140	123	99	58	37
8	127	120	183	167	166	365	278	138	129	285	59	36
9	117	110	241	161	164	315	245	134	114	124	60	36
10	115	105	631	148	164	257	224	130	119	92	65	35
11	109	104	412	146	155	230	213	127	117	83	60	33
12	107	238	296	148	152	208	203	123	109	81	56	33
13	277	406	243	143	146	196	214	121	108	80	50	33
14	314	227	211	2,230	160	212	201	124	108	83	47	33
15	174	182	188	706	160	194	191	129	100	121	45	32
16	140	158	175	438	148	180	179	126	92	111	45	33
17	126	146	170	315	145	198	177	118	89	101	62	38
18	115	135	162	e235	141	200	177	116	86	106	55	43
19	118	130	157	e228	138	182	171	124	87	89	68	35
20	121	130	135	209	137	179	168	242	95	86	76	35
21	123	126	e142	203	150	170	168	160	90	76	58	37
22	119	121	153	187	159	162	176	130	89	74	48	33
23	112	159	545	172	144	214	258	127	86	85	54	33
24	112	501	766	154	145	352	186	137	80	67	48	32
25	116	839	434	196	153	239	173	164	75	62	44	32
26	109	429	300	e170	144	222	167	135	75	61	43	36
27	105	278	242	e160	140	217	164	124	76	58	53	40
28	107	420	206	e140	171	1,200	156	120	104	57	63	38
29	106	290	199	e138	---	838	155	117	102	63	55	33
30	104	238	189	187	---	500	169	114	107	68	51	32
31	102	---	178	225	---	375	---	114	---	244	70	---
TOTAL	4,351	6,451	8,289	8,325	4,427	8,914	7,399	4,233	3,120	3,089	1,841	1,101
MEAN	140	215	267	269	158	288	247	137	104	99.6	59.4	36.7
MAX	314	839	766	2,230	197	1,200	742	242	153	285	130	55
MIN	102	98	135	138	137	162	155	114	75	57	43	32
CFSM	0.75	1.14	1.42	1.43	0.84	1.53	1.31	0.73	0.55	0.53	0.32	0.20
IN.	0.86	1.28	1.64	1.65	0.88	1.76	1.46	0.84	0.62	0.61	0.36	0.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2005, BY WATER YEAR (WY)

	128	136	172	223	246	282	261	197	156	115	132	130
MEAN	128	136	172	223	246	282	261	197	156	115	132	130
MAX	719	642	616	772	821	909	1,320	780	802	466	822	1,229
(WY)	(1938)	(1986)	(1949)	(1936)	(1998)	(1975)	(1987)	(1989)	(1995)	(1949)	(1940)	(1987)
MIN	23.3	30.8	45.2	46.6	46.6	79.4	55.7	56.8	23.4	26.3	11.0	15.4
(WY)	(2002)	(2002)	(1966)	(1966)	(2002)	(2002)	(2002)	(1981)	(2002)	(1966)	(2002)	(2002)

02059500 GOOSE CREEK NEAR HUDDLESTON, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1931 - 2005	
ANNUAL TOTAL	74,997		61,540		181	
ANNUAL MEAN	205		169		393	
HIGHEST ANNUAL MEAN					39.4	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	3,140	Sep 28	2,230	Jan 14	e26,000	Sep 8, 1987
LOWEST DAILY MEAN	58	aSep 4	32	bSep 15	6.0	cAug 28, 1932
ANNUAL SEVEN-DAY MINIMUM	61	Aug 31	33	Sep 10	7.2	Sep 8, 2002
MAXIMUM PEAK FLOW			4,980	Jan 14	53,200	Sep 8, 1987
MAXIMUM PEAK STAGE			7.98	Jan 14	d37.49	Sep 8, 1987
INSTANTANEOUS LOW FLOW			31	Sep 25	3.0	fAug 31, 1932
ANNUAL RUNOFF (CFSM)	1.09		0.897		0.964	
ANNUAL RUNOFF (INCHES)	14.84		12.18		13.10	
10 PERCENT EXCEEDS	318		279		320	
50 PERCENT EXCEEDS	148		140		111	
90 PERCENT EXCEEDS	84		49		46	

a Also Sept. 5, 2004.

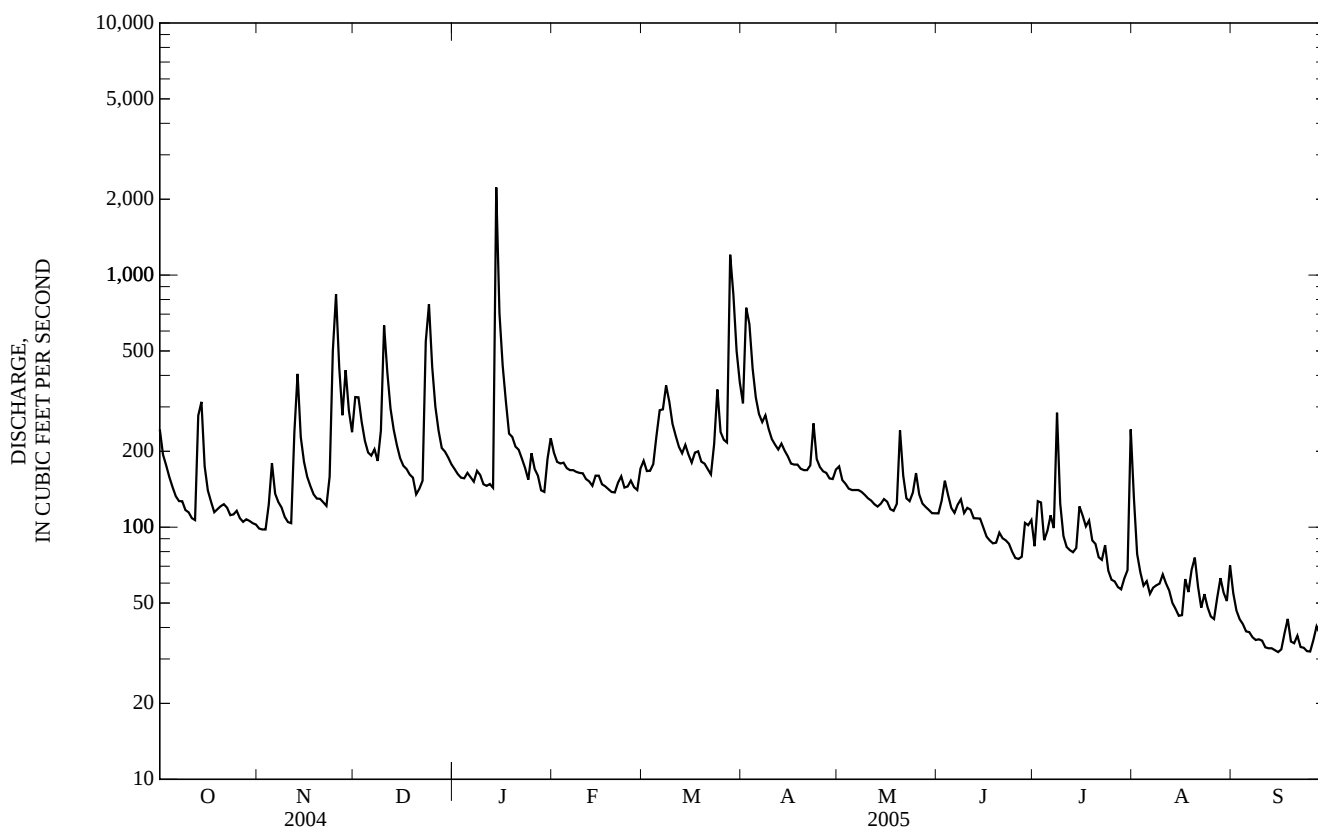
b Also Sept. 24, 25, 30, 2005.

c Also Sept. 13, 2002.

d From floodmarks.

e Estimated.

f Also Jan. 30, 1934, result of freezeup.



02060500 ROANOKE (STAUNTON) RIVER AT ALTAVISTA, VA

LOCATION.--Lat 37°06'17", long 79°17'43", NAD83, Pittsylvania County, Hydrologic Unit 03010101, on right bank 12 ft upstream from bridge on alternate U.S. Highway 29, 0.3 mi south of Altavista, 0.3 mi downstream from Sycamore Creek, 3.5 mi upstream from Big Otter River, and at mile 286.5.

DRAINAGE AREA.--1,789 mi².

PERIOD OF RECORD.--August 1930 to current year.

REVISED RECORDS.--WSP 892: 1938(M). WSP 972: 1931-33. WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 503.10 ft NGVD of 1929. Prior to Feb. 21, 1951, on left bank 50 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1962 by Leesville Lake (station 02059400) 9.5 mi upstream and since 1963 by Smith Mountain Lake (station 02057400) 27.5 mi upstream. Statistics of monthly mean data and summary statistics for water years 1931 - 1962 (unregulated flow) are available in previous data books, water years 1991 - 1998. U.S. Army Corps of Engineers satellite gage-height telemeter at station. American Electric Power gage-height transmitter at station with recorder at Roanoke. Hadson Power Company gage-height telemeter at station. Maximum discharge, 105,000 ft³/s, from rating curve extended above 52,000 ft³/s on basis of unit hydrograph and flood-routing studies by U.S. Army Corps of Engineers and records for other stations in Roanoke River Basin. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14,200	1,350	2,560	1,490	2,190	2,380	8,700	2,100	951	846	1,310	794
2	9,500	1,350	2,630	1,360	2,160	2,610	7,090	2,420	977	840	998	778
3	3,640	1,340	2,560	1,350	2,160	2,620	5,510	2,050	1,010	922	982	778
4	2,340	1,440	2,500	1,410	2,180	2,610	3,820	1,870	980	852	976	769
5	2,160	1,630	2,420	1,420	2,150	2,360	3,050	1,860	942	859	995	757
6	1,800	1,590	2,540	1,400	2,100	2,480	2,660	1,850	925	1,210	952	759
7	1,400	1,530	2,630	1,390	2,090	2,610	2,600	1,840	912	3,190	938	761
8	1,320	1,430	2,550	1,390	2,120	3,060	2,590	1,970	929	3,960	1,040	767
9	1,170	1,240	2,470	1,390	2,130	3,490	2,340	2,260	912	1,380	1,180	765
10	1,140	1,220	4,440	1,360	2,130	3,430	2,210	2,130	1,060	1,070	1,290	765
11	1,120	1,220	3,860	1,380	2,130	2,950	2,150	1,840	1,340	890	1,390	756
12	1,140	1,610	3,670	1,370	2,110	2,730	2,000	1,840	1,220	840	1,090	750
13	1,610	3,560	3,600	1,350	2,090	2,470	2,200	1,820	1,100	841	806	754
14	3,200	3,510	3,540	8,060	2,110	2,440	2,590	1,800	1,080	853	796	757
15	2,760	2,580	2,790	9,910	2,120	2,300	2,420	1,940	953	1,020	789	758
16	1,870	2,160	1,920	9,010	2,120	2,260	2,300	2,230	867	1,130	794	750
17	1,370	1,860	1,640	4,620	2,140	2,450	1,980	1,930	859	948	825	763
18	988	1,530	1,550	3,730	2,070	2,800	1,820	1,770	848	654	811	752
19	983	1,310	1,370	2,620	1,960	2,900	1,770	1,730	828	606	806	755
20	991	1,240	1,340	2,510	1,920	2,840	1,650	1,720	840	573	821	757
21	1,100	1,240	1,210	2,470	1,980	2,830	1,640	1,580	836	1,210	820	763
22	1,260	1,250	1,240	2,470	2,000	2,590	1,750	1,560	832	2,360	795	769
23	1,270	1,990	1,510	2,460	1,990	2,620	2,460	1,640	827	2,860	805	763
24	1,240	5,590	3,840	2,150	2,010	3,400	2,620	1,650	991	1,630	811	763
25	1,250	10,300	3,460	2,040	2,030	3,670	2,450	1,670	1,040	541	789	766
26	1,360	8,690	3,250	1,930	2,020	3,580	2,290	1,640	817	460	876	767
27	1,360	2,880	2,340	1,900	1,980	3,330	1,990	1,400	839	527	996	776
28	1,360	2,400	1,800	1,850	2,110	7,230	1,900	1,270	843	453	1,090	777
29	1,370	2,640	1,640	1,770	---	10,300	1,940	1,240	856	469	1,670	779
30	1,360	2,530	1,610	1,820	---	9,430	1,930	1,220	869	1,280	1,620	773
31	1,330	---	1,540	2,060	---	9,140	---	1,020	---	1,820	808	---
TOTAL	68,962	74,210	76,020	81,440	58,300	111,910	82,420	54,860	28,283	37,094	30,669	22,941
MEAN	2,225	2,474	2,452	2,627	2,082	3,610	2,747	1,770	943	1,197	989	765
MAX	14,200	10,300	4,440	9,910	2,190	10,300	8,700	2,420	1,340	3,960	1,670	794
MIN	983	1,220	1,210	1,350	1,920	2,260	1,640	1,020	817	453	789	750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2005, BY WATER YEAR (WY)

MEAN	1,141	1,306	1,419	2,016	2,254	2,723	2,508	1,934	1,548	1,108	1,066	1,261
MAX	4,811	6,190	3,622	4,643	7,119	7,795	10,930	4,716	5,684	3,363	3,351	5,246
(WY)	(1991)	(1986)	(1997)	(1978)	(1998)	(1993)	(1987)	(1972)	(1972)	(1972)	(2003)	(1987)
MIN	189	396	351	455	421	338	604	484	220	504	311	438
(WY)	(1964)	(1982)	(1964)	(2002)	(2002)	(1981)	(1964)	(1964)	(1964)	(1981)	(1963)	(2002)

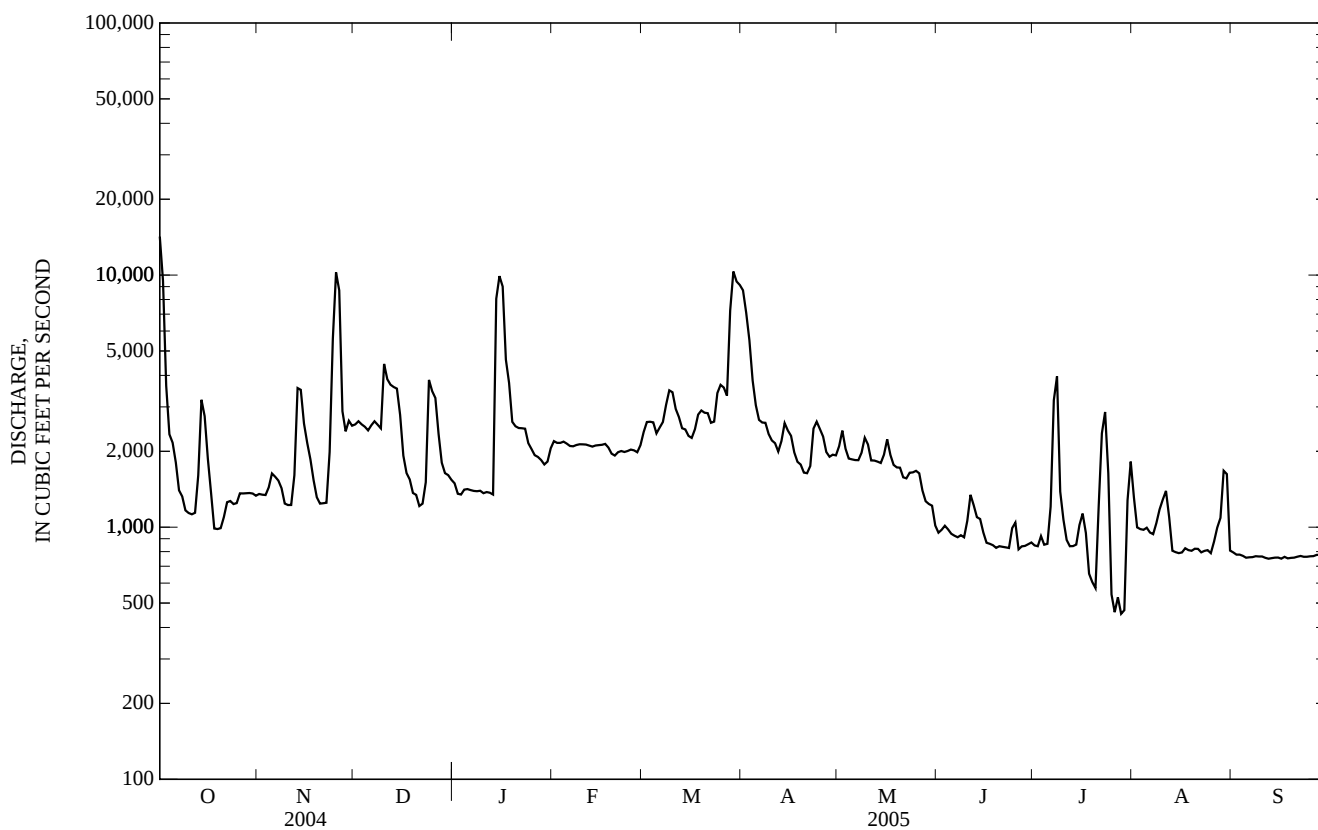
02060500 ROANOKE (STAUNTON) RIVER AT ALTAVISTA, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1963 - 2005	
ANNUAL TOTAL	760,636		727,109		1,687	
ANNUAL MEAN	2,078		1,992		2,903	
HIGHEST ANNUAL MEAN					583	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	14,200	Oct 1	14,200	Oct 1	46,700	Sep 8, 1987
LOWEST DAILY MEAN	732	Jul 16	453	Jul 28	39	Jul 10, 1966
ANNUAL SEVEN-DAY MINIMUM	767	Jul 16	755	Sep 12	116	Sep 2, 1965
MAXIMUM PEAK FLOW			a12,400	Mar 28	b62,100	Sep 8, 1987
MAXIMUM PEAK STAGE			a13.59	Mar 28	b34.45	Sep 8, 1987
INSTANTANEOUS LOW FLOW			446	Jul 27	c13	Jan 30, 1966
ANNUAL RUNOFF (CFSM)	1.16		1.11		0.943	
ANNUAL RUNOFF (INCHES)	15.82		15.12		12.81	
10 PERCENT EXCEEDS	3,570		3,220		3,320	
50 PERCENT EXCEEDS	1,530		1,630		1,010	
90 PERCENT EXCEEDS	878		779		300	

a Maximum discharge, 14,300 ft³/s, Oct. 1, 2004, gage height, 15.35 ft, stage falling, peak occurred Sept. 29, 2004.

b Prior to regulation, 1931-62, maximum peak flow, 105,000 ft³/s, Aug. 15, 1940, gage height, 40.08 ft, from floodmarks.

c Prior to regulation, 1931-62, instantaneous low flow, 94 ft³/s, Jan. 31, 1934.



02061500 BIG OTTER RIVER NEAR EVINGTON, VA

LOCATION.--Lat 37°12'31", long 79°18'13", NAD83, Campbell County, Hydrologic Unit 03010101, on right bank 60 ft upstream from bridge on State Highway 682, 2.0 mi southwest of Evington, and 2.1 mi upstream from Flat Creek.

DRAINAGE AREA.--320 mi².

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1303. Prior to October 1965, published as Otter River near Evington.

REVISED RECORDS.--WSP 852: 1937. WSP 892: 1938-39(M). WSP 972: 1937-39. WSP 1032: 1940. WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 544.02 ft NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 65,600 ft³/s, from rating curve extended above 24,000 ft³/s on basis of slope-area measurements of 24.96 ft and 29.93 ft. 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.--Floods in October 1937 and August 1939 reached a stage of 23.1 ft, discharge, 27,500 ft³/s, from rating curve extended above 7,000 ft³/s on basis of unit hydrograph and flood-routing studies by U.S. Army Corps of Engineers, and records for other stations in Roanoke River Basin.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1115	*5,410	*11.79	Mar 28	1445	4,210	9.18

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	474	148	662	315	320	296	521	315	167	105	153	79
2	379	148	646	298	289	269	1,040	260	193	91	96	57
3	354	148	528	284	286	264	902	243	272	99	81	48
4	294	202	460	279	290	270	635	235	232	96	71	42
5	242	400	413	294	268	342	538	228	193	98	65	39
6	217	245	390	280	251	434	e482	228	170	121	62	36
7	199	210	402	263	247	386	e453	227	160	122	94	35
8	184	194	368	286	247	501	486	226	165	480	90	34
9	173	175	444	297	240	495	424	212	193	207	79	32
10	168	167	1,260	259	235	397	381	208	204	127	85	31
11	154	165	713	249	210	358	365	209	165	108	79	30
12	147	546	526	247	204	332	348	205	152	101	69	28
13	588	971	447	239	204	303	380	200	149	104	61	28
14	744	486	390	3,310	226	358	344	197	154	145	57	28
15	366	366	349	1,140	240	330	314	207	138	262	52	27
16	262	317	326	717	216	289	291	208	121	170	53	28
17	214	284	320	564	212	319	284	196	110	135	64	29
18	190	263	308	e435	196	335	283	190	106	230	62	36
19	201	255	296	e420	184	294	279	200	138	162	68	30
20	214	251	258	405	184	276	273	434	131	133	79	28
21	195	237	e260	385	222	260	263	316	124	112	68	26
22	189	223	270	344	238	242	279	e220	118	110	55	25
23	180	253	767	e320	210	442	479	e215	114	134	53	24
24	182	720	1,190	e285	205	e680	326	e208	105	99	53	24
25	190	1,640	643	327	227	441	282	247	99	88	47	24
26	174	737	520	e285	214	379	264	216	95	83	44	26
27	166	542	447	e275	203	353	263	190	97	78	50	30
28	166	822	386	248	236	2,290	250	182	98	71	64	33
29	165	601	372	234	---	1,300	250	176	105	76	67	32
30	164	494	357	e331	---	744	290	166	117	91	63	28
31	157	---	336	418	---	593	---	165	---	187	79	---
TOTAL	7,692	12,210	15,054	14,033	6,504	14,572	11,969	6,929	4,385	4,225	2,163	997
MEAN	248	407	486	453	232	470	399	224	146	136	69.8	33.2
MAX	744	1,640	1,260	3,310	320	2,290	1,040	434	272	480	153	79
MIN	147	148	258	234	184	242	250	165	95	71	44	24
CFSM	0.78	1.27	1.52	1.41	0.73	1.47	1.25	0.70	0.46	0.43	0.22	0.10
IN.	0.89	1.42	1.75	1.63	0.76	1.69	1.39	0.81	0.51	0.49	0.25	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2005, BY WATER YEAR (WY)

MEAN	223	256	335	404	480	528	478	371	310	210	232	210
MAX	1,163	1,200	1,192	1,045	1,165	1,332	2,062	1,335	2,124	925	1,412	1,150
(WY)	(1991)	(1986)	(1949)	(1998)	(1998)	(1993)	(1987)	(1989)	(1995)	(1949)	(1940)	(1996)
MIN	31.9	41.2	68.6	95.7	97.0	148	102	106	38.0	27.9	4.96	10.8
(WY)	(2002)	(2002)	(1966)	(1966)	(2002)	(2002)	(2002)	(1981)	(2002)	(1966)	(2002)	(2002)

02061500 BIG OTTER RIVER NEAR EVINGTON, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1937 - 2005	
ANNUAL TOTAL	124,053		100,733		335	
ANNUAL MEAN	339		276		635	
HIGHEST ANNUAL MEAN					67.2	
LOWEST ANNUAL MEAN					1949	
HIGHEST DAILY MEAN	2,900	Sep 28	3,310	Jan 14	35,700	Jun 23, 1995
LOWEST DAILY MEAN	95	aSep 5	24	bSep 23	0.64	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	102	Sep 1	25	Sep 20	1.3	Sep 9, 2002
MAXIMUM PEAK FLOW			5,410	Jan 14	65,600	Jun 23, 1995
MAXIMUM PEAK STAGE			11.79	Jan 14	29.93	Jun 23, 1995
INSTANTANEOUS LOW FLOW			24	cSep 22	d0.63	Sep 13, 2002
ANNUAL RUNOFF (CFSM)	1.06		0.862		1.05	
ANNUAL RUNOFF (INCHES)	14.42		11.71		14.24	
10 PERCENT EXCEEDS	548		494		620	
50 PERCENT EXCEEDS	271		226		215	
90 PERCENT EXCEEDS	143		56		77	

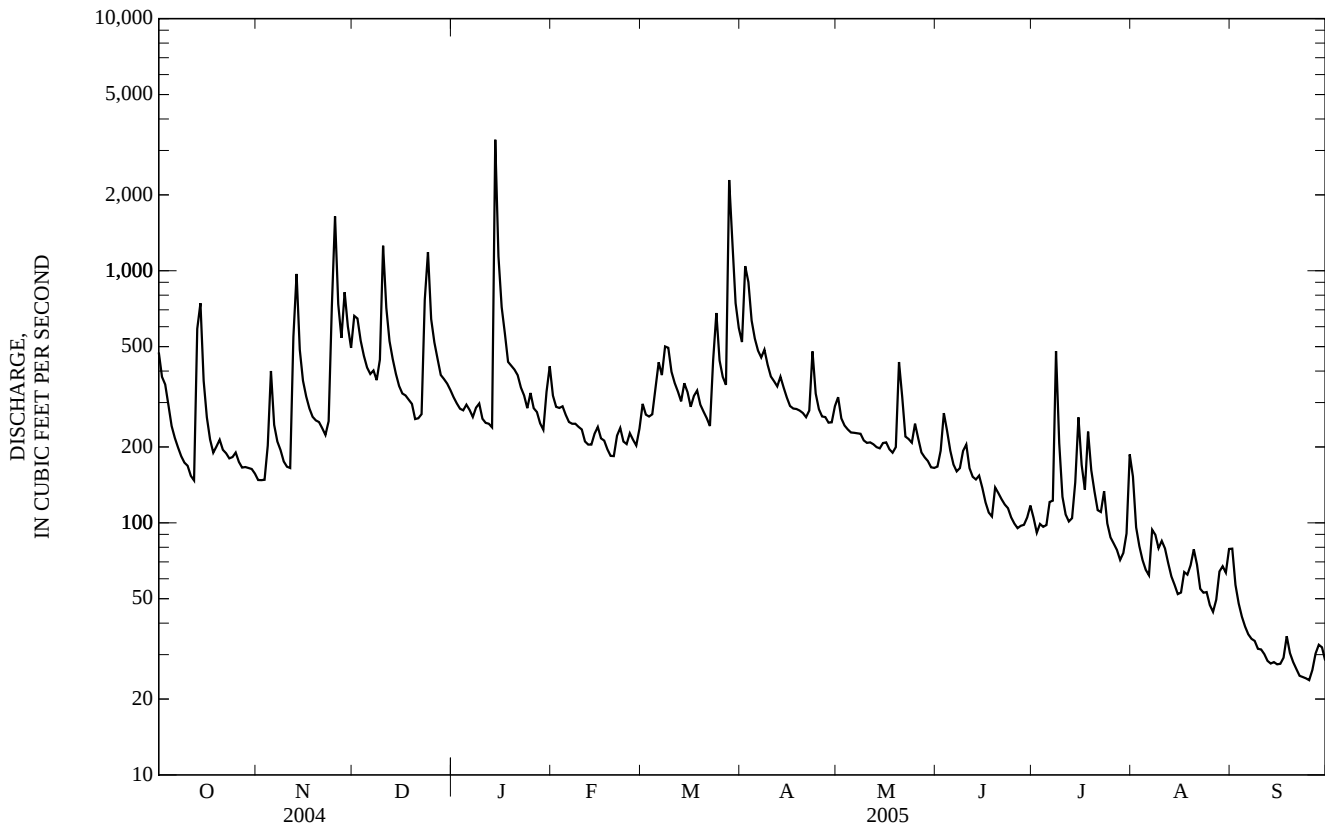
a Also Sept. 6, 2004.

b Also Sept. 24, 25, 2005.

c Also Sept. 23-26, 2005.

d Also Sept. 14, 2002.

e Estimated.



02062500 ROANOKE (STAUNTON) RIVER AT BROOKNEAL, VA

LOCATION.--Lat 37°02'29", long 78°57'01", NAD83, Campbell County, Hydrologic Unit 03010102, on left bank 1,600 ft upstream from bridge on U.S. Highway 501 at Brookneal, 2.9 mi upstream from Falling River, and at mile 255.9.

DRAINAGE AREA.--2,415 mi².

PERIOD OF RECORD.--April 1923 to current year.

REVISED RECORDS.--WSP 892: 1928(M). WSP 972: 1928-34. WSP 1303: 1924-27(M), 1929(M), 1941(M). WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 351.96 ft NGVD of 1929. Apr. 30, 1923, to Aug. 29, 1929, nonrecording gage, Aug. 30, 1929, to Aug. 15, 1940, water-stage recorder, and Aug. 16 to Oct. 1, 1940, nonrecording gage at site 1,800 ft downstream at same datum. Oct. 2, 1940, to Sept. 30, 1941, nonrecording gage at site 1,600 ft downstream at same datum.

REMARKS.--Records good. Flow regulated since 1962 by Leesville Lake (station 02059400) 40.1 mi upstream and since 1963 by Smith Mountain Lake (station 02057400) 58.1 mi upstream. Statistics of monthly mean data and summary statistics for water years 1924 - 1962 (unregulated flow) are available in previous data books, water years 1991 - 1998. U.S. Army Corps of Engineers satellite gage-height telemeter at station. Maximum discharge, 130,000 ft³/s, at present site, from gage-height relation curve, from rating curve extended above 55,000 ft³/s on basis of slope-area measurement by Geological Survey, unit hydrograph and flood-routing studies by U.S. Army Corps of Engineers, and records for other stations in Roanoke River Basin. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15,000	1,740	3,690	2,290	2,680	2,700	9,690	2,370	1,300	1,130	2,290	985
2	13,200	1,730	3,980	2,140	2,570	3,050	8,740	2,780	1,410	1,060	1,350	959
3	5,640	1,720	3,740	2,040	2,550	3,070	7,490	2,680	1,670	1,120	1,220	930
4	3,460	1,850	3,590	2,050	2,610	3,100	5,210	2,200	1,630	1,150	1,180	928
5	3,100	2,310	3,460	2,100	2,560	3,050	4,080	2,180	1,490	1,100	1,170	916
6	2,610	2,280	3,500	2,110	2,460	3,070	3,410	2,180	1,390	1,110	1,200	909
7	2,130	2,100	3,510	2,070	2,420	3,190	3,190	2,170	1,330	2,490	1,150	894
8	1,790	1,980	3,660	2,050	2,430	3,450	3,220	2,170	1,330	4,940	1,160	900
9	1,710	1,790	3,350	2,110	2,450	4,260	3,040	2,550	1,340	3,120	1,400	914
10	1,570	1,620	6,140	2,060	2,440	4,080	2,690	2,690	1,380	1,440	1,520	920
11	1,540	1,620	5,890	2,050	2,410	3,760	2,600	2,230	1,760	1,350	1,690	907
12	1,540	1,880	4,980	2,030	2,380	3,250	2,430	2,190	1,860	1,120	1,600	890
13	1,870	5,060	4,700	2,030	2,360	3,080	2,410	2,210	1,540	1,130	1,150	905
14	4,650	4,860	4,590	9,170	2,380	2,920	2,920	2,210	1,510	1,160	973	920
15	4,160	3,910	4,160	13,200	2,440	2,920	2,880	2,220	1,440	1,280	973	935
16	2,900	3,200	3,240	10,300	2,400	2,690	2,640	2,640	1,250	1,650	978	926
17	2,230	2,740	2,610	7,070	2,420	2,910	2,510	2,620	1,180	1,490	1,060	931
18	1,470	2,430	2,350	4,620	2,400	3,320	2,100	2,170	1,180	1,150	1,030	899
19	1,380	1,950	2,210	3,570	2,230	3,480	2,110	2,210	1,150	1,000	988	898
20	1,420	1,840	2,050	3,060	2,170	3,370	1,960	2,430	1,200	926	1,010	918
21	1,450	1,770	1,870	3,000	2,260	3,270	1,910	2,420	1,190	855	1,030	909
22	1,690	1,770	1,890	2,940	2,340	3,140	1,920	2,030	1,180	2,200	985	934
23	1,730	2,460	1,970	2,910	2,310	3,290	2,540	2,100	1,150	3,130	978	924
24	1,720	5,360	4,650	2,620	2,300	4,600	3,170	2,150	1,100	2,890	1,000	893
25	1,670	11,200	4,770	2,460	2,370	4,620	2,840	2,270	1,460	1,090	977	902
26	1,740	10,800	4,450	2,350	2,340	4,310	2,780	2,240	1,000	541	945	905
27	1,770	6,070	3,760	2,320	2,300	4,140	2,380	2,010	978	565	1,130	933
28	1,770	3,920	2,950	2,250	2,370	6,670	2,220	1,700	1,040	562	1,240	936
29	1,780	4,110	2,530	2,090	---	13,300	2,240	1,640	1,070	613	1,520	951
30	1,780	3,770	2,450	e2,200	---	10,600	2,300	1,620	1,300	675	2,350	950
31	1,760	---	2,380	2,470	---	9,960	---	1,570	---	2,170	1,330	---
TOTAL	92,230	99,840	109,070	105,730	67,350	132,620	99,620	68,850	39,808	46,207	38,577	27,621
MEAN	2,975	3,328	3,518	3,411	2,405	4,278	3,321	2,221	1,327	1,491	1,244	921
MAX	15,000	11,200	6,140	13,200	2,680	13,300	9,690	2,780	1,860	4,940	2,350	985
MIN	1,380	1,620	1,870	2,030	2,170	2,690	1,910	1,570	978	541	945	890

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2005, BY WATER YEAR (WY)

MEAN	1,581	1,821	2,088	2,886	3,236	3,885	3,548	2,690	2,165	1,518	1,435	1,743
MAX	6,446	8,961	5,625	7,695	9,536	11,760	14,410	7,039	7,522	4,775	4,675	8,822
(WY)	(1991)	(1986)	(1997)	(1978)	(1998)	(1993)	(1987)	(1978)	(1995)	(1972)	(1985)	(1996)
MIN	325	549	637	695	642	561	921	836	405	536	411	401
(WY)	(1964)	(2002)	(1964)	(2002)	(2002)	(1981)	(1981)	(1964)	(1964)	(2002)	(1964)	(2002)

02062500 ROANOKE (STAUNTON) RIVER AT BROOKNEAL, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1963 - 2005	
ANNUAL TOTAL	1,045,990		927,523			
ANNUAL MEAN	2,858		2,541		2,377	
HIGHEST ANNUAL MEAN					4,440	
LOWEST ANNUAL MEAN					741	
HIGHEST DAILY MEAN	15,000	Oct 1	15,000	Oct 1	65,600	Sep 9, 1987
LOWEST DAILY MEAN	1,010	Jul 10	541	Jul 26	140	Jul 25, 1966
ANNUAL SEVEN-DAY MINIMUM	1,100	Jul 6	888	Jul 25	203	Sep 4, 1965
MAXIMUM PEAK FLOW			15,300	Jan 14	a85,800	Sep 9, 1987
MAXIMUM PEAK STAGE			18.69	Jan 14	a39.80	Sep 9, 1987
INSTANTANEOUS LOW FLOW			509	bJul 26	c,d136	fJul 25, 1966
ANNUAL RUNOFF (CFSM)	1.18		1.05		0.984	
ANNUAL RUNOFF (INCHES)	16.11		14.29		13.37	
10 PERCENT EXCEEDS	4,780		4,200		4,620	
50 PERCENT EXCEEDS	2,300		2,170		1,420	
90 PERCENT EXCEEDS	1,260		956		567	

a Prior to regulation, 1924-62, maximum peak flow, 130,00 ft³/s, Aug. 15, 1940, gage height, 46.50 ft.

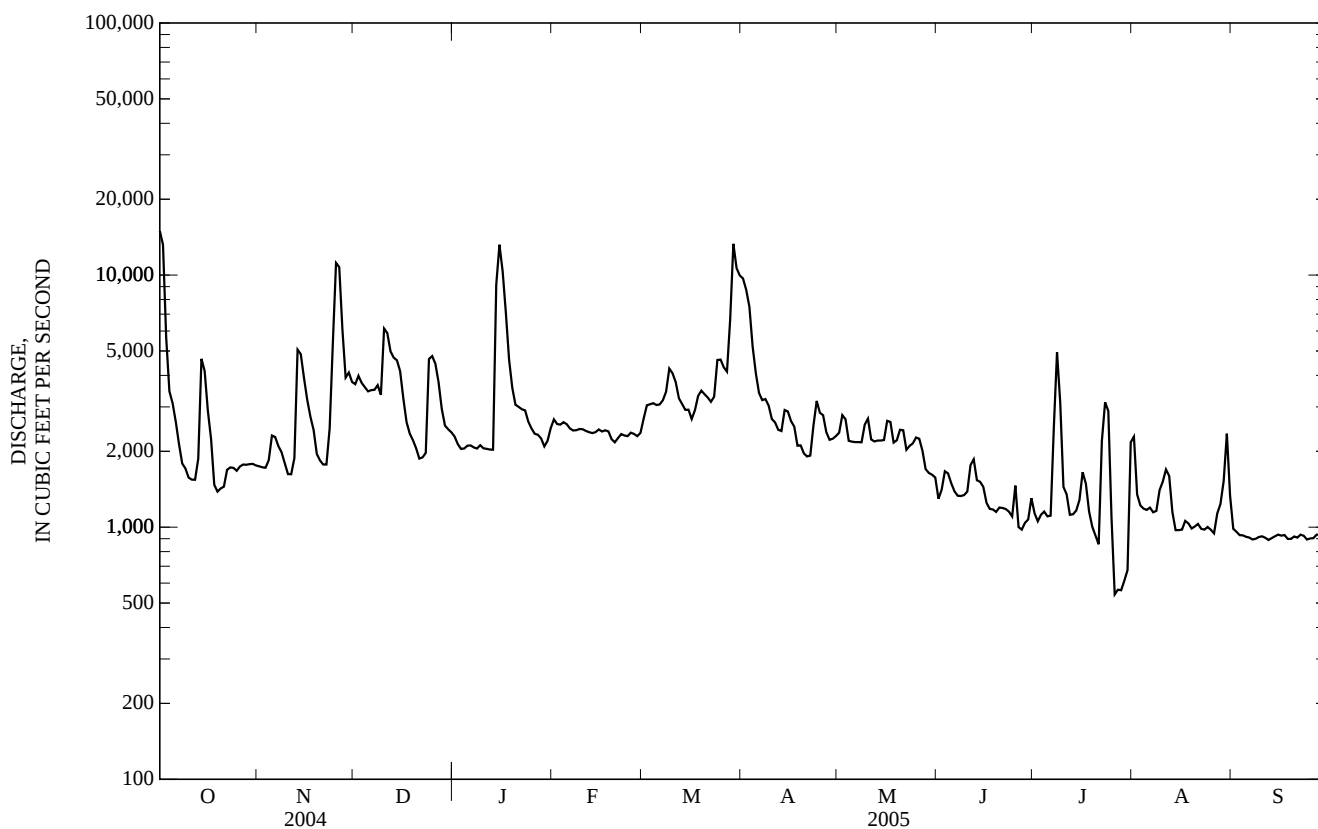
b Also July 28, 2005.

c Prior to regulation, 1924-62, instantaneous low flow, probably less than 191 ft³/s, probably occurred Sept. 1, 2, 1932.

d Lowest recorded discharge; may have been lower during period of no gage-height record, July 25, 26, 1966.

e Estimated.

f Also July 26, 1966.



02064000 FALLING RIVER NEAR NARUNA, VA

LOCATION.--Lat 37°07'37", long 78°57'35", NAD83, Campbell County, Hydrologic Unit 03010102, on left bank at upstream side of bridge on State Highway 643, 2.7 mi northeast of Naruna, and 3.2 mi upstream from Little Falling River.

DRAINAGE AREA.--173 mi².

PERIOD OF RECORD.--July 1929 to January 1935, September 1941 to current year.

REVISED RECORDS.--WSP 1333: 1930, 1931-34(M), 1935. WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 412.32 ft NGVD of 1929. Prior to Jan. 15, 1935, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Small diurnal fluctuation caused by gristmill at Spring Mills. Maximum discharge, 62,800 ft³/s, from rating curve extended above 7,100 ft³/s on basis of slope-area measurements at gage heights 23.9 ft, 26.5 ft, 29.2 ft, and 36.1 ft. 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 1940 reached a stage of 26.5 ft, from floodmarks, discharge, 22,000 ft³/s, by slope-area measurement.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1430	*4,970	*14.34	Mar 28	1545	2,350	9.23

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	76	215	113	156	134	176	128	78	68	56	45
2	85	76	203	110	136	130	386	101	99	56	44	28
3	99	76	169	107	140	134	329	86	150	54	38	27
4	79	141	149	108	151	143	217	80	124	55	33	26
5	68	225	137	112	135	190	182	77	99	54	31	24
6	62	131	133	111	124	203	164	75	85	52	29	23
7	60	107	142	105	119	171	170	75	78	61	30	23
8	60	97	134	102	117	202	227	76	74	260	29	23
9	61	88	164	103	116	201	172	72	77	90	140	23
10	58	83	622	101	113	150	146	67	91	61	114	22
11	54	81	377	99	103	134	135	66	77	52	52	22
12	53	457	252	99	99	125	128	65	71	49	41	22
13	377	722	200	104	98	116	157	63	71	50	36	21
14	1,170	284	165	3,140	101	169	138	64	69	78	32	21
15	331	189	146	738	103	147	120	65	64	73	33	22
16	202	155	137	385	99	127	110	72	58	61	45	22
17	124	136	133	259	96	186	106	63	54	53	67	21
18	102	124	128	185	90	204	106	61	52	48	49	21
19	100	116	124	162	87	159	105	98	65	44	39	20
20	101	112	e105	e152	88	137	103	332	65	44	41	19
21	97	106	e108	e145	112	122	100	181	58	42	43	19
22	94	101	111	e135	113	113	100	115	59	40	36	19
23	89	207	164	e125	100	367	123	97	81	38	33	19
24	90	422	256	e118	103	538	105	92	62	35	35	18
25	93	643	166	140	116	284	97	128	55	32	32	18
26	87	302	142	e125	101	223	91	104	53	31	30	21
27	84	213	131	e115	95	197	90	88	54	29	32	23
28	84	389	123	e108	121	1,120	88	82	54	31	41	22
29	82	260	121	e102	---	592	91	79	58	55	40	19
30	80	203	122	e165	---	300	103	74	90	50	37	19
31	79	---	118	201	---	211	---	80	---	96	51	---
TOTAL	4,292	6,322	5,397	7,874	3,132	7,229	4,365	2,906	2,225	1,842	1,389	672
MEAN	138	211	174	254	112	233	146	93.7	74.2	59.4	44.8	22.4
MAX	1,170	722	622	3,140	156	1,120	386	332	150	260	140	45
MIN	53	76	105	99	87	113	88	61	52	29	29	18
CFSM	0.80	1.22	1.01	1.47	0.65	1.35	0.84	0.54	0.43	0.34	0.26	0.13
IN.	0.92	1.36	1.16	1.69	0.67	1.55	0.94	0.62	0.48	0.40	0.30	0.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1934, 1942 - 2005, BY WATER YEAR (WY)

	101	126	160	198	231	258	214	163	121	91.5	81.4	123
MEAN	399	639	487	636	683	844	552	606	898	373	400	1,475
(WY)	(1973)	(1986)	(1997)	(1978)	(1979)	(1975)	(1987)	(1971)	(1972)	(2003)	(1985)	(1996)
MIN	18.9	28.5	44.0	47.9	53.9	62.9	60.2	50.7	18.4	12.9	8.95	10.6
(WY)	(2002)	(2002)	(1966)	(1966)	(2002)	(1981)	(1966)	(1981)	(2002)	(2002)	(2002)	(2002)

02064000 FALLING RIVER NEAR NARUNA, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1930 - 1934 1942 - 2005	
ANNUAL TOTAL	54,719		47,645		155	
ANNUAL MEAN	150		131		322	
HIGHEST ANNUAL MEAN					42.6	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	1,420	Feb 7	3,140	Jan 14	e20,000	Sep 6, 1996
LOWEST DAILY MEAN	43	aJul 21	18	bSep 24	e1.0	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	49	Jul 16	19	cSep 19	1.4	Aug 12, 2002
MAXIMUM PEAK FLOW			4,970	Jan 14	62,800	Sep 6, 1996
MAXIMUM PEAK STAGE			14.34	Jan 14	d36.14	Sep 6, 1996
INSTANTANEOUS LOW FLOW			18	fSep 20	(g)	(h)
ANNUAL RUNOFF (CFSM)	0.864		0.755		0.897	
ANNUAL RUNOFF (INCHES)	11.77		10.25		12.18	
10 PERCENT EXCEEDS	257		209		266	
50 PERCENT EXCEEDS	114		99		93	
90 PERCENT EXCEEDS	59		31		37	

a Also July 22, 2004.

b Also Sept. 25, 2005.

c Also Sept. 20, 2005.

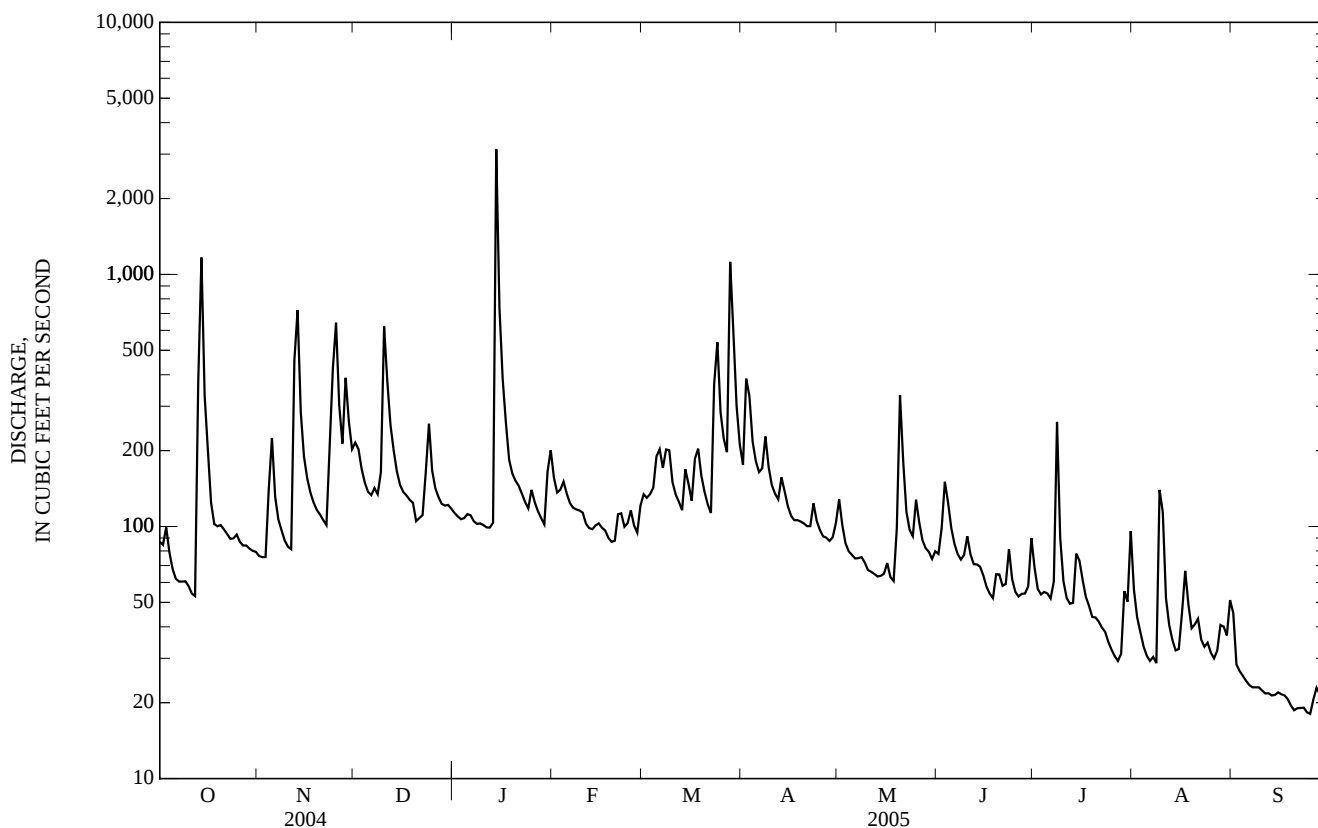
d From high-water mark on gage house.

e Estimated.

f Also Sept. 21, 23-25, 29, 30, 2005.

g Not determined.

h Probably occurred Aug. 15, 2002.



02065500 CUB CREEK AT PHENIX, VA

LOCATION.--Lat 37°04'46", long 78°45'49", NAD83, Charlotte County, Hydrologic Unit 03010102, on right bank 50 ft upstream from bridge on State Highway 40, 0.9 mi west of Phenix, 1.9 mi downstream from Rough Creek, and 6.4 mi upstream from Louse Creek.

DRAINAGE AREA.--98.0 mi².

PERIOD OF RECORD.--August 1946 to current year.

REVISED RECORDS.--WSP 1333: 1947(M), 1948, 1949(M). WSP 2104: Drainage area. WDR VA-76-1: 1975.

GAGE.--Water-stage recorder. Datum of gage is 370.19 ft NGVD of 1929. Prior to Jul. 14, 1950, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 15,200 ft³/s, from rating curve extended above 5,400 ft³/s on basis of contracted-opening measurement of peak flow. 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 of August 1940 reached a stage of 17.5 ft, from floodmarks, discharge not determined.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 15	0800	1,330	9.18	Mar 29	0830	*1,520	*9.70

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	57	106	79	106	106	119	84	58	46	34	20
2	59	57	106	78	98	104	140	80	67	42	30	18
3	62	57	96	77	99	103	202	72	100	41	29	17
4	58	80	91	77	105	101	123	68	90	41	27	17
5	54	129	88	77	100	110	106	68	71	41	26	16
6	51	84	86	77	94	117	99	68	63	40	25	15
7	50	71	91	76	92	106	99	67	59	43	26	15
8	50	67	90	74	91	111	133	67	57	157	26	15
9	49	63	95	74	90	126	110	65	56	68	28	15
10	49	61	209	73	91	105	96	63	59	38	51	14
11	49	60	234	72	85	98	92	62	57	34	31	14
12	48	101	130	72	83	96	88	61	54	33	28	13
13	92	415	108	73	83	92	100	63	54	33	26	13
14	244	372	97	260	83	107	96	62	53	45	24	13
15	189	116	91	970	85	105	86	63	50	38	24	14
16	79	100	88	238	83	96	82	69	48	35	24	14
17	66	92	87	130	82	114	80	62	46	32	38	14
18	61	88	86	110	79	131	80	59	45	31	34	13
19	60	85	85	100	78	112	78	90	47	30	28	13
20	63	82	e78	e99	78	102	77	172	50	29	28	13
21	62	81	e79	e100	88	96	76	125	48	29	27	12
22	61	79	82	e97	89	92	76	79	46	45	24	13
23	59	147	91	e94	84	124	84	69	51	33	23	13
24	60	166	126	e87	86	307	82	68	48	29	23	13
25	64	239	97	e95	98	230	75	84	45	27	23	12
26	61	155	88	e90	87	138	73	71	44	26	21	13
27	59	113	84	e85	84	122	72	64	43	25	22	14
28	60	135	81	e80	92	262	70	61	45	26	24	14
29	59	127	82	e77	---	1,060	71	60	46	34	23	13
30	59	105	83	104	---	307	77	57	48	38	22	12
31	58	---	81	122	---	138	---	58	---	41	21	---
TOTAL	2,158	3,584	3,116	3,917	2,493	5,018	2,842	2,261	1,648	1,250	840	425
MEAN	69.6	119	101	126	89.0	162	94.7	72.9	54.9	40.3	27.1	14.2
MAX	244	415	234	970	106	1,060	202	172	100	157	51	20
MIN	48	57	78	72	78	92	70	57	43	25	21	12
CFSM	0.71	1.22	1.03	1.29	0.91	1.65	0.97	0.74	0.56	0.41	0.28	0.14
IN.	0.82	1.36	1.18	1.49	0.95	1.90	1.08	0.86	0.63	0.47	0.32	0.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2005, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)
1947	66.7	293	14.0	(1971)
1948	91.8	429	22.6	(2002)
1949	103	279	27.9	(1966)
1950	129	478	35.1	(1966)
1951	145	447	43.2	(2002)
1952	161	443	51.7	(1981)
1953	141	354	50.4	(1966)
1954	103	261	37.8	(1981)
1955	77.6	518	14.6	(2002)
1956	58.5	249	8.21	(2002)
1957	53.4	257	5.29	(2002)
1958	71.7	572	8.03	(1968)

02065500 CUB CREEK AT PHENIX, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1947 - 2005	
ANNUAL TOTAL	35,132		29,552		99.8	
ANNUAL MEAN	96.0		81.0		189	
HIGHEST ANNUAL MEAN					32.9	
LOWEST ANNUAL MEAN					6,920	
HIGHEST DAILY MEAN	789	Feb 7	1,060	Mar 29	15,200	Sep 6, 1996
LOWEST DAILY MEAN	42	aJul 9	12	bSep 21	0.00	Aug 23, 2002
ANNUAL SEVEN-DAY MINIMUM	45	Aug 24	13	cSep 19	0.02	Aug 19, 2002
MAXIMUM PEAK FLOW			1,520	Mar 29	21.89	Sep 6, 1996
MAXIMUM PEAK STAGE			9.70	Mar 29	0.00	fAug 22, 2002
INSTANTANEOUS LOW FLOW			12	dSep 19	1.02	
ANNUAL RUNOFF (CFSM)	0.979		0.826		13.83	
ANNUAL RUNOFF (INCHES)	13.34		11.22		171	
10 PERCENT EXCEEDS	140		122		64	
50 PERCENT EXCEEDS	84		72		26	
90 PERCENT EXCEEDS	49		23			

a Also Aug. 29, 2004.

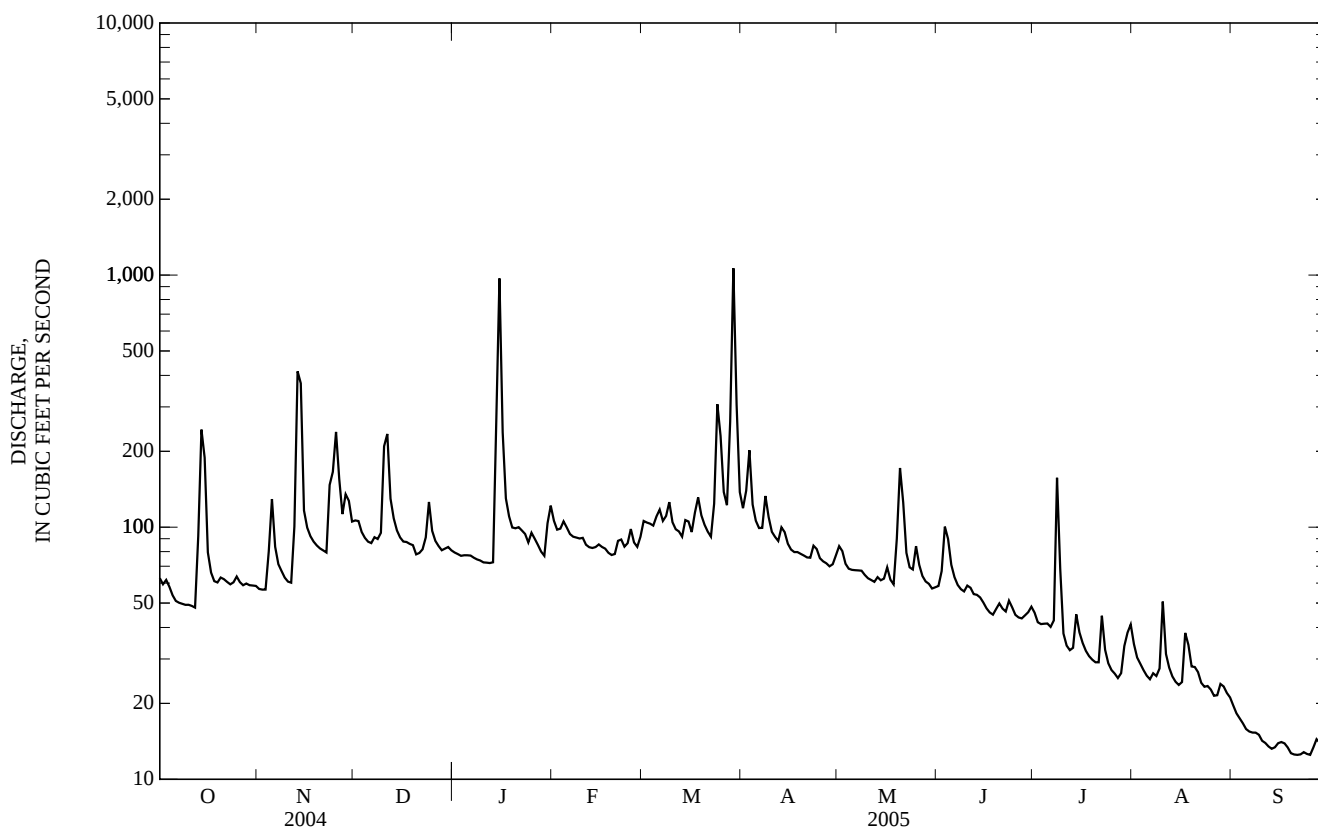
b Also Sept. 25, 30, 2005.

c Also Sept. 20, 2005.

d Also Sept. 20-26, 29, 30, 2005.

e Estimated.

f Also no flow part or all each day Aug. 23, 24, 2002.



02066000 ROANOKE (STAUNTON) RIVER AT RANDOLPH, VA

LOCATION.--Lat 36°54'55", long 78°44'27", NAD83, Halifax County, Hydrologic Unit 03010102, on right bank 6 ft downstream from bridge on State Highway 746, 2.8 mi northwest of Randolph, 3.6 mi upstream from Roanoke Creek, and at mile 227.3.

DRAINAGE AREA.--2,977 mi².

PERIOD OF RECORD.--August 1900 to September 1906, October 1927 to September 1930, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1303. Prior to October 1902, published as Staunton River at Randolph. Gage heights collected since 1905 at this site or at former site are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1203: 1928-30. WSP 1303: 1901-6. WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 307.59 ft NGVD of 1929. Aug. 27, 1900, to Oct. 13, 1902, nonrecording gage at site 3.2 mi downstream at datum about 5.9 ft lower. Oct. 14, 1902, to Aug. 11, 1906, and Oct. 1, 1927, to Mar. 31, 1930, nonrecording gage at site of original gage at datum 3.93 ft lower than present datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1962 by Leesville Lake (station 02059400) 68.7 mi upstream and since 1963 by Smith Mountain Lake (station 02057400) 86.7 mi upstream. Statistics of monthly mean data and summary statistics for water years 1901 - 1906, 1928 - 1930, 1951 - 1962 (unregulated flow) are available in previous data books, water years 1991 - 1998. U.S. Army Corps of Engineers satellite gage-height telemeter at station. Maximum discharge, 97,000 ft³/s, from graph based on gage readings, site and datum then in use. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 16, 1940, reached a stage of 41.6 ft, present site and datum, discharge, 150,000 ft³/s, from information by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17,200	1,960	4,310	2,550	3,080	3,020	11,200	2,640	1,630	1,490	2,860	1,270
2	17,000	1,970	4,510	2,460	3,010	3,440	10,400	2,880	1,550	1,320	2,130	1,160
3	9,430	1,960	4,410	2,270	2,920	3,640	9,690	3,150	1,900	1,250	1,520	1,100
4	4,670	2,070	4,150	2,250	3,060	3,620	7,070	2,770	2,100	1,330	1,420	1,050
5	3,510	2,740	3,970	2,300	3,040	3,700	5,180	2,440	1,850	1,280	1,370	1,030
6	3,160	2,940	3,820	2,340	2,880	3,680	4,230	2,400	1,670	1,260	1,360	1,000
7	2,660	2,550	4,020	2,310	2,760	3,760	3,780	2,380	1,580	1,700	1,340	988
8	2,160	2,370	4,160	2,250	2,740	3,840	4,110	2,390	1,570	6,450	1,320	993
9	1,990	2,190	4,000	2,240	2,760	4,680	3,890	2,530	1,550	5,300	1,420	992
10	1,820	1,930	7,300	2,260	2,790	4,820	3,400	2,870	1,680	2,400	1,810	993
11	1,740	1,840	9,060	2,180	2,730	4,550	3,120	2,720	1,790	1,690	1,840	989
12	1,690	2,150	6,530	2,180	2,650	3,950	3,000	2,390	2,020	1,480	1,900	974
13	1,790	5,820	5,610	2,190	2,610	3,690	2,820	2,440	1,890	1,340	1,590	955
14	5,040	6,680	5,250	8,230	2,610	3,410	3,070	2,390	1,700	1,390	1,250	958
15	5,620	5,340	4,960	20,800	2,700	3,530	3,390	2,420	1,670	1,460	1,150	959
16	4,110	4,030	4,080	16,100	2,700	3,220	3,120	2,750	1,510	1,620	1,130	994
17	2,940	3,440	3,170	11,200	2,680	3,370	2,950	2,940	1,340	1,770	1,170	966
18	2,260	2,990	2,770	5,830	2,640	4,080	2,640	2,540	1,300	1,580	1,290	975
19	1,690	2,550	2,580	4,810	2,520	4,150	2,410	2,440	1,300	1,250	1,220	958
20	1,700	2,220	2,340	3,680	2,370	4,020	2,370	2,780	1,320	1,150	1,190	955
21	1,720	2,100	2,160	3,590	2,410	3,840	2,210	3,360	1,340	1,030	1,200	967
22	1,750	2,070	2,020	3,460	2,590	3,750	2,210	2,590	1,320	1,440	1,190	961
23	1,940	2,870	2,160	3,380	2,590	3,600	2,360	2,290	1,330	3,140	1,150	974
24	1,950	5,640	3,650	3,140	2,550	5,940	3,400	2,350	1,320	3,620	1,150	965
25	1,930	12,200	5,800	2,770	2,670	6,080	3,400	2,520	1,320	2,340	1,150	961
26	1,920	14,200	5,010	2,770	2,660	5,360	3,130	2,550	1,600	1,130	1,100	964
27	2,010	9,890	4,590	2,660	2,560	4,990	2,970	2,390	1,230	826	1,120	972
28	2,000	5,100	3,600	2,560	2,620	7,370	2,590	2,060	1,240	847	1,330	984
29	2,000	5,120	2,930	2,360	---	17,600	2,460	1,860	1,270	901	1,420	984
30	2,010	4,600	2,710	2,380	---	15,700	2,560	1,800	1,370	957	2,060	982
31	2,010	---	2,660	2,820	---	12,400	---	1,760	---	1,570	2,240	---
TOTAL	113,420	123,530	128,290	132,320	75,900	162,800	119,130	77,790	46,260	56,311	45,390	29,973
MEAN	3,659	4,118	4,138	4,268	2,711	5,252	3,971	2,509	1,542	1,816	1,464	999
MAX	17,200	14,200	9,060	20,800	3,080	17,600	11,200	3,360	2,100	6,450	2,860	1,270
MIN	1,690	1,840	2,020	2,180	2,370	3,020	2,210	1,760	1,230	826	1,100	955

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2005, BY WATER YEAR (WY)

MEAN	1,998	2,292	2,594	3,580	4,007	4,827	4,322	3,340	2,630	1,862	1,700	2,163
MAX	7,906	11,230	6,887	9,532	12,230	13,970	17,570	10,060	10,260	5,635	5,988	11,350
(WY)	(1991)	(1986)	(1997)	(1978)	(1998)	(1975)	(1987)	(1978)	(1972)	(1972)	(1985)	(1996)
MIN	428	658	809	857	781	769	1,082	1,038	491	613	493	458
(WY)	(1964)	(2002)	(2002)	(2002)	(2002)	(1981)	(2002)	(1964)	(1964)	(2002)	(1964)	(2002)

02066000 ROANOKE (STAUNTON) RIVER AT RANDOLPH, VA—Continued

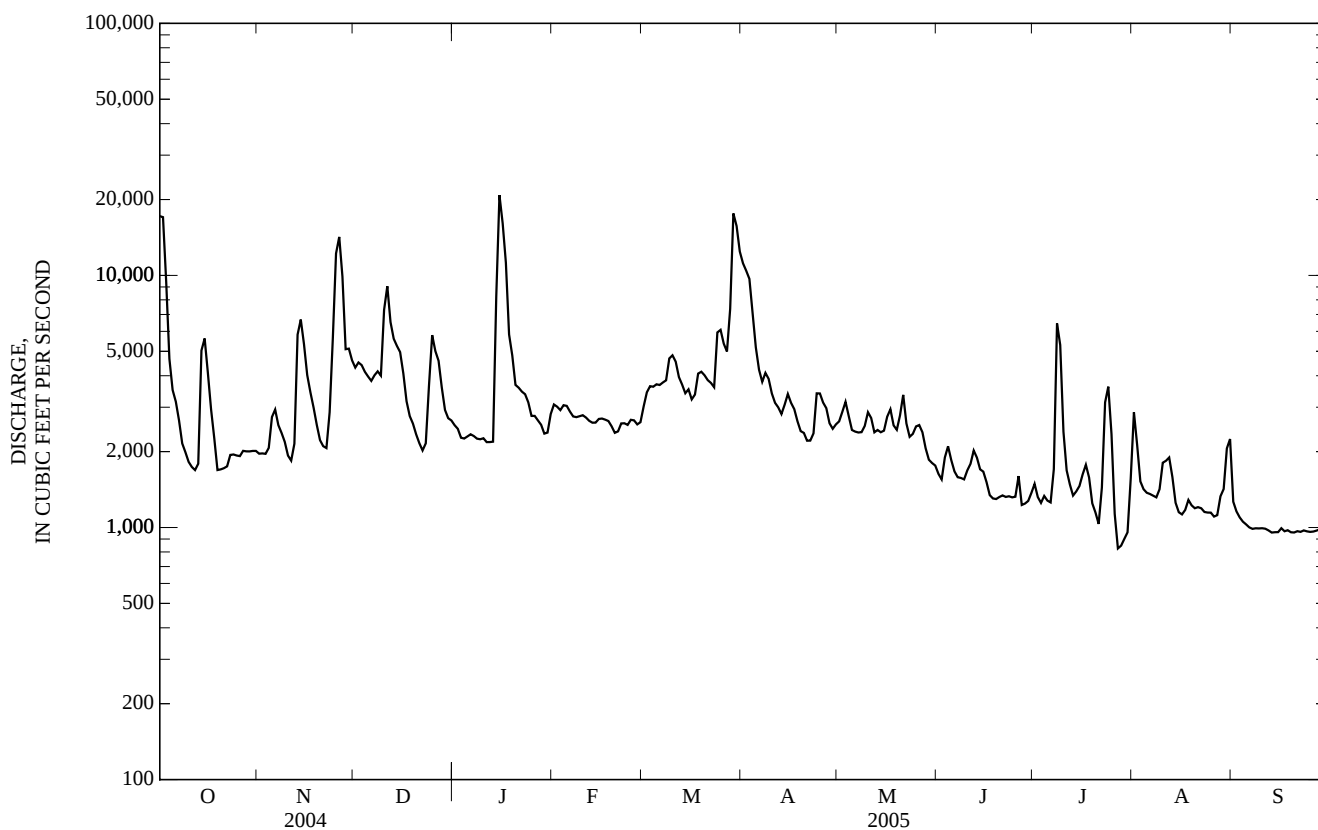
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1963 - 2005	
ANNUAL TOTAL	1,236,130		1,111,114		2,936	
ANNUAL MEAN	3,377		3,044		5,152	
HIGHEST ANNUAL MEAN					852	
LOWEST ANNUAL MEAN					78,700	
HIGHEST DAILY MEAN	17,200	Sep 30	20,800	Jan 15	179	Sep 8, 1996
LOWEST DAILY MEAN	1,200	Jul 22	826	Jul 27	238	aSep 8, 1965
ANNUAL SEVEN-DAY MINIMUM	1,270	Jul 17	963	Sep 19	238	Sep 5, 1965
MAXIMUM PEAK FLOW			22,000	Jan 15	b89,300	Sep 7, 1996
MAXIMUM PEAK STAGE			23.60	Jan 15	b34.94	Sep 7, 1996
INSTANTANEOUS LOW FLOW			791	Jul 28	c176	dSep 8, 1965
ANNUAL RUNOFF (CFSM)	1.13		1.02		0.986	
ANNUAL RUNOFF (INCHES)	15.45		13.88		13.40	
10 PERCENT EXCEEDS	5,630		5,140		5,610	
50 PERCENT EXCEEDS	2,660		2,400		1,780	
90 PERCENT EXCEEDS	1,540		1,130		826	

a Also July 7, 1970.

b Prior to regulation, 1901-06, 1928-30, 1951-62, maximum peak flow, 97,000 ft³/s, Dec. 31, 1901, gage height, 35.00 ft.

c Prior to regulation, 1901-06, 1928-30, 1951-62, instantaneous low flow, 256 ft³/s, Sept. 16, 1954.

d Also Sept. 9, 1965.



02068500 DAN RIVER NEAR FRANCISCO, NC

LOCATION.--Lat 36°30'54", long 80°18'11", Stokes County, Hydrologic Unit 03010103, on left bank 200 ft upstream from bridge on State Highway 704, 700 ft downstream of remains of Georges Mill, 0.2 mi downstream of Elk Creek, 3 mi east of Francisco, and 7.9 mi downstream of Little Dan River.

DRAINAGE AREA.--129 mi².

PERIOD OF RECORD.--August 1924 to September 1987, December 1991 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 1303: 1938-50 (monthly runoff). WSP 1433: 1925-26, 1928-29, 1931, 1942, 1948. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 831.99 ft above NGVD of 1929. Prior to Nov. 15, 1929, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since 1938, considerable diurnal fluctuation and regulation by Talbott and Townes Reservoirs (stations 02067800 and 02067820, respectively) and Pinnacles Hydroelectric Plant in Virginia, 28 mi upstream. Minimum discharge for current water year also occurred Sept. 15, 30.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 15 ft, from information by local residents, discharge, 16,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	449	205	330	220	230	231	314	243	169	131	210	111
2	384	205	298	217	221	222	524	226	202	191	158	123
3	338	205	271	214	254	216	497	216	208	153	150	128
4	313	227	255	212	261	190	375	206	186	212	181	127
5	280	223	247	208	241	191	324	203	158	186	192	91
6	256	207	247	207	234	218	304	204	161	156	190	88
7	245	205	249	203	228	215	312	202	158	446	155	87
8	233	202	242	193	226	288	325	200	311	490	127	88
9	226	198	313	189	227	316	306	192	242	203	151	86
10	220	196	572	189	226	272	294	163	299	194	148	88
11	214	196	379	185	215	251	288	e262	275	173	128	128
12	211	344	316	184	209	246	286	e204	209	165	161	87
13	558	339	291	185	205	213	263	e201	203	239	170	82
14	474	251	265	1,770	222	208	255	185	231	275	150	83
15	304	233	241	497	218	209	234	196	180	332	129	81
16	256	226	233	353	214	212	228	189	211	240	185	138
17	236	216	229	301	205	230	226	178	174	234	179	124
18	229	213	224	263	198	220	226	179	160	220	130	93
19	235	210	222	260	194	215	228	181	133	211	120	82
20	233	209	205	253	193	212	227	330	146	288	124	128
21	220	206	231	247	202	208	228	298	131	238	147	135
22	217	205	216	240	197	208	256	201	126	174	107	85
23	215	239	492	238	190	374	333	189	128	190	107	87
24	223	451	435	235	197	288	246	188	119	157	108	113
25	218	623	301	238	191	286	241	195	118	132	112	82
26	212	344	267	230	185	275	234	166	117	199	110	88
27	212	297	249	231	184	273	240	142	117	186	119	94
28	215	309	239	217	229	892	229	151	171	176	150	83
29	213	268	236	215	---	678	250	171	153	143	118	83
30	212	254	231	246	---	427	256	172	155	195	115	81
31	208	---	224	246	---	347	---	169	---	608	134	---
TOTAL	8,259	7,706	8,750	8,886	5,996	8,831	8,549	6,202	5,351	7,137	4,465	2,974
MEAN	266	257	282	287	214	285	285	200	178	230	144	99.1
MAX	558	623	572	1,770	261	892	524	330	311	608	210	138
MIN	208	196	205	184	184	190	226	142	117	131	107	81
†	-7	-11	0	+16	0	+1	-6	0	-5	-7	-3	-20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005,*@ BY WATER YEAR (WY)

MEAN	149	157	179	199	220	258	267	217	202	169	167	152
MAX	543	327	479	424	463	571	677	405	719	425	514	630
(WY)	(1938)	(1980)	(1997)	(1978)	(1960)	(1993)	(1980)	(1949)	(2003)	(2003)	(1940)	(1979)
MIN	49.7	61.3	77.5	76.2	94.9	94.2	119	95.3	77.9	54.8	52.5	50.4
(WY)	(1964)	(1954)	(1998)	(1956)	(1956)	(1981)	(2002)	(2000)	(2002)	(1986)	(1981)	(1968)

02068500 DAN RIVER NEAR FRANCISCO, NC—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1938 - 2005* [@]	
ANNUAL TOTAL	83,680		83,106		(UNADJUSTED)	
ANNUAL MEAN	229		228		195	
HIGHEST ANNUAL MEAN			‡224		314	2003
LOWEST ANNUAL MEAN					93.6	2002
HIGHEST DAILY MEAN	5,990	Sep 28	1,770	Jan 14	6,830	Sep 22, 1979
LOWEST DAILY MEAN	90	Sep 6	81	Sep 15	21	Sep 4, 1999
ANNUAL SEVEN-DAY MINIMUM	95	Aug 31	89	Sep 24	28	Aug 24, 1981
MAXIMUM PEAK FLOW			4,800	Jan 14	21,200	Aug 17, 1985
MAXIMUM PEAK STAGE			7.31	Jan 14	19.50	Aug 17, 1985
INSTANTANEOUS LOW FLOW			80*	Sep 13	7.1	Sep 8, 1932
10 PERCENT EXCEEDS	314		315		320	
50 PERCENT EXCEEDS	195		213		156	
90 PERCENT EXCEEDS	118		124		81	

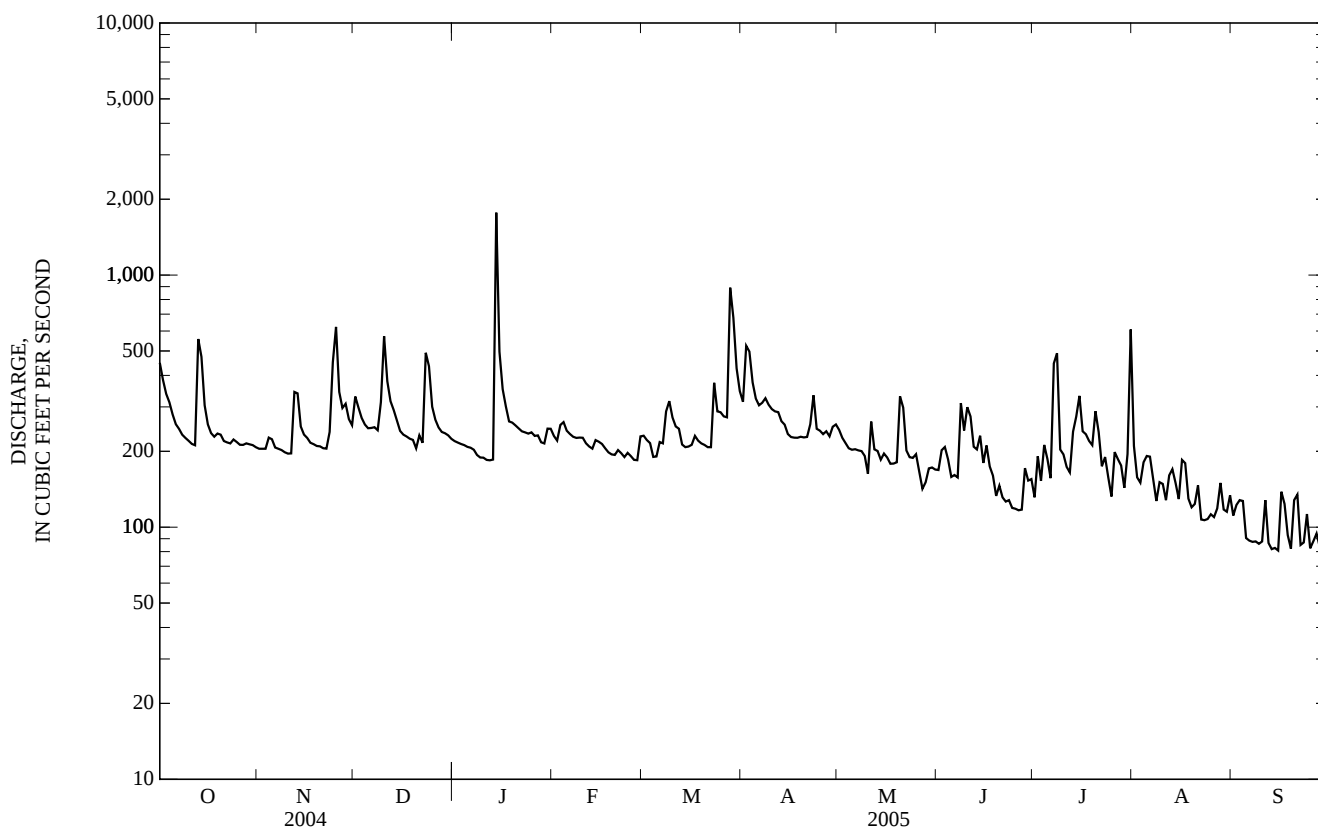
† Change in contents, equivalent in cubic feet per second, in Talbott and Townes Reservoirs provided by city of Danville, Virginia.

* Regulated period only (1982-2005). See REMARKS.

[@] See PERIOD OF RECORD.

‡ Adjusted for change in contents.

e Estimated.



02069700 SOUTH MAYO RIVER NEAR NETTLERIDGE, VA

LOCATION.--Lat 36°34'15", long 80°07'46", NAD83, Patrick County, Hydrologic Unit 03010103, on right bank 60 ft downstream from bridge on State Highway 700, 1.2 mi southeast of Nettleridge, 1.4 mi downstream from Russell Creek, and 3.6 mi upstream from Spoon Creek.

DRAINAGE AREA.--84.6 mi².

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WSP 2104: Drainage area. WDR VA-74-1: 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 871.60 ft NGVD of 1929. Prior to Oct. 9, 1964, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 20,600 ft³/s, from rating curve extended above 2,900 ft³/s on basis of contracted-opening measurements at gage heights 18.32 ft and 22.00 ft. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location by the Virginia Department of Environmental Quality - Water Division.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0700	*1,620	*7.80	Mar 28	1100	1,340	7.19

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	257	101	218	128	136	135	167	127	97	80	269	62
2	213	100	181	125	e125	120	374	119	154	100	141	60
3	184	100	164	123	160	120	276	116	143	79	109	58
4	166	128	151	122	164	122	228	113	120	96	96	55
5	148	118	142	121	149	133	204	110	116	82	89	54
6	137	105	144	119	139	140	188	110	104	90	83	53
7	130	102	142	117	135	133	183	108	101	182	80	52
8	123	100	137	116	133	194	207	107	176	321	94	52
9	119	97	200	113	131	168	187	104	211	117	115	51
10	116	96	420	112	130	148	171	102	260	95	137	50
11	111	96	248	111	121	139	164	100	227	86	99	49
12	109	254	197	111	119	133	159	101	122	92	86	48
13	259	206	174	111	117	126	168	102	125	117	79	48
14	279	140	157	772	131	131	169	101	143	136	77	47
15	164	124	147	334	122	122	153	108	110	165	84	48
16	138	117	141	233	119	124	145	104	99	119	79	49
17	125	113	137	196	115	155	141	96	93	102	94	56
18	118	110	133	171	112	144	140	108	89	114	80	50
19	122	108	131	161	110	139	137	141	89	121	77	48
20	124	107	122	159	110	134	135	219	90	163	76	47
21	115	105	e119	157	117	128	131	374	87	113	75	50
22	113	103	121	e146	112	123	134	180	84	103	68	48
23	112	144	276	e138	109	200	192	146	81	93	68	48
24	116	345	245	e128	116	185	137	130	79	82	72	46
25	112	436	184	e130	111	160	130	122	77	78	66	47
26	108	233	164	135	108	149	126	113	76	73	64	50
27	106	184	151	132	106	148	128	108	75	71	64	54
28	107	233	141	124	e140	722	122	106	84	75	66	48
29	107	171	139	e123	---	390	135	103	83	118	64	47
30	105	157	136	e145	---	e220	136	102	82	111	64	45
31	104	---	132	154	---	188	---	98	---	644	70	---
TOTAL	4,347	4,533	5,294	5,067	3,497	5,373	5,067	3,878	3,477	4,018	2,785	1,520
MEAN	140	151	171	163	125	173	169	125	116	130	89.8	50.7
MAX	279	436	420	772	164	722	374	374	260	644	269	62
MIN	104	96	119	111	106	120	122	96	75	71	64	45
CFSM	1.66	1.79	2.02	1.93	1.48	2.05	2.00	1.48	1.37	1.53	1.06	0.60
IN.	1.91	1.99	2.33	2.23	1.54	2.36	2.23	1.71	1.53	1.77	1.22	0.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2005, BY WATER YEAR (WY)

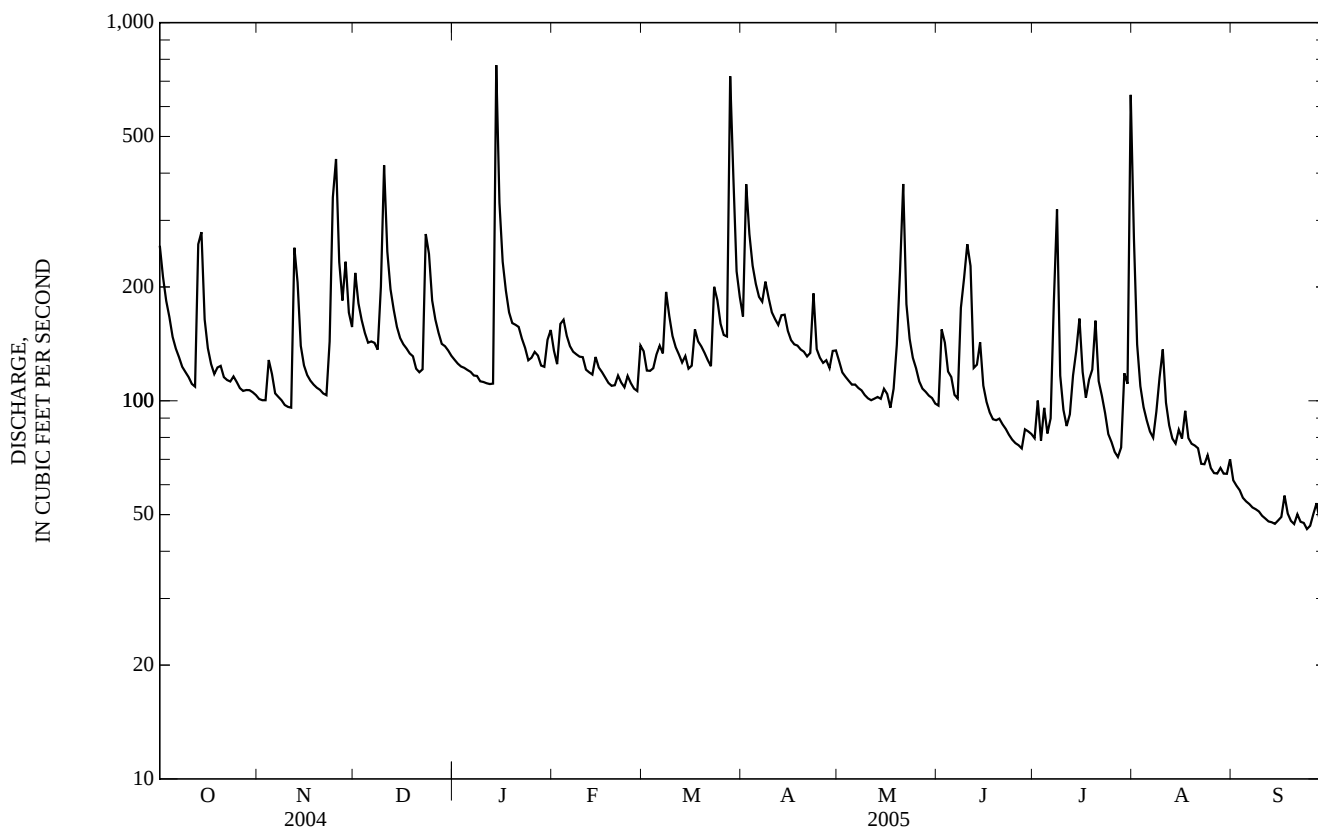
	MEAN	MAX	MIN	(WY)	(1990)	(1986)	(1997)	(1993)	(1990)	(1993)	(1987)	(1990)	(1972)	(1989)	(1985)	(1979)
MEAN	96.2	103	115	135	147	179	176	143	131	107	98.0	93.5				
MAX	304	339	240	261	352	423	497	295	435	303	407	417				
MIN	30.4	30.2	43.0	48.6	50.7	65.0	64.4	56.5	28.2	25.9	17.2	30.4				
(WY)	(2002)	(2002)	(2001)	(1981)	(2001)	(1981)	(2002)	(1981)	(2002)	(2002)	(2002)	(2002)				

02069700 SOUTH MAYO RIVER NEAR NETTLERIDGE, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1963 - 2005	
ANNUAL TOTAL	53,148		48,856		127	
ANNUAL MEAN	145		134		206	
HIGHEST ANNUAL MEAN					44.9	
LOWEST ANNUAL MEAN					6,820	
HIGHEST DAILY MEAN	3,160	Sep 28	772	Jan 14	1990	2002
LOWEST DAILY MEAN	65	Sep 6	45	Sep 30	8.7	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	68	Aug 31	48	Sep 19	10	Aug 9, 2002
MAXIMUM PEAK FLOW			1,620	Jan 14	20,600	Sep 22, 1979
MAXIMUM PEAK STAGE			7.80	Jan 14	22.00	Sep 22, 1979
INSTANTANEOUS LOW FLOW			45	aSep 24	8.3	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	1.72		1.58		1.50	
ANNUAL RUNOFF (INCHES)	23.37		21.48		20.37	
10 PERCENT EXCEEDS	204		198		211	
50 PERCENT EXCEEDS	107		120		96	
90 PERCENT EXCEEDS	81		67		47	

a Also Sept. 25, 30, 2005.

e Estimated.



02070000 NORTH MAYO RIVER NEAR SPENCER, VA

LOCATION.--Lat 36°34'05", long 79°59'14", NAD83, Henry County, Hydrologic Unit 03010103, on left bank 800 ft downstream from bridge on State Highway 629 at Moores Mill, 2.1 mi downstream from Horse Pasture Creek, and 3.8 mi southeast of Spencer.

DRAINAGE AREA.--108 mi².

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 1303: 1929-32(M), 1934(M).

GAGE.--Water-stage recorder. Datum of gage is 730.94 ft NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Jan. 23, 1936, nonrecording gage at site 800 ft upstream at datum 1.50 ft higher. July 25 to Sept. 27, 1936, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 17,200 ft³/s, from rating curve extended above 7,200 ft³/s on basis of slope-area measurement at gage height 13.41 ft and velocity-area study. 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1000	1,700	5.22	Jul 8	0515	1,800	5.37
Mar 28	1530	*2,000	*5.64	Jul 31	1645	1,850	5.44

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	101	191	114	125	132	171	117	82	105	364	71
2	157	100	178	112	119	121	284	109	129	404	169	69
3	149	100	160	112	137	126	246	108	147	121	130	67
4	141	126	149	112	161	136	186	105	112	108	110	64
5	126	133	142	111	151	156	167	104	98	100	100	63
6	119	110	141	110	136	153	157	104	92	126	95	61
7	115	106	143	108	129	139	152	103	90	232	92	60
8	111	104	136	107	126	186	158	101	102	875	106	59
9	108	101	182	105	124	167	149	99	94	176	123	59
10	106	98	452	104	123	142	139	97	112	124	143	58
11	102	96	243	104	114	133	136	97	126	108	105	56
12	101	254	178	104	114	127	133	98	96	104	92	55
13	164	282	156	104	112	122	140	96	93	102	85	55
14	219	151	141	912	123	124	143	97	106	114	82	54
15	139	129	133	283	119	119	130	98	89	134	78	56
16	119	120	129	180	115	118	123	100	82	110	89	56
17	111	115	127	153	112	154	121	93	78	99	168	65
18	107	112	124	137	109	168	120	97	76	121	101	58
19	109	109	122	129	107	140	120	116	76	299	92	55
20	116	107	111	132	108	131	118	109	76	131	104	54
21	111	104	e110	131	113	125	116	153	76	151	102	61
22	108	102	116	e120	110	120	118	104	82	193	81	58
23	108	149	170	e115	107	165	157	96	76	170	91	56
24	108	404	191	e108	113	189	123	94	72	114	87	54
25	109	481	142	e115	113	151	116	96	70	101	79	55
26	104	236	130	119	107	140	114	91	69	93	75	58
27	102	179	124	116	106	138	115	87	68	89	74	59
28	103	264	118	109	126	1,010	112	87	72	90	77	55
29	104	189	119	e105	---	457	117	86	74	121	74	53
30	104	165	118	132	---	234	122	85	284	103	78	52
31	102	---	116	146	---	190	---	83	---	1,220	81	---
TOTAL	3,761	4,827	4,792	4,649	3,359	5,713	4,303	3,110	2,899	6,138	3,327	1,756
MEAN	121	161	155	150	120	184	143	100	96.6	198	107	58.5
MAX	219	481	452	912	161	1,010	284	153	284	1,220	364	71
MIN	101	96	110	104	106	118	112	83	68	89	74	52
CFSM	1.12	1.49	1.43	1.39	1.11	1.71	1.33	0.93	0.89	1.83	0.99	0.54
IN.	1.30	1.66	1.65	1.60	1.16	1.97	1.48	1.07	1.00	2.11	1.15	0.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1935, 1937 - 2005, BY WATER YEAR (WY)

MEAN	111	105	122	143	155	180	164	134	125	107	99.0	105
MAX	498	392	256	368	364	479	523	329	470	380	446	462
(WY)	(1938)	(1986)	(1997)	(1937)	(1960)	(1993)	(1987)	(1972)	(1972)	(2003)	(1985)	(1987)
MIN	25.4	30.5	43.5	40.6	49.6	85.5	56.9	55.5	21.1	21.5	12.4	25.7
(WY)	(2002)	(2002)	(1956)	(1956)	(1931)	(1981)	(2002)	(2002)	(2002)	(2002)	(2002)	(1954)

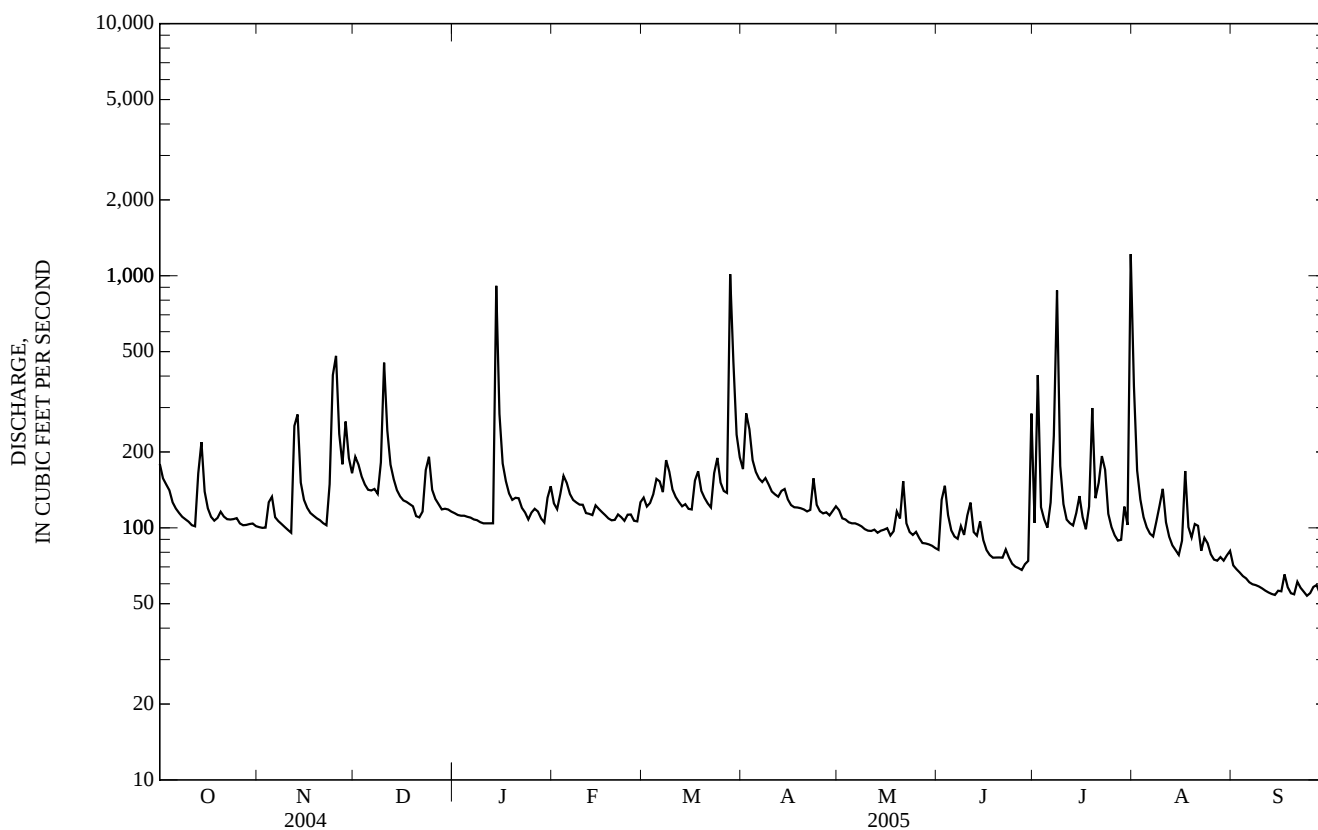
02070000 NORTH MAYO RIVER NEAR SPENCER, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS	
					1929 - 1935	
					1937 - 2005	
ANNUAL TOTAL	54,572		48,634		129	
ANNUAL MEAN	149		133		218	
HIGHEST ANNUAL MEAN					43.5	
LOWEST ANNUAL MEAN					1987	
HIGHEST DAILY MEAN	2,190	Sep 28	1,220	Jul 31	7,460	Aug 18, 1985
LOWEST DAILY MEAN	72	aJul 25	52	Sep 30	b5.9	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	75	Aug 31	55	Sep 24	6.4	Aug 10, 2002
MAXIMUM PEAK FLOW			2,000	Mar 28	17,200	Oct 9, 1947
MAXIMUM PEAK STAGE			5.64	Mar 28	15.80	Oct 9, 1947
INSTANTANEOUS LOW FLOW			50	Sep 30	5.6	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	1.38		1.23		1.19	
ANNUAL RUNOFF (INCHES)	18.80		16.75		16.22	
10 PERCENT EXCEEDS	199		178		200	
50 PERCENT EXCEEDS	111		113		95	
90 PERCENT EXCEEDS	86		74		49	

a Also July 26 and Sept. 5, 6, 2004.

b Also Aug. 16, 2002.

e Estimated.



02071530 SMITH RIVER AT SMITH RIVER CHURCH NEAR WOOLWINE, VA

LOCATION.--Lat 36°46'42", long 80°14'57", NAD83, Patrick County, Hydrologic Unit 03010103, on left bank 10 ft downstream from bridge on State Highway 708, 1.9 mi southeast of Woolwine, and 29 mi upstream from Philpott Dam.

DRAINAGE AREA.--26.7 mi².

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,210 ft NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 3,450 ft³/s, from rating curve extended above 950 ft³/s. Several observations of water temperature were made during the year.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0230	*1,660	*8.69				
						No other peak greater than base discharge.	

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	e44	74	53	52	45	89	54	37	40	28	25
2	112	44	65	52	50	43	210	51	75	37	24	23
3	102	44	60	51	56	43	121	50	78	31	23	22
4	93	53	57	50	55	48	102	49	56	31	22	21
5	86	47	54	49	53	67	93	48	47	31	22	21
6	81	45	56	48	51	65	86	48	43	30	21	21
7	76	43	54	47	50	60	88	46	45	93	24	20
8	73	42	51	47	50	95	86	44	66	77	45	19
9	70	41	72	46	50	74	77	44	46	43	71	19
10	66	41	89	45	50	64	74	43	42	36	64	19
11	66	41	70	44	48	59	71	43	40	35	35	18
12	64	71	63	43	47	56	71	42	40	34	29	18
13	118	60	59	44	46	53	78	46	45	41	26	20
14	76	50	56	375	50	55	70	45	41	55	24	22
15	60	47	53	116	47	50	66	45	37	64	54	20
16	55	46	52	91	46	52	64	43	35	44	85	19
17	51	44	50	79	45	59	62	41	33	38	66	20
18	49	43	49	72	44	58	60	41	33	37	42	18
19	52	42	49	68	43	57	59	43	32	37	37	18
20	49	41	47	65	44	55	58	88	36	38	32	19
21	48	40	47	63	46	52	57	74	32	32	28	22
22	52	40	46	61	43	51	64	52	30	30	26	18
23	55	55	186	e59	42	88	63	46	29	27	34	16
24	54	146	108	e53	45	74	58	46	28	26	29	16
25	50	116	82	e54	43	67	56	43	28	26	27	18
26	49	79	72	55	42	63	55	41	27	24	25	19
27	48	71	66	52	41	73	55	39	37	23	25	18
28	48	82	61	50	51	325	52	38	43	24	25	16
29	48	67	59	e49	---	150	60	37	40	30	24	15
30	47	62	58	e54	---	111	57	36	35	33	32	15
31	45	---	56	55	---	96	---	36	---	34	36	---
TOTAL	2,071	1,687	2,021	2,090	1,330	2,308	2,262	1,442	1,236	1,181	1,085	575
MEAN	66.8	56.2	65.2	67.4	47.5	74.5	75.4	46.5	41.2	38.1	35.0	19.2
MAX	128	146	186	375	56	325	210	88	78	93	85	25
MIN	45	40	46	43	41	43	52	36	27	23	21	15
CFSM	2.50	2.11	2.44	2.53	1.78	2.79	2.82	1.74	1.54	1.43	1.31	0.72
IN.	2.89	2.35	2.82	2.91	1.85	3.22	3.15	2.01	1.72	1.65	1.51	0.80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2005, BY WATER YEAR (WY)

MEAN	28.6	34.8	42.2	51.9	55.1	61.1	59.7	46.2	42.8	28.0	28.1	33.5
MAX	66.8	69.6	95.2	86.9	120	96.0	134	80.7	145	89.5	82.3	103
(WY)	(2005)	(2004)	(1997)	(1995)	(1998)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)
MIN	12.3	13.2	17.6	22.2	21.7	35.0	30.7	23.8	12.9	10.9	6.85	13.2
(WY)	(2001)	(2002)	(1998)	(2001)	(2002)	(1999)	(1999)	(2002)	(2002)	(2002)	(2002)	(1995)

02071530 SMITH RIVER AT SMITH RIVER CHURCH NEAR WOOLWINE, VA—Continued

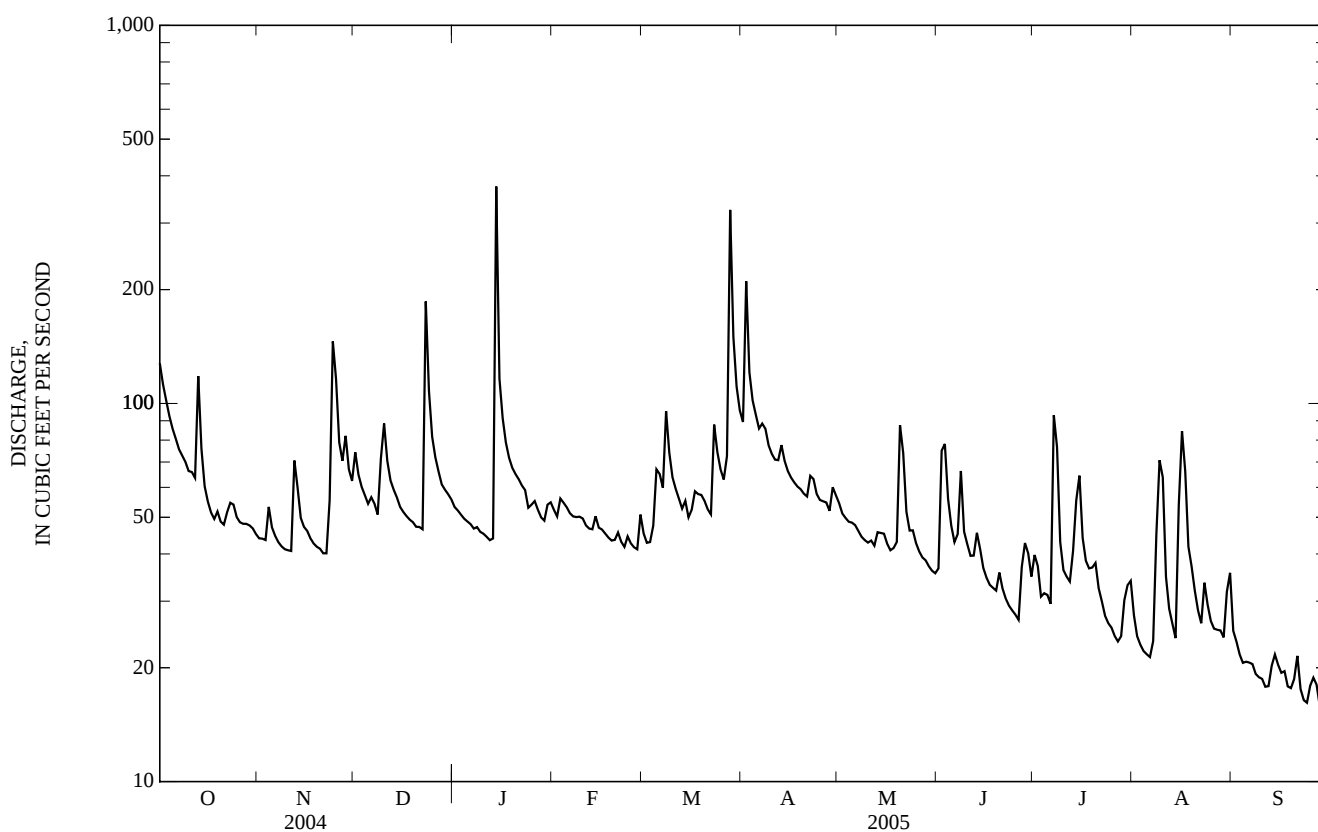
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1995 - 2005	
ANNUAL TOTAL	19,075		19,288		42.6	
ANNUAL MEAN	52.1		52.8		75.5	
HIGHEST ANNUAL MEAN					20.7	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	983	Sep 28	375	Jan 14	983	Sep 28, 2004
LOWEST DAILY MEAN	13	aJul 25	15	bSep 29	3.8	Aug 10, 2002
ANNUAL SEVEN-DAY MINIMUM	16	Jul 13	17	Sep 24	4.7	Aug 19, 2002
MAXIMUM PEAK FLOW			1,660	Jan 14	3,520	Sep 28, 2004
MAXIMUM PEAK STAGE			8.69	Jan 14	12.20	Sep 28, 2004
INSTANTANEOUS LOW FLOW			14	cSep 12	2.7	Aug 11, 2002
ANNUAL RUNOFF (CFSM)	1.95		1.98		1.59	
ANNUAL RUNOFF (INCHES)	26.58		26.87		21.66	
10 PERCENT EXCEEDS	73		78		77	
50 PERCENT EXCEEDS	46		48		33	
90 PERCENT EXCEEDS	19		24		14	

a Also Aug. 1, 2004.

b Also Sept. 30, 2005.

c Also Sept. 29, 30, 2005.

e Estimated.



02072000 SMITH RIVER NEAR PHILPOTT, VA

LOCATION.--Lat 36°46'50", long 80°01'29", NAD83, Franklin County, Hydrologic Unit 03010103, on left bank 900 ft down-stream from Philpott Dam, 1.3 mi southwest of Philpott (corrected), 11.6 mi upstream from Reed Creek, and at mile 44.1.

DRAINAGE AREA.--216 mi².

PERIOD OF RECORD.--August 1946 to current year.

REVISED RECORDS.--WSP 1553: 1953(M), 1955-56(M). WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 804.27 ft NGVD of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Oct. 8, 1952, at site 1.9 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Since August 1950, flow regulated by Philpott Lake (station 02071900) 0.2 mi upstream. Statistics of monthly mean data and summary statistics for water years 1947 - 1950 (unregulated flow) are available in previous data books, water years 1991 - 1998. Maximum discharge, 17,000 ft³/s, at site then in use, from rating curve extended above 9,700 ft³/s on basis of slope-area measurements at gage heights 18.2 ft and 20.3 ft. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,220	457	236	70	233	341	803	67	513	229	238	351
2	1,350	456	610	69	232	341	812	345	67	69	407	295
3	1,360	453	842	713	233	341	819	345	289	69	405	69
4	1,370	456	725	744	233	341	814	342	67	291	404	69
5	1,270	456	725	743	69	68	813	562	67	402	293	240
6	499	65	726	739	69	69	814	562	270	399	69	296
7	499	65	726	735	286	339	816	67	281	348	69	297
8	501	233	398	69	286	339	820	67	288	288	295	353
9	63	232	400	69	286	500	820	399	289	69	407	297
10	63	232	399	408	286	499	820	398	289	69	349	69
11	501	232	71	408	285	500	821	398	67	401	458	69
12	502	234	71	407	69	67	823	397	67	401	237	298
13	502	67	616	407	69	67	824	288	458	346	69	354
14	502	67	725	409	340	607	604	67	400	236	69	354
15	504	233	727	71	340	607	608	67	455	318	461	241
16	63	399	728	724	340	608	65	292	290	68	463	242
17	63	399	728	720	394	387	65	292	180	69	349	69
18	557	399	71	723	339	651	505	286	69	349	237	70
19	721	401	71	720	69	184	504	187	69	340	237	355
20	714	66	346	724	69	67	504	73	346	282	69	356
21	722	67	341	724	339	604	505	73	289	401	69	300
22	735	345	340	69	339	603	508	73	290	343	351	241
23	64	344	366	69	365	615	65	71	235	68	294	241
24	64	347	344	668	340	607	66	68	235	69	405	69
25	455	346	71	667	340	603	286	456	69	348	406	69
26	453	345	71	669	69	67	286	619	69	401	294	358
27	454	71	287	668	69	67	289	726	291	349	69	295
28	455	71	287	671	344	444	454	728	291	349	69	306
29	455	399	287	69	---	704	454	67	240	350	407	306
30	65	398	497	69	---	703	66	67	241	70	408	247
31	65	---	503	233	---	703	---	677	---	69	296	---
TOTAL	16,811	8,335	13,335	14,248	6,732	12,643	16,453	9,126	7,071	7,860	8,653	7,176
MEAN	542	278	430	460	240	408	548	294	236	254	279	239
MAX	1,370	457	842	744	394	704	824	728	513	402	463	358
MIN	63	65	71	69	69	67	65	67	67	68	69	69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2005, BY WATER YEAR (WY)

	234	223	247	270	264	326	381	301	283	242	256	255
MEAN	755	835	586	526	718	946	1,194	796	874	646	551	724
(WY)	(1990)	(1986)	(1997)	(1991)	(1973)	(1993)	(1983)	(1978)	(2003)	(1972)	(2003)	(1979)
MIN	74.7	70.5	88.0	71.1	58.2	60.5	69.2	61.3	67.2	77.6	74.8	71.2
(WY)	(2003)	(1953)	(1996)	(1953)	(1953)	(1953)	(1969)	(1964)	(1964)	(2002)	(2002)	(2002)

02072000 SMITH RIVER NEAR PHILPOTT, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 2005	
ANNUAL TOTAL	118,348		128,443		273	
ANNUAL MEAN	323		352		441	
HIGHEST ANNUAL MEAN					113	
LOWEST ANNUAL MEAN					113	
HIGHEST DAILY MEAN	1,390	Sep 10	1,370	Oct 4	5,710	Apr 24, 1992
LOWEST DAILY MEAN	58	aMay 8	63	bOct 9	c20	Mar 24, 1984
ANNUAL SEVEN-DAY MINIMUM	149	Aug 14	119	May 18	42	Mar 2, 1953
MAXIMUM PEAK FLOW			1,480	dSep 29	f9,500	Dec 7, 1950
MAXIMUM PEAK STAGE			5.17	Sep 29	15.00	Dec 7, 1950
INSTANTANEOUS LOW FLOW			28	gJul 19	h,j2.3	Dec 16, 1985
ANNUAL RUNOFF (CFSM)	1.50		1.63		1.27	
ANNUAL RUNOFF (INCHES)	20.38		22.12		17.19	
10 PERCENT EXCEEDS	657		724		649	
50 PERCENT EXCEEDS	288		340		204	
90 PERCENT EXCEEDS	64		68		46	

a Also May 8, 9, 15, 16, July 17, 18, 24, 25, 31, and Aug. 1, 2004.

b Also Oct. 10, 16, 17, 2004.

c Result of turbines being shut down for repair at Philpott Dam.

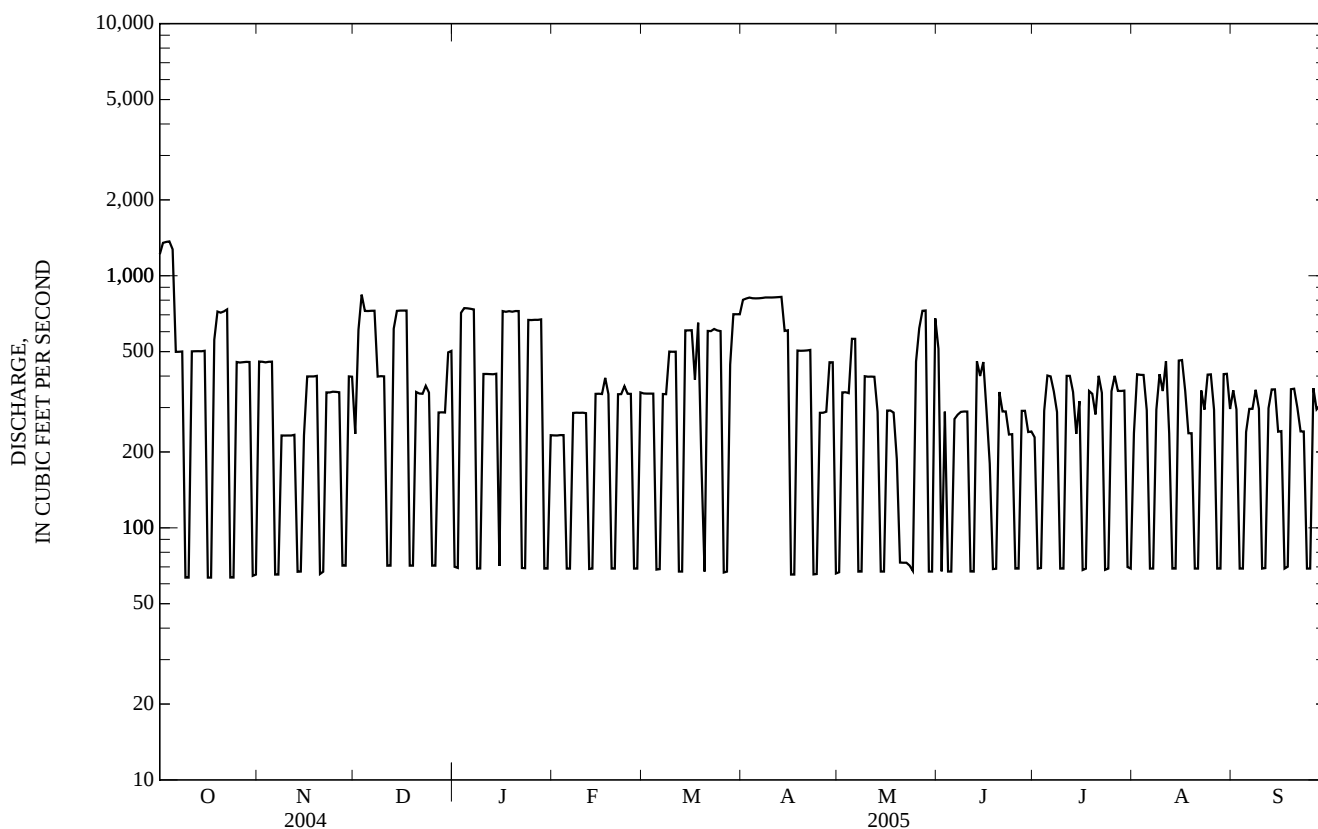
d Also Sept. 30, 2005.

f Prior to regulation, 1947-50, maximum peak flow, 17,000 ft³/s, June 29, 1949, gage height, 20.30 ft.

g Also July 20-22, 2005..

h Prior to regulation, 1947-50, instantaneous low flow, 21 ft³/s, Aug. 15, 1950.

j Result of repair at dam but may have been less during periods of estimated record.



02072500 SMITH RIVER AT BASSETT, VA

LOCATION.--Lat 36°46'12", long 80°00'03", NAD83, Henry County, Hydrologic Unit 03010103, on left bank 25 ft upstream from bridge on State Highway 666 at north edge of North Bassett, 1.0 mi northwest of Bassett, 3.0 mi downstream from Town Creek, 5.6 mi upstream from Reed Creek, 6.2 mi downstream from Philpott Dam, and at mile 38.1.

DRAINAGE AREA.--259 mi².

PERIOD OF RECORD.--April 1939 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 753.09 ft NGVD of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since August 1950, flow regulated by Philpott Lake (station 02071900) 6.2 mi upstream. Statistics of monthly mean data and summary statistics for water years 1940 - 1950 (unregulated flow) are available in previous data books, water years 1991 - 1998. U.S. Army Corps of Engineers satellite gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 19, 1937, reached a stage of about 22.9 ft, from information by local residents, discharge, 38,000 ft³/s, from rating curve extended above 23,000 ft³/s on basis of backwater studies and records for station at Martinsville.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,410	444	303	118	279	410	911	123	622	286	313	382
2	1,330	471	555	106	276	406	1,160	374	163	108	461	319
3	1,440	470	1,010	643	286	408	978	408	381	103	453	88
4	1,440	485	752	870	283	414	929	404	123	357	451	86
5	1,430	480	773	774	117	150	916	626	118	480	331	258
6	567	116	780	772	115	162	907	630	335	452	94	318
7	549	89	782	794	332	425	909	152	340	447	93	321
8	549	247	469	130	333	462	913	120	360	456	325	375
9	114	246	471	105	332	597	906	429	379	98	457	315
10	104	246	593	432	331	583	903	461	361	89	398	84
11	536	246	163	434	333	578	902	465	117	446	502	82
12	547	293	133	434	110	139	904	477	113	446	272	313
13	595	133	648	438	109	123	905	402	530	386	92	372
14	572	101	778	1,090	393	653	676	121	480	278	90	377
15	533	257	777	236	393	679	676	119	531	374	501	254
16	100	408	777	735	362	684	146	320	357	88	511	265
17	89	415	777	780	453	504	111	352	234	83	397	93
18	549	413	138	775	430	631	533	350	110	399	94	85
19	745	413	110	816	110	e500	565	283	111	501	263	372
20	734	97	373	776	111	e132	567	147	411	399	93	397
21	643	86	393	780	400	e730	569	132	e350	458	90	322
22	838	348	336	141	e400	e730	589	123	e350	359	438	265
23	115	405	438	110	e430	736	217	121	e280	e140	328	247
24	92	602	453	698	399	729	134	118	e280	e100	441	75
25	446	524	152	712	e410	707	353	508	e110	400	439	76
26	469	405	117	714	113	171	349	720	e110	e470	320	384
27	471	123	330	747	114	141	350	834	e360	e420	90	324
28	469	165	330	712	415	e600	505	839	e360	e420	102	323
29	470	443	329	120	---	e840	529	162	e310	396	440	325
30	112	452	532	122	---	833	143	119	312	114	449	260
31	85	---	548	288	---	821	---	740	---	231	330	---
TOTAL	18,143	9,623	15,120	16,402	8,169	15,678	19,155	11,179	8,998	9,784	9,658	7,757
MEAN	585	321	488	529	292	506	638	361	300	316	312	259
MAX	1,440	602	1,010	1,090	453	840	1,160	839	622	501	511	397
MIN	85	86	110	105	109	123	111	118	110	83	90	75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2005, BY WATER YEAR (WY)

MEAN	275	266	298	329	333	404	458	361	336	283	295	302
MAX	944	996	724	655	846	1,197	1,474	902	1,013	759	655	912
(WY)	(1990)	(1986)	(1997)	(1991)	(1998)	(1993)	(1987)	(1978)	(2003)	(1972)	(2003)	(1979)
MIN	101	98.4	110	107	110	114	98.6	86.7	84.4	89.7	83.1	89.7
(WY)	(2003)	(1953)	(1996)	(1989)	(1989)	(1982)	(1969)	(1964)	(1964)	(2002)	(2002)	(2002)

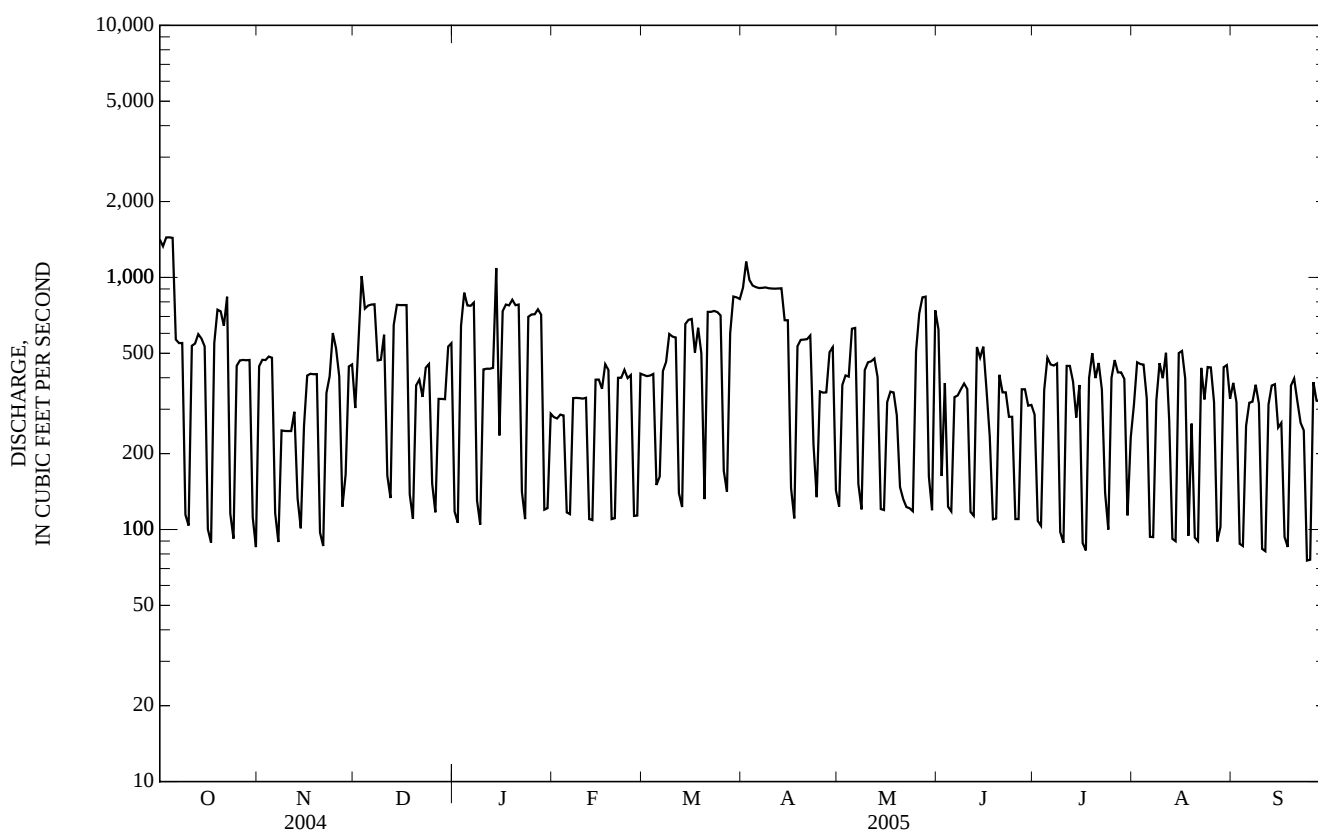
02072500 SMITH RIVER AT BASSETT, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 2005	
ANNUAL TOTAL	138,756		149,666		328	
ANNUAL MEAN	379		410		131	
HIGHEST ANNUAL MEAN					523	
LOWEST ANNUAL MEAN					131	
HIGHEST DAILY MEAN	1,490	Sep 10	1,440	aOct 3	6,080	Apr 24, 1992
LOWEST DAILY MEAN	79	Jul 25	75	Sep 24	44	Aug 23, 1964
ANNUAL SEVEN-DAY MINIMUM	167	Aug 23	182	May 18	67	Oct 6, 1980
MAXIMUM PEAK FLOW			2,400	Jan 14	b17,700	Sep 7, 1987
MAXIMUM PEAK STAGE			4.89	Jan 14	15.20	Sep 7, 1987
INSTANTANEOUS LOW FLOW			55	Sep 28	c19	Jul 19, 1956
ANNUAL RUNOFF (CFSM)	1.46		1.58		1.27	
ANNUAL RUNOFF (INCHES)	19.93		21.50		17.21	
10 PERCENT EXCEEDS	735		777		720	
50 PERCENT EXCEEDS	332		393		243	
90 PERCENT EXCEEDS	102		110		77	

a Also Oct. 4, 2004.

b Prior to regulation, 1940-50, maximum peak flow, 26,600 ft³/s, Aug. 14, 1940, gage height, 18.28 ft.c Prior to regulation, 1940-50, instantaneous low flow, 58 ft³/s, Jan. 3, 1940.

e Estimated.



02073000 SMITH RIVER AT MARTINSVILLE, VA

LOCATION.--Lat 36°39'40", long 79°52'50", NAD83, Henry County, Hydrologic Unit 03010103, on right bank at south edge of Martinsville, 800 ft downstream from bridge on U.S. Highways 58 and 220, and 5.0 mi downstream from Beaver Creek.

DRAINAGE AREA.--380 mi².

PERIOD OF RECORD.--August 1929 to current year.

REVISED RECORDS.--WSP 1032: 1933-35(M), 1936-39, 1940-41(P). WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 657.22 ft NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since August 1950 by Philpott Lake (station 02071900) 19.6 mi upstream from station. Some additional regulation by powerplant 1,000 ft upstream from station. Statistics of monthly mean data and summary statistics for water years 1930-1950 (unregulated flow) are available in previous data books, water years 1991-1998. Maximum discharge, 39,000 ft³/s, from rating curve extended above 17,000 ft³/s on basis of computations of flow over dam at gage heights 16.76 ft and 21.50 ft. 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.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,670	361	680	414	397	601	1,010	123	685	534	611	422
2	1,510	576	431	225	388	456	1,460	425	544	311	618	415
3	1,660	580	1,280	505	465	475	1,250	482	348	223	622	221
4	1,660	662	861	1,060	451	492	1,070	467	284	517	604	144
5	1,640	642	915	885	275	380	1,030	692	209	595	587	271
6	708	435	874	897	251	308	994	717	347	622	330	348
7	664	199	929	875	449	438	1,040	297	401	1,030	132	365
8	673	275	776	454	441	704	1,040	142	575	1,320	331	426
9	434	356	688	175	436	681	1,020	450	547	333	545	395
10	177	390	1,320	469	437	683	1,010	488	392	147	666	216
11	427	341	499	515	420	645	1,010	506	380	402	538	141
12	644	582	338	530	220	320	1,010	522	230	489	587	263
13	878	563	697	547	212	222	1,030	581	296	559	299	390
14	869	273	867	2,270	504	610	880	220	621	474	130	430
15	689	400	924	601	481	712	755	230	575	461	342	389
16	489	496	911	772	359	744	344	377	453	303	731	279
17	173	507	917	932	498	792	219	402	366	193	666	233
18	432	517	487	896	593	525	528	488	243	439	406	108
19	958	542	224	889	211	734	605	345	204	652	351	300
20	914	338	368	896	205	251	643	237	260	650	224	576
21	885	93	606	905	479	593	650	283	387	551	165	432
22	921	337	481	496	461	702	648	225	481	546	374	361
23	477	604	586	200	458	852	607	298	367	438	542	293
24	165	1,270	618	638	476	1,010	269	198	316	198	471	154
25	382	1,210	412	818	467	803	445	403	280	287	559	128
26	593	707	252	807	211	386	456	671	218	511	428	340
27	584	459	491	810	202	263	599	714	245	483	222	397
28	589	516	415	804	413	2,210	450	866	410	476	166	360
29	589	656	443	401	---	1,260	577	533	409	601	464	368
30	424	623	479	254	---	1,050	413	182	484	392	596	343
31	186	---	654	451	---	941	---	583	---	1,400	465	---
TOTAL	23,064	15,510	20,423	21,391	10,860	20,843	23,062	13,147	11,557	16,137	13,772	9,508
MEAN	744	517	659	690	388	672	769	424	385	521	444	317
MAX	1,670	1,270	1,320	2,270	593	2,210	1,460	866	685	1,400	731	576
MIN	165	93	224	175	202	222	219	123	204	147	130	108

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2005, BY WATER YEAR (WY)

MEAN	390	384	433	491	510	611	641	517	487	417	409	434
MAX	1,389	1,266	988	1,000	1,212	1,735	2,206	1,138	1,467	1,174	1,032	1,624
(WY)	(1990)	(1986)	(1997)	(1991)	(1998)	(1993)	(1987)	(1978)	(1992)	(1989)	(1985)	(1987)
MIN	163	162	203	206	179	233	175	164	120	125	95.6	132
(WY)	(1952)	(1953)	(2001)	(1957)	(2002)	(1981)	(2002)	(1964)	(2002)	(2002)	(2002)	(2002)

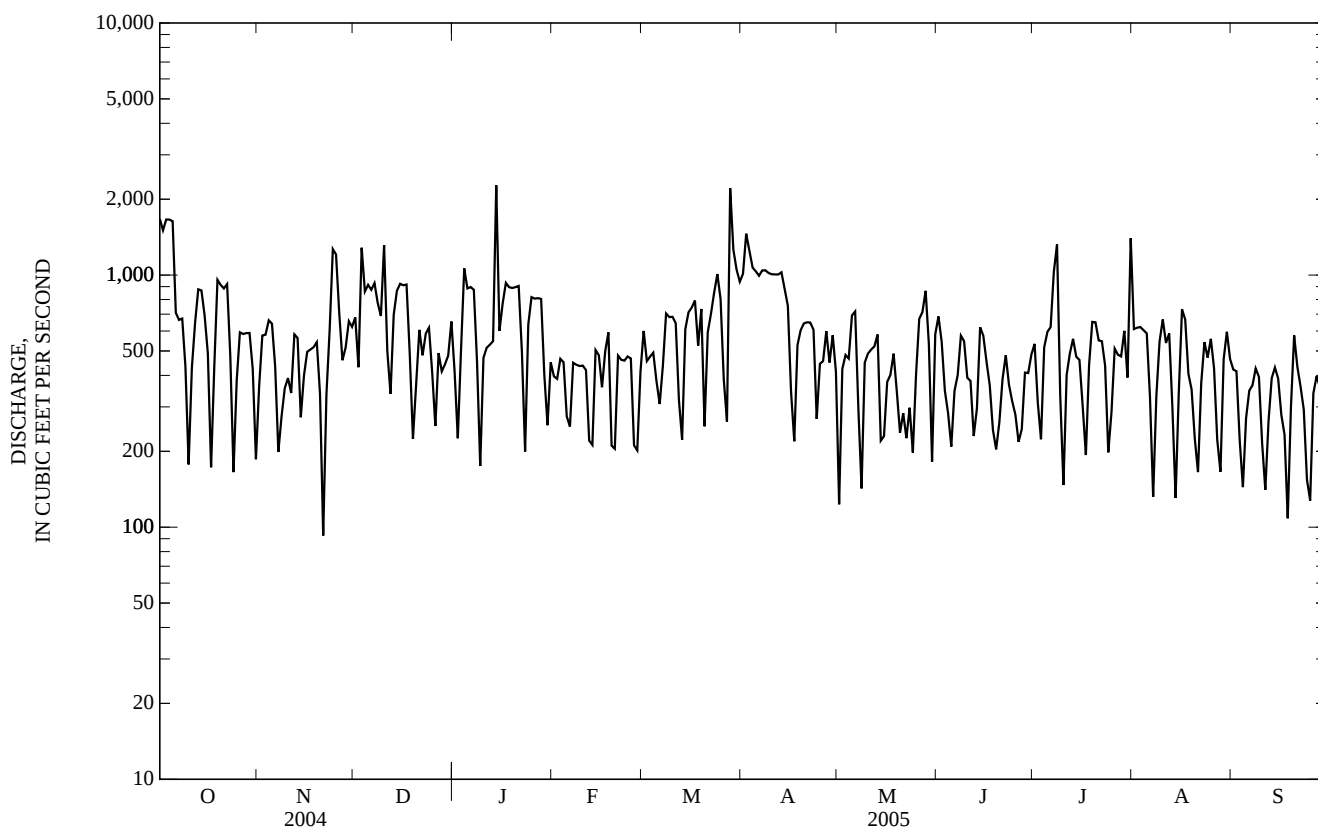
02073000 SMITH RIVER AT MARTINSVILLE, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 2005	
ANNUAL TOTAL	205,421		199,274		477	
ANNUAL MEAN	561		546		817	
HIGHEST ANNUAL MEAN					187	
LOWEST ANNUAL MEAN					11,300	
HIGHEST DAILY MEAN	3,630	Sep 8	2,270	Jan 14	82	Sep 8, 1987
LOWEST DAILY MEAN	76	Aug 15	93	Nov 21	24	Oct 2, 1982
ANNUAL SEVEN-DAY MINIMUM	257	Aug 23	284	May 19	82	Aug 9, 2002
MAXIMUM PEAK FLOW			5,160	Mar 28	a34,600	Sep 8, 1987
MAXIMUM PEAK STAGE			6.13	Mar 28	a20.08	Sep 8, 1987
INSTANTANEOUS LOW FLOW			b23	Jul 12	c3.8	Mar 19, 1955
ANNUAL RUNOFF (CFSM)	1.48		1.44		1.25	
ANNUAL RUNOFF (INCHES)	20.11		19.51		17.04	
10 PERCENT EXCEEDS	922		922		907	
50 PERCENT EXCEEDS	488		479		356	
90 PERCENT EXCEEDS	238		221		163	

a Prior to regulation, 1930-50, maximum peak flow, 39,000 ft³/s, Oct. 19, 1937, gage height, 21.50 ft.

b Result of regulation.

c Prior to regulation, 1930-50, instantaneous low flow, 5.0 ft³/s, May 20, 1934.



02074000 SMITH RIVER AT EDEN, NC

LOCATION.--Lat 36°31'32", long 79°45'56", Rockingham County, Hydrologic Unit 03010103, on right bank at Eden, 0.3 mi downstream of bridge on State Highway 14, 0.8 mi upstream from bridge on Secondary Road 1714, 1.2 mi south of Virginia-North Carolina State line, 1.3 mi downstream of Stuart Creek, and 3.9 mi upstream from mouth.

DRAINAGE AREA.--538 mi².

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1970, published as "Smith River at Spray".

REVISED RECORDS.--WSP 1433: 1946.

GAGE.--Water-stage recorder. Datum of gage is 539.56 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated since August 1950 by Philpott Lake, 40 mi upstream (usable capacity, 6,325,000,000 ft³). Additional regulation by hydroelectric plant at Martinsville, Virginia, 18 mi upstream. Maximum discharge prior to regulation: 45,600 ft³/s, Aug. 15, 1940, from rating curve extended above 12,000 ft³/s on the basis of computation of peak flow over dam 1.5 mi downstream; gage height: 19.28 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,770	610	1,090	791	690	944	1,360	485	948	566	1,300	514
2	1,640	837	815	541	736	868	1,760	567	954	847	975	625
3	1,740	863	1,290	640	827	872	1,690	751	623	454	949	474
4	1,770	956	1,330	1,290	869	890	1,430	724	646	527	881	306
5	1,680	1,010	1,210	1,150	726	794	1,390	797	482	1,030	851	319
6	1,260	857	1,190	1,180	639	705	1,340	903	510	787	786	448
7	968	467	1,240	1,160	789	820	1,340	835	680	1,710	449	493
8	932	619	1,220	993	756	1,040	1,360	344	680	3,440	559	471
9	887	665	1,170	430	792	1,070	1,310	517	998	1,100	974	591
10	412	632	2,250	649	809	1,070	1,280	787	827	531	1,030	378
11	597	662	1,270	858	768	1,020	1,270	723	649	623	839	281
12	936	1,010	811	837	630	853	1,270	753	548	929	823	300
13	1,090	1,430	960	839	541	514	1,320	859	463	785	719	466
14	1,430	773	1,150	3,280	790	824	1,300	550	830	1,090	398	523
15	1,030	800	1,240	1,470	845	1,090	1,050	492	785	1,010	428	535
16	1,010	798	1,220	1,010	741	1,090	889	571	786	811	737	428
17	405	858	1,220	1,320	841	1,290	435	712	614	594	1,050	498
18	525	872	1,060	1,260	869	952	642	617	490	605	729	240
19	1,120	872	519	1,200	641	1,270	936	679	452	979	580	252
20	1,200	828	661	1,220	524	635	917	527	424	967	551	526
21	1,330	422	856	1,230	726	818	920	599	612	815	434	754
22	968	578	770	1,090	796	1,080	909	497	700	984	417	435
23	1,110	1,020	942	485	784	1,270	1,010	550	635	886	762	450
24	386	1,720	1,110	708	824	1,530	595	467	472	529	726	329
25	607	2,340	837	1,150	846	1,240	667	483	518	561	674	256
26	918	1,310	585	1,120	621	1,040	744	822	443	732	715	295
27	860	1,010	761	1,120	525	603	784	952	429	786	480	546
28	859	1,010	774	1,110	789	3,180	722	1,020	754	715	361	468
29	860	1,060	760	996	---	2,170	815	984	609	968	404	461
30	822	1,020	761	505	---	1,590	855	417	680	814	730	472
31	406	---	957	880	---	1,400	---	511	---	2,210	745	---
TOTAL	31,528	27,909	32,029	32,512	20,734	34,532	32,310	20,495	19,241	29,385	22,056	13,134
MEAN	1,017	930	1,033	1,049	740	1,114	1,077	661	641	948	711	438
MAX	1,770	2,340	2,250	3,280	869	3,180	1,760	1,020	998	3,440	1,300	754
MIN	386	422	519	430	524	514	435	344	424	454	361	240
CFSM	1.89	1.73	1.92	1.95	1.38	2.07	2.00	1.23	1.19	1.76	1.32	0.81
IN.	2.18	1.93	2.21	2.25	1.43	2.39	2.23	1.42	1.33	2.03	1.53	0.91
†	-230	76	-32	-30	58	96	-89	-26	-5	8	-71	-119

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2005,* BY WATER YEAR (WY)

MEAN	510	506	593	685	731	891	888	706	654	520	501	538
MAX	1,572	1,530	1,376	1,453	1,633	2,519	3,016	1,567	2,026	1,374	1,454	2,030
(WY)	(1990)	(1986)	(1997)	(1979)	(1998)	(1993)	(1987)	(1987)	(1972)	(1989)	(1985)	(1996)
MIN	201	211	267	291	249	331	248	266	146	151	126	165
(WY)	(1952)	(1982)	(2001)	(1989)	(2002)	(1967)	(2002)	(1964)	(2002)	(2002)	(2002)	(2002)

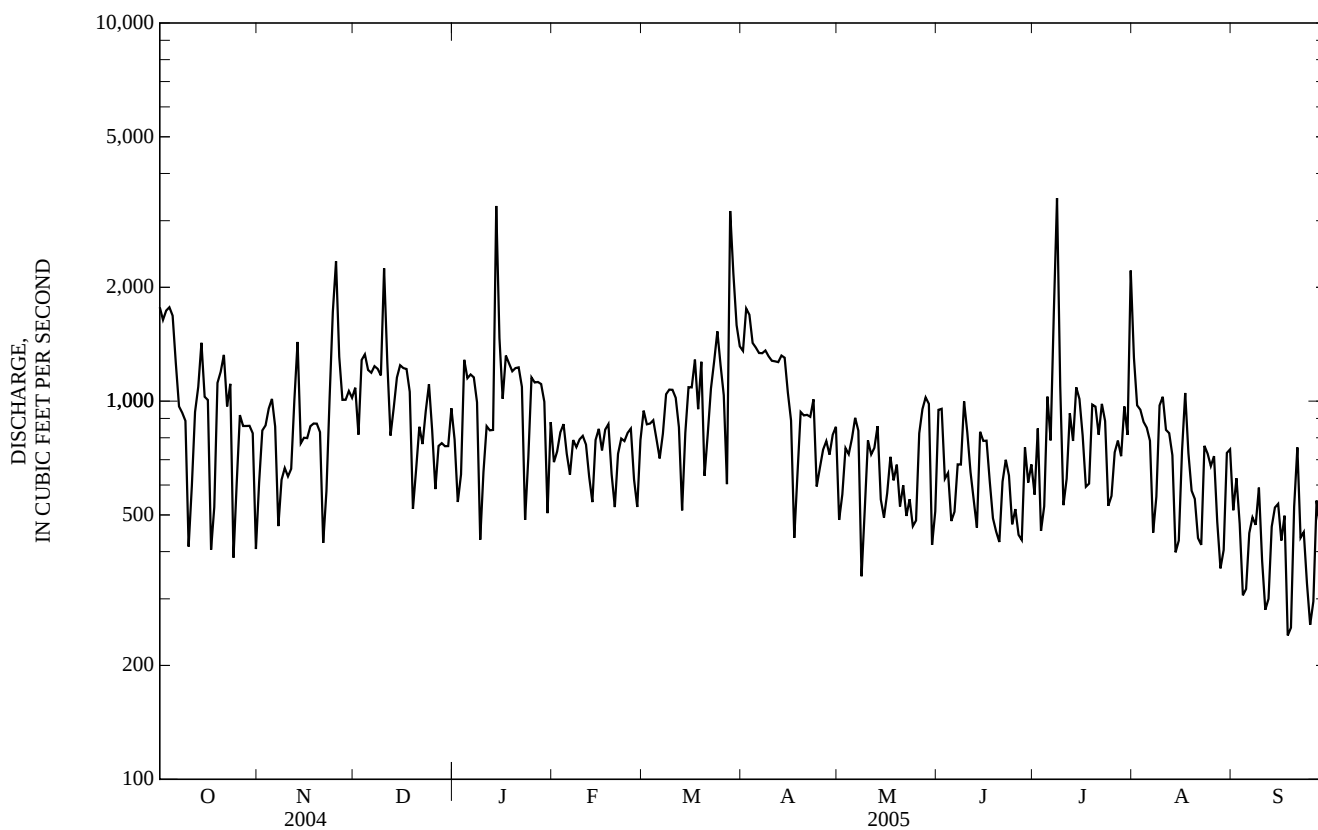
02074000 SMITH RIVER AT EDEN, NC—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 2005*	
ANNUAL TOTAL	309,988		315,865		643 (UNADJUSTED)	
ANNUAL MEAN	847		865		1,010 1987	
HIGHEST ANNUAL MEAN			‡834		254 2002	
LOWEST ANNUAL MEAN					16,700 Jun 21, 1972	
HIGHEST DAILY MEAN	5,610	Sep 8	3,440	Jul 8	46 Aug 14, 1967	
LOWEST DAILY MEAN	190	Aug 29	240	Sep 18	100 Aug 10, 2002	
ANNUAL SEVEN-DAY MINIMUM	383	Aug 24	397	Sep 22	24,800 Jun 21, 1972	
MAXIMUM PEAK FLOW			6,980	Mar 28	16.24 Jun 21, 1972	
MAXIMUM PEAK STAGE			8.22	Mar 28	38 Aug 7, 1967	
INSTANTANEOUS LOW FLOW			218	Sep 24	1.19	
ANNUAL RUNOFF (CFSM)	1.57		1.61		16.23	
ANNUAL RUNOFF (INCHES)	21.43		21.84		1,180	
10 PERCENT EXCEEDS	1,250		1,290		454	
50 PERCENT EXCEEDS	748		811		222	
90 PERCENT EXCEEDS	431		462			

† Change in contents, equivalent in cubic feet per second, in Philpott Lake provided by U.S. Army Corps of Engineers.

* Regulated period only (1951-2005). See REMARKS.

‡ Adjusted for change in contents.



02074500 SANDY RIVER NEAR DANVILLE, VA

LOCATION.--Lat 36°37'10", long 79°30'15", NAD83, Pittsylvania County, Hydrologic Unit 03010103, on right bank 200 ft downstream from Hickory Forest Creek, 400 ft upstream from bridge on State Highway 863 between Callahans Store and Mount Cross, 5.5 mi northwest of western city limits of Danville, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--112 mi².

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 972: 1930-41. WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 460.38 ft NGVD of 1929. Prior to June 26, 1942, at site 1,200 ft downstream at datum 5.57 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Djurnal fluctuation at low flow caused by small mill upstream from station. Maximum discharge, 23,000 ft³/s, from rating curve extended above 11,000 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0745	1,900	4.85	Jul 29	0230	2,410	5.32
Mar 28	1430	2,140	5.08	Jul 31	1515	1,840	4.79
Jul 8	0630	*5,240	*7.19				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	76	157	96	99	127	139	150	67	53	377	52
2	137	76	139	95	92	116	156	108	93	52	150	50
3	127	76	132	95	121	115	139	96	113	52	107	48
4	133	118	122	95	142	115	120	87	97	61	89	47
5	108	123	113	95	129	128	113	85	85	109	79	46
6	98	93	113	93	117	124	111	88	71	78	84	45
7	93	86	123	91	111	114	111	85	74	400	173	44
8	89	82	114	91	104	123	112	85	68	2,060	90	50
9	86	78	257	90	102	114	107	82	81	220	151	47
10	85	78	756	88	110	103	99	80	179	130	222	43
11	81	78	305	88	98	99	97	78	87	102	112	43
12	80	204	195	88	95	96	95	78	74	92	87	42
13	93	352	158	89	98	92	99	85	71	83	76	42
14	142	153	136	1,010	107	97	98	80	70	104	69	42
15	100	120	126	294	101	91	93	132	66	109	66	42
16	85	109	119	166	95	96	89	125	63	96	63	42
17	78	102	116	130	92	163	86	87	58	81	68	43
18	77	98	113	112	87	189	87	81	57	74	63	42
19	87	95	111	e110	84	135	88	80	57	119	63	41
20	98	93	104	107	84	117	88	112	57	186	63	40
21	83	91	e100	108	92	108	86	119	55	103	67	58
22	82	90	103	101	87	101	88	88	55	118	57	46
23	82	193	132	e94	84	264	124	80	55	130	80	43
24	82	515	151	e88	92	337	94	82	51	78	89	41
25	83	581	117	e105	94	179	88	86	51	72	64	41
26	82	247	109	95	85	141	84	79	50	67	57	45
27	82	172	104	91	84	128	84	76	50	63	56	45
28	82	311	98	82	121	1,160	84	72	72	62	59	41
29	82	196	99	83	---	430	95	72	59	680	56	41
30	82	153	99	108	---	204	101	71	59	135	55	40
31	81	---	97	117	---	156	---	70	---	798	57	---
TOTAL	2,940	4,839	4,718	4,195	2,807	5,562	3,055	2,779	2,145	6,567	2,949	1,332
MEAN	94.8	161	152	135	100	179	102	89.6	71.5	212	95.1	44.4
MAX	160	581	756	1,010	142	1,160	156	150	179	2,060	377	58
MIN	77	76	97	82	84	91	84	70	50	52	55	40
CFSM	0.85	1.44	1.36	1.21	0.90	1.60	0.91	0.80	0.64	1.89	0.85	0.40
IN.	0.98	1.61	1.57	1.39	0.93	1.85	1.01	0.92	0.71	2.18	0.98	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2005, BY WATER YEAR (WY)

MEAN	81.6	84.1	107	137	147	173	146	110	90.2	76.0	83.6	88.2
MAX	366	281	249	409	369	738	591	279	376	265	556	739
(WY)	(1938)	(1958)	(1974)	(1936)	(1979)	(1975)	(1987)	(1971)	(1972)	(1989)	(1940)	(1996)
MIN	19.2	26.5	35.2	31.5	40.2	63.9	42.5	52.8	23.0	19.0	11.6	14.2
(WY)	(2002)	(2002)	(1934)	(1934)	(1934)	(1967)	(2002)	(1986)	(2002)	(2002)	(2002)	(1930)

02074500 SANDY RIVER NEAR DANVILLE, VA—Continued

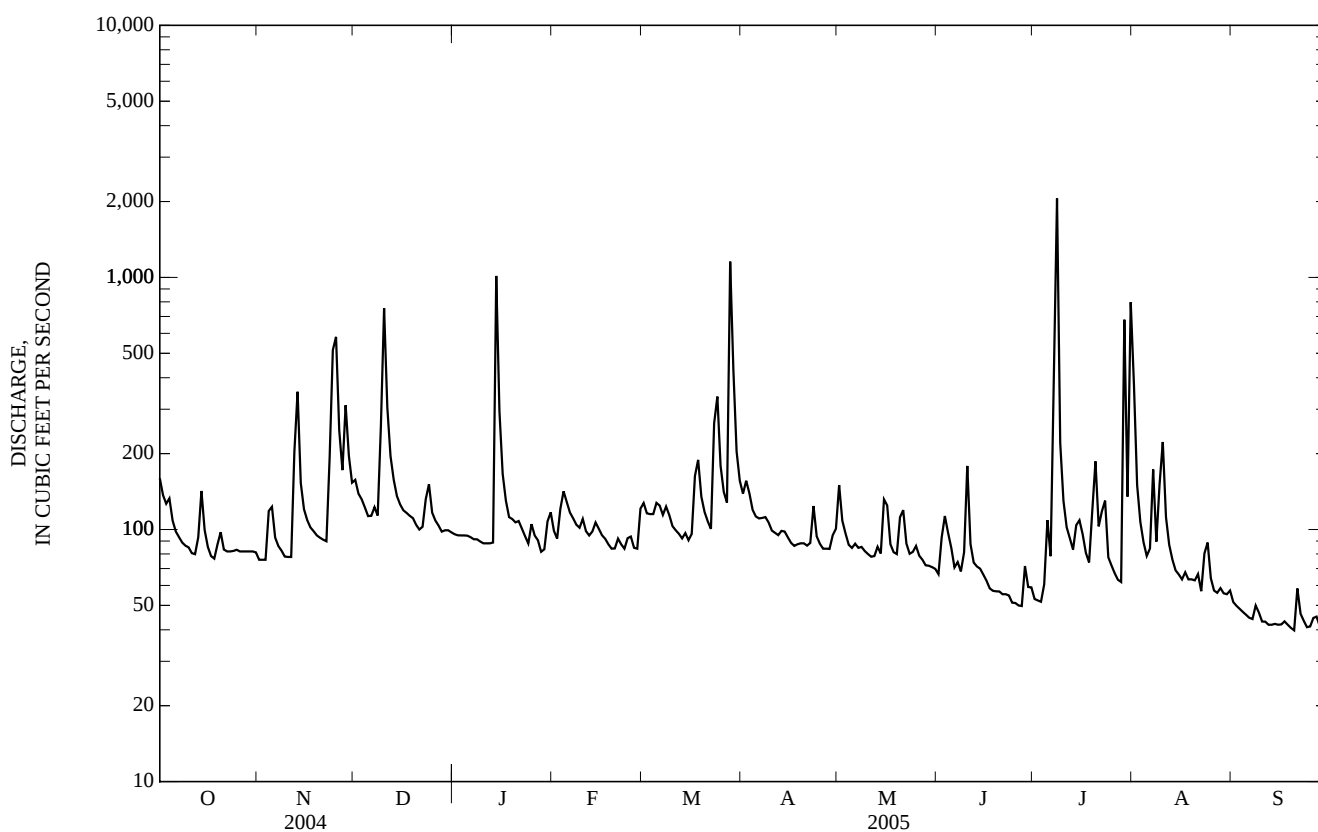
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1930 - 2005	
ANNUAL TOTAL	49,529		43,888		110	
ANNUAL MEAN	135		120		191	
HIGHEST ANNUAL MEAN					44.8	
LOWEST ANNUAL MEAN					191	
HIGHEST DAILY MEAN	2,660	Sep 28	2,060	Jul 8	8,340	Sep 6, 1996
LOWEST DAILY MEAN	46	Jul 22	40	aSep 20	6.4	bAug 23, 2002
ANNUAL SEVEN-DAY MINIMUM	49	Jul 20	42	Sep 14	7.8	Aug 9, 2002
MAXIMUM PEAK FLOW			5,240	Jul 8	23,000	Aug 14, 1940
MAXIMUM PEAK STAGE			7.19	Jul 8	c14.80	Aug 14, 1940
INSTANTANEOUS LOW FLOW			39	aSep 20	3.0	Sep 29, 1930
ANNUAL RUNOFF (CFSM)	1.21		1.07		0.983	
ANNUAL RUNOFF (INCHES)	16.45		14.58		13.36	
10 PERCENT EXCEEDS	199		157		166	
50 PERCENT EXCEEDS	89		92		72	
90 PERCENT EXCEEDS	66		54		35	

a Also Sept 30, 2005.

b Also Aug. 24, 2002.

b From floodmarks, present datum.

e Estimated.



LOCATION.--Lat 36°33'46", long 79°22'11", NAD83, Pittsylvania County, Hydrologic Unit 03010104, on right bank at foot- bridge at Danville sewage treatment plant, 0.1 mi downstream from Pumpkin Creek, and 0.6 mi southeast of Danville.

PERIOD OF RECORD.--October 1995 to current year.

REVISED RECORDS.--WDR VA-01-1: 1996-2000(m).

GAGE.--Water-stage recorder. Datum of gage is 365.19 ft NGVD of 1929.

REMARKS.--No estimated daily discharges. Records fair. Diurnal fluctuation caused by mills and hydroelectric generating facility at Schoolfield Dam 5.2 mi upstream. Since August 1950, flow regulated by Philpott Lake (station 02071900) 76.6 mi upstream. U.S. Army Corps of Engineers satellite gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

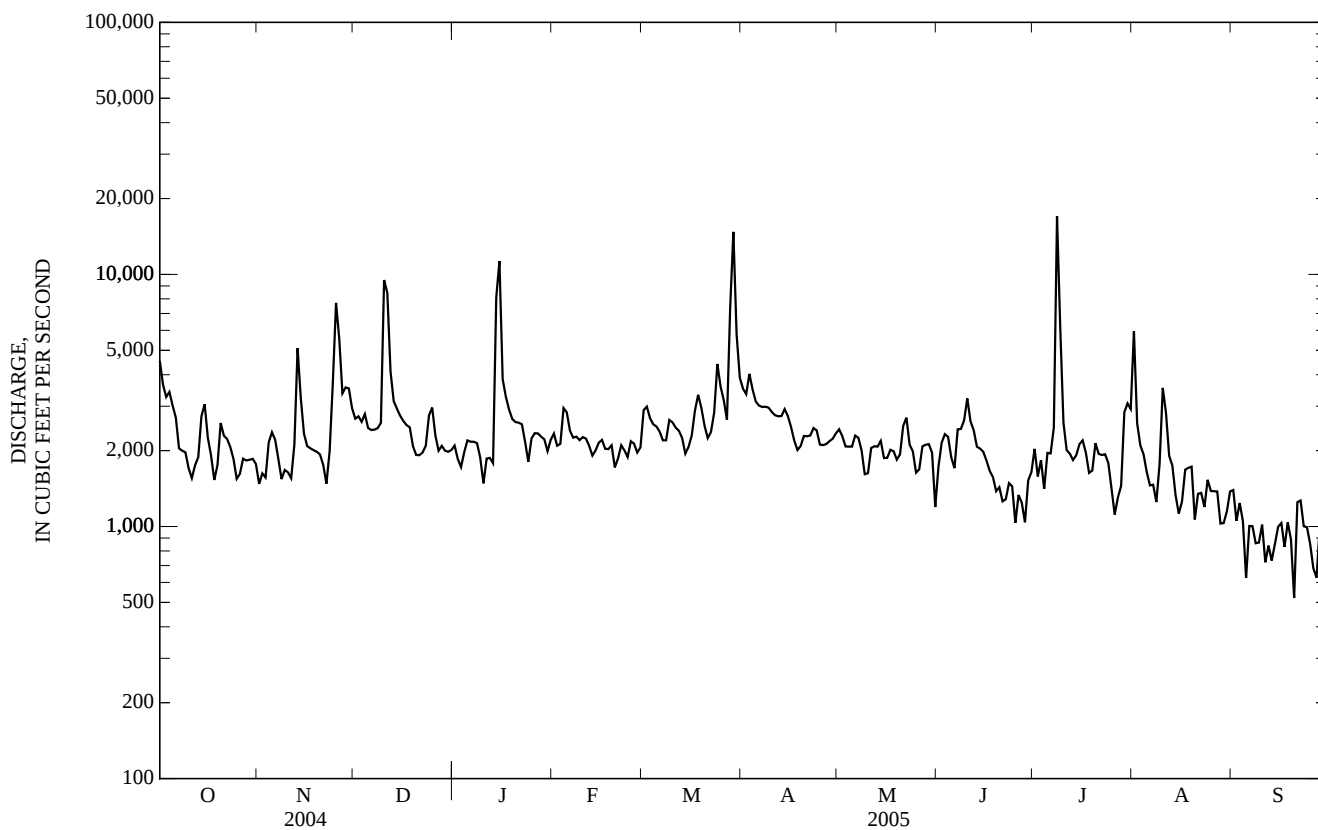
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,540	1,480	2,680	2,090	2,340	2,900	3,520	2,430	1,730	2,030	5,960	1,400
2	3,650	1,620	2,730	1,850	2,090	2,990	3,350	2,280	2,150	1,580	2,570	1,050
3	3,260	1,570	2,600	1,720	2,130	2,690	4,030	2,080	2,320	1,830	2,100	1,240
4	3,420	2,160	2,790	1,970	2,950	2,540	3,490	2,070	2,270	1,410	1,930	1,050
5	3,020	2,370	2,460	2,200	2,840	2,490	3,130	2,080	1,880	1,960	1,640	625
6	2,710	2,210	2,410	2,170	2,400	2,380	3,020	2,300	1,700	1,950	1,460	1,000
7	2,040	1,850	2,420	2,170	2,250	2,200	2,980	2,250	2,430	2,470	1,460	1,000
8	2,000	1,540	2,460	2,140	2,270	2,200	2,990	2,010	2,440	17,100	1,250	858
9	1,970	1,680	2,580	1,880	2,200	2,650	2,960	1,610	2,640	6,180	1,760	864
10	1,700	1,640	9,500	1,480	2,260	2,590	2,850	1,630	3,220	2,580	3,550	1,020
11	1,560	1,550	8,440	1,860	2,230	2,470	2,760	2,050	2,610	2,010	2,820	721
12	1,750	2,120	4,130	1,870	2,090	2,400	2,740	2,080	2,410	1,940	1,910	840
13	1,880	5,100	3,140	1,780	1,910	2,240	2,740	2,070	2,070	1,830	1,740	733
14	2,740	3,230	2,940	8,100	2,000	1,950	2,920	2,190	2,040	1,920	1,330	852
15	3,060	2,330	2,750	11,300	2,150	2,070	2,740	1,870	1,980	2,120	1,130	997
16	2,250	2,080	2,620	3,840	2,210	2,300	2,480	1,870	1,820	2,200	1,260	1,030
17	1,910	2,040	2,530	3,270	2,030	2,880	2,190	2,010	1,660	1,960	1,680	830
18	1,530	2,010	2,480	2,910	2,030	3,330	2,010	1,990	1,570	1,630	1,710	1,040
19	1,750	1,980	2,080	2,670	2,100	2,960	2,090	1,840	1,380	1,670	1,730	890
20	2,570	1,930	1,920	2,600	1,720	2,510	2,290	1,930	1,430	2,140	1,070	520
21	2,290	1,760	1,920	2,580	1,860	2,240	2,280	2,510	1,260	1,940	1,350	1,250
22	2,220	1,480	1,970	2,540	2,100	2,370	2,300	2,700	1,280	1,920	1,360	1,270
23	2,070	1,990	2,090	2,170	2,000	2,830	2,460	2,110	1,490	1,930	1,190	1,000
24	1,850	3,720	2,760	1,810	1,890	4,410	2,410	1,990	1,440	1,790	1,530	994
25	1,550	7,710	2,960	2,230	2,180	3,590	2,110	1,640	1,030	1,420	1,380	852
26	1,620	5,570	2,300	2,340	2,130	3,170	2,100	1,690	1,330	1,120	1,380	682
27	1,860	3,370	2,000	2,340	1,970	2,650	2,120	2,080	1,240	1,300	1,380	627
28	1,830	3,560	2,090	2,270	2,060	7,360	2,180	2,110	1,040	1,450	1,030	1,010
29	1,840	3,530	2,000	2,220	---	14,800	2,230	2,120	1,520	2,840	1,030	985
30	1,860	2,950	1,980	1,990	---	5,780	2,340	1,960	1,640	3,080	1,150	927
31	1,770	---	2,010	2,210	---	3,890	---	1,190	---	2,930	1,380	---
TOTAL	70,070	78,										

[illegible]

02075045 DAN RIVER AT SEWAGE TREATMENT PLANT, NEAR DANVILLE, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1996 - 2005	
ANNUAL TOTAL	879,673		846,907		2,163	
ANNUAL MEAN	2,403		2,320		3,665	
HIGHEST ANNUAL MEAN					731	
LOWEST ANNUAL MEAN					41,500	
HIGHEST DAILY MEAN	24,600	Sep 29	17,100	Jul 8	41,500	Sep 7, 1996
LOWEST DAILY MEAN	679	Jul 26	a520	Sep 20	a104	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	1,040	Aug 30	841	Sep 8	126	Aug 11, 2002
MAXIMUM PEAK FLOW			20,600	Jul 8	47,100	Sep 6, 1996
MAXIMUM PEAK STAGE			17.66	Jul 8	28.65	Sep 6, 1996
INSTANTANEOUS LOW FLOW			a312	Sep 20	a83	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	1.14		1.10		1.03	
ANNUAL RUNOFF (INCHES)	15.55		14.97		13.96	
10 PERCENT EXCEEDS	3,380		3,150		3,610	
50 PERCENT EXCEEDS	1,860		2,080		1,560	
90 PERCENT EXCEEDS	1,280		1,220		652	

a Result of regulation.



02075500 DAN RIVER AT PACES, VA

LOCATION.--Lat 36°38'32", long 79°05'22", NAD83, Halifax County, Hydrologic Unit 03010104, on right bank 100 ft upstream from bridge on State Highway 658, 0.5 mi southeast of Paces, 0.5 mi upstream from Big Toby Creek, 2.7 mi upstream from Birch Creek, and at mile 36.0.

DRAINAGE AREA.--2,550 mi², approximately.

PERIOD OF RECORD.--November 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 322.48 ft NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation caused by mills 23 mi upstream at Danville. Since August 1950, flow regulated by Philpott Lake (station 02071900) 101.4 mi upstream, U.S. Army Corps of Engineers satellite gage-height telemeter at station. Maximum discharge, 64,800 ft³/s, from rating curve extended above 32,000 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 16, 1940, reached a stage of 32.3 ft, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13,900	1,750	3,690	2,470	3,140	4,190	4,720	2,850	1,400	1,940	6,440	1,420
2	5,180	1,740	3,550	2,370	2,830	4,680	4,380	2,860	2,290	1,970	3,940	1,180
3	4,410	1,740	3,380	2,040	2,720	3,880	4,810	2,430	2,590	1,770	2,560	1,130
4	4,330	2,150	3,440	2,080	4,010	3,510	4,770	2,320	2,600	1,730	2,160	1,340
5	4,180	2,830	3,280	2,550	4,280	3,320	4,040	2,290	2,310	1,850	1,950	768
6	3,600	2,790	3,030	2,610	3,520	3,190	3,850	2,430	1,880	2,490	1,570	842
7	2,900	2,310	3,040	2,580	3,090	2,950	3,720	2,650	1,830	2,130	1,630	1,030
8	2,390	1,820	3,050	2,560	2,970	2,710	4,000	2,530	3,640	11,000	1,360	1,020
9	2,320	1,790	3,110	2,500	2,870	3,250	3,860	1,910	2,630	12,500	1,570	893
10	2,230	1,820	10,100	1,890	2,880	3,390	3,670	1,790	3,700	4,020	3,190	911
11	1,780	1,720	14,100	1,750	2,880	3,190	3,470	2,100	3,550	2,470	3,910	1,000
12	1,780	2,520	8,470	2,340	2,770	3,060	3,380	2,260	2,820	2,130	2,350	665
13	2,110	6,640	5,130	2,020	2,410	2,900	3,380	2,290	2,370	2,140	2,050	974
14	2,590	6,520	4,080	6,560	2,380	2,600	3,490	2,370	2,200	2,030	1,630	677
15	3,940	3,790	3,730	15,000	2,720	2,360	3,620	2,280	2,140	2,170	1,260	1,020
16	3,010	2,930	3,470	7,760	2,780	2,810	3,130	2,060	1,980	2,570	1,230	1,020
17	2,520	2,570	3,280	4,640	2,740	3,660	2,790	2,090	1,950	2,330	1,550	1,040
18	1,810	2,560	3,180	4,090	2,460	5,220	2,360	2,240	1,710	1,990	1,940	909
19	1,730	2,460	2,990	3,610	2,560	4,260	2,310	1,970	1,660	1,630	1,750	1,010
20	3,400	2,330	2,320	3,380	2,380	3,840	2,590	2,230	1,570	2,200	1,470	761
21	3,200	2,250	2,270	3,350	2,100	3,030	2,670	2,290	1,420	2,170	1,170	717
22	2,810	1,950	2,340	3,290	2,420	2,990	2,650	3,310	1,430	2,050	1,500	1,470
23	2,480	2,070	2,390	3,120	2,640	3,220	2,760	2,520	1,520	2,030	1,230	1,070
24	2,430	4,650	2,950	2,330	2,320	5,000	2,990	2,250	1,670	2,070	1,490	1,020
25	1,830	8,340	3,910	2,530	2,560	5,190	2,530	1,960	1,370	1,640	1,550	994
26	1,780	8,460	3,120	2,920	2,700	4,130	2,340	1,800	1,250	1,450	1,320	863
27	2,000	5,180	2,530	3,010	2,460	3,810	2,370	1,980	1,610	1,160	1,480	621
28	2,060	5,070	2,410	2,900	2,650	5,850	2,420	2,260	1,280	1,560	1,220	842
29	2,050	5,420	2,410	2,770	---	15,400	2,420	2,220	1,440	2,050	1,080	1,020
30	2,070	4,230	2,340	2,790	---	10,600	2,760	2,220	1,760	4,130	1,080	974
31	2,050	---	2,330	2,600	---	5,510	---	1,700	---	3,260	1,340	---
TOTAL	94,870	102,400	119,420	106,410	78,240	133,700	98,250	70,460	61,570	86,630	59,970	29,201
MEAN	3,060	3,413	3,852	3,433	2,794	4,313	3,275	2,273	2,052	2,795	1,935	973
MAX	13,900	8,460	14,100	15,000	4,280	15,400	4,810	3,310	3,700	12,500	6,440	1,470
MIN	1,730	1,720	2,270	1,750	2,100	2,360	2,310	1,700	1,250	1,160	1,080	621

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2005, BY WATER YEAR (WY)

MEAN	1,988	2,052	2,653	3,339	3,818	4,434	3,982	2,822	2,431	1,868	1,789	1,954
MAX	7,253	6,184	5,734	8,407	9,141	11,190	11,500	6,505	8,987	5,091	5,245	10,200
(WY)	(1960)	(1958)	(1997)	(1978)	(1960)	(1975)	(1987)	(1978)	(1972)	(1975)	(2003)	(1996)
MIN	522	602	925	1,015	1,104	1,580	1,060	1,184	465	418	243	452
(WY)	(2002)	(2002)	(2002)	(1981)	(2002)	(1981)	(2002)	(1986)	(2002)	(2002)	(2002)	(1954)

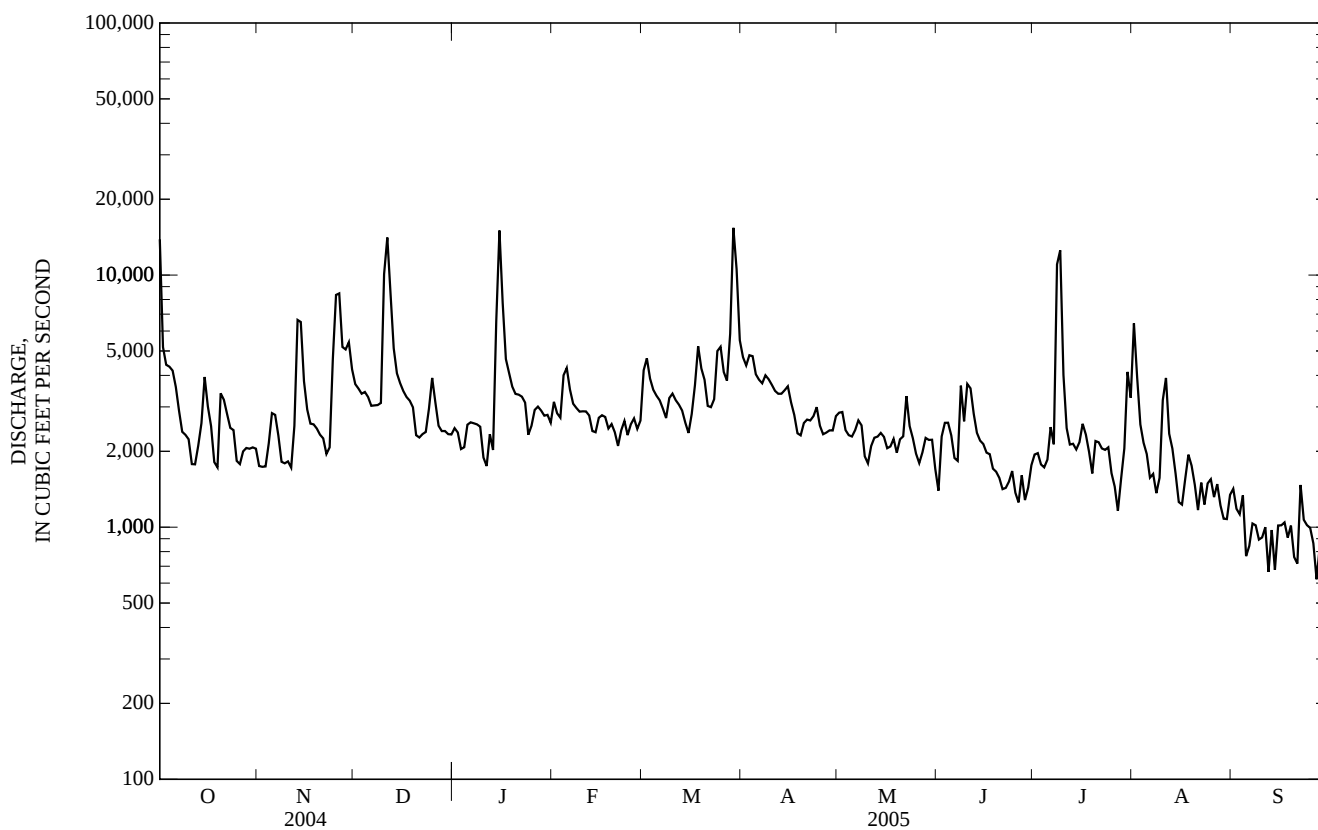
02075500 DAN RIVER AT PACES, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 2005	
ANNUAL TOTAL	1,117,120		1,041,121		2,755	
ANNUAL MEAN	3,052		2,852		4,729	
HIGHEST ANNUAL MEAN					872	
LOWEST ANNUAL MEAN					63,400	
HIGHEST DAILY MEAN	23,900	Sep 30	15,400	Mar 29	2003	2002
LOWEST DAILY MEAN	1,150	Jul 26	621	Sep 27	Jun 23, 1972	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	1,520	Jul 17	877	Sep 8	Aug 12, 2002	
MAXIMUM PEAK FLOW			b17,200	Mar 29	64,800	Jun 23, 1972
MAXIMUM PEAK STAGE			b19.18	Mar 29	33.15	Jun 23, 1972
INSTANTANEOUS LOW FLOW			a585	cSep 5	a129	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	1.20		1.12		1.08	
ANNUAL RUNOFF (INCHES)	16.30		15.19		14.68	
10 PERCENT EXCEEDS	4,590		4,270		4,930	
50 PERCENT EXCEEDS	2,360		2,430		1,880	
90 PERCENT EXCEEDS	1,690		1,270		883	

a Result of regulation.

b Maximum discharge, 24,900 ft³/s, Oct. 1, 2004, gage height, 22.71 ft, stage falling, peak occurred Sept. 30, 2004.

c Also Sept. 6, 21, 27, 2005.



02076000 DAN RIVER AT SOUTH BOSTON, VA

LOCATION.--Lat 36°41'37", long 78°54'09", NAD83, Halifax County, Hydrologic Unit 03010104, on left bank 100 ft upstream from Norfolk and Western Railroad bridge at South Boston.

DRAINAGE AREA.--2,730 mi².

PERIOD OF RECORD.--August 1900 to May 1907, April 1923 to September 1952, October 1952 to July 1962 (gage heights only), August 1980 to September 2000 (annual maximum only), October 2000 to current year (gage heights only).

REVISED RECORDS.--WDR VA-02-01: 2001(M,m).

GAGE.--Water-stage recorder. Datum of gage is 299.23 ft NGVD of 1929.

REMARKS.--Mean daily gage heights are shown in table below. Missing record due to recorder malfunction. Diurnal fluctuation caused by mills and hydroelectric generating facility 36.4 mi upstream at Danville. Since August 1950, flow regulated by Philpott Lake (station 02071900) 114.8 mi upstream.

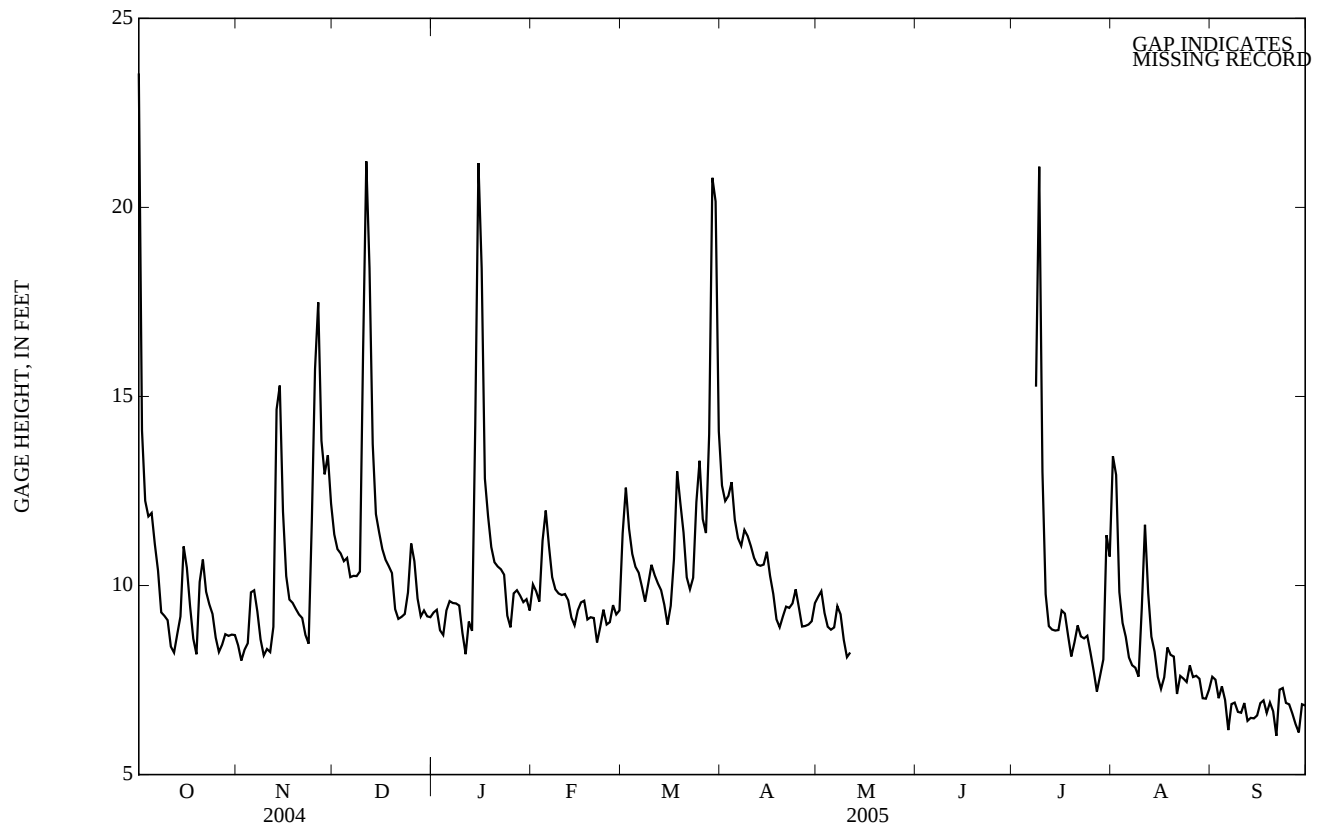
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,000 ft³/s, Aug. 16, 1940, gage height, 31.8 ft.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 24.78 ft, Oct. 1; minimum gage height, 5.94 ft, Sept. 28.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.54	8.42	11.35	9.29	10.03	11.38	12.64	9.70	---	---	13.42	7.59
2	14.10	8.02	10.96	9.36	9.85	12.59	12.24	9.85	---	---	12.93	7.51
3	12.24	8.30	10.85	8.82	9.58	11.50	12.37	9.27	---	---	9.83	7.02
4	11.83	8.47	10.64	8.69	11.19	10.84	12.73	8.91	---	---	9.01	7.33
5	11.92	9.82	10.73	9.34	11.98	10.50	11.73	8.83	---	---	8.64	6.97
6	11.10	9.87	10.22	9.59	11.05	10.34	11.25	8.89	---	---	8.10	6.18
7	10.39	9.31	10.26	9.54	10.22	9.97	11.05	9.45	---	---	7.89	6.87
8	9.29	8.58	10.25	9.53	9.90	9.58	11.47	9.24	---	15.26	7.83	6.90
9	9.20	8.15	10.37	9.47	9.79	10.06	11.31	8.57	---	21.08	7.59	6.66
10	9.08	8.32	16.19	8.74	9.75	10.55	11.04	8.10	---	13.01	9.40	6.64
11	8.39	8.24	21.22	8.18	9.78	10.27	10.73	8.23	---	9.77	11.61	6.89
12	8.23	8.91	18.39	9.05	9.61	10.06	10.55	---	---	8.93	9.80	6.42
13	8.71	14.66	13.74	8.80	9.15	9.88	10.52	---	---	8.84	8.65	6.50
14	9.18	15.29	11.89	14.24	8.95	9.49	10.55	---	---	8.81	8.25	6.49
15	11.03	11.96	11.41	21.17	9.35	8.97	10.89	---	---	8.82	7.59	6.56
16	10.47	10.25	10.96	18.39	9.55	9.46	10.26	---	---	9.34	7.27	6.89
17	9.45	9.63	10.68	12.83	9.60	10.69	9.78	---	---	9.26	7.57	6.96
18	8.60	9.54	10.51	11.83	9.10	13.02	9.11	---	---	8.68	8.36	6.63
19	8.18	9.38	10.33	11.02	9.16	12.19	8.90	---	---	8.12	8.17	6.91
20	10.09	9.23	9.38	10.62	9.14	11.40	9.18	---	---	8.50	8.12	6.68
21	10.69	9.14	9.12	10.50	8.50	10.22	9.44	---	---	8.94	7.13	6.02
22	9.84	8.69	9.17	10.43	8.90	9.90	9.41	---	---	8.66	7.61	7.25
23	9.50	8.46	9.25	10.29	9.36	10.20	9.53	---	---	8.60	7.54	7.29
24	9.25	11.72	9.82	9.20	8.97	12.20	9.90	---	---	8.67	7.45	6.90
25	8.62	15.73	11.11	8.89	9.03	13.30	9.42	---	---	8.22	7.89	6.86
26	8.24	17.49	10.64	9.79	9.48	11.75	8.91	---	---	7.74	7.58	6.61
27	8.43	13.83	9.66	9.88	9.24	11.39	8.93	---	---	7.20	7.61	6.34
28	8.71	12.94	9.18	9.73	9.34	14.00	8.97	---	---	7.62	7.53	6.11
29	8.67	13.45	9.34	9.56	---	20.78	9.06	---	---	8.04	7.02	6.86
30	8.70	12.17	9.19	9.64	---	20.16	9.54	---	---	11.33	7.01	6.83
31	8.69	---	9.16	9.34	---	14.08	---	---	---	10.77	7.25	---
MEAN	10.14	10.60	11.16	10.51	9.63	11.64	10.38	---	---	---	8.44	6.79
MAX	23.54	17.49	21.22	21.17	11.98	20.78	12.73	---	---	---	13.42	7.59
MIN	8.18	8.02	9.12	8.18	8.50	8.97	8.90	---	---	---	7.01	6.02

02076000 DAN RIVER AT SOUTH BOSTON, VA—Continued



02077000 BANISTER RIVER AT HALIFAX, VA

LOCATION.--Lat 36°46'35", long 78°54'57", NAD83, Halifax County, Hydrologic Unit 03010105, on left bank 10 ft downstream from bridge on State Highway 360, 1,700 ft downstream from Terrible Creek, 1 mi northeast of Halifax, and 10 mi upstream from mouth

DRAINAGE AREA.--547 mi².

PERIOD OF RECORD.--September 1904 to December 1905, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 892: 1929-30, 1932-35. WSP 972: 1938(M), 1940. WSP 1112: 1943(M). WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 315.54 ft NGVD of 1929 (levels by U.S. Army Corps of Engineers). Sept. 28, 1904, to Dec. 31, 1905, nonrecording gage at site 400 ft upstream at different datum. Dec. 9, 1928, to Sept. 20, 1950, water-stage recorder at site 400 ft upstream, and Sept. 20, 1950 to Sept. 24, 2002, at present location and at datum 3.00 ft higher. Sept. 24, 2002 to current year, at present site and datum.

REMARKS.--Records fair. Flow regulated by a reservoir and hydroelectric generating facility 0.5 mi upstream from station. Maximum discharge, 50,000 ft³/s, from rating curve extended above 13,000 ft³/s on basis of slope-area measurement of peak flow and velocity-area study. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	876	262	673	376	560	634	803	439	248	167	793	174
2	437	247	616	371	486	680	777	486	334	195	701	138
3	456	239	526	369	512	644	828	406	483	208	467	150
4	411	375	479	366	695	623	729	358	489	133	274	109
5	359	486	445	366	696	660	565	340	381	218	254	150
6	293	444	438	357	583	739	536	336	304	268	229	99
7	280	342	550	347	528	713	551	329	277	e285	222	127
8	280	364	624	342	498	625	746	326	478	1,520	238	93
9	279	254	602	337	479	654	666	292	452	1,360	244	142
10	277	273	2,220	330	486	573	548	268	893	696	241	91
11	258	268	2,940	325	479	522	504	276	603	322	269	92
12	240	522	1,430	327	441	487	478	400	321	303	256	92
13	279	1,080	878	333	421	459	480	386	347	286	205	92
14	368	1,030	696	2,000	430	448	476	342	218	307	190	103
15	419	605	537	4,660	463	456	446	348	274	293	183	94
16	289	435	496	2,360	457	455	419	445	234	266	180	93
17	266	365	469	961	425	657	401	383	206	284	183	122
18	225	381	455	694	404	956	399	309	190	233	189	89
19	255	313	442	542	386	919	396	646	227	253	193	117
20	360	366	408	526	380	724	387	610	224	275	185	88
21	292	364	321	530	404	563	385	536	179	332	185	90
22	275	299	421	512	424	514	387	415	198	302	165	116
23	339	517	423	487	404	558	429	344	220	378	197	145
24	230	1,550	497	391	405	1,240	454	334	214	274	204	115
25	266	2,270	555	446	453	1,390	392	382	181	249	215	100
26	273	2,010	528	479	445	872	367	342	172	211	203	90
27	270	1,130	399	466	407	729	359	292	178	190	195	91
28	277	879	382	428	484	1,670	345	256	172	174	136	92
29	265	1,150	384	395	---	3,620	365	277	194	430	178	127
30	266	832	387	441	---	2,350	404	260	190	689	202	100
31	264	---	385	590	---	1,060	---	257	---	570	137	---
TOTAL	9,924	19,652	20,606	21,454	13,235	27,194	15,022	11,420	9,081	11,671	7,713	3,321
MEAN	320	655	665	692	473	877	501	368	303	376	249	111
MAX	876	2,270	2,940	4,660	696	3,620	828	646	893	1,520	793	174
MIN	225	239	321	325	380	448	345	256	172	133	136	88
CFSM	0.59	1.20	1.22	1.27	0.86	1.60	0.92	0.67	0.55	0.69	0.45	0.20
IN.	0.67	1.34	1.40	1.46	0.90	1.85	1.02	0.78	0.62	0.79	0.52	0.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905, 1929 - 2005, BY WATER YEAR (WY)

MEAN	347	395	503	668	755	835	720	489	389	299	322	378
MAX	1,691	1,431	1,211	2,125	1,857	2,738	2,121	1,374	1,588	1,065	2,898	3,717
(WY)	(1938)	(1973)	(1949)	(1937)	(1979)	(1975)	(1983)	(1978)	(1972)	(1938)	(1940)	(1944)
MIN	34.9	77.4	125	170	160	270	170	178	62.4	29.6	25.2	29.4
(WY)	(1931)	(2002)	(2002)	(1981)	(2002)	(1981)	(2002)	(1981)	(2002)	(2002)	(1999)	(1954)

02077000 BANISTER RIVER AT HALIFAX, VA—Continued

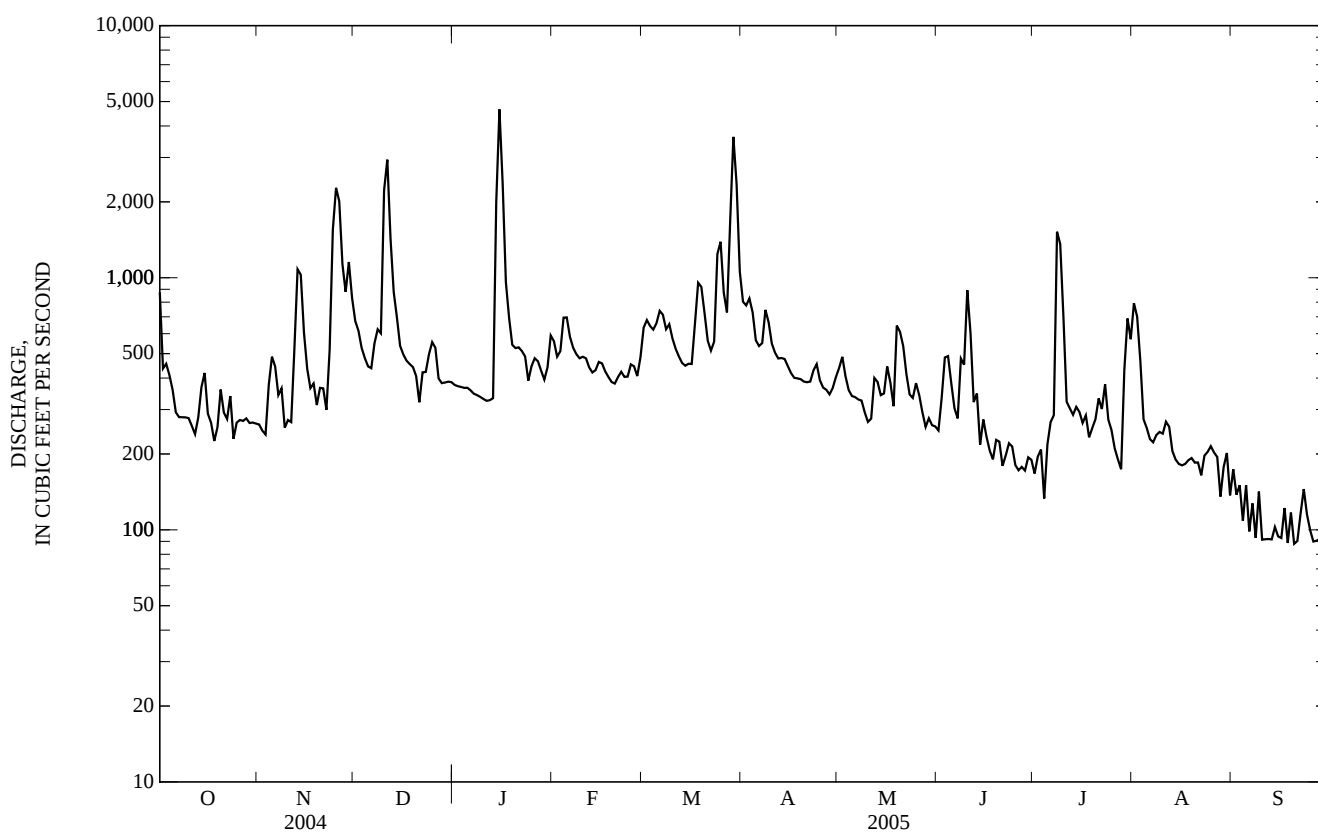
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1905, 1929 - 2005	
ANNUAL TOTAL	189,039		170,293		508	
ANNUAL MEAN	516		467		993	2003
HIGHEST ANNUAL MEAN					136	2002
LOWEST ANNUAL MEAN					44,700	Sep 20, 1944
HIGHEST DAILY MEAN	5,210	Feb 8	4,660	Jan 15	6.0	Aug 30, 1932
LOWEST DAILY MEAN	155	Jul 22	88	Sep 20	18	Oct 8, 1930
ANNUAL SEVEN-DAY MINIMUM	195	Jul 17	94	Sep 10	50,000	Sep 20, 1944
MAXIMUM PEAK FLOW			5,090	Jan 15	a40.80	Sep 20, 1944
MAXIMUM PEAK STAGE			16.19	Jan 15	6.0	(c)
INSTANTANEOUS LOW FLOW			b65	Sep 7	0.928	
ANNUAL RUNOFF (CFSM)	0.944		0.853		12.61	
ANNUAL RUNOFF (INCHES)	12.86		11.58		948	
10 PERCENT EXCEEDS	877		733		304	
50 PERCENT EXCEEDS	404		378		109	
90 PERCENT EXCEEDS	234		173			

a From floodmarks, at site and datum then in use.

b Result of regulation.

c Many days in August and September 1932.

e Estimated.



02077500 HYCO RIVER NEAR DENNISTON, VA

LOCATION.--Lat 36°35'17", long 78°53'55", NAD83, Halifax County, Hydrologic Unit 03010104, on left bank 60 ft upstream from bridge on U.S. Highway 501, 0.8 mi upstream from Mayo Creek, 2.5 mi northeast of Denniston, and 7.3 mi south of South Boston.

DRAINAGE AREA.--289 mi².

PERIOD OF RECORD.--October 1928 to September 1934, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 1383: Drainage area, 1930. WSP 1503: 1930(M). WSP 1723: 1930(m). WDR VA-75-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 315.24 ft NGVD of 1929. July 10, 1929, to Mar. 14, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Small diurnal fluctuation at low flow in some years caused by mill upstream from station. Since September 1964, flow regulated by Hyco Lake 15.7 mi upstream, capacity 75,480 acre-ft, and since Apr. 26, 1974, by Roxboro Steam-Electric Generating Plant Afterbay Reservoir, capacity 12,000 acre-ft. Statistics of monthly mean data and summary statistics for water years 1929 - 1934, 1951 - 1964 (unregulated flow) are available in previous data books, water years 1991 - 1998. Maximum discharge, 10,800 ft³/s, from rating curve extended above 8,200 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in August 1928 and September 1945 reached stages of 26.4 ft and 25.6 ft, respectively, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	38	538	75	103	761	533	250	36	28	41	21
2	38	39	519	73	89	1,110	567	375	39	27	31	22
3	37	39	320	95	381	992	571	352	61	27	27	22
4	37	53	66	256	584	348	499	169	67	27	25	22
5	37	77	60	255	528	273	411	55	42	34	24	22
6	36	53	56	252	486	267	217	58	40	31	23	22
7	35	47	66	108	927	253	98	60	39	31	32	23
8	35	44	66	70	610	263	103	53	43	334	28	23
9	35	43	68	69	259	272	190	51	41	63	27	23
10	34	43	1,650	66	257	253	314	50	41	37	32	22
11	33	42	3,680	66	246	239	305	47	39	31	26	21
12	34	351	3,930	65	236	101	296	45	36	30	24	21
13	34	2,010	e2,500	140	227	85	107	45	35	29	23	22
14	42	2,020	e600	1,940	229	82	86	45	36	30	22	22
15	39	e1,700	174	3,430	109	82	78	43	35	29	22	23
16	35	e900	142	e2,500	76	85	74	43	33	27	22	23
17	33	e400	128	e1,000	72	568	70	42	32	26	30	22
18	33	78	118	474	68	844	69	41	31	25	29	21
19	40	65	111	422	64	845	68	40	31	25	25	21
20	152	59	105	387	257	873	67	42	31	25	24	21
21	59	55	97	173	274	819	65	42	30	24	23	29
22	47	53	97	156	270	543	63	39	31	24	23	26
23	42	193	101	154	265	333	76	38	30	24	24	22
24	41	580	122	140	271	468	70	39	30	23	25	21
25	42	688	131	125	284	367	62	48	28	23	24	21
26	41	485	492	83	89	337	60	41	28	23	23	21
27	40	420	482	78	63	323	59	39	28	22	23	21
28	39	533	147	70	247	1,260	58	37	33	22	22	23
29	39	317	83	68	---	2,960	59	36	32	46	22	22
30	39	374	80	87	---	e2,000	69	36	29	42	23	22
31	40	---	78	141	---	e1,000	---	35	---	79	22	---
TOTAL	1,308	11,799	16,807	13,018	7,571	19,006	5,364	2,336	1,087	1,268	791	667
MEAN	42.2	393	542	420	270	613	179	75.4	36.2	40.9	25.5	22.2
MAX	152	2,020	3,930	3,430	927	2,960	571	375	67	334	41	29
MIN	33	38	56	65	63	82	58	35	28	22	22	21
CFSM	0.15	1.36	1.88	1.45	0.94	2.12	0.62	0.26	0.13	0.14	0.09	0.08
IN.	0.17	1.52	2.16	1.68	0.97	2.45	0.69	0.30	0.14	0.16	0.10	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

MEAN	114	136	220	439	482	593	383	222	143	127	108	164
MAX	805	786	815	1,692	1,364	1,737	1,355	1,332	1,146	1,492	553	1,341
(WY)	(1972)	(1973)	(1973)	(1978)	(1998)	(2003)	(2003)	(1978)	(2003)	(1975)	(2003)	(1996)
MIN	9.04	9.36	14.0	28.5	29.2	44.6	23.6	21.7	11.3	10.9	7.49	11.1
(WY)	(1999)	(1999)	(2002)	(1966)	(2002)	(1981)	(2002)	(2002)	(2002)	(2002)	(1999)	(1998)

02077500 HYCO RIVER NEAR DENNISTON, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1965 - 2005	
ANNUAL TOTAL	76,591		81,022		260	
ANNUAL MEAN	209		222		776	
HIGHEST ANNUAL MEAN					21.5	
LOWEST ANNUAL MEAN					10,300	
HIGHEST DAILY MEAN	3,930	Dec 12	3,930	Dec 12	10,300	Jul 15, 1975
LOWEST DAILY MEAN	33	Oct 11	21	aSep 1	2.5	Aug 24, 1999
ANNUAL SEVEN-DAY MINIMUM	34	Oct 7	22	Sep 23	3.4	Aug 19, 1999
MAXIMUM PEAK FLOW			4,060	Dec 12	b10,800	Jul 15, 1975
MAXIMUM PEAK STAGE			17.28	Dec 12	b24.27	Jul 15, 1975
INSTANTANEOUS LOW FLOW			21	cAug 31	d2.1	Aug 24, 1999
ANNUAL RUNOFF (CFSM)	0.724		0.768		0.899	
ANNUAL RUNOFF (INCHES)	9.86		10.43		12.21	
10 PERCENT EXCEEDS	467		530		617	
50 PERCENT EXCEEDS	103		55		72	
90 PERCENT EXCEEDS	42		23		20	

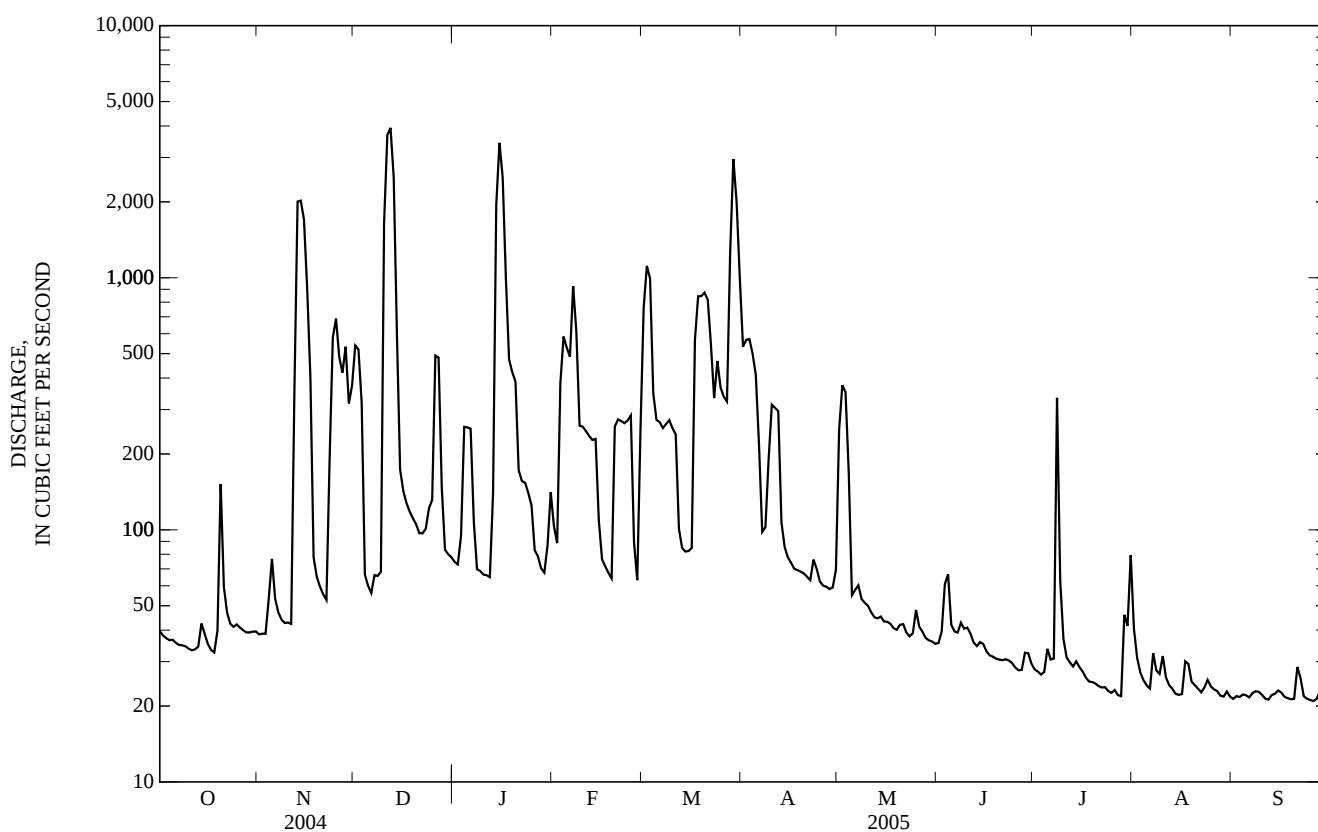
a Also Sept. 11, 12, 18-20, 24-27, 2005.

b Prior to regulation, 1929-34, 1951-64, maximum peak flow, 7,630 ft³/s, Oct. 3, 1929, gage height, 21.88 ft.

c Also many days in September 2005.

d Prior to regulation, 1929-34, 1951-64, instantaneous low flow, 0.004 ft³/s, Sept. 14, 1932.

e Estimated.



02079241 ISLAND CREEK RESERVOIR NEAR CLARKSVILLE, VA

LOCATION.-- Lat 36°32'56", long 78°28'00", Mecklenburg County, Hydrologic Unit 03010102, at Island Creek Dam pump station on State Highway 825, 7.2 mi southeast of Clarksville.

DRAINAGE AREA.--67.7 mi².

PERIOD OF RECORD.--December 2004 to September 2005.

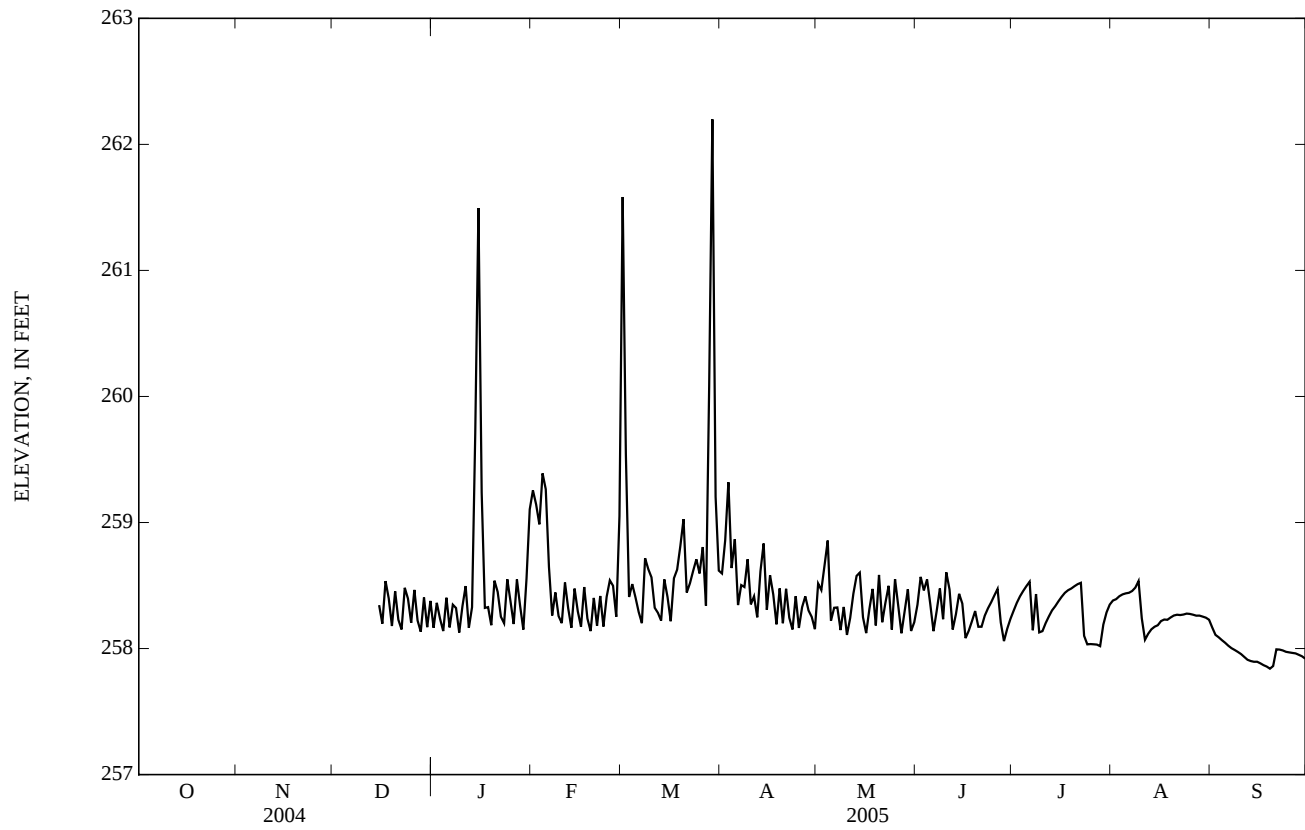
GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 262.94 ft, Mar. 29; minimum elevation, 257.80 ft, Sept. 20.

ELEVATION OF RESERVOIR WATER SURFACE ABOVE DATUM, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	258.16	259.26	261.58	258.60	258.52	258.35	258.30	258.38	258.17
2	---	---	---	258.36	259.14	259.54	258.86	258.46	258.57	258.36	258.39	258.11
3	---	---	---	258.24	258.99	258.41	259.32	258.66	258.46	258.41	258.42	258.09
4	---	---	---	258.14	259.39	258.51	258.64	258.86	258.55	258.46	258.43	258.07
5	---	---	---	258.40	259.26	258.41	258.87	258.22	258.35	258.50	258.44	258.05
6	---	---	---	258.17	258.65	258.29	258.34	258.32	258.14	258.53	258.44	258.02
7	---	---	---	258.35	258.26	258.20	258.50	258.33	258.30	258.15	258.46	258.00
8	---	---	---	258.32	258.44	258.72	258.49	258.15	258.48	258.43	258.48	257.99
9	---	---	---	258.13	258.26	258.63	258.71	258.33	258.23	258.13	258.54	257.97
10	---	---	---	258.34	258.20	258.56	258.35	258.11	258.60	258.14	258.24	257.96
11	---	---	---	258.50	258.52	258.32	258.41	258.24	258.47	258.20	258.07	257.93
12	---	---	---	258.16	258.32	258.28	258.25	258.44	258.15	258.25	258.12	257.91
13	---	---	---	258.33	258.17	258.22	258.61	258.58	258.27	258.30	258.15	257.90
14	---	---	---	259.71	258.48	258.55	258.83	258.60	258.43	258.34	258.17	257.90
15	---	---	258.34	261.49	258.29	258.41	258.31	258.25	258.36	258.38	258.18	257.90
16	---	---	258.20	259.24	258.17	258.22	258.58	258.12	258.08	258.41	258.22	257.88
17	---	---	258.54	258.32	258.49	258.56	258.43	258.31	258.14	258.44	258.23	257.87
18	---	---	258.40	258.33	258.24	258.63	258.19	258.47	258.22	258.46	258.23	257.86
19	---	---	258.18	258.19	258.14	258.81	258.48	258.18	258.30	258.48	258.25	257.84
20	---	---	258.45	258.54	258.40	259.03	258.20	258.58	258.17	258.49	258.26	257.86
21	---	---	258.23	258.45	258.18	258.44	258.47	258.21	258.17	258.51	258.27	257.99
22	---	---	258.15	258.25	258.42	258.52	258.24	258.36	258.26	258.52	258.27	257.99
23	---	---	258.48	258.20	258.17	258.62	258.15	258.50	258.32	258.10	258.27	257.99
24	---	---	258.40	258.55	258.41	258.71	258.42	258.15	258.37	258.03	258.28	257.97
25	---	---	258.20	258.37	258.54	258.60	258.16	258.55	258.42	258.04	258.27	257.97
26	---	---	258.47	258.19	258.50	258.81	258.33	258.34	258.47	258.03	258.27	257.97
27	---	---	258.22	258.55	258.25	258.34	258.41	258.12	258.21	258.03	258.26	257.96
28	---	---	258.13	258.34	259.05	260.08	258.30	258.30	258.06	258.02	258.26	257.95
29	---	---	258.40	258.15	---	262.20	258.25	258.47	258.16	258.19	258.25	257.94
30	---	---	258.17	258.56	---	259.20	258.15	258.14	258.23	258.29	258.25	257.92
31	---	---	258.38	259.10	---	258.62	---	258.21	---	258.35	258.23	---
MEAN	---	---	---	258.52	258.52	258.84	258.46	258.36	258.31	258.30	258.29	257.96
MAX	---	---	---	261.49	259.39	262.20	259.32	258.86	258.60	258.53	258.54	258.17
MIN	---	---	---	258.13	258.14	258.20	258.15	258.11	258.06	258.02	258.07	257.84

02079241 ISLAND CREEK RESERVOIR NEAR CLARKSVILLE, VA—Continued



02079490 JOHN H. KERR RESERVOIR NEAR BOYDTON, VA

LOCATION.--Lat 36°35'56", long 78°18'06", Mecklenburg County, Hydrologic Unit 03010102, at John H. Kerr Dam on Roanoke River, 2.7 mi upstream from Allen Creek, 6.7 mi southeast of Boydton, 18 mi upstream from the Virginia-North Carolina State line, and at mile 178.7.

DRAINAGE AREA.--7,780 mi², approximately.

PERIOD OF RECORD.--March to September 2005. July 1950 to September 2004, month end elevations only, provided by the U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929.

REMARKS.--Reservoir is formed by concrete dam with earth embankments. Spillway, with crest at elevation 288.0 ft, is equipped with 22 radial gates 32 ft high by 42 ft wide. Storage began in September 1950 during construction; initial filling started June 30, 1952; water in reservoir first reached rule-curve elevation in March 1953. Total capacity at top of gates, elevation, 320 ft, is 2,770,000 acre-ft of which 1,281,400 acre-ft is controlled flood storage between elevations 300 ft, top of power pool, and 320 ft; 316,900 acre-ft is available for power between elevations 293.0 ft, bottom of power pool, and 300 ft; 1,171,700 acre-ft is inactive and dead storage below elevation 293.0 ft. Reservoir is used for flood control, hydroelectric power, low-water regulation for navigation and pollution abatement, release of water for downstream fish spawning, and recreation.

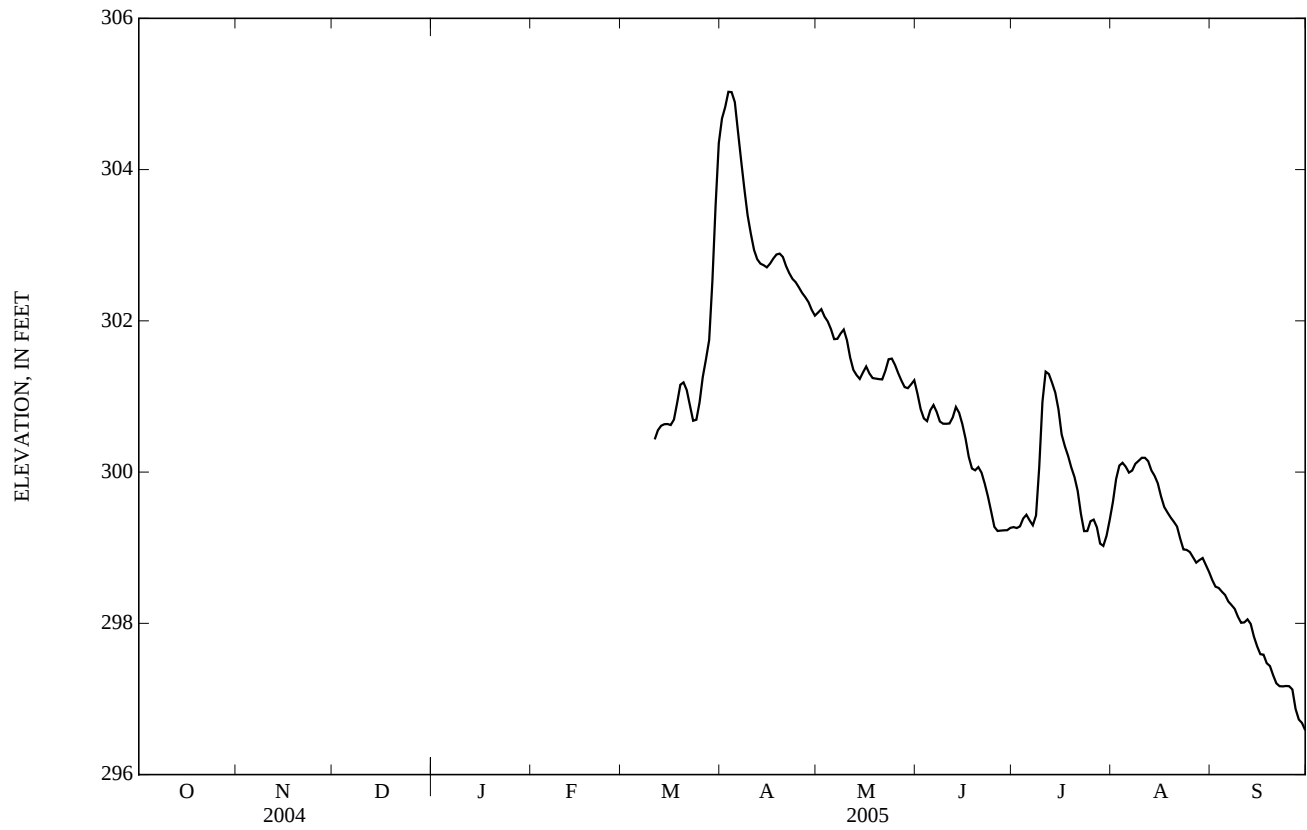
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 319.61 ft, April 29, 1987; minimum elevation, 280.23 ft, Feb. 3, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 305.08 ft, Apr. 3; minimum elevation, 296.58 ft, Sept. 30.

ELEVATION OF RESERVOIR WATER SURFACE ABOVE DATUM, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	304.68	302.11	301.04	299.27	299.61	298.57
2	---	---	---	---	---	---	304.83	302.15	300.83	299.26	299.91	298.49
3	---	---	---	---	---	---	305.03	302.06	300.71	299.28	300.09	298.47
4	---	---	---	---	---	---	305.02	301.99	300.67	299.39	300.12	298.42
5	---	---	---	---	---	---	304.89	301.89	300.82	299.44	300.07	298.38
6	---	---	---	---	---	---	304.50	301.76	300.89	299.36	299.99	298.29
7	---	---	---	---	---	---	304.11	301.76	300.80	299.30	300.02	298.24
8	---	---	---	---	---	---	303.74	301.83	300.67	299.43	300.11	298.19
9	---	---	---	---	---	---	303.39	301.88	300.64	300.06	300.15	298.09
10	---	---	---	---	---	---	303.15	301.74	300.64	300.93	300.19	298.01
11	---	---	---	---	---	300.43	302.94	301.51	300.64	301.33	300.19	298.01
12	---	---	---	---	---	300.55	302.81	301.35	300.72	301.30	300.14	298.05
13	---	---	---	---	---	300.61	302.76	301.28	300.86	301.18	300.02	297.99
14	---	---	---	---	---	300.63	302.74	301.23	300.78	301.05	299.95	297.82
15	---	---	---	---	---	300.64	302.71	301.32	300.64	300.83	299.85	297.70
16	---	---	---	---	---	300.62	302.76	301.40	300.44	300.50	299.68	297.59
17	---	---	---	---	---	300.69	302.82	301.30	300.20	300.34	299.54	297.59
18	---	---	---	---	---	300.91	302.88	301.24	300.05	300.21	299.47	297.47
19	---	---	---	---	---	301.15	302.89	301.24	300.02	300.06	299.40	297.44
20	---	---	---	---	---	301.19	302.84	301.23	300.07	299.94	299.34	297.31
21	---	---	---	---	---	301.08	302.72	301.23	299.99	299.75	299.28	297.21
22	---	---	---	---	---	300.88	302.63	301.34	299.85	299.45	299.12	297.17
23	---	---	---	---	---	300.68	302.55	301.49	299.68	299.22	298.98	297.17
24	---	---	---	---	---	300.69	302.51	301.50	299.48	299.22	298.97	297.17
25	---	---	---	---	---	300.92	302.44	301.42	299.28	299.35	298.94	297.17
26	---	---	---	---	---	301.26	302.37	301.31	299.22	299.37	298.87	297.13
27	---	---	---	---	---	301.49	302.31	301.21	299.23	299.27	298.80	296.87
28	---	---	---	---	---	301.75	302.25	301.12	299.23	299.05	298.84	296.73
29	---	---	---	---	---	302.52	302.14	301.11	299.23	299.02	298.86	296.68
30	---	---	---	---	---	303.53	302.07	301.16	299.26	299.16	298.77	296.59
31	---	---	---	---	---	304.35	---	301.21	---	299.37	298.68	---
MEAN	---	---	---	---	---	---	303.18	301.50	300.22	299.83	299.55	297.67
MAX	---	---	---	---	---	---	305.03	302.15	301.04	301.33	300.19	298.57
MIN	---	---	---	---	---	---	302.07	301.11	299.22	299.02	298.68	296.59

02079490 JOHN H. KERR RESERVOIR NEAR BOYDTON, VA—Continued



02079500 ROANOKE RIVER AT BUGGS ISLAND, VA

LOCATION.--Lat 36°36'06", long 78°17'56" NAD83, Mecklenburg County, Hydrologic Unit 03010106, on left bank 1,200 ft downstream from John H. Kerr dam, 5.3 mi upstream from bridge on U.S. Highway 1, 6.7 mi southeast of Boynton, and at mile 178.4.

DRAINAGE AREA.--7,789 mi².

STAGE RECORDS

PERIOD OF RECORD.--November 1921 to August 1923 (gage heights only), April 1947 to September 1962, October 1963 to September 2000 (annual maximum only), October 2000 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 196.72 ft NGVD of 1929. November 1921 to August 1923, at site 0.3 mi upstream at different datum. April 1947 to Sept. 30, 1952, at site 2,800 ft downstream at different datum.

REMARKS.--Mean daily gage heights are shown in table below. Since July 1950, flow regulated by John H. Kerr reservoir (station 02079490) 1,200 ft upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,000 ft³/s, Dec. 7, 1948, gage height, 14.97 ft.

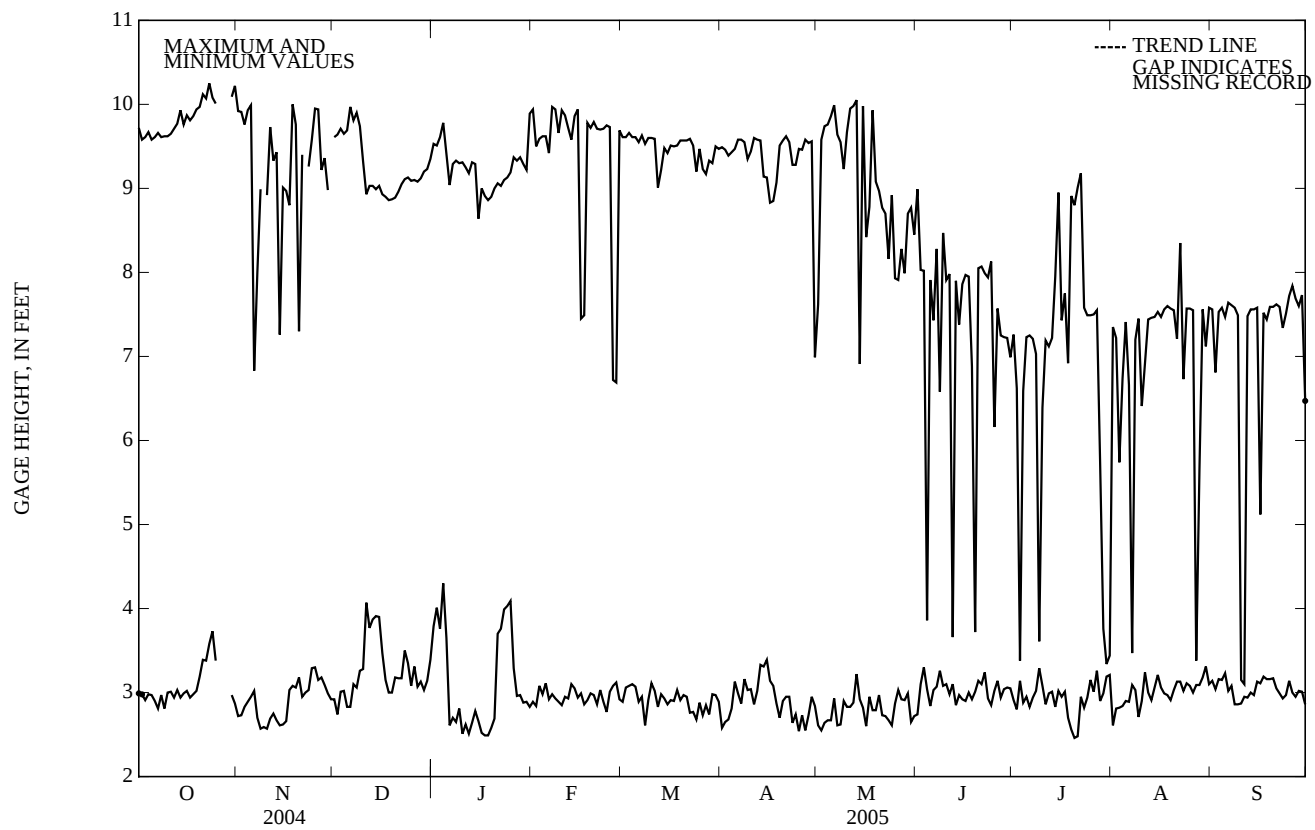
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.72	2.99	9.92	2.72	9.61	2.92	9.53	3.79	9.94	2.89	9.61	2.89
2	9.58	2.98	9.91	2.73	9.64	2.74	9.51	4.01	9.50	2.84	9.61	3.06
3	9.61	2.91	9.76	2.83	9.71	3.01	9.61	3.76	9.59	3.08	9.66	3.08
4	9.67	2.98	9.93	2.89	9.65	3.02	9.78	4.30	9.62	2.98	9.61	3.10
5	9.58	2.97	9.99	2.95	9.69	2.83	9.41	3.65	9.62	3.11	9.61	3.07
6	9.61	2.90	6.83	3.02	9.97	2.83	9.04	2.61	9.42	2.92	9.55	2.89
7	9.66	2.81	8.00	2.70	9.81	3.10	9.29	2.70	9.97	2.98	9.63	2.95
8	9.61	2.97	8.99	2.57	9.90	3.06	9.33	2.65	9.94	2.93	9.53	2.61
9	9.62	2.81	---	2.59	9.74	3.26	9.30	2.81	9.66	2.89	9.60	2.91
10	9.62	3.00	8.92	2.57	9.32	3.28	9.31	2.51	9.93	2.85	9.60	3.11
11	9.65	3.01	9.73	2.69	8.93	4.07	9.25	2.62	9.87	2.95	9.59	3.02
12	9.71	2.94	9.33	2.75	9.03	3.77	9.18	2.51	9.72	2.93	9.01	2.83
13	9.77	3.03	9.43	2.67	9.03	3.87	9.31	2.64	9.58	3.10	9.22	2.98
14	9.93	2.94	7.26	2.61	8.99	3.91	9.29	2.78	9.86	3.05	9.48	2.93
15	9.76	2.99	9.01	2.62	9.03	3.90	8.64	2.66	9.94	2.94	9.42	2.86
16	9.87	3.02	8.97	2.66	8.93	3.47	9.00	2.52	7.45	2.99	9.51	2.91
17	9.81	2.94	8.80	3.03	8.90	3.15	8.91	2.49	7.49	2.86	9.50	2.90
18	9.86	2.98	10.00	3.08	8.86	3.00	8.86	2.49	9.78	2.91	9.51	3.03
19	9.94	3.02	9.76	3.06	8.87	3.00	8.90	2.58	9.72	2.99	9.57	2.91
20	9.97	3.19	7.30	3.18	8.89	3.18	9.00	2.69	9.79	2.97	9.57	2.97
21	10.12	3.39	9.40	2.95	8.96	3.17	9.06	3.70	9.71	2.86	9.57	2.95
22	10.07	3.38	---	3.00	9.05	3.17	9.03	3.76	9.70	3.03	9.59	2.76
23	10.25	3.58	9.26	3.03	9.11	3.50	9.10	3.99	9.71	2.89	9.51	2.77
24	10.08	3.73	9.58	3.29	9.13	3.35	9.13	4.03	9.75	2.77	9.20	2.68
25	10.01	3.38	9.95	3.30	9.09	3.08	9.19	4.09	9.73	3.01	9.47	2.88
26	---	---	9.94	3.15	9.10	3.31	9.37	3.29	6.72	3.08	9.23	2.73
27	---	---	9.22	3.18	9.08	3.07	9.33	2.96	6.69	3.12	9.17	2.85
28	---	---	9.36	3.09	9.12	3.13	9.37	2.97	9.69	2.92	9.33	2.74
29	---	---	8.98	2.99	9.20	3.03	9.29	2.88	---	---	9.30	2.98
30	10.09	2.97	---	2.92	9.23	3.14	9.22	2.89	---	---	9.50	2.97
31	10.22	2.87	---	---	9.35	3.39	9.89	2.83	---	---	9.47	2.89
MONTH	10.25	2.81	10.00	2.57	9.97	2.74	9.89	2.49	9.97	2.77	9.66	2.61

GAGE HEIGHT, FEET—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[illegible]

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued



02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 2003 to current year.

PERIOD OF CONTINUOUS (15-MINUTE INTERVAL) RECORD.--

DISSOLVED OXYGEN: December 2003 to current.

pH: December 2003 to current.

SPECIFIC CONDUCTANCE: December 2003 to current.

WATER TEMPERATURE: December 2003 to current.

INSTRUMENTATION.--Water-quality monitor December 2003 to current year.

REMARKS.--Missing record due to instrument malfunction. Median daily values were used for plots of water-quality parameters.

EXTREMES FOR CURRENT YEAR.--

DISSOLVED OXYGEN: Maximum, 12.8 mg/L, Mar. 12, 22, 23; minimum, 0.0 mg/L, Sept. 28, 29, 30.

pH: Maximum, 8.6 standard units, May 1, 2, 3, 7; minimum, 5.9 standard units, Aug. 13, 15.

SPECIFIC CONDUCTANCE: Maximum, 140 microsiemens/cm, Nov. 20, 21; minimum, 75 microsiemens/cm, Apr. 26.

WATER TEMPERATURE: Maximum, 25.4°C, Sept. 26; minimum, 4.8°C, on several days.

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	5.7	4.0	4.6	---	---	---	9.2	8.5	8.7	10.8	10.0	10.2
2	5.8	4.0	4.8	---	---	---	9.3	8.4	8.6	10.6	9.9	10.2
3	5.9	4.4	4.8	---	---	---	9.3	8.4	8.8	10.5	9.9	10.0
4	5.7	4.0	4.9	---	---	---	9.3	8.5	8.8	11.1	10.3	10.4
5	6.1	3.1	4.8	---	---	---	9.1	8.6	8.7	10.5	10.0	10.3
6	5.4	3.7	4.6	---	---	---	9.6	8.5	8.9	10.6	10.0	10.4
7	6.0	4.2	4.9	---	---	---	10.0	8.6	9.1	11.0	10.2	10.4
8	5.8	4.4	4.9	---	---	---	9.7	8.8	9.1	10.5	9.8	10.1
9	6.3	4.3	5.0	---	---	---	9.7	8.7	9.0	10.5	9.9	10.1
10	6.4	4.2	4.8	---	---	---	9.5	8.6	9.0	10.9	10.2	10.4
11	6.2	3.9	4.6	---	---	---	9.8	8.6	9.2	10.7	10.1	10.5
12	6.3	4.4	5.0	---	---	---	9.7	8.6	9.1	10.9	10.2	10.5
13	5.8	4.0	5.0	---	---	---	10.3	8.8	9.1	11.1	10.1	10.6
14	5.7	3.5	4.9	---	---	---	9.4	8.9	9.1	10.9	10.2	10.5
15	6.6	5.2	5.9	---	---	---	9.6	8.9	9.1	10.8	10.0	10.4
16	7.5	5.5	6.1	---	---	---	10.2	9.1	9.5	10.6	10.0	10.2
17	7.7	5.9	6.4	---	---	---	10.2	9.2	9.6	10.7	10.2	10.4
18	7.6	6.4	6.9	---	---	---	9.9	9.2	9.4	10.9	10.1	10.5
19	7.6	6.4	6.9	8.5	7.7	8.1	10.0	9.1	9.5	11.0	10.4	10.6
20	7.3	6.3	6.8	8.7	7.3	8.0	10.0	9.2	9.6	11.1	10.3	10.7
21	7.2	6.3	6.7	8.9	7.1	7.9	10.4	9.5	9.8	11.3	10.4	10.7
22	7.2	6.1	6.7	---	---	---	10.5	9.6	10.0	11.3	10.3	10.5
23	7.1	5.7	6.2	---	---	---	10.6	9.7	9.9	11.3	10.5	10.6
24	6.8	5.6	6.2	---	---	---	10.6	9.7	9.9	11.2	10.6	10.8
25	7.1	5.6	6.3	---	---	---	10.4	9.7	9.8	11.5	10.6	10.8
26	---	---	---	---	---	---	10.3	9.6	9.7	11.5	10.7	11.0
27	---	---	---	---	---	---	10.3	9.6	9.8	11.3	10.7	11.0
28	---	---	---	---	---	---	10.5	9.8	10.0	11.2	10.7	10.9
29	---	---	---	---	---	---	10.4	10.0	10.1	11.1	10.5	10.8
30	7.6	5.9	6.5	---	---	---	11.0	10.0	10.1	11.3	10.4	10.8
31	7.7	6.0	6.8	---	---	---	10.6	9.9	10.1	11.1	10.6	10.8
MAX	7.7	6.4	6.9	8.9	7.7	8.1	11.0	10.0	10.1	11.5	10.7	11.0
MIN	5.4	3.1	4.6	8.5	7.1	7.9	9.1	8.4	8.6	10.5	9.8	10.0

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

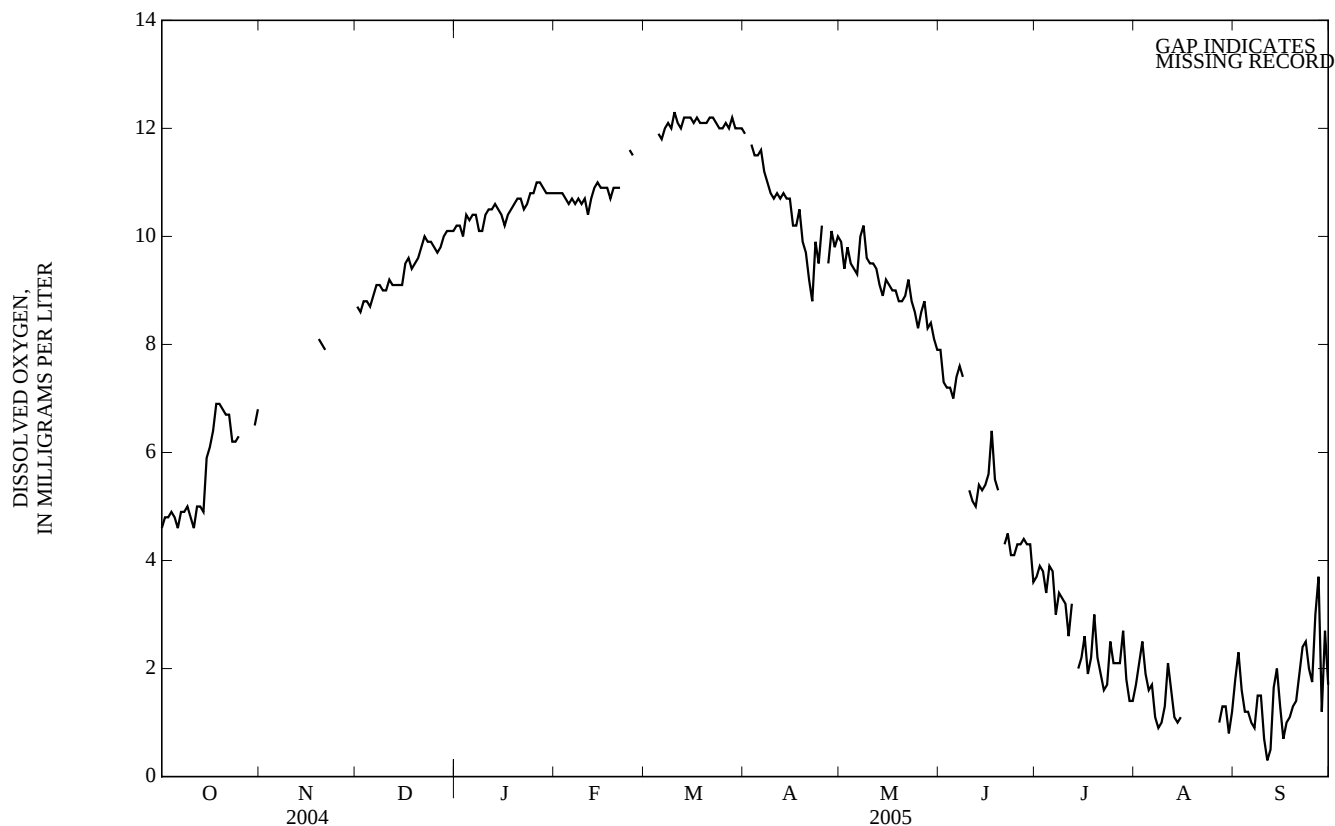
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	11.1	10.5	10.8	---	---	---	12.5	11.5	11.9	12.3	8.9	9.9
2	11.0	10.6	10.8	---	---	---	---	---	---	12.2	8.7	9.4
3	10.9	10.3	10.8	---	---	---	12.0	11.4	11.7	12.5	8.9	9.8
4	11.0	10.3	10.7	---	---	---	12.0	11.2	11.5	10.9	8.5	9.5
5	11.1	10.2	10.6	12.2	11.4	11.9	12.0	11.3	11.5	11.5	8.9	9.4
6	11.2	10.4	10.7	12.5	11.3	11.8	12.1	11.3	11.6	10.5	8.3	9.3
7	11.0	10.3	10.6	12.4	11.4	12.0	11.8	10.8	11.2	12.7	8.5	10.0
8	11.1	10.4	10.7	12.5	11.6	12.1	11.3	10.5	11.0	12.5	8.9	10.2
9	10.9	10.4	10.6	12.7	11.6	12.0	11.0	10.0	10.8	11.4	8.6	9.6
10	11.2	10.5	10.7	12.6	11.7	12.3	11.0	9.6	10.7	10.6	8.8	9.5
11	11.0	10.1	10.4	12.7	11.7	12.1	11.4	9.7	10.8	10.2	8.7	9.5
12	11.4	10.4	10.7	12.8	11.4	12.0	11.2	9.7	10.7	11.0	8.1	9.4
13	11.1	10.5	10.9	12.5	11.6	12.2	11.4	9.9	10.8	10.1	8.2	9.1
14	11.2	10.6	11.0	12.5	11.8	12.2	11.0	9.9	10.7	10.2	7.7	8.9
15	11.2	10.7	10.9	12.6	11.6	12.2	11.2	10.0	10.7	10.0	8.1	9.2
16	11.4	10.5	10.9	12.4	11.7	12.1	10.9	8.7	10.2	9.8	8.1	9.1
17	11.4	10.6	10.9	12.5	11.7	12.2	10.9	9.2	10.2	10.0	8.2	9.0
18	11.3	10.4	10.7	12.5	11.7	12.1	11.1	9.3	10.5	11.0	7.8	9.0
19	11.5	10.5	10.9	12.7	11.6	12.1	11.0	8.5	9.9	10.0	8.1	8.8
20	11.3	10.6	10.9	12.7	11.7	12.1	10.6	7.8	9.7	10.5	7.9	8.8
21	11.3	10.6	10.9	12.5	11.9	12.2	10.5	7.6	9.2	11.2	7.7	8.9
22	---	---	---	12.8	11.9	12.2	10.2	7.2	8.8	9.8	8.0	9.2
23	---	---	---	12.8	11.9	12.1	10.5	8.1	9.9	10.0	7.5	8.8
24	12.1	10.6	11.6	12.5	11.5	12.0	10.5	8.1	9.5	9.3	7.8	8.6
25	12.0	11.0	11.5	12.7	11.6	12.0	10.6	8.6	10.2	8.9	7.6	8.3
26	---	---	---	12.7	11.6	12.1	---	---	---	9.8	7.6	8.6
27	---	---	---	12.6	11.6	12.0	11.8	8.8	9.5	9.4	7.8	8.8
28	---	---	---	12.5	11.5	12.2	12.0	9.2	10.1	9.3	7.5	8.3
29	---	---	---	12.6	11.5	12.0	10.7	9.0	9.8	8.9	7.3	8.4
30	---	---	---	12.3	11.7	12.0	11.5	8.8	10.0	8.7	7.4	8.1
31	---	---	---	12.4	11.8	12.0	---	---	---	8.3	7.2	7.9
MAX	12.1	11.0	11.6	12.8	11.9	12.3	12.5	11.5	11.9	12.7	8.9	10.2
MIN	10.9	10.1	10.4	12.2	11.3	11.8	10.2	7.2	8.8	8.3	7.2	7.9

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.5	7.3	7.9	4.4	2.8	3.7	3.3	0.8	1.7	3.9	1.0	1.8
2	8.2	7.0	7.3	5.3	2.9	3.9	3.4	1.0	2.1	5.3	1.3	2.3
3	7.8	6.6	7.2	4.9	2.7	3.8	3.1	1.2	2.5	3.1	0.6	1.6
4	8.9	6.3	7.2	5.2	2.5	3.4	2.5	1.2	1.9	2.5	0.2	1.2
5	8.3	6.0	7.0	4.7	2.9	3.9	2.8	0.9	1.6	2.4	0.3	1.2
6	7.8	6.4	7.4	4.8	2.9	3.8	2.8	0.8	1.7	2.2	0.2	1.0
7	8.0	7.0	7.6	4.2	2.5	3.0	2.2	0.7	1.1	2.7	0.1	0.9
8	8.1	6.6	7.4	4.2	2.9	3.4	1.8	0.7	0.9	3.8	0.1	1.5
9	---	---	---	4.3	2.4	3.3	1.8	0.8	1.0	4.0	0.1	1.5
10	5.9	3.8	5.3	4.8	2.1	3.2	2.4	0.8	1.3	3.1	0.2	0.7
11	5.8	4.1	5.1	4.1	2.4	2.6	3.0	0.8	2.1	1.8	0.1	0.3
12	5.7	4.1	5.0	5.4	1.6	3.2	2.9	1.0	1.6	3.4	0.1	0.5
13	5.7	4.2	5.4	---	---	---	1.4	0.9	1.1	4.1	0.3	1.6
14	5.9	4.6	5.3	3.8	1.2	2.0	1.2	0.9	1.0	3.5	0.3	2.0
15	6.1	4.8	5.4	3.6	1.3	2.2	2.2	1.0	1.1	3.4	0.2	1.3
16	6.5	5.0	5.6	3.8	2.1	2.6	---	---	---	2.1	0.1	0.7
17	6.7	5.1	6.4	3.5	1.6	1.9	---	---	---	5.2	0.1	1.0
18	6.2	4.5	5.5	3.8	1.5	2.2	---	---	---	4.3	0.1	1.1
19	6.0	4.6	5.3	4.0	1.3	3.0	---	---	---	4.0	0.1	1.3
20	---	---	---	3.3	1.1	2.2	---	---	---	4.2	0.1	1.4
21	5.0	3.8	4.3	2.8	0.8	1.9	---	---	---	5.0	0.4	1.9
22	5.5	3.5	4.5	2.6	1.0	1.6	---	---	---	5.2	0.4	2.4
23	5.4	3.6	4.1	3.3	1.1	1.7	---	---	---	4.9	0.1	2.5
24	5.2	3.7	4.1	4.0	1.4	2.5	---	---	---	4.2	0.1	2.0
25	5.4	3.5	4.3	3.0	1.4	2.1	---	---	---	5.2	0.1	1.8
26	5.2	3.3	4.3	3.6	1.4	2.1	---	---	---	5.6	1.0	3.0
27	5.4	3.4	4.4	2.7	1.4	2.1	2.6	0.3	1.0	6.5	0.7	3.7
28	6.0	3.3	4.3	2.9	1.7	2.7	5.8	0.5	1.3	5.7	0.0	1.2
29	5.0	3.4	4.3	2.4	1.2	1.8	2.5	0.8	1.3	6.4	0.0	2.7
30	4.6	2.8	3.6	3.2	0.8	1.4	2.7	0.3	0.8	5.8	0.0	1.7
31	---	---	---	2.6	0.8	1.4	3.1	0.3	1.2	---	---	---
MAX	8.9	7.3	7.9	5.4	2.9	3.9	5.8	1.2	2.5	6.5	1.3	3.7
MIN	4.6	2.8	3.6	2.4	0.8	1.4	1.2	0.3	0.8	1.8	0.0	0.3

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued



PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	6.8	6.7	6.8	---	---	---	7.3	7.0	7.2	7.4	7.2	7.3
2	6.9	6.7	6.8	---	---	---	7.2	7.1	7.2	7.3	7.2	7.2
3	6.8	6.7	6.8	---	---	---	7.3	7.1	7.2	7.3	7.2	7.2
4	6.8	6.7	6.8	---	---	---	7.3	7.1	7.2	7.4	7.2	7.3
5	6.9	6.6	6.7	---	---	---	7.4	7.1	7.2	7.3	7.2	7.2
6	6.8	6.6	6.7	---	---	---	7.3	7.1	7.2	7.4	7.2	7.2
7	6.8	6.6	6.7	---	---	---	7.3	7.2	7.2	7.4	7.2	7.3
8	6.8	6.7	6.7	---	---	---	7.4	7.2	7.2	7.2	7.1	7.2
9	6.8	6.7	6.7	---	---	---	7.3	7.1	7.2	7.3	7.1	7.2
10	6.8	6.6	6.7	---	---	---	7.2	7.1	7.2	7.4	7.1	7.2
11	6.7	6.6	6.7	---	---	---	7.3	7.1	7.2	7.3	7.1	7.2
12	6.8	6.6	6.7	---	---	---	7.3	7.1	7.2	7.3	7.1	7.2
13	6.8	6.6	6.7	---	---	---	7.4	7.2	7.2	7.4	7.2	7.2
14	6.9	6.6	6.7	---	---	---	7.3	7.2	7.2	7.4	7.1	7.3
15	6.9	6.8	6.9	---	---	---	7.3	7.2	7.3	7.3	7.1	7.2
16	7.1	6.8	6.9	---	---	---	7.3	7.2	7.3	7.3	7.1	7.1
17	7.1	6.9	6.9	---	---	---	7.3	7.2	7.3	7.3	7.1	7.2
18	7.1	6.9	7.0	---	---	---	7.3	7.2	7.3	7.4	7.2	7.2
19	7.1	6.9	7.0	7.3	7.0	7.1	7.3	7.2	7.3	7.3	7.2	7.3
20	7.0	6.9	7.0	7.1	7.0	7.0	7.3	7.2	7.3	7.3	7.3	7.3
21	7.0	6.9	6.9	7.2	6.9	7.0	7.3	7.2	7.3	7.3	7.3	7.3
22	7.0	6.8	6.9	---	---	---	7.3	7.3	7.3	7.3	7.3	7.3
23	6.9	6.8	6.9	---	---	---	7.3	7.3	7.3	7.3	7.3	7.3
24	6.9	6.8	6.9	---	---	---	7.3	7.3	7.3	7.4	7.3	7.3
25	6.9	6.8	6.9	---	---	---	7.3	7.2	7.3	7.4	7.3	7.3
26	---	---	---	---	---	---	7.3	7.2	7.3	7.4	7.3	7.3
27	---	---	---	---	---	---	7.3	7.2	7.3	7.5	7.3	7.3
28	---	---	---	---	---	---	7.4	7.2	7.3	7.4	7.3	7.3
29	---	---	---	---	---	---	7.4	7.2	7.3	7.4	7.3	7.3
30	7.2	6.8	6.9	---	---	---	7.4	7.2	7.3	7.3	7.2	7.3
31	7.1	6.8	6.9	---	---	---	7.3	7.2	7.3	7.4	7.2	7.3
MAX	7.2	6.9	7.0	7.3	7.0	7.1	7.4	7.3	7.3	7.5	7.3	7.3
MIN	6.7	6.6	6.7	7.1	6.9	7.0	7.2	7.0	7.2	7.2	7.1	7.1

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.3	7.2	7.3	7.6	7.2	7.3	7.3	7.1	7.3	8.6	6.8	7.0
2	7.3	7.2	7.3	7.6	7.2	7.3	7.3	7.1	7.2	8.6	6.8	7.0
3	7.3	7.2	7.2	7.6	7.3	7.3	7.3	7.2	7.3	8.6	6.8	7.0
4	7.3	7.2	7.2	---	---	---	7.3	7.2	7.3	8.3	6.8	7.0
5	7.3	7.1	7.2	7.2	7.0	7.2	7.3	7.2	7.3	8.1	6.8	6.9
6	7.4	7.2	7.2	7.3	7.1	7.2	7.3	7.1	7.2	7.3	6.7	6.9
7	7.3	7.1	7.2	7.4	7.1	7.2	7.2	7.1	7.2	8.6	6.8	7.0
8	7.3	7.1	7.2	7.4	7.1	7.2	7.2	7.0	7.1	8.4	6.8	7.0
9	7.3	7.1	7.2	7.6	7.1	7.2	7.1	7.0	7.1	8.1	6.8	7.0
10	7.3	7.1	7.2	7.4	7.1	7.3	7.1	6.9	7.0	7.1	6.8	7.0
11	7.3	7.1	7.2	7.5	7.2	7.3	7.1	6.9	7.0	7.1	6.8	7.0
12	7.4	7.2	7.2	7.5	7.2	7.3	7.0	6.9	7.0	7.4	6.8	6.9
13	7.4	7.2	7.2	7.5	7.2	7.3	7.0	6.9	6.9	7.0	6.8	6.8
14	7.3	7.2	7.2	7.5	7.2	7.3	7.0	6.8	6.9	7.6	6.7	6.9
15	7.4	7.2	7.2	7.4	7.2	7.3	6.9	6.8	6.9	7.3	6.7	6.9
16	7.3	7.1	7.2	7.4	7.2	7.3	6.9	6.7	6.9	7.2	6.7	6.9
17	7.3	7.2	7.2	7.4	7.2	7.3	6.9	6.7	6.8	7.2	6.7	6.8
18	7.3	7.2	7.2	7.4	7.2	7.3	6.9	6.7	6.8	7.5	6.7	6.8
19	7.3	7.1	7.2	7.4	7.1	7.3	6.9	6.7	6.9	6.9	6.7	6.8
20	7.3	7.2	7.2	7.4	7.2	7.3	6.9	6.7	6.9	7.1	6.7	6.8
21	7.4	7.1	7.2	7.4	7.2	7.3	7.0	6.8	6.9	7.6	6.7	6.8
22	---	---	---	7.4	7.2	7.3	6.9	6.8	6.9	7.3	6.7	6.8
23	---	---	---	7.4	7.2	7.3	6.9	6.7	6.8	7.0	6.7	6.8
24	7.3	7.1	7.2	7.4	7.2	7.3	6.9	6.7	6.8	7.0	6.7	6.8
25	7.4	7.2	7.2	7.4	7.1	7.3	6.9	6.7	6.8	6.8	6.7	6.8
26	7.5	7.2	7.2	7.4	7.1	7.2	7.8	6.7	7.1	7.1	6.7	6.8
27	7.5	7.2	7.2	7.3	7.1	7.2	8.3	6.9	7.1	7.0	6.7	6.8
28	7.3	7.2	7.2	7.4	7.1	7.2	8.5	6.9	7.1	6.9	6.6	6.8
29	---	---	---	7.3	7.1	7.3	7.8	6.9	7.1	7.0	6.6	6.7
30	---	---	---	7.3	7.2	7.3	8.0	6.8	7.0	6.8	6.6	6.7
31	---	---	---	7.3	7.2	7.3	---	---	---	6.7	6.6	6.7
MAX	7.5	7.2	7.3	7.6	7.3	7.3	8.5	7.2	7.3	8.6	6.8	7.0
MIN	7.3	7.1	7.2	7.2	7.0	7.2	6.9	6.7	6.8	6.7	6.6	6.7

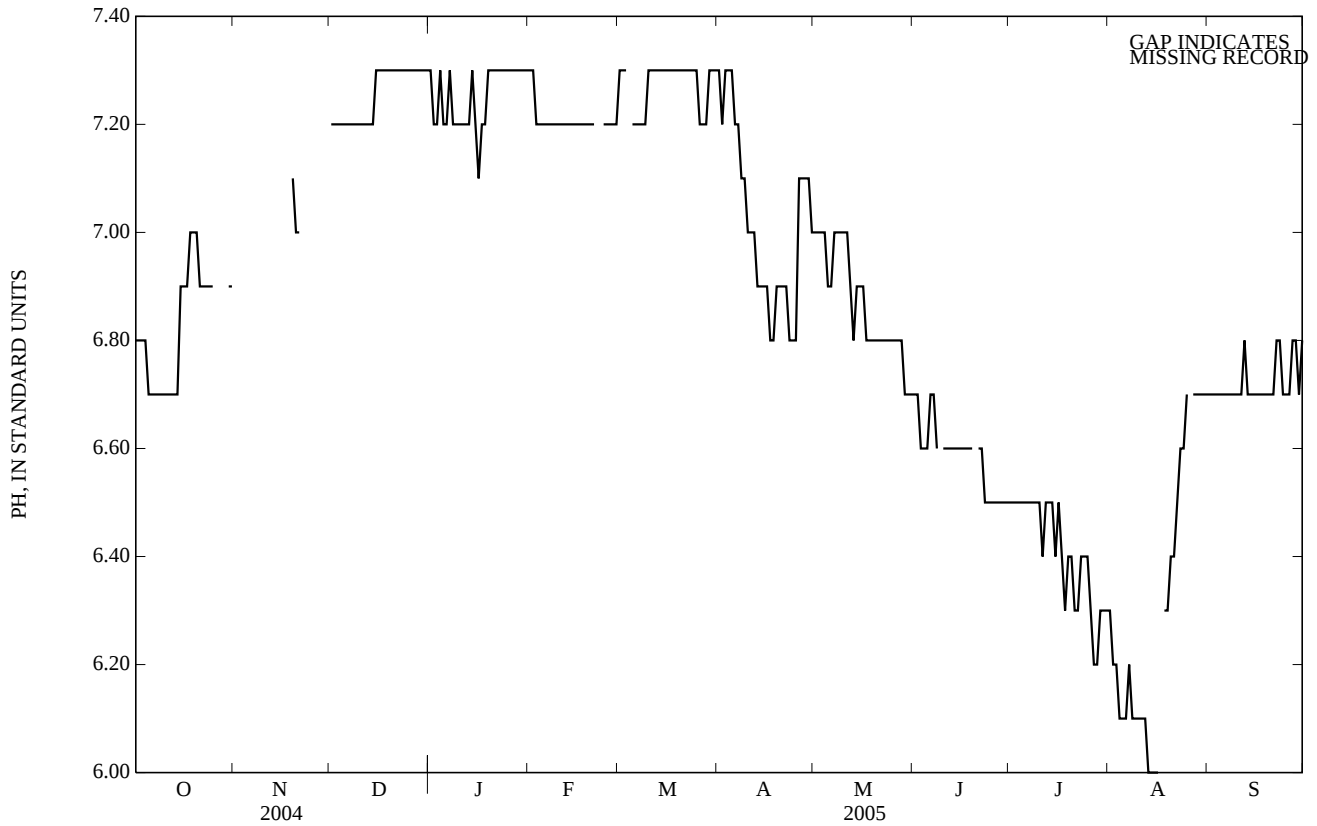
ROANOKE RIVER BASIN

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	6.8	6.6	6.7	6.6	6.5	6.5	6.3	6.2	6.3	6.8	6.6	6.7
2	6.7	6.6	6.7	6.6	6.5	6.5	6.3	6.2	6.2	6.8	6.7	6.7
3	6.7	6.6	6.6	6.6	6.5	6.5	6.3	6.2	6.2	6.8	6.7	6.7
4	6.8	6.6	6.6	6.6	6.5	6.5	6.2	6.1	6.1	6.8	6.7	6.7
5	6.8	6.6	6.6	6.5	6.4	6.5	6.2	6.1	6.1	6.8	6.7	6.7
6	6.7	6.6	6.7	6.6	6.5	6.5	6.2	6.1	6.1	7.0	6.6	6.7
7	6.8	6.6	6.7	6.5	6.4	6.5	6.2	6.1	6.2	7.0	6.7	6.7
8	6.7	6.6	6.6	6.6	6.4	6.5	6.2	6.1	6.1	7.0	6.6	6.7
9	---	---	---	6.6	6.4	6.5	6.2	6.1	6.1	7.0	6.7	6.7
10	6.7	6.6	6.6	6.5	6.4	6.5	6.2	6.1	6.1	7.0	6.7	6.7
11	6.8	6.6	6.6	6.5	6.4	6.4	6.2	6.0	6.1	6.8	6.7	6.7
12	6.8	6.6	6.6	6.5	6.4	6.5	6.1	6.0	6.1	6.8	6.7	6.8
13	6.7	6.6	6.6	6.5	6.3	6.5	6.1	5.9	6.0	7.0	6.6	6.7
14	6.7	6.6	6.6	6.5	6.4	6.5	6.1	6.0	6.0	7.0	6.6	6.7
15	6.7	6.6	6.6	6.5	6.4	6.4	6.1	5.9	6.0	6.8	6.6	6.7
16	6.7	6.6	6.6	6.5	6.4	6.5	6.0	6.0	6.0	6.7	6.6	6.7
17	6.6	6.6	6.6	6.5	6.3	6.4	---	---	---	6.8	6.7	6.7
18	6.7	6.5	6.6	6.4	6.3	6.3	6.4	6.2	6.3	6.8	6.7	6.7
19	6.7	6.5	6.6	6.5	6.3	6.4	6.4	6.3	6.3	6.8	6.6	6.7
20	---	---	---	6.5	6.3	6.4	6.5	6.3	6.4	6.8	6.7	6.7
21	6.7	6.5	6.6	6.5	6.3	6.3	6.5	6.4	6.4	7.1	6.6	6.7
22	6.7	6.5	6.6	6.4	6.3	6.3	6.6	6.4	6.5	7.1	6.7	6.8
23	6.6	6.5	6.5	6.5	6.3	6.4	6.6	6.4	6.6	7.1	6.7	6.8
24	6.6	6.5	6.5	6.5	6.3	6.4	6.7	6.5	6.6	6.8	6.6	6.7
25	6.7	6.5	6.5	6.4	6.3	6.4	6.8	6.6	6.7	6.8	6.7	6.7
26	6.6	6.5	6.5	6.4	6.2	6.3	---	---	---	7.0	6.6	6.7
27	6.6	6.5	6.5	6.3	6.2	6.2	6.7	6.6	6.7	7.0	6.7	6.8
28	6.6	6.5	6.5	6.3	6.2	6.2	7.1	6.7	6.7	6.8	6.7	6.8
29	6.6	6.5	6.5	6.3	6.2	6.3	6.8	6.7	6.7	7.0	6.7	6.7
30	6.6	6.5	6.5	6.3	6.2	6.3	6.8	6.7	6.7	7.0	6.7	6.8
31	---	---	---	6.3	6.2	6.3	6.8	6.6	6.7	---	---	---
MAX	6.8	6.6	6.7	6.6	6.5	6.5	7.1	6.7	6.7	7.1	6.7	6.8
MIN	6.6	6.5	6.5	6.3	6.2	6.2	6.0	5.9	6.0	6.7	6.6	6.7

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	---	---	---	133	131	132	116	114	115
2	119	115	116	---	---	---	132	131	131	115	112	113
3	117	115	116	---	---	---	132	131	131	113	110	111
4	119	115	116	---	---	---	132	130	131	115	110	112
5	117	114	116	---	---	---	131	130	130	112	109	111
6	117	113	116	---	---	---	131	129	130	116	109	111
7	116	112	115	---	---	---	131	129	130	114	110	112
8	115	111	114	---	---	---	131	129	130	111	108	109
9	114	109	112	---	---	---	130	129	129	109	107	108
10	112	108	110	---	---	---	---	---	---	111	108	109
11	112	107	110	---	---	---	130	127	129	109	108	109
12	114	111	112	---	---	---	129	128	128	111	108	109
13	116	111	113	---	---	---	129	128	128	115	109	111
14	117	115	116	---	---	---	129	128	129	116	110	112
15	118	115	116	---	---	---	129	128	128	112	109	110
16	118	116	117	---	---	---	129	127	128	111	109	110
17	118	117	117	---	---	---	128	127	127	111	108	110
18	118	117	118	135	132	132	128	126	127	110	108	109
19	118	117	118	139	132	135	127	125	126	109	107	108
20	119	118	118	140	136	138	127	125	125	108	107	107
21	120	119	120	140	136	138	126	124	124	107	107	107
22	121	120	120	---	---	---	125	123	123	108	107	107
23	124	121	122	---	---	---	123	122	122	108	107	107
24	124	122	122	---	---	---	123	121	122	107	107	107
25	127	123	123	---	---	---	123	121	121	107	106	107
26	---	---	---	---	---	---	122	119	120	107	106	106
27	---	---	---	---	---	---	121	118	119	108	106	106
28	---	---	---	---	---	---	120	118	118	108	106	106
29	---	---	---	---	---	---	119	117	117	108	105	106
30	135	129	131	---	---	---	118	116	116	106	105	105
31	135	128	132	---	---	---	116	115	115	107	104	105
MAX	135	129	132	140	136	138	133	131	132	116	114	115
MIN	112	107	110	135	132	132	116	115	115	106	104	105

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

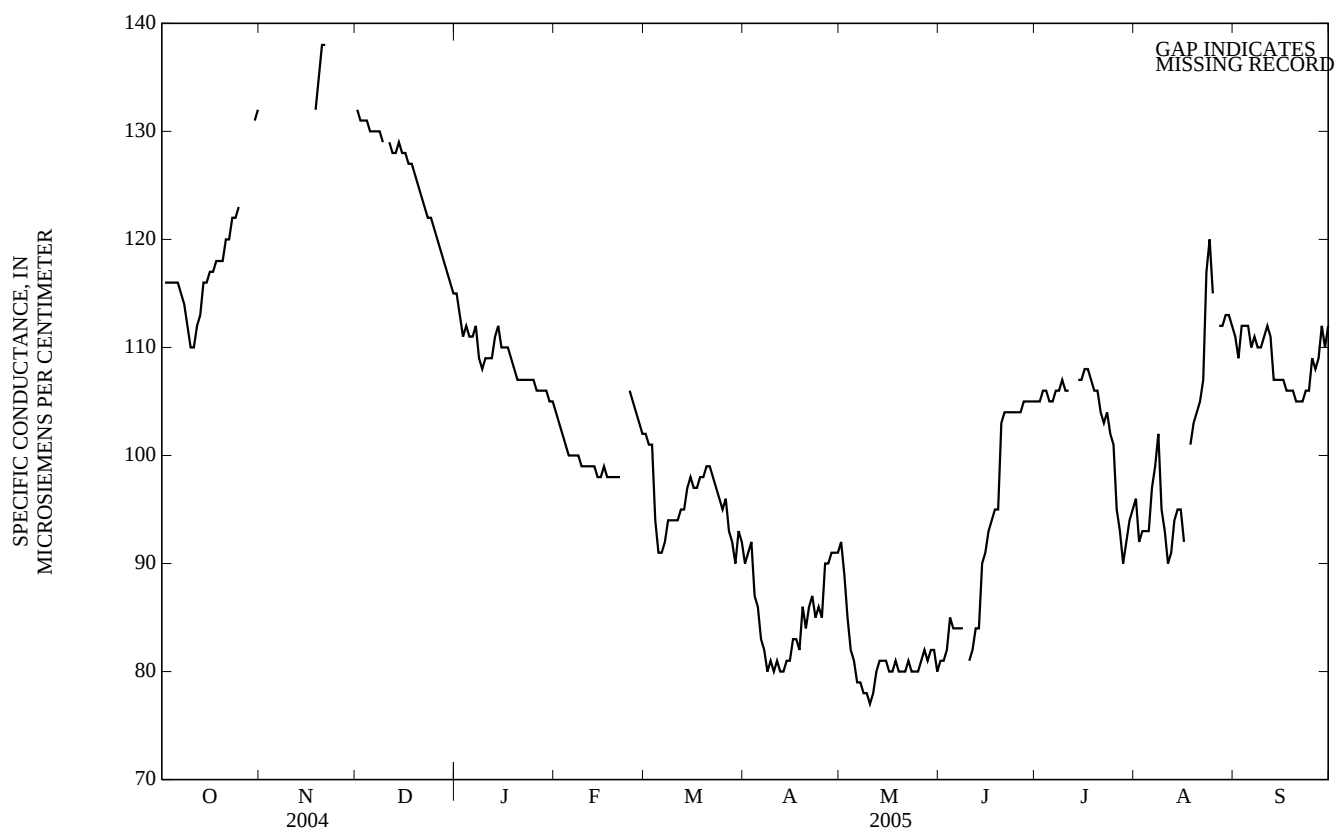
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	106	103	104	104	101	102	96	89	90	94	90	92
2	105	102	103	105	100	101	95	90	91	94	88	89
3	104	101	102	104	100	101	96	89	92	91	82	85
4	102	100	101	101	91	94	95	87	87	85	80	82
5	103	99	100	92	90	91	90	85	86	85	80	81
6	103	99	100	95	90	91	89	82	83	82	77	79
7	103	99	100	96	90	92	89	81	82	79	77	79
8	104	99	100	95	92	94	86	80	80	80	77	78
9	100	98	99	97	92	94	86	80	81	82	77	78
10	101	98	99	98	93	94	87	80	80	81	76	77
11	102	98	99	96	94	94	88	79	81	80	77	78
12	103	98	99	99	94	95	86	79	80	81	78	80
13	100	98	99	100	94	95	85	79	80	82	79	81
14	99	98	98	99	95	97	86	79	81	82	80	81
15	103	97	98	101	96	98	86	79	81	81	80	81
16	103	97	99	99	96	97	88	79	83	82	79	80
17	100	97	98	98	96	97	88	80	83	81	79	80
18	101	97	98	102	97	98	88	80	82	82	79	81
19	102	97	98	100	97	98	93	81	86	81	79	80
20	99	97	98	101	98	99	92	81	84	81	79	80
21	99	97	98	101	98	99	93	82	86	82	79	80
22	---	---	---	100	97	98	93	82	87	81	80	81
23	---	---	---	99	96	97	90	83	85	82	79	80
24	107	101	106	99	94	96	90	84	86	82	79	80
25	106	103	105	98	94	95	90	84	85	82	79	80
26	107	103	104	98	92	96	97	75	90	83	80	81
27	104	102	103	95	91	93	94	88	90	83	80	82
28	103	101	102	97	90	92	95	90	91	83	80	81
29	---	---	---	94	89	90	94	90	91	83	81	82
30	---	---	---	97	92	93	95	90	91	83	81	82
31	---	---	---	99	91	92	---	---	---	82	80	80
MAX	107	103	106	105	101	102	97	90	92	94	90	92
MIN	99	97	98	92	89	90	85	75	80	79	76	77

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	83	80	81	106	105	105	97	87	96	115	109	111
2	82	80	81	106	105	105	94	90	92	115	108	109
3	85	81	82	107	105	106	96	92	93	116	109	112
4	86	84	85	106	105	106	98	92	93	116	110	112
5	85	83	84	106	104	105	97	89	93	115	110	112
6	85	83	84	106	105	105	100	90	97	114	109	110
7	85	83	84	107	103	106	101	93	99	114	109	111
8	85	83	84	107	103	106	104	90	102	113	107	110
9	---	---	---	107	105	107	103	90	95	113	107	110
10	83	80	81	107	106	106	101	89	93	114	107	111
11	84	81	82	108	106	106	100	89	90	115	108	112
12	84	82	84	---	---	---	97	89	91	115	107	111
13	90	82	84	---	---	---	102	91	94	112	106	107
14	91	89	90	109	106	107	103	91	95	117	104	107
15	94	90	91	108	106	107	103	92	95	112	106	107
16	95	93	93	108	107	108	97	91	92	112	105	107
17	95	93	94	110	106	108	---	---	---	112	105	106
18	96	94	95	108	105	107	105	96	101	110	104	106
19	96	94	95	108	105	106	108	98	103	111	104	106
20	104	95	103	108	104	106	110	100	104	114	103	105
21	105	102	104	107	102	104	112	101	105	108	104	105
22	105	103	104	107	102	103	114	104	107	110	103	105
23	105	104	104	106	100	104	124	109	117	111	104	106
24	105	104	104	104	99	102	127	109	120	114	103	106
25	105	104	104	102	95	101	123	111	115	114	106	109
26	105	104	104	99	93	95	---	---	---	113	106	108
27	105	104	105	96	90	93	116	110	112	111	105	109
28	106	104	105	91	89	90	117	110	112	118	108	112
29	106	104	105	93	89	92	119	111	113	118	107	110
30	106	104	105	95	93	94	119	112	113	117	108	112
31	---	---	---	96	94	95	115	111	112	---	---	---
MAX	106	104	105	110	107	108	127	112	120	118	110	112
MIN	82	80	81	91	89	90	94	87	90	108	103	105

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued



TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	23.2	22.4	22.6	---	---	---	14.0	12.8	13.4	8.5	7.7	7.8
2	23.2	22.4	22.7	---	---	---	13.8	12.7	13.2	8.1	7.5	7.6
3	23.0	22.1	22.6	---	---	---	13.5	12.5	12.9	8.2	7.4	7.8
4	23.6	22.1	22.5	---	---	---	13.6	12.0	12.8	8.7	7.7	8.2
5	23.1	21.8	22.2	---	---	---	13.7	12.1	12.7	8.6	7.3	7.8
6	23.2	21.1	21.9	---	---	---	12.8	12.2	12.5	9.9	7.6	8.9
7	23.1	21.0	21.9	---	---	---	13.6	12.5	12.7	9.3	7.6	8.7
8	23.0	21.0	21.9	---	---	---	13.8	12.6	12.8	8.2	7.5	7.9
9	22.3	21.0	21.7	---	---	---	12.6	12.2	12.6	8.5	7.1	7.6
10	23.1	21.3	21.7	---	---	---	12.9	12.3	12.5	9.1	6.9	8.0
11	21.9	20.7	21.4	---	---	---	12.8	12.2	12.4	8.2	7.2	7.6
12	22.3	20.5	21.5	---	---	---	12.6	11.9	12.3	8.7	6.9	7.7
13	21.5	20.8	21.3	---	---	---	12.6	11.8	12.1	9.8	7.4	8.5
14	21.6	20.6	21.2	---	---	---	11.9	11.5	11.8	10.4	7.4	8.9
15	21.4	20.8	21.2	---	---	---	11.5	11.1	11.4	7.7	6.6	7.1
16	21.6	19.7	20.9	---	---	---	11.5	10.6	11.1	7.5	6.6	7.1
17	21.6	19.8	20.5	---	---	---	11.3	10.3	10.8	7.9	6.5	7.0
18	21.0	19.5	20.3	16.5	14.9	15.4	10.6	10.0	10.5	8.1	6.4	7.2
19	20.9	20.0	20.3	15.6	14.3	15.0	10.5	9.9	10.4	7.2	6.5	7.0
20	20.2	19.9	20.1	14.8	14.0	14.3	10.2	9.6	9.9	6.9	6.6	6.8
21	20.0	19.7	19.9	15.2	13.5	14.0	9.6	9.0	9.4	6.7	6.5	6.7
22	19.9	19.5	19.8	---	---	---	9.4	9.0	9.2	6.5	6.3	6.4
23	20.0	18.9	19.6	---	---	---	9.5	9.2	9.3	6.4	5.9	6.2
24	19.4	18.8	19.2	---	---	---	9.2	9.0	9.1	5.9	5.6	5.7
25	19.1	18.5	18.9	---	---	---	9.0	8.6	8.9	5.7	5.5	5.5
26	---	---	---	---	---	---	8.8	8.3	8.6	6.0	5.5	5.6
27	---	---	---	---	---	---	8.5	7.8	8.2	6.5	5.6	5.7
28	---	---	---	---	---	---	8.3	7.5	8.0	6.1	5.1	5.5
29	---	---	---	---	---	---	8.2	7.3	7.7	5.6	4.9	5.4
30	20.0	18.0	18.4	---	---	---	8.6	7.7	7.8	5.6	5.2	5.3
31	19.6	18.0	18.5	---	---	---	7.8	7.6	7.8	6.7	5.0	5.3
MAX	23.6	22.4	22.7	16.5	14.9	15.4	14.0	12.8	13.4	10.4	7.7	8.9
MIN	19.1	18.0	18.4	14.8	13.5	14.0	7.8	7.3	7.7	5.6	4.9	5.3

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.5	5.0	5.2	6.9	4.9	5.5	9.2	8.5	8.9	16.4	13.4	14.0
2	6.4	4.8	5.1	7.1	4.9	5.4	10.5	8.8	9.5	15.7	12.9	14.1
3	5.2	4.8	5.1	6.9	4.8	5.2	10.5	9.4	10.4	16.0	13.0	13.9
4	6.1	5.0	5.2	7.3	4.8	5.3	10.5	10.1	10.4	15.5	12.8	13.7
5	6.7	5.0	5.1	6.0	5.1	5.3	11.6	10.1	10.6	14.4	12.7	13.5
6	6.8	4.8	5.2	7.5	4.9	5.3	11.6	10.7	11.1	13.4	12.6	13.1
7	6.9	4.9	5.2	7.8	5.2	6.1	12.3	11.3	11.7	17.1	12.7	14.0
8	7.3	5.2	5.4	7.2	5.5	6.4	11.4	10.4	10.9	17.1	13.3	13.9
9	6.0	5.3	5.5	8.0	5.3	5.9	10.6	10.1	10.4	16.0	13.2	14.6
10	6.7	5.0	5.8	8.0	5.6	6.0	11.9	9.9	11.2	14.6	13.4	14.2
11	6.9	4.8	5.4	7.2	5.8	6.1	13.0	10.7	11.2	15.0	13.6	14.3
12	7.4	5.3	5.6	8.1	5.7	6.1	11.2	10.4	10.9	15.5	13.5	14.3
13	6.5	5.4	5.8	8.5	6.0	6.3	10.6	10.2	10.4	14.7	13.5	14.3
14	6.2	5.7	5.8	7.1	6.0	6.3	11.0	10.0	10.7	15.8	13.6	14.4
15	7.4	5.7	5.9	8.6	5.9	6.4	11.2	9.8	10.6	15.5	13.7	14.7
16	7.8	5.7	6.1	6.8	6.2	6.5	12.8	9.9	10.8	15.1	13.8	14.5
17	6.7	5.5	5.8	6.7	5.9	6.4	13.9	10.5	11.3	15.5	13.9	14.4
18	7.3	5.3	5.8	8.4	6.0	6.5	14.0	11.0	11.9	16.8	13.8	14.5
19	7.1	5.3	5.8	7.4	6.1	6.6	14.7	11.7	12.1	15.6	14.1	14.6
20	6.3	5.6	5.9	8.0	6.3	6.9	14.0	11.9	12.1	16.6	14.2	14.7
21	6.7	5.8	6.0	7.5	6.2	6.9	14.5	11.6	12.3	17.8	13.9	14.8
22	6.9	5.8	6.0	7.7	6.3	7.0	13.8	11.6	12.2	17.0	14.1	15.6
23	7.5	5.6	5.9	7.8	6.7	7.0	14.8	12.2	13.2	16.2	14.4	15.3
24	6.2	5.4	5.6	8.9	6.7	7.1	14.9	11.9	13.7	16.3	14.3	15.7
25	5.9	5.2	5.6	7.8	6.7	7.2	16.8	12.9	14.6	16.2	14.3	15.7
26	7.5	5.3	5.6	7.4	6.8	7.0	15.0	13.2	14.2	17.7	14.6	16.3
27	6.6	5.3	5.6	7.4	6.8	7.1	15.5	12.9	13.7	17.0	14.8	15.6
28	5.7	5.3	5.6	9.3	6.9	7.8	16.2	12.8	14.1	16.3	14.8	15.7
29	---	---	---	8.4	7.8	8.2	14.3	13.4	13.9	16.6	14.5	15.7
30	---	---	---	9.1	8.1	8.7	15.2	13.3	13.9	16.7	14.5	15.5
31	---	---	---	9.2	8.5	9.0	---	---	---	15.9	14.7	15.3
MAX	7.8	5.8	6.1	9.3	8.5	9.0	16.8	13.4	14.6	17.8	14.8	16.3
MIN	5.2	4.8	5.1	6.0	4.8	5.2	9.2	8.5	8.9	13.4	12.6	13.1

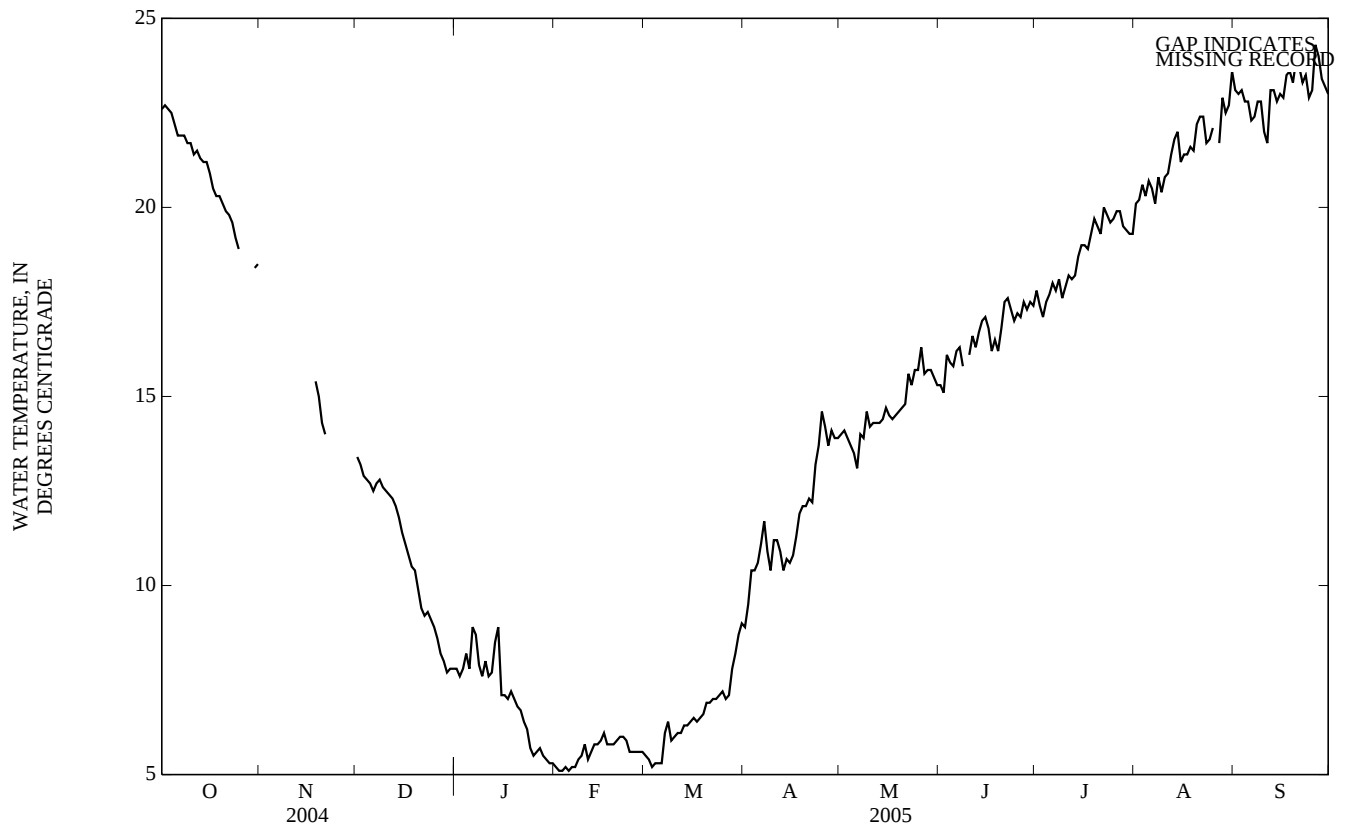
ROANOKE RIVER BASIN

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.1	14.6	15.3	18.7	16.7	17.8	21.7	19.1	20.1	24.2	21.9	23.1
2	15.6	14.8	15.1	18.4	16.9	17.4	21.3	19.3	20.2	25.2	22.2	23.0
3	16.8	14.9	16.1	19.1	16.7	17.1	21.3	19.5	20.6	24.1	21.5	23.1
4	17.3	15.1	15.9	18.6	16.5	17.5	21.0	19.7	20.3	23.8	21.3	22.8
5	17.1	15.0	15.8	18.5	16.9	17.7	21.5	19.7	20.7	23.5	21.3	22.8
6	16.8	15.3	16.2	19.0	17.1	18.0	22.0	19.7	20.5	23.5	21.0	22.3
7	16.9	15.3	16.3	18.7	17.0	17.8	21.7	19.7	20.1	24.0	21.0	22.4
8	16.3	15.5	15.8	19.2	17.4	18.1	22.0	19.5	20.8	23.9	21.4	22.8
9	---	---	---	19.5	17.0	17.6	21.7	19.7	20.4	24.1	20.4	22.8
10	16.6	15.8	16.1	19.2	16.9	17.9	21.3	19.8	20.8	24.0	21.1	22.0
11	17.8	15.8	16.6	19.0	17.0	18.2	21.4	20.2	20.9	24.1	21.1	21.7
12	17.7	15.7	16.3	19.2	17.3	18.1	21.8	20.5	21.4	24.5	21.0	23.1
13	17.2	15.8	16.7	18.9	17.5	18.2	22.1	20.5	21.8	24.0	21.6	23.1
14	17.4	16.0	17.0	19.4	17.3	18.7	22.2	20.4	22.0	23.7	21.8	22.8
15	17.7	16.0	17.1	20.1	17.7	19.0	23.1	20.6	21.2	23.9	22.0	23.0
16	17.2	16.0	16.8	19.7	18.3	19.0	22.4	21.0	21.4	24.1	22.1	22.9
17	17.7	15.9	16.2	20.2	18.1	18.9	22.4	20.8	21.4	25.0	21.9	23.5
18	18.1	15.8	16.5	20.2	18.3	19.3	22.9	20.5	21.6	24.4	22.0	23.6
19	17.4	15.9	16.2	20.9	18.5	19.7	22.9	20.9	21.5	24.8	21.8	23.3
20	17.4	15.7	16.8	20.7	18.5	19.5	23.1	20.9	22.2	25.3	22.5	23.9
21	18.1	15.8	17.5	20.8	18.5	19.3	22.9	21.2	22.4	24.8	22.6	23.7
22	18.7	16.2	17.6	21.4	18.7	20.0	24.4	21.2	22.4	25.0	22.2	23.3
23	17.8	16.2	17.3	20.8	18.8	19.8	22.9	21.3	21.7	24.8	22.1	23.5
24	17.9	15.9	17.0	21.0	18.7	19.6	23.2	21.1	21.8	24.2	22.4	22.9
25	18.7	16.4	17.2	20.9	19.0	19.7	23.2	21.0	22.1	24.2	22.3	23.1
26	17.9	16.5	17.1	20.9	19.2	19.9	---	---	---	25.4	22.4	24.3
27	19.0	16.6	17.5	21.2	19.2	19.9	22.6	21.0	21.7	25.1	22.5	24.0
28	18.9	16.7	17.3	20.4	19.4	19.5	24.3	21.2	22.9	24.8	21.9	23.4
29	18.3	16.8	17.5	20.6	19.2	19.4	23.3	21.5	22.5	24.9	21.5	23.2
30	18.4	16.6	17.4	20.6	19.2	19.3	23.6	21.6	22.7	23.9	18.6	23.0
31	---	---	---	20.2	19.1	19.3	24.8	22.0	23.6	---	---	---
MAX	19.0	16.8	17.6	21.4	19.4	20.0	24.8	22.0	23.6	25.4	22.6	24.3
MIN	15.6	14.6	15.1	18.4	16.5	17.1	21.0	19.1	20.1	23.5	18.6	21.7

02079500 ROANOKE RIVER AT BUGGS ISLAND, VA—Continued



02079640 ALLEN CREEK NEAR BOYDTON, VA

LOCATION.--Lat 36°40'47", long 78°19'36", NAD83, Mecklenburg County, Hydrologic Unit 03010106, on right bank at upstream side of upstream bridge on U.S. Highway 58, 0.8 mi upstream from Coleman Creek, 2.3 mi downstream from Layton Creek, 3.7 mi east of Boydton, and 11.8 mi southwest of South Hill.

DRAINAGE AREA.--53.4 mi², approximately.

PERIOD OF RECORD.--October 1961 to September 1996, October 2000 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 216.50 ft NGVD of 1929 (levels by Virginia Department of Transportation). October 1961 to September 1996, recording gage at site 200 ft downstream, on left bank, and at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 7,380 ft³/s, from rating curve extended above 3,100 ft³/s. Several measurements of water temperature were made during the year.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 20	0100	1,040	12.34	Jan 14	1545	1,650	15.18
Nov 13	0230	1,390	14.18	Mar 28	1745	1,800	15.67
Dec 10	1430	*2,680	*17.76				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	23	47	25	46	165	52	41	16	e11	9.7	e1.0
2	20	22	41	25	39	65	310	36	22	e9.6	2.9	e0.85
3	19	22	36	25	50	46	148	27	29	e8.5	2.6	e0.70
4	70	36	33	25	102	39	71	e24	26	e7.8	2.4	e0.65
5	39	59	30	25	100	38	54	e22	20	e7.4	2.1	e0.60
6	22	32	29	24	59	38	47	e24	14	e7.0	e2.4	e0.58
7	19	26	37	24	48	35	42	e26	12	21	e9.0	e0.54
8	17	23	38	24	43	49	50	e25	11	85	e3.0	e0.50
9	16	21	32	25	40	61	43	e20	15	13	e20	e0.35
10	16	20	1,590	23	40	41	37	e19	23	7.6	e11	e0.27
11	15	20	237	23	36	37	35	e18	17	e5.8	e5.2	e0.18
12	14	204	93	23	33	36	34	e29	12	e5.0	e3.9	e0.10
13	50	621	65	23	32	33	42	48	10	e5.4	e3.5	0.05
14	143	100	50	803	31	31	38	32	e9.6	6.2	e3.2	0.00
15	46	57	42	181	34	30	33	28	e9.0	5.5	e2.9	0.00
16	31	45	38	77	32	31	29	29	e8.0	e5.0	e2.5	0.00
17	23	38	37	58	31	141	e27	e25	6.3	e4.5	e3.5	0.00
18	20	34	36	e43	29	152	e26	e23	9.0	e4.0	e5.0	0.00
19	110	31	35	e38	28	66	e25	29	e11	e3.3	e4.0	0.00
20	373	29	32	40	27	57	e24	31	e15	e3.1	e4.2	0.00
21	71	28	29	41	29	47	e23	30	e14	e2.9	e3.4	0.00
22	46	26	30	e38	30	39	e26	27	e13	e2.7	e3.0	0.00
23	36	67	32	e37	28	68	29	e25	12	e3.1	e2.8	0.00
24	31	153	37	e36	30	107	e27	e23	11	e2.6	e3.3	0.00
25	31	149	31	37	36	60	e25	28	10	e2.3	e2.7	0.00
26	29	68	29	40	30	47	e24	26	9.8	e2.1	e2.4	0.00
27	26	44	27	39	28	42	e23	23	9.7	e2.0	e2.1	0.00
28	25	253	25	e32	145	836	e22	22	9.6	e2.2	e2.3	0.00
29	24	94	26	e29	---	227	e25	20	11	e3.0	e1.6	0.00
30	23	57	26	49	---	87	e28	18	12	e4.0	e1.4	0.00
31	24	---	26	70	---	61	---	17	---	11	e1.2	---
TOTAL	1,452	2,402	2,896	2,002	1,236	2,812	1,419	815	407.0	263.6	129.2	6.37
MEAN	46.8	80.1	93.4	64.6	44.1	90.7	47.3	26.3	13.6	8.50	4.17	0.21
MAX	373	621	1,590	803	145	836	310	48	29	85	20	1.0
MIN	14	20	25	23	27	30	22	17	6.3	2.0	1.2	0.00
CFSM	0.88	1.50	1.75	1.21	0.83	1.70	0.89	0.49	0.25	0.16	0.08	0.00
IN.	1.01	1.67	2.02	1.39	0.86	1.96	0.99	0.57	0.28	0.18	0.09	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, 2001 - 2005, BY WATER YEAR (WY)

MEAN	24.6	33.4	45.1	73.5	81.2	98.8	68.7	39.5	28.2	17.7	15.2	22.2
MAX	201	151	118	239	214	289	404	225	125	174	99.2	188
(WY)	(1972)	(1986)	(2004)	(1978)	(1979)	(1975)	(1987)	(2003)	(1982)	(1975)	(2004)	(1979)
MIN	0.20	1.61	2.36	7.42	11.8	15.3	10.9	10.3	0.95	0.08	0.09	0.02
(WY)	(1971)	(1966)	(1966)	(1981)	(2002)	(1981)	(1966)	(1986)	(2002)	(2002)	(2002)	(1970)

02079640 ALLEN CREEK NEAR BOYDTON, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1962 - 1996 2001 - 2005	
ANNUAL TOTAL	19,051.9		15,840.17		45.5	
ANNUAL MEAN	52.1		43.4		109	
HIGHEST ANNUAL MEAN					9.07	
LOWEST ANNUAL MEAN					3,700	
HIGHEST DAILY MEAN	1,590	Dec 10	1,590	Dec 10	0.00	Apr 25, 1987
LOWEST DAILY MEAN	7.1	Jul 22	0.00	aSep 14	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	8.8	Jul 16	0.00	cSep 14	0.00	(d)
MAXIMUM PEAK FLOW			2,680	Dec 10	7,380	May 26, 2003
MAXIMUM PEAK STAGE			17.76	Dec 10	23.35	May 26, 2003
INSTANTANEOUS LOW FLOW			0.00	aSep 14	0.00	(f)
ANNUAL RUNOFF (CFSM)	0.975		0.813		0.852	
ANNUAL RUNOFF (INCHES)	13.27		11.03		11.58	
10 PERCENT EXCEEDS	90		66		82	
50 PERCENT EXCEEDS	26		26		15	
90 PERCENT EXCEEDS	12		2.1		2.0	

a Also Sept. 15-30, 2005.

b Many days August to October 1968, September, October 1970, and July, August, October 2002.

c Also Sept. 15-24, 2005.

d Many days August to October 1968, September, October 1970, and July, August 2002.

e Estimated.

f No flow part or all of many days August to October 1968, September, October 1970, and July to October 2002.

