

JAMES RIVER BASIN

02027500 PINEY RIVER AT PINEY RIVER, VA

LOCATION.--Lat 37°42'08", long 79°01'40", Nelson County, Hydrologic Unit 02080203, on left bank at upstream side of bridge on State Highway 151, 0.2 mi southwest of Piney River Post Office, 1.7 mi downstream from Indian Creek, and 2.5 mi southeast of Lowesville.

DRAINAGE AREA.--47.6 mi².

PERIOD OF RECORD.--July 1949 to current year.

REVISED RECORDS.--WSP 2104: Drainage area. WDR VA-72-1: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 633.58 ft above sea level. Prior to May 27, 1969, water-stage recorder, and Nov. 4, 1969, to Feb. 26, 1970, nonrecording gage at site 20 ft downstream from former highway bridge at same datum. Feb. 26, 1970, to Sept. 20, 1973, on right bank 20 ft upstream from bridge at same datum.

REMARKS.--Records good except those for period with ice effect, Jan. 6, and periods of doubtful gage-height record, Jan. 16, 17, 20-22, Feb. 4-17, 20-27, Apr. 3-6, 13-15, 17-19, 21-23, May 11, 12, 15-22, and Sep. 2-4, 9, which are fair. Periodic dewatering of upstream quarries adds small amount of inflow. Maximum discharge, 38,000 ft³/s, from rating curve extended above 6,000 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 June 1949 reached a stage of 9.9 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sep 6	1615	1,460	6.26	Sep 30	0015	*4,400	*9.61

Minimum discharge, 1.3 ft³/s, Aug. 12-14, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	5.6	6.5	8.0	85	55	94	36	24	11	e4.0	3.1
2	2.0	5.6	6.3	8.1	276	51	79	35	24	13	4.7	e2.8
3	2.6	8.0	5.9	113	247	51	e70	36	25	9.5	e3.1	e2.6
4	2.1	9.5	6.3	68	e200	55	e69	35	21	7.8	3.3	e4.0
5	2.9	8.4	6.3	45	e162	50	e65	35	20	6.7	3.1	174
6	4.1	7.3	6.3	e38	e130	52	e62	35	18	5.9	3.0	700
7	6.0	7.5	6.3	33	e110	52	65	34	17	10	2.6	471
8	60	6.6	7.1	29	e100	51	62	50	16	12	2.2	243
9	25	6.8	14	36	e88	53	63	40	14	7.2	2.4	e175
10	13	7.6	12	36	e77	54	59	38	13	6.1	2.2	192
11	8.8	13	9.0	31	e69	53	76	e36	14	5.6	1.9	140
12	7.6	15	8.2	30	e65	52	65	e34	14	6.6	1.6	112
13	7.2	9.2	29	29	e65	51	e59	36	13	9.4	1.4	90
14	6.8	8.4	25	30	e53	67	e55	59	20	8.7	3.6	75
15	6.4	7.3	17	64	e51	91	e53	e51	14	8.3	3.2	71
16	6.3	7.3	14	e56	e48	80	59	e48	13	6.8	2.1	86
17	6.7	7.2	12	e50	e46	81	e52	e44	17	6.1	1.7	61
18	6.1	6.8	11	104	77	86	e49	e42	16	5.5	1.5	55
19	6.5	7.0	10	99	66	87	e48	e39	12	9.5	1.7	51
20	5.9	7.1	9.5	e84	e60	87	52	e37	13	6.4	10	47
21	5.5	7.5	9.1	e72	e55	105	e46	e36	14	10	8.2	53
22	5.5	6.2	8.5	e64	e52	102	e44	e40	12	19	4.3	45
23	5.7	6.8	8.4	81	e51	100	e42	51	11	8.9	3.3	40
24	6.6	6.8	10	269	e50	101	43	44	9.7	9.1	3.7	36
25	6.0	6.6	9.4	263	e47	97	40	39	9.3	22	5.9	34
26	6.0	8.2	8.7	199	e45	91	39	36	9.2	9.9	9.4	31
27	5.9	8.2	8.4	159	e44	86	37	33	9.0	7.0	6.8	64
28	6.1	7.6	8.7	131	59	80	45	31	9.1	6.2	5.7	353
29	5.9	6.7	9.5	109	---	75	40	29	7.9	10	4.1	1420
30	5.8	6.6	9.3	93	---	70	38	26	7.4	7.1	3.8	2100
31	6.3	---	8.6	80	---	66	---	25	---	5.4	3.3	---
TOTAL	253.6	232.4	320.3	2511.1	2478	2232	1670	1190	436.6	276.7	117.8	6931.5
MEAN	8.18	7.75	10.3	81.0	88.5	72.0	55.7	38.4	14.6	8.93	3.80	231
MAX	60	15	29	269	276	105	94	59	25	22	10	2100
MIN	2.0	5.6	5.9	8.0	44	50	37	25	7.4	5.4	1.4	2.6
CFSM	.17	.16	.22	1.70	1.86	1.51	1.17	.81	.31	.19	.08	4.85
IN.	.20	.18	.25	1.96	1.94	1.74	1.31	.93	.34	.22	.09	5.42

02027500 PINEY RIVER AT PINEY RIVER, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	64.3	89.5	107	119	131	160	147	110	88.8	39.7	59.5	52.2
MAX	313	644	297	339	347	311	417	352	541	213	1239	388
(WY)	1991	1986	1997	1998	1998	1993	1987	1989	1972	1972	1969	1996
MIN	4.75	7.75	10.3	7.94	34.4	37.8	38.4	35.8	14.6	8.93	3.80	3.75
(WY)	1964	1999	1999	1981	1977	1981	1966	1963	1999	1999	1999	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1950 - 1999
ANNUAL TOTAL	45383.8	18650.0	
ANNUAL MEAN	124	51.1	97.1
HIGHEST ANNUAL MEAN			188 1969
LOWEST ANNUAL MEAN			35.9 1956
HIGHEST DAILY MEAN	2060 Jan 8	2100 Sep 30	25000 Aug 20 1969
LOWEST DAILY MEAN	2.0 Oct 2	1.4 Aug 13	a1.4 Sep 13 1966
ANNUAL SEVEN-DAY MINIMUM	2.4 Sep 28	2.0 Aug 7	a1.7 Sep 7 1966
INSTANTANEOUS PEAK FLOW		4400 Sep 30	38000 Aug 20 1969
INSTANTANEOUS PEAK STAGE		9.61 Sep 30	b13.80 Aug 20 1969
INSTANTANEOUS LOW FLOW		1.3 cAug 12	a1.1 Sep 13 1966
ANNUAL RUNOFF (CFSM)	2.61	1.07	2.04
ANNUAL RUNOFF (INCHES)	35.47	14.58	27.70
10 PERCENT EXCEEDS	327	90	202
50 PERCENT EXCEEDS	36	22	60
90 PERCENT EXCEEDS	5.5	5.5	11

- a Dewatering of upstream quarry at a rate of 300 gallons per minute or 0.67 ft³/s included in flow.
- b From floodmarks.
- c Also Aug 13, 14, 19, 1999.
- e Estimated.

