

## ROANOKE RIVER BASIN

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

LOCATION.--Lat 36°33'45", long 79°22'12", Pittsylvania County, Hydrologic Unit 03010104, on right bank at footbridge at Danville sewage treatment plant, 0.1 mi downstream from Pumpkin Creek, and 0.6 mi southeast of Danville.

DRAINAGE AREA.--2,105 mi<sup>2</sup>, approximately .

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

GAGE.--Water-stage recorder. Datum of gage is 365.19 ft above sea level.

REMARKS.--Records good except for periods of doubtful gage-height record, Dec. 15, 18, 24, 26, and Jan. 4-6, 10-11, 15, which are 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,200 ft<sup>3</sup>/s, Sep 30, gage height, 16.42 ft; minimum discharge, 208 ft<sup>3</sup>/s, Jul 6, gage height, 3.49 ft.

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	958	806	741	811	1560	1500	1570	5900	627	1070	949	946
2	810	569	854	1040	2030	1500	2540	2800	1250	1260	662	935
3	499	624	877	2440	2900	1530	2320	1840	726	1250	640	913
4	872	757	806	e3410	2260	1540	1620	1530	1190	1150	817	919
5	531	1210	990	e2260	1780	1720	1540	1590	705	981	774	1760
6	674	856	963	e1530	1760	1510	1510	1260	1180	348	748	4310
7	750	816	829	1390	1520	1490	1460	1440	596	1020	726	3300
8	917	828	754	1620	1510	1250	1390	1440	605	1150	679	1870
9	1080	726	1250	1580	1510	1410	1350	1240	706	1180	435	1640
10	1150	724	1600	e1330	1490	1220	1320	1250	912	964	389	1370
11	727	1060	1210	e1510	1390	1490	1380	1100	961	867	857	1550
12	647	1020	977	1310	1290	1230	1240	1040	1100	776	836	826
13	773	1190	2190	1140	1590	1300	1290	1270	1030	1390	821	873
14	775	869	4130	1470	1180	1270	1350	1690	564	1600	839	683
15	760	892	e2220	e1560	1060	1940	1340	8820	629	1400	743	1310
16	770	965	1450	1580	1370	2970	1470	3000	935	1180	412	3440
17	752	825	1290	1550	1270	2210	1440	1940	1100	1040	430	2250
18	705	898	e1370	1770	1470	1890	1190	1530	1100	956	779	1370
19	568	1020	1170	2890	2020	1660	1070	1530	1090	713	794	792
20	737	805	824	2270	2170	1470	1330	1750	997	818	836	813
21	797	912	915	1840	1520	1820	1210	1560	600	986	889	825
22	773	921	1140	1470	1620	2480	1150	1290	678	2900	756	1190
23	698	592	1010	1680	1380	2080	1190	1320	1130	1790	452	1060
24	813	710	e1550	7320	1540	1860	1210	1250	1090	1200	427	900
25	604	1270	1900	8340	1510	1640	1070	1040	911	1030	915	633
26	644	1040	e1990	3490	1410	1560	870	1120	900	923	2540	879
27	793	536	1160	2400	1480	1530	1050	1050	741	764	2810	491
28	711	926	1330	1910	1200	1150	1260	1050	983	889	1450	5860
29	814	887	1320	1730	---	1330	1600	916	791	1200	966	9410
30	820	730	1310	1640	---	1310	5220	1080	998	1490	635	16900
31	807	---	1270	1540	---	1290	---	708	---	1200	657	---
TOTAL	23729	25984	41390	67821	44790	50150	45550	56344	26825	35485	26663	70018
MEAN	765	866	1335	2188	1600	1618	1518	1818	894	1145	860	2334
MAX	1150	1270	4130	8340	2900	2970	5220	8820	1250	2900	2810	16900
MIN	499	536	741	811	1060	1150	870	708	564	348	389	491
(†)	-2143	-2420	-938	+3625	+2349	+2405	+319	+1492	-3998	-4427	-8898	-319
MEAN†	696	785	1305	2305	1684	1695	1529	1866	761	1002	573	2323
CFSM†	.33	.37	.62	1.09	.80	.80	.73	.89	.36	.48	.27	1.10
IN.†	.38	.42	.71	1.26	.83	.93	.81	1.02	.40	.55	.31	1.23

CAL YR 1998 TOTAL 944118 MEAN 2587 MAX 28200 MIN 336 MEAN† 2581 CFSM† 1.23 IN.† 16.65  
WTR YR 1999 TOTAL 514749 MEAN 1410 MAX 16900 MIN 348 MEAN† 1375 CFSM† .65 IN.† 8.87

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

‡ Adjusted for change in contents.

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY) [REGULATED, UNADJUSTED]

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1458	1511	2102	3623	3495	3245	3350	2832	2067	1304	1551	3061
MAX	2418	2120	4516	4924	5565	4776	4969	3983	3289	1437	3027	8158
(WY)	1997	1996	1997	1998	1998	1997	1998	1998	1996	1996	1996	1996
MIN	765	866	1263	2188	1600	1618	1518	1818	894	1145	860	713
(WY)	1999	1999	1996	1999	1999	1999	1999	1999	1999	1999	1999	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1996 - 1999
ANNUAL TOTAL	944118	514749	
ANNUAL MEAN	2587	1410	2459
HIGHEST ANNUAL MEAN			3035
LOWEST ANNUAL MEAN			1410
HIGHEST DAILY MEAN	28200	Jan 28	16900
LOWEST DAILY MEAN	336	Sep 7	348
ANNUAL SEVEN-DAY MINIMUM	618	Sep 24	653
INSTANTANEOUS PEAK FLOW			18200
INSTANTANEOUS PEAK STAGE			16.42
INSTANTANEOUS LOW FLOW			208
ANNUAL RUNOFF (CFSM)	1.23	.67	1.17
ANNUAL RUNOFF (INCHES)	16.68	9.10	15.87
10 PERCENT EXCEEDS	4650	2050	4110
50 PERCENT EXCEEDS	1600	1180	1660
90 PERCENT EXCEEDS	734	706	814

e Estimated.

