

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC

LOCATION.--Lat 38°55'46", long 77°07'02", Arlington County, Va., Hydrologic Unit 02070010, under right downstream side of bridge on Virginia State Highway 123, and at river mile 115.9.

DRAINAGE AREA.--11,570 mi².

PERIOD OF RECORD.--Water years 1973 to current year. Prior to October 1977, published as "at Great Falls."

PERIOD OF DAILY RECORD.--

- SPECIFIC CONDUCTANCE: June 1978 to September 1981.
- pH: June 1978 to September 1981.
- WATER TEMPERATURE: June 1978 to September 1981.
- DISSOLVED OXYGEN: June 1978 to September 1981.
- SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1981.

INSTRUMENTATION.--Water-quality monitor June 1978 to September 1981.

REMARKS--Extreme high flows are sampled from the George Mason Memorial Bridge (14th Street) located 6 mi downstream from Chain Bridge. On May 3 and Nov. 17, 1994 samples were collected and analyzed using ultraclean methodologies. Data on trace metals for these dates are available from the University of Delaware. Data on organics for these dates are available from George Mason University.

EXTREMES FOR PERIOD OF DAILY RECORD--

- SPECIFIC CONDUCTANCE (water years 1979, 1981): Maximum, 598 microsiemens, Sept. 12, 1981; minimum, 116 microsiemens, Jan. 25, 1979.
- pH (water years 1979, 1981): Maximum, 9.3 units, Mar. 29, 1981; minimum, 6.7 units, June 2, 1981.
- WATER TEMPERATURE (water years 1979, 1981): Maximum, 31.0°C, July 23-24, 1978; minimum, 0.0°C on many days during winter periods.
- DISSOLVED OXYGEN (water years 1979, 1981): Maximum, 16.4 mg/L, on many days in 1979; minimum, 5.6 mg/L, June 2, 1981.
- SEDIMENT CONCENTRATION: Maximum daily mean, 812 mg/L, Sept. 6, 1979; minimum daily mean, 1 mg/L on many days during winter periods.
- SEDIMENT LOAD: Maximum daily, 281,000 tons, Feb. 27, 1979; minimum daily, 3.2 tons, Jan. 5, 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, (PER-CENT SOLVED) (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)
OCT 1998												
14...	1000	1990	351	--	15.0	18.0	758	9.2	98	150	42	11
NOV 12...	0815	1700	412	8.5	12.0	10.0	772	11.2	98	160	44	13
DEC 15...	0945	1650	388	8.4	5.0	7.5	771	12.3	101	170	46	13
JAN 1999												
21...	0900	8940	366	7.6	6.0	2.0	768	14.1	101	130	38	9.0
FEB 17...	0900	4440	334	8.5	7.0	6.5	758	12.2	100	140	40	8.9
MAR 09...	1015	10500	259	7.6	-3.0	4.0	768	13.1	99	99	29	6.6
APR 13...	1215	34600	233	7.8	15.0	13.0	759	10.7	102	86	25	5.7
MAY 10...	1100	10600	278	8.0	20.0	22.0	763	8.7	100	--	--	--
JUN 07...	1030	1890	314	8.2	31.0	27.0	763	7.7	97	--	--	--
22...	0945	1700	332	8.2	22.5	22.0	765	8.3	95	--	--	--
JUL 12...	1030	308	348	8.5	22.0	26.5	767	6.7	83	--	--	--
AUG 09...	1000	510	371	8.4	24.0	27.5	757	6.5	83	--	--	--
SEP 14...	1115	3640	336	8.1	26.5	26.0	763	7.9	98	--	--	--

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3 (00452)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
OCT 1998												
14...	14	3.4	110	--	134	--	40	19	.19	3.3	209	1.6
NOV												
12...	17	3.0	106	E2	129	.8	45	21	.17	.41	238	1.9
DEC												
15...	16	3.1	118	--	145	1.0	39	22	.20	.43	233	1.1
JAN 1999												
21...	22	5.1	89	--	109	4.7	37	32	<.10	3.5	224	2.6
FEB												
17...	13	2.4	88	1	107	.6	42	20	<.10	.35	195	1.6
MAR												
09...	11	2.3	66	--	80	--	22	18	<.10	2.7	150	1.8
APR												
13...	9.3	2.1	54	--	66	--	29	14	<.10	4.6	143	1.6
MAY												
10...	--	--	78	--	95	--	--	--	--	--	--	1.5
JUN												
07...	--	--	89	--	109	--	--	--	--	--	--	--
22...	--	--	90	--	109	--	--	--	--	--	--	1.1
JUL												
12...	--	--	88	--	107	--	--	--	--	--	--	.83
AUG												
09...	--	--	74	1	90	--	--	--	--	--	--	--
SEP												
14...	--	--	86	--	104	--	--	--	--	--	--	--
DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
OCT 1998												
14...	--	<.010	1.32	.027	.30	.25	.057	E.048	.042	E9.7	6.4	<.0020
NOV												
12...	.925	.012	.937	.049	.91	.27	.497	<.050	.019	17	8.8	<.0020
DEC												
15...	.882	.010	.892	.021	.22	.22	<.050	<.050	<.010	16	E3.6	<.0020
JAN 1999												
21...	1.68	.023	1.71	.208	.87	.67	.244	.162	.131	36	11	<.0020
FEB												
17...	1.32	.020	1.34	<.020	.28	.15	.029	.016	.013	25	7.9	<.0020
MAR												
09...	1.35	.013	1.37	<.020	.41	.29	.062	.024	.016	41	8.1	<.0020
APR												
13...	.909	.013	.922	.068	.66	.66	.132	.049	.033	35	4.5	<.0020
MAY												
10...	1.02	.014	1.04	.108	.47	.29	.081	.049	.045	--	--	<.0020
JUN												
07...	.585	.011	.596	.053	<.10	.28	.095	.078	.061	--	--	<.0020
22...	--	<.010	.658	.032	.45	.35	.099	.090	.067	--	--	<.0020
JUL												
12...	--	<.010	.211	.033	.62	.44	.128	.116	.081	--	--	<.0020
AUG												
09...	--	<.010	.068	.029	<.10	<.10	.092	.082	.055	--	--	<.0020
SEP												
14...	1.08	.022	1.10	<.020	E.10	.31	.090	.078	.057	--	--	<.0020

E Estimated

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)
	OCT 1998											
14...	<.002	.068	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	E.0749	<.002	<.001
NOV												
12...	<.002	.057	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	E.0674	<.002	<.001
DEC												
15...	<.002	.046	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	E.0632	<.002	<.001
JAN 1999												
21...	<.002	.037	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	E.0344	<.002	<.001
FEB												
17...	<.002	.029	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	E.0313	<.002	<.001
MAR												
09...	<.002	.022	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	E.0253	<.002	<.001
APR												
13...	<.002	.019	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	E.0167	<.002	<.001
MAY												
10...	<.002	.071	<.0020	<.0020	E.0052	<.0030	<.0040	<.0040	<.0020	E.0632	.005	<.001
JUN												
07...	<.002	.078	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	E.0345	<.002	<.001
22...	<.002	.144	<.0020	<.0020	E.0088	<.0030	<.0040	.0087	<.0020	E.0832	.005	<.001
JUL												
12...	<.002	.266	<.0020	<.0020	<.0030	<.0030	<.0040	.0151	E.0019	E.142	<.002	<.001
AUG												
09...	<.002	.066	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	E.0762	<.002	<.001
SEP												
14...	<.002	.029	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040	<.0020	E.0211	<.002	<.001

DATE	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOPOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)
	OCT 1998											
14...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.016
NOV												
12...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.013
DEC												
15...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.011
JAN 1999												
21...	<.0030	<.0170	<.0040	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.047
FEB												
17...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.013
MAR												
09...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.014
APR												
13...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.014
MAY												
10...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.028
JUN												
07...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.018
22...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.042
JUL												
12...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.106
AUG												
09...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.019
SEP												
14...	<.0030	<.0170	<.0020	<.0040	<.0030	<.0030	<.004	<.0020	<.005	<.0010	<.0060	.016

E Estimated

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)
OCT 1998												
14...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	E.0096	<.0030	<.0070	<.0130
NOV												
12...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	E.0075	<.0030	<.0070	<.0130
DEC												
15...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	E.0050	<.0030	<.0070	<.0130
JAN 1999												
21...	.012	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	E.0073	<.0030	<.0070	<.0130
FEB												
17...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	E.0035	<.0030	<.0070	<.0130
MAR												
09...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	<.0180	<.0030	<.0070	<.0130
APR												
13...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	<.0180	<.0030	<.0070	<.0130
MAY												
10...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	<.0180	<.0030	<.0070	<.0130
JUN												
07...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	.0219	<.0030	<.0070	<.0130
22...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	E.0099	<.0030	<.0070	<.0130
JUL												
12...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	.0236	<.0030	<.0070	--
AUG												
09...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	E.0124	<.0030	<.0070	<.0130
SEP												
14...	<.004	<.0040	<.0030	<.004	<.0040	<.0040	<.0050	<.0020	E.0116	<.0030	<.0070	<.0130
DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SED- SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
OCT 1998												
14...	<.0040	.0234	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	--	--	--
NOV												
12...	<.0040	.0179	E.0074	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	2	9.2	--
DEC												
15...	<.0040	.0129	E.0045	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	<1	<4.5	--
JAN 1999												
21...	<.0040	.123	E.0044	E.0081	<.0130	<.0020	<.0010	<.0020	<.0020	35	845	99
FEB												
17...	<.0040	.0128	E.0063	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	2	24	--
MAR												
09...	<.0040	.0128	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	13	360	--
APR												
13...	<.0040	.0103	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	60	5610	94
MAY												
10...	<.0040	.0267	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	11	315	--
JUN												
07...	<.0040	.0364	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	2	12	--
22...	<.0040	.103	E.0053	<.0070	<.0130	<.0020	<.0010	E.0019	<.0020	4	18	--
JUL												
12...	<.0040	.285	<.0100	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	4	3.7	--
AUG												
09...	<.0040	.0292	E.0055	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	4	5.4	--
SEP												
14...	<.0040	.0198	E.0059	<.0070	<.0130	<.0020	<.0010	<.0020	<.0020	7	66	--

E Estimated