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 mi^2.

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: Maximun 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 1997 TO SEPTEMBER 1998

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, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT												
28...	1115	1940	369	7.7	10.5	11.0	763	10.4	94	150	40	12
NOV												
24...	0930	10300	285	8.3	9.0	6.5	765	12.4	100	110	33	7.5
DEC												
17...	0945	6100	--	7.9	4.0	5.0	758	--	--	130	38	8.8
JAN												
22...	1000	19100	244	7.1	2.0	4.0	769	13.2	100	100	30	6.7
MAR												
05...	1030	39100	200	7.2	9.0	7.5	762	12.8	107	83	24	5.3
31...	1045	22700	244	7.7	26.5	16.5	760	9.8	101	110	32	7.0
APR												
15...	1130	24300	202	7.9	20.5	14.0	760	10.0	97	89	26	6.0
MAY												
14...	1045	45300	191	7.8	17.0	15.5	767	10.0	100	84	25	5.4
JUN												
02...	0845	7310	--	--	--	--	--	--	--	--	--	--
11...	1315	5540	339	8.1	18.0	19.5	766	9.0	98	150	42	11
JUL												
15...	1500	3830	316	8.4	26.5	28.5	--	7.3	--	--	--	--
AUG												
26...	1330	2040	365	8.1	31.5	29.5	760	7.9	104	150	40	12
SEP												
23...	1600	1510	347	8.0	18.5	25.0	766	7.1	86	140	36	12

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	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, NITRATE DIS-SOLVED (MG/L AS NO3) (71851)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT												
28...	15	2.9	108	132	0	40	20	.20	.91	207	--	<.010
NOV												
24...	7.9	2.6	84	102	0	30	12	<.10	7.1	169	7.8	.036
DEC												
17...	9.1	2.1	96	117	0	40	13	<.10	1.8	190	--	<.010
JAN												
22...	6.6	2.0	74	90	0	25	11	<.10	7.2	143	8.0	.016
MAR												
05...	4.4	1.6	59	72	0	18	7.0	<.10	6.2	128	--	<.010
31...	4.9	1.7	--	--	--	21	8.1	<.10	5.8	145	--	<.010
APR												
15...	4.8	1.6	63	77	0	19	6.6	<.10	5.4	122	4.4	.014
MAY												
14...	4.6	1.9	64	78	0	16	5.8	<.10	7.4	117	4.9	.017
JUN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
11...	9.3	2.4	112	137	0	32	13	.13	2.8	200	6.5	.020
JUL												
15...	--	--	100	117	2	--	--	--	--	--	4.9	.017
AUG												
26...	13	3.2	117	135	4	34	17	.15	5.5	216	4.6	.017
SEP												
23...	15	3.0	--	--	--	38	20	.17	4.3	209	3.6	.015

DATE	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)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	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)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)
OCT												
28...	.681	<.015	.24	<.20	.92	.038	.013	.015	31	8.5	<.0040	<.0020
NOV												
24...	1.79	<.020	.18	.12	2.0	.027	.017	.029	31	8.1	<.0040	<.0020
DEC												
17...	1.48	<.020	.16	.12	1.6	.020	.015	.013	37	5.7	<.0040	<.0020
JAN												
22...	1.82	<.020	.22	.10	2.0	.038	.013	.030	14	5.4	--	--
MAR												
05...	1.35	.028	.23	.15	1.6	.043	.025	.027	<10	4.7	<.0040	<.0020
31...	1.46	.025	.17	<.10	1.6	.041	.024	.017	10	<4.0	<.0040	<.0020
APR												
15...	1.01	.064	.23	.12	1.2	.045	.019	.013	42	<4.0	<.0040	<.0020
MAY												
14...	1.13	.072	.51	.25	1.6	.093	.027	.073	27	<4.0	<.0040	<.0020
JUN												
02...	--	--	--	--	--	--	--	--	--	--	<.0040	<.0020
11...	1.49	.062	.30	.20	1.8	<.010	<.010	.020	15	<4.0	<.0040	<.0020
JUL												
15...	1.12	.062	.31	.21	1.4	.027	.022	.028	--	--	<.0040	<.0020
AUG												
26...	1.06	.098	.33	.26	1.4	.050	.051	.043	<10	11	<.0040	<.0020
SEP												
23...	.823	.045	.34	.30	1.2	.037	.022	.023	11	6.9	<.0040	<.0020

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	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)
OCT												
28...	<.0070	<.0020	<.0030	<.0020	<.002	.040	<.0020	<.0020	E.0108	<.0030	<.0040	<.0040
NOV												
24...	<.0070	<.0020	<.0030	<.0020	<.002	.035	<.0020	<.0020	E.0039	<.0030	<.0040	<.0040
DEC												
17...	<.0070	<.0020	<.0030	<.0020	<.002	.041	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	<.0070	<.0020	<.0030	<.0020	<.002	.018	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040
31...	<.0070	<.0020	<.0030	<.0020	<.002	.028	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040
APR												
15...	<.0070	<.0020	<.0030	<.0020	<.002	.026	<.0020	<.0020	<.0030	<.0030	<.0040	.0081
MAY												
14...	<.0120	<.0020	<.0030	.0157	E.003	.546	<.0020	<.0020	E.0077	<.0030	<.0040	.0263
JUN												
02...	<.0070	<.0020	<.0030	<.0020	<.002	.049	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040
11...	<.0070	<.0020	<.0030	<.0020	<.002	.230	<.0020	<.0020	<.0030	<.0030	<.0040	.0263
JUL												
15...	<.0070	<.0020	<.0030	<.0020	<.002	.219	<.0020	<.0020	<.0030	<.0030	<.0040	.0439
AUG												
26...	<.0070	<.0020	<.0030	<.0020	<.002	.075	<.0020	<.0020	<.0030	<.0030	<.0040	<.0040
SEP												
23...	<.0070	<.0020	<.0030	<.0020	<.002	.066	<.0020	<.0020	E.0162	<.0030	<.0040	<.0040

DATE	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS 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)
OCT												
28...	<.0020	<.0060	E.0213	.007	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
NOV												
24...	<.0020	<.0060	E.0514	E.004	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
DEC												
17...	<.0020	<.0060	E.0544	<.002	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	<.0020	<.0060	E.0272	<.002	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
31...	<.0020	<.0060	E.0368	<.002	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
APR												
15...	<.0020	<.0060	E.0293	<.002	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
MAY												
14...	<.0020	<.0060	E.0348	<.002	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
JUN												
02...	<.0020	<.0060	E.0376	<.002	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
11...	<.0020	<.0060	E.0682	<.002	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
JUL												
15...	<.0020	<.0060	E.0788	<.002	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
AUG												
26...	<.0020	<.0060	E.0582	<.002	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005
SEP												
23...	<.0020	<.0060	E.0871	.006	<.001	<.0170	<.0020	<.0030	<.0030	<.004	<.0020	<.005

E Estimated value

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	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)	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)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PARA-THION, DIS-SOLVED (UG/L) (39542)	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)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
OCT												
28...	<.0010	<.0060	.013	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	E.0116	<.0030
NOV												
24...	<.0010	<.0060	.024	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	E.0077	<.0030
DEC												
17...	<.0010	<.0060	.017	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	<.0180	<.0030
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	<.0010	<.0060	.014	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	E.0044	<.0030
31...	<.0010	<.0060	.013	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	<.0180	<.0030
APR												
15...	<.0010	<.0060	.016	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	E.0072	<.0030
MAY												
14...	<.0010	<.0060	.195	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	E.0069	<.0030
JUN												
02...	<.0010	<.0060	.006	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	<.0180	<.0030
11...	<.0010	<.0060	.146	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	E.0133	<.0030
JUL												
15...	<.0010	<.0060	.072	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	E.0154	<.0030
AUG												
26...	<.0010	<.0060	.016	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	.0207	<.0030
SEP												
23...	<.0010	<.0060	.009	<.004	<.0040	<.0030	<.0040	<.004	<.0040	<.0050	E.0153	<.0030

DATE	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	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-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)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT											
28...	<.0070	<.0130	<.0040	.0140	<.0100	<.0130	<.0020	<.0010	<.0020	1	6.3
NOV											
24...	<.0070	<.0130	<.0040	.0135	<.0100	<.0130	<.0020	<.0010	<.0020	6	167
DEC											
17...	<.0070	<.0130	<.0040	.0103	E.0066	<.0130	<.0020	<.0010	<.0020	3	49
JAN											
22...	--	--	--	--	--	--	--	--	--	13	670
MAR											
05...	<.0070	<.0130	<.0040	.0065	<.0100	<.0130	<.0020	<.0010	<.0020	21	2220
31...	<.0070	<.0130	<.0040	.0098	E.0064	<.0130	<.0020	<.0010	<.0020	14	858
APR											
15...	<.0070	<.0130	<.0040	.0128	<.0100	<.0130	<.0020	<.0010	<.0020	15	984
MAY											
14...	<.0070	<.0130	<.0040	.247	E.0057	<.0130	<.0020	<.0010	<.0020	40	4890
JUN											
02...	<.0070	<.0130	<.0040	.0224	<.0100	<.0130	<.0020	<.0010	<.0020	--	--
11...	<.0070	<.0130	<.0040	.0764	E.0067	<.0130	<.0020	<.0010	<.0020	10	150
JUL											
15...	<.0070	<.0130	<.0040	.0691	E.0090	<.0130	<.0020	<.0010	<.0020	3	31
AUG											
26...	<.0070	<.0130	<.0040	.0233	<.0100	<.0130	<.0020	<.0010	<.0020	4	22
SEP											
23...	<.0070	<.0130	<.0040	.0176	E.0077	<.0130	<.0020	<.0010	<.0020	6	24

E Estimated value