

COLUMBIA RIVER MAIN STEM

12473520 COLUMBIA RIVER AT RICHLAND, WA

LOCATION.--Lat 46°18'46", long 119°15'28", in NW 1/4 NW 1/4 sec.36, T.10 N., R.28 E., Benton County, Hydrologic Unit 17020016, at city of Richland pumping plant, 4.8 mi upstream from Yakima River, and at mile 340.2. Columbia River at Richland

DRAINAGE AREA.--96,900 mi², approximately.

PERIOD OF RECORD.--October 1978 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1974 to March 1993.

REMARKS.--Water temperatures as recorded for the period July 1974 to January 1977 did not represent mean stream temperatures (see previous state reports for correlation between thermal load measurements and recorded temperatures). Temperature probe, relocated January 1977, represents both horizontal and vertical cross section of the river. Unpublished records of stage at site 2.3 miles downstream are available in files of the Geological Survey and U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 22.0°C July 21, Aug. 4, 5, 1985; minimum, 0.0°C Feb. 3, 6-9, 1989.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	PH WATER FIELD (STAND- ARDS UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS NONCARB DISSOLV FLD. AS (MG/L) CACO3 (00904)	HARD- NESS TOTAL (MG/L) CACO3 (00900)	CALCIUM DIS- SOLVED AS CA (00915)	MAGNE- SIUM, DIS- SOLVED AS MG (00925)
DEC	12...	1.9	760	11.2	96	7.9	147	4.0	8.5	5	65	18.5	4.66
MAR	08...	2.3	764	13.6	103	8.3	152	7.5	4.0	4	68	19.0	4.98
JUN	27...	1120	752	10.6	110	7.4	112	33.4	16.3	--	48	13.4	3.40
SEP	26...	1110	751	8.7	94	7.6	133	17.5	18.2	7	60	17.3	4.17

Date	Time	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)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F (00950)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L) AS N (00625)	NITRO- GEN, NO2+NO3 SOLVED (MG/L) AS N (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N (00613)	NITRO- GEN, TOTAL (MG/L) AS N (00600)
DEC	12...	60	73	0	1.02	.1	9.3	<10	84	<.04	.13	.11	<.008	.23
MAR	08...	64	78	0	1.31	E.1	10.1	<10	78	<.04	E.09	.17	<.008	--
JUN	27...	50	60	0	1.74	.14	6.1	<10	60	<.04	.21	.06	<.008	.27
SEP	26...	54	65	0	1.50	E.07	8.7	<10	73	<.04	.17	.08	<.008	.25

Date	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L) AS P (00671)	PHOS- PHORUS TOTAL (MG/L) AS P (00665)	CARBON, ORGANIC DIS- SOLVED (MG/L) AS C (00681)	CHRO- MIUM, DIS- SOLVED (UG/L) AS CR (01030)	IRON, DIS- SOLVED (UG/L) AS FE (01046)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	
DEC	12...	E.01	<.06	1.1	<.8	<10	3.0
MAR	08...	<.02	<.06	1.2	<.8	<10	3.0
JUN	27...	<.02	<.06	2.1	<.8	E7	8.0
SEP	26...	<.02	<.06	1.4	E.5	31	2.0