

**Table 20 – Revised June 2010 [date of EPA approval]
 WATER QUALITY CRITERIA SUMMARY
 (Applicable to all Basins)¹**

The concentration for each compound listed in this chart is a criteria or guidance value* not to be exceeded in waters of the state for the protection of aquatic life and human health. Specific descriptions of each compound and an explanation of values are included in Quality Criteria for Water (1986). Selecting values for regulatory purposes will depend on the most sensitive beneficial use to be protected, and what level of protection is necessary for aquatic life and human health.

This June 2010 table includes the revisions DEQ adopted in 2004 and EPA approved June 1, 2010. This table therefore shows the effective criteria under state and federal law.

Note: The arsenic criteria revisions established by OAR 340-041-0033 and shown below do not become applicable for purposes of ORS chapter 468B or the federal Clean Water Act until approved by EPA pursuant to 40 CFR 131.21 (4/27/2000).

Compound Name (or Class)	Priority Pollutant	Carcinogen	Concentration in Micrograms Per Liter for Protection of Aquatic Life				Concentration in Units Per Liter for Protection of Human Health		
			Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water and Fish Ingestion	Fish Consumption Only	Drinking Water M.C.L.
ACENAPHTHENE	Y	N	*1,700	*520	*970	*710			
ACROLEIN	Y	N	*68	*21	*55		320ug	780ug	
ACRYLONITRILE	Y	Y	*7,550	*2,600			0.058ug**	0.65ug**	
ALDRIN	Y	Y	3.0		1.3		0.074ng**	0.079ng**	
ALKALINITY	N	N		20,000					
AMMONIA	N	N	CRITERIA ARE pH AND TEMPERATURE DEPENDENT — SEE DOCUMENT USEPA JANUARY 1985 (Fresh Water) CRITERIA ARE pH AND TEMPERATURE DEPENDENT — SEE DOCUMENT USEPA APRIL 1989 (Marine Water)						
ANTIMONY	Y	N	*9,000	*1,600			146ug	45,000ug	
ARSENIC (INORGANIC)	Y	Y					2.2ng** 2.1 µg	17.5ng** 2.1 µg freshwater 1.0 µg saltwater	0.05mg 10 µg ¹
ARSENIC (PENT)	Y	Y	*850	*48	*2,319	*13			
ARSENIC (TRI)	Y	Y	360	190	69	36			
ASBESTOS	Y	Y					7.0E+06 fibers/L		
BARIUM	N	N					1mg		1.0mg
BENZENE	Y	Y	*5,300		*5,100	*700	0.66ug**	40 ug**	
BENZIDINE	Y	Y	*2,500				0.12ng	0.53ng**	
BERYLLIUM	Y	Y	*130	*5.3					
BHC	Y	N	*100		*0.34				
CADMIUM	Y	N	3.9+	1.1+	43	9.3			0.010mg
CARBON TETRACHLORIDE	Y	Y	*35,200	*50,000	0.4ug**	6.94ug**			
CHLORDANE	Y	Y	2.4	0.0043	0.09	0.004	0.46ng**	0.48ng**	
CHLORIDE	N	N	860 mg/L	230 mg/L					
CHLORINATED BENZENES	Y	Y	*250	*50	*160	*129	488 ug		
CHLORINATED NAPHTHALENES	Y	N	*1,600		*7.5				
CHLORINE	N	N	19	11	13	7.5			
CHLOROALKYL ETHERS	Y	N	*238,000						
CHLOROETHYL ETHER (BIS-2)	Y	Y					0.03 ug	1.36 ug**	
CHLOROFORM	Y	Y	*28,900	*1,240			0.19ug**	15.7ug**	
CHLOROISOPROPYL ETHER (BIS-2)	Y	N					34.7ug	4.36mg	

¹ The arsenic value is shown here for informational purposes only and is not a water quality criterion.

WATER QUALITY CRITERIA SUMMARY (Continued)

Compound Name (or Class)	Priority Pollutant	Carcinogen	Concentration in Micrograms Per Liter for Protection of Aquatic Life				Concentration in Units Per Liter for Protection of Human Health		
			Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water and Fish Ingestion	Fish Consumption Only	Drinking Water M.C.L.
CHLOROMETHYL ETHER (BIS)	N	Y					0.00000376ng**	0.00184ug**	
CHLOROPHENOL 2	Y	N	*4,380	*2,000					
CHLOROPHENOL 4	N	N			*29,700				
CHLOROPHENOXY HERBICIDES (2,4,5,-TP)	N	N					10ug		
CHLOROPHENOXY HERBICIDES (2,4-D)	N	N					100ug		
CHLORPYRIFOS	N	N	0.083	0.041	0.011	0.0056			
CHLORO-4 METHYL-3 PHENOL	N	N	*30						
CHROMIUM (HEX)	Y	N	16	11	1,100	50			0.05mg
CHROMIUM (TRI)	N	N	1,700.+	210.+	*10,300				0.05mg
COPPER	Y	N	18.+	12.+	2.9	2.9	1300 H		
CYANIDE	Y	N	22	5.2	1	1	200ug		
DDT	Y	Y	1.1	0.001	0.13	0.001	0.024ng**	0.024ng**	
(DDE) DDT METABOLITE	Y	Y	*1,050		*14				
(TDE) DDT METABOLITE	Y	Y	*0.06		*3.6				
DEMETON	Y	N		0.1		0.1			
DIBUTYLPHTHALATE	Y	N					35mg	154mg	
DICHLOROBENZENES	Y	N	*1,120	*763	*1,970		400ug	2.6mg	
DICHLOROBENZIDINE	Y	Y					0.01ug**	0.020ug**	
DICHLOROETHANE 1,2	Y	Y	*118,000	*20,000	*113,000		0.94ug**	243ug**	
DICHLOROETHYLENES	Y	Y	*11,600		*224,000		0.033ug**	1.85ug**	
DICHLOROPHENOL 2,4	N	N	*2,020	*365			3.09mg		
DICHLOROPROPANE	Y	N	*23,000	*5,700	*10,300	*3,040			
DICHLOROPROPENE	Y	N	*6,060	*244	*790		87ug	14.1mg	
DIELDRIN	Y	Y	2.5	0.0019	0.71	0.0019	0.071ng**	0.076ng**	
DIETHYLPHTHALATE	Y	N					350mg	1.8g	
DIMETHYL PHENOL 2,4	Y	N	*2,120						
DIMETHYL PHTHALATE	Y	N					313mg	2.9g	
DINITROTOLUENE 2,4	N	Y					0.11ug**	9.1ug**	
DINITROTOLUENE	Y	N					70ug	14.3mg	
DINITROTOLUENE	N	Y	*330	*230	*590	*370			
DINITRO-O-CRESOL 2,4	Y	N					13.4g	765ug	
DIOXIN (2,3,7,8-TCDD)	Y	Y	*0.01	*38pg/L			0.000013ng**	0.000014ng**	
DIPHENYLHYDRAZINE	Y	N					42ng**	0.56ug**	

WATER QUALITY CRITERIA SUMMARY (Continued)

	Priority Pollutant	Carcinogen	Concentration in Micrograms Per Liter for Protection of Aquatic Life				Concentration in Units Per Liter for Protection of Human Health		
			Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water and Fish Ingestion	Fish Consumption Only	Drinking Water M.C.L.
DIPHENYLHYDRAZINE 1,2	Y	N	*270						
DI-2-ETHYLHEXYL PHTHALATE	Y	N					15mg	50mg	
ENDOSULFAN	Y	N	0.22	0.056	0.034	0.0087	74ug	159ug	
ENDRIN	Y	N	0.18	0.0023	0.037	0.0023	1ug		0.0002mg
ETHYLBENZENE	Y	N	*32,000		*430		1.4mg	3.28mg	
FLUORANTHENE	Y	N	*3,980		*40	*16	42ug	54ug	
GUTHION	N	N		0.01		0.01			
HALOETHERS	Y	N	*360	*122					
HALOMETHANES	Y	Y	*11,000		*12,000	*6,400	0.19ug**	15.7ug**	
HEPTACHLOR	Y	Y	0.52	0.0038	0.053	0.0036	0.28ng**	0.29ng**	
HEXACHLOROETHANE	N	Y	*980	*540	*940		1.9ug	8.74ug	
HEXACHLOROBENZENE	Y	N					0.72ng**	0.74ng**	
HEXACHLOROBUTADIENE	Y	Y	*90	*9.3	*32		0.45ug**	50ug**	
HEXACHLOROCYCLOHEXANE (LINDANE)	Y	Y	2.0	0.08	0.16				0.004mg
HEXACHLOROCYCLOHEXANE-ALPHA	Y	Y					9.2ng**	31ng**	
HEXACHLOROCYCLOHEXANE-BETA	Y	Y					16.3ng**	54.7ng**	
HEXACHLOROCYCLOHEXANE-GAMA	Y	Y					18.6ng**	62.5ng**	
HEXACHLOROCYCLOHEXANE-TECHNICAL	Y	Y					12.3ng** J	41.4ng** J	
HEXACHLOROCYCLOPENTADIENE	Y	N	*7	*5.2	*7		206ug		
IRON	N	N		1,000			0.3mg K		
ISOPHORONE	Y	N	*117,000		*12,900		5.2mg	520mg	
LEAD	Y	N	82.+	3.2+	140	5.6			0.05mg
MALATHION	N	N		0.1		0.1			
MANGANESE	N	N					50ug K	100ug	
MERCURY	Y	N	2.4	0.012	2.1	0.025			0.002mg
METHOXYCHLOR	N	N		0.03		0.03	100ug J		0.1mg
MIREX	N	N		0.001		0.001			
MONOCHLOROBENZENE	Y	N					488ug		
NAPHTHALENE	Y	N	*2,300	*620	*2,350				
NICKEL	Y	N	1,400.+	160+	75	8.3	13.4ug	100ug	
NITRATES	N	N					10mg J		10mg
NITROBENZENE	Y	N	*27,000		*6,680		19.8mg		
NITROPHENOLS	Y	N	*230	*150	*4,850				

WATER QUALITY CRITERIA SUMMARY (Continued)

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NITROSAMINES	Y	Y	*5,850		*3,300,000		0.8ng** J	1,240ng** J	
NITROSODIBUTYLAMINE N	Y	Y					6.4ng**	587ng**	
NITROSODIETHYLAMINE N	Y	Y					0.8ng** J	1,240ng** J	
NITROSODIMETHYLAMINE N	Y	Y					1.4ng**	16,000ng**	
NITROSODIPHENYLAMINE N	Y	Y					4,900ng**	16,100ng**	
NITROSOPYRROLIDINE N	Y	Y					16ng**	91,900ng**	
PARATHION	N	N	0.065	0.013					
PCB's	Y	Y	2.0	0.014	10	0.03	0.079ng**	0.079ng**	
PENTACHLORINATED ETHANES	N	N	*7,240	*1,100	*390	*281			
PENTACHLOROBENZENE	N	N					74ug	85ug	
PENTACHLOROPHENOL	Y	N	***20	***13	13	*7.9	1.01mg		
PHENOL	Y	N	*10,200	*2,560	*5,800		3.5mg		
PHOSPHORUS ELEMENTAL	N	N				0.1			
PHTHALATE ESTERS	Y	N	*940	*3	*2,944	*3.4			
POLYNUCLEAR AROMATIC HYDROCARBONS	Y	Y			*300		2.8ng**	31.1ng**	
SELENIUM	Y	N	260	35	410	54	10ug		0.01mg
SILVER	Y	N	4.1+	0.12	2.3				0.05mg
SULFIDE HYDROGEN SULFIDE	N	N		2		2			
TETRACHLORINATED ETHANES	Y	N	*9,320						
TETRACHLOROBENZENE 1,2,4,5	Y	N					38ug	48ug	
TETRACHLOROETHANE 1,1,2,2	Y	Y		*2,400	*9,020		0.17ug**	10.7ug**	
TETRACHLOROETHANES	Y	N	*9,320						
TETRACHLOROETHYLENE	Y	Y	*5,280	*840	*10,200	*450	0.8ug**	8.85ug**	
TETRACHLOROPHENOL 2,3,5,6	Y	N				*440			
THALLIUM	Y	N	*1,400	*40	*2,130		13ug	48ug	
TOLUENE	Y	N	*17,500		*6,300	*5,000	14.3mg	424mg	
TOXAPHENE	Y	Y	0.73	0.0002	0.21	0.0002	0.71ng**	0.73ng**	0.005mg
TRICHLORINATED ETHANES	Y	Y	*18,000						
TRICHLOROETHANE 1,1,1	Y	N			*31,2000				
TRICHLOROETHANE 1,1,2	Y	Y		*9,400			0.6ug**	41.8ug**	
TRICHLOROETHYLENE	Y	Y	*45,000	*21,900	*2,000		2.7ug**	80.7ug**	
TRICHLOROPHENOL 2,4,5	N	N					2,600ug		
TRICHLOROPHENOL 2,4,6	Y	Y		*970			1.2ug**	3.6ug**	

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VINYL CHLORIDE	Y	Y					2ug**	525ug**	
ZINC	Y	N	120+	110+	95	86			

Footnotes:

H This value is based on a Drinking Water regulation.

J No bioconcentration factor was available; therefore, this value is based on that published in the 1986 EPA Gold Book.

K Human health criterion is for “dissolved” concentration based on the 1976 EPA Red Book conclusion that adverse effects from exposure at this level are aesthetic rather than toxic.

MEANING OF SYMBOLS:

g	=	grams	M.C.L	=	Maximum Contaminant Level
mg	=	milligrams	+	=	Hardness Dependent Criteria (100 mg/L used).
ug	=	micrograms	*	=	Insufficient data to develop criteria; value presented is the L.O.E.L – Lower Observed Effect Level.
ng	=	nanograms	**	=	Human health criteria for carcinogens reported for three risk levels. Value presented is the 10-6 risk level, which means the probability of one concern case per million people at the stated concentration.
pg	=	picograms	***	=	pH Dependent Criteria (7.8 pH used).
f	=	fibers			
Y	=	Yes			
N	=	No			

1 = Values in Table 20 are applicable to all basins as follows:

Basin	Rule	Basin	Rule
North Coast	340-041-205(p)	Umatilla	340-041-645(p)
Mid Coast	340-041-245(p)	Walla Walla	340-041-685(p)
Umpqua	340-041-285(p)	Grande Ronde	340-041-725(p)
South Coast	340-041-325(p)	Powder	340-041-765(p)
Rogue	340-041-365(p)	Malheur River	340-041-805(p)
Willamette	340-041-445(p)	Owyhee	340-041-845(p)
Sandy	340-041-485(p)	Malheur Lake	340-041-885(p)
Hood	340-041-525(p)	Goose & Summer Lakes	340-041-925(p)
Deschutes	340-041-565(p)	Klamath	340-041-965(p)
John Day	340-041-605(p)		

Water and Fish Ingestion:

Values represent the maximum ambient water concentration for consumption of both contaminated water and fish or other aquatic organisms.

Fish Ingestion:

Values represent the maximum ambient water concentrations for consumption of fish or other aquatic organisms