

## FEDERAL WATER QUALITY GUIDELINES

Parameter Name	Unit	Aquatic Life Short Term	Aquatic Life Long Term	Livestock	Irrigation	Recreational	GCDWQ (MAC and AO)	GCDWQ Comment
<b>PHYSICAL</b>								
Coliforms, fecal (Escherichia coli)	Ecoli/100 mL				100	400	0	
Coliforms, total	ColiT/100 mL				1,000		0	
Cyanobacteria, total	Cells/mL			Narrative		100,000		
Colour	TCU	Narrative	Narrative	Narrative			15	AO
pH	Unit pH		6.5 to 9.0			5 to 9	6.5 to 8.5	MAC
Suspended sediments	ug/L	Narrative	Narrative					
Temperature	C	Narrative	Narrative				15	AO
Dissolved Oxygen	ug/L		Variable					
Total dissolved solids (TDS)	ug/L			3,000,000	Variable		500,000	AO
Turbidity	NTU	Narrative	Narrative			50		
<b>NUTRIENTS</b>								
Ammonia Total	ug/L		Table				None required	MAC
Nitrate	ug-N/L	124,245	2,937				10,000	MAC
Nitrate plus Nitrite	ug-N/L			100,000				
Nitrite	ug-N/L		60	10,000			1,000	MAC
Phosphorus (P)	ug/L		Guidance Framework					
<b>MAJOR IONS</b>								
Calcium (Ca)	ug/L			1,000,000			None required	MAC
Chloride (Cl-)	ug/L	640,000	120,000		Variable		250,000	AO
Magnesium (Mg)	ug/L						None required	MAC
Sodium (Na)	ug/L						200,000	AO
Sulphate (SO4)	ug/L			1,000,000			500,000	AO

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<b>MINOR IONS</b>								
Fluoride (F-)	ug/L		120	Variable	1,000		1,500	MAC
Sulphide	ug/L						50	AO
<b>MISCELLANEOUS</b>								
Mercury (Hg)	ug/L		0.026	3			1	MAC
<b>METALS</b>								
Aluminum (Al)	ug/L		Variable	5,000	5,000		100	OG
Antimony (Sb)	ug/L						6	MAC
Arsenic (As)	ug/L		5	25	100		10	MAC-ALARA
Barium (Ba)	ug/L						1,000	MAC
Beryllium (Be)	ug/L			100	100			
Boron (B)	ug/L	29,000	1,500	5,000	Variable		5,000	MAC
Cadmium (Cd)	ug/L	Equation	Equation	80	5.1		5	MAC
Chromium (Cr)	ug/L						50	MAC
Chromium, hexavalent (Cr(VI))	ug/L		1	50	8			
Chromium, trivalent (Cr(III))	ug/L		8.9	50	4.9			
Cobalt (Co)	ug/L			1,000	50			
Copper (Cu)	ug/L		Equation	Variable	Variable		1,000	AO
Iron (Fe)	ug/L		300		5,000		300	AO
Lead (Pb)	ug/L		Equation	100	200		10	MAC
Lithium (Li)	ug/L				2,500			
Manganese (Mn)	ug/L				200		50	AO
Molybdenum (Mo)	ug/L		73	500	Narrative			
Nickel (Ni)	ug/L		Equation	1,000	200			
Selenium (Se)	ug/L		1	50	Variable		50	MAC
Silver (Ag)	ug/L		0.25				None required	MAC
Thallium (Tl)	ug/L		0.8					
Uranium (U)	ug/L	33	15	200	10		20	MAC
Vanadium (V)	ug/L			100	100			

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Zinc (Zn)	ug/L		30	50,000	Equation		5,000	AO
<b>ISOTYPES/RADIOACTIVE</b>								
Cesium-137	Bq/L						10	MAC
Iodine-131	Bq/L						6	MAC
Lead-210	Bq/L						0.2	MAC
Radium-226	Bq/L						0.5	MAC
Strontium-90	Bq/L						5	MAC
Tritium	Bq/L						7,000	MAC
<b>ORGANICS</b>								
1,1,2,2- Tetrachloroethene PCE	ug/L		110	Insufficient data	Insufficient data			
1,1,2,2-Tetrachlorethane	ug/L		Insufficient data	Insufficient data	Insufficient data			
1,1,2-Trichloroethene TCE	ug/L		21	50	Insufficient data			
1,1-Dichloroethylene	ug/L						14	MAC
1,2,3,4-Tetrachlorobenzene	ug/L		1.8	Insufficient data	Insufficient data			
1,2,3-Trichlorobenzene	ug/L		8	Insufficient data	Insufficient data			
1,2,4-Trichlorobenzene	ug/L		24	Insufficient data	Insufficient data			
1,2-Dichlorobenzene	ug/L		0.7	Insufficient data	Insufficient data		3 ; 200	AO ; MAC
1,2-Dichloroethane	ug/L		100	5	Insufficient data		5	MAC
1,3-Dichlorobenzene	ug/L		150	Insufficient data	Insufficient data			
1,4-Dichlorobenzene	ug/L		26	Insufficient data	Insufficient data		1 ; 5	AO ; MAC
2,3,4,6-Tetrachlorophenol	ug/L						1 ; 100	AO ; MAC
2,4,6-Trichlorophenol	ug/L						5	AO
2,4-Dichlorophenol	ug/L						0.3 ; 900	AO ; MAC

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2,4-Dichlorophenoxy acetic acid (2,4-D)	ug/L						100	MAC
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/L						100	MAC
3-Iodo-2-propynyl butyl carbamate	ug/L		1.9					
Acenaphthene	ug/L		5.8					
Acridine	ug/L		4.4					
Aldicarb	ug/L		1	11	54.9			
Aniline	ug/L		2.2	Insufficient data	Insufficient data			
Anthracene	ug/L		0.012					
Atrazine	ug/L		1.8	5	10		5	MAC
Azinphos-methyl	ug/L						20	MAC
Benz(a)anthracene	ug/L		0.018					
Benzene	ug/L		370				5	MAC
Benzo(a)pyrene	ug/L		0.015				0.01	MAC
Bromacil	ug/L		5	1,100	0.2			
Bromate	ug/L						10	MAC
Bromoxynil	ug/L		5	11	0.33		5	MAC
Captan	ug/L		1.3	13	Insufficient data			
Carbaryl	ug/L	3.3	0.2	1,100	Insufficient data		90	MAC
Carbofuran	ug/L		1.8	45	Insufficient data		90	MAC
Carbon tetrachloride	ug/L						2	MAC
Chloramines	ug/L						3000	MAC
Chlorate (ClO3-)	ug/L						1000	MAC
Chlorite	ug/L						1000	MAC
Chlorothalonil	ug/L		0.18	170	5.8			

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Chlorpyrifos	ug/L	0.02	0.002	24	Insufficient data		90	MAC
Cyanazine	ug/L		2	10	0.5			
Cyanide (as Free CN)	ug/L		5				200	MAC
Cyanobacterial toxins— Microcystin-LR	ug/L					20	1.5	MAC
Deltamethrin	ug/L		0.0004	2.5	Insufficient data			
Di(2-ethylhexyl) phthalate	ug/L		16					
Diazinon	ug/L						20	MAC
Dibromochloromethane	ug/L		Insufficient data	100	Insufficient data			
Dicamba	ug/L		10	122	0.006		120	MAC
Dichlorobromomethane	ug/L		Insufficient data	100	Insufficient data			
Dichloromethane	ug/L		98.1	50	Insufficient data		50	MAC
Dichlorophenols	ug/L		0.2					
Diclofop-methyl	ug/L		6.1	9	0.18		9	MAC
Didecyl dimethyl ammonium chloride	ug/L		1.5					
Diisopropanolamine	ug/L		1,600	Insufficient data	2,000			
Dimethoate	ug/L		6.2	3	Insufficient data		20	MAC
Di-n-butyl phthalate	ug/L		19					
Dinoseb	ug/L		0.05	150	16			
Diquat	ug/L						70	MAC
Diuron	ug/L						150	MAC
Endosulfan	ug/L	0.06	0.003					
Ethylbenzene	ug/L		90	2.4	Insufficient data		1.6 ; 140	AO ; MAC
Ethylene glycol	ug/L		192,000	Insufficient data	Insufficient data			

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Fluoranthene	ug/L		0.04					
Fluorene	ug/L		3					
Glyphosate	ug/L	27,000	800	280			280	MAC
Haloacetic acids – Total (HAAs)	ug/L						80	MAC-ALARA
Hexachlorobenzene	ug/L		Insufficient data	0.52	Insufficient data			
Hexachlorobutadiene	ug/L		1.3					
Hexachlorocyclohexane	ug/L		0.01	4				
Imidacloprid	ug/L		0.23					
Linuron	ug/L		7	Insufficient data	0.071			
Malathion	ug/L						190	MAC
Methoprene	ug/L		0.09					
Methylmercury	ug/L		0.004					
Methyl-tert-butylether (MTBE)	ug/L		10,000				15	AO
Metolachlor	ug/L		7.8	50	28		50	MAC
Metribuzin	ug/L		1	80	0.5		80	MAC
Monochlorobenzene	ug/L		1.3	Insufficient data	Insufficient data		30 ; 80	AO ; MAC
Monochlorophenols	ug/L		7					
Naphthalene	ug/L		1.1					
N-Nitroso dimethylamine (NDMA)	ug/L						0.04	MAC
Nitrilotriacetic acid (NTA)	ug/L						400	MAC
Nonylphenol and its ethoxylates	ug/L		1					
Paraquat Dichloride	ug/L						10	MAC
Paraquat Ion	ug/L						7	MAC
Pentachlorobenzene	ug/L		6	Insufficient data	Insufficient data			
Pentachlorophenol	ug/L		0.5				30 ; 60	AO ; MAC


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Permethrin	ug/L		0.004					
Phenanthrene	ug/L		0.4					
Phenols (mono- & dihydric)	ug/L		4	2				
Phenoxy herbicides	ug/L		4	100				
Phorate	ug/L						2	MAC
Picloram	ug/L		29	190	Insufficient data		190	MAC
Polychlorinated Biphenyls (PCBs)	ug/L		0.001					
Propylene glycol	ug/L		500,000	Insufficient data	Insufficient data			
Pyrene	ug/L		0.025					
Quinoline	ug/L		3.4					
Reactive Chlorine Species	ug/L		0.5					
Simazine	ug/L		10	10	0.5		10	MAC
Styrene	ug/L		72					
Sulfolane			50,000	Insufficient data	500			
Tebuthiuron	ug/L		1.6	130	0.27			
Terbufos	ug/L						1	MAC
Tetrachloroethylene	ug/L						30	MAC
Tetrachloromethane	ug/L		13.3	5	Insufficient data			
Tetrachlorophenols	ug/L		1					
Toluene	ug/L		2	24	Insufficient data		24 ; 60	AO ; MAC
Triallate	ug/L		0.24	230	Insufficient data			
Tribromomethane	ug/L		Insufficient data	100	Insufficient data			
Tributyltin	ug/L		0.008	250	Insufficient data			

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Trichlorfon	ug/L	1.1	0.009					
Trichloroethylene	ug/L						5	MAC
Trichloromethane	ug/L		1.8	100	Insufficient data			
Trichlorophenols	ug/L		18					
Tricyclohexyltin	ug/L		Insufficient data	250	Insufficient data			
Trifluralin	ug/L		0.2	45	Insufficient data		45	MAC
Trihalomethanes	ug/L						100	MAC
Triphenyltin	ug/L		0.022	820	Insufficient data			
Vinyl chloride	ug/L						2	MAC-ALARA
Xylenes	ug/L						20 ; 90	AO ; MAC

MAC *maximum acceptable concentration*

AO *aesthetic objective*

ALARA *as low as reasonably achievable*

 *Interim guideline*