

TABLE 11 - B
Criteria for Surface Water Quality Classifications

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
1. Alkalinity	mg/L as CaCO	N	N				Shall not be depressed below 200			
2. Aluminum	mg?L	N	N				≤ 1.5			
3. Ammonia (un-ionized and ionized)	mg/L as NH 3 and NH4	N	N				110			
4. Antimony	ug/L	N	N				≤ 4,300			
5.a. Arsenic (total)	ug/L	Y	Y				≤ 50			
5.b. Arsenic (trivalent)	ug/L measured as total recoverable Arsenic	Y	Y				≤ 36			Notes: (1) 'Annual ave' means the maximum

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
										concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO ₃ . For metals criteria involving equations with hardness, the

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
										hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
6. Bacteriological Quality (fecal coliform bacteria)	Number per 100 ml (Most Probable Number (MPN) or Membranes	N	N				MPN or MF counts shall not exceed a monthly average of 200, nor exceed 400 in 10% of the samples, nor exceed 800 on any one day.			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
	Filter (MF))						Monthly averages as geometric means based on a minimum of 4 samples taken over a 30 day period.			
7. Bacteriological Quality (total coliform bacteria)	Number per 100 ml (Most Probable Number (MPN) or Membrane Filter(MF))	N	N				≤ 1,000 as a monthly average; nor exceed 1,000 in more than 20% of the samples examined during any month; ≤ 2,400 at any time. Monthly averages shall be expressed as geometric means based on a minimum of 4 samples taken over a 30 day period, using either the			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
							MPN or MF counts.			
8. Barium	mg/L	N	N				≤ 1.0			
9. Benzene	ug/L	Y	Y				≤ 71.28 annual ave.			
10. Beryllium	ug/L	Y	Y				≤ 0.13 annual ave.			
11. Biological Integrity	Percent reduction of Shannon- Weaver Diversity Index	N	N				The Index for benthic macroinvertebrates shall not be reduced to less than 75% of established background levels as measured using organisms retained by U.S. Standard No. 30 sieve and collected and composited from a minimum of three Hester-Dendy type artificial substrate			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
							samplers of 0.10 to 0.15 m ² area each, incubated for a period of four weeks.			
12. BOD (Biochemical Oxygen Demand)		N	N				Shall not be increased to exceed values which would cause dissolved oxygen to be depressed below the limit established for each class and, in no case, shall it be great enough to produce nuisance conditions.			
13. Boron	mg/L	N	N				≤ 0.75			
14. Bromates	mg/L	N	N				≤ 100			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
15. Bromine (free molecular)	mg/L	Y	Y				≤ 0.1			
16. Cadmium	ug/L See Note 3	Y	N				$Cd \leq e^{(0.7852[\ln H] - 3.49)}$			
17. Carbon tetrachloride	ug/L	Y	Y				≤ 4.42 annual ave.			
18. Chlorides	mg/L						Not increased more than 10% above normal background levels of 45. Normal daily and seasonal fluctuations shall be maintained.			
19. Chlorine (total residual)	mg/L	N	N				≤ 0.01			
20. a. Chromium (trivalent)	ug/L measured as total recoverable Chromium	Y	N				$Cr(III) \leq e^{(0.819[\ln H] + 1.561)}$			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
	See Note 3									
20. b. Chromium (hexavalent)	ug/L	Y	N				≤ 50			
22. Color, etc. (see also Minimum Criteria, Odor, Phenols, etc.	Color, odor, and taste producing substances and other deleterious substances, including other chemical compounds attributable to domestic wastes, industrial wastes and other wastes.	N	N					Only such amounts as will not render the waters unsuitable for agricultural irrigation, livestock watering, industrial cooling, industrial process, water supply purposes, or fish survival.		
23. Conductance, Specific (at 25 degrees Celsius)	Micromhos/ cm	N	N				Shall not be increased more than 50% above			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
							background (500) or to 1275 whichever is greater			
24. Copper	ug/L See Note 3	Y	N				$Cu \leq (0.8545[\ln H] - 1.465)$			
25. Cyanide	ug/L	Y	N				≤ 5.2			
27. Detergents	mg/L	N	N				≤ 0.5			
28. 1,1-Dichloroethylene (1,1-Dichloroethene)	ug/L	Y	Y				≤ 3.2 annual ave.			
29. Dichloromethane (methylene chloride)	ug/L	Y	Y				$\leq 1,580$ annual ave.			
30. 2,4-Dinitrotulene	ug/L	N	Y				≤ 9.1 annual ave.			
Dioxin (2,3,7,8 - TCDD)	ug/L	Y	Y				≤ 0.01			
31. Dissolved Oxygen	mg/L	N	N				≥ 5.00 , except			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
							during short periods of darkness where this standard may decrease to ≥ 3.00			
32. Dissolved Solids	mg/L	N	N							
33. Fluorides	mg/L	N	N				≤ 10.0			
36. Halomethanes (Total trihalomethanes) Includes all species of Halomethanes	ug/L	Y	Y				< 100			
37. Hexachlorobutadiene (individual Bromoform)	ug/L	Y	Y				≤ 49.7 annual ave.			
39. Iron	mg/L	N	N				≤ .38			
40. Lead	ug/L	Y	N				≤ .60			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
41. Manganese	mg/L	N	N				≤ .10			
42. Mercury	ug/L	Y	N				≤ .03			
45. Nickel See Note 3	ug/L	Y	N				$Ni \leq e^{(0.846[\ln H] + 1.1645)}$			
46. Nitrate	mg/L	N	N				≤ 0.25			
47. Nitrogen (Total)	ug/L	N	N				≤ 105			
51. a. 2,4,5-TP	ug/L	Y	Y				≤ 10			
51. b. 2,4-D	ug/L	Y	Y				≤ 100			
51. c. Aldrin	ug/L	Y	Y				≤ .00014 annual ave; 3.0 max.			
51. d. Beta- hexachlorocyclo- hexane (b-BHC)	ug/L	Y	Y				≤ 0.046 annual ave.			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
51. e. Chlordane	ug/L	Y	Y				≤ 0.00059 annual ave. 0.0043 max.			
51. f. DDT	ug/L	Y	Y				≤ 0.00059 annual ave.; 0.001 max			
51. g. Demetom	ug/L	N	N				≤ 0.1			
51. h. Dieldrin	ug/L	Y	Y				≤ 0.00014 annual ave.; 0.0019 max			
51. i. Endosulfan	ug/L	Y	N				≤ 0.056			
51. j. Endrin	ug/L	Y	N				≤ 0.0023			
51. k. Guthion	ug/L	N	N				≤ 0.01			
51. l. Heptachlor	ug/L	Y	Y				≤ 0.00021 annual ave.; 0.0038 max			
51. m. Lindane (g-benzene hexachloride)	ug/L	N	N				≤ 0.063 annual ave.; 0.08 max			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
51. n. Malathion	ug/L	N	N				≤ 0.1			
51. o. Methoxychlor	ug/L	N	N				≤ 0.03			
51. p. Mirex	ug/L	N	N				≤ 0.001			
51. q. Parathion	ug/L	N	N				≤ 0.04			
51. r. Toxaphene	ug/L	Y	Y				≤ 0.0002			
52.d. pH									Shall not vary more than one unit above or below natural background of predominantly fresh waters, provided that the pH in not lowered to less than 6 units or above 8.5 units. If natural background is less than 6 units, the pH shall not vary below natural	

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
									background or vary more than one unit above background. If natural background is higher than 8.5 units, the pH shall not vary above natural background or vary more than one unit below natural background of predominantly fresh waters .	
53. a. Phenolic Compounds: Total							Phenolic compounds other than those produced by the natural decay of plant material, listed or unlisted, shall not taint the flesh of edible fish or shellfish or produce			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
							objectionable taste or produce objectionable taste or order in a drinking water supply.			
53. b. Phenolic Compounds: Total	ug/L	Y	N				1. The total of all chlorinated phenols, and chlorinated cresols, except set forth in (c) 1. to (c) 4, below, shall not exceed 1.0 unless higher values are shown nor to be chronically toxic. 2. The compounds listed in (c)1. to (c) 6. below shall not exceed the limits for each compound.			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
53. c.1 Phenolics compound: 2-chlorophenol See Note 4	ug/L	Y	N				≤ 400			
53. c.2 Phenolics compound: 2,4-dichlorophenol	ug/L	Y	N				≤ 790			
53. c. 3 Phenolic compound: Penta-chlorophenol	ug/L	Y	N				≤30 max: ≤ 8.2 annual ave: ≤ e(1.005[ph]-5.29)			
53. c. 4 .Phenolic compound: 2,4,6-trichlorophenol	ug/L	Y	N				≤ 6.5 annual ave.			
53. c.5 Phenolics compound: 2,4-dinitrophenol See Note 4	mg/L	Y	N				≤ 14.26			
53. c 6. Phenolic compound: Phenol	mg/L	Y	N				≤ 0.3			
54. Phosphorus (Total)	ug/L	N	N				≤ 50	≤ 167		

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
55. Phthalate Esters	ug/L	Y	N				≤3.0			
56. Polychlorinated Biphenols (PCBs)	ug/L	Y	Y				≤0.000045 annual ave.; 0.014 max.			
57. a. Polycyclic Aromatic Hydrocarbons (PAHs) Total	ug/L	Y	Y				≤0.031 annual ave.			
57. b.1.(Individual PAHs) Acenaphthene See note 4	mg/L	Y	Y				≤2.7			
57. b.2. (Individual PAHs) Anthracene See note 4	mg/L	Y	Y				≤110			
57. b.3. (Individual PAHs) Fluoranthene See note 4	mg/L	Y	Y				≤0.370			
57. b.4. (Individual PAHs) Fluorene See note 4	mg/L	Y	Y				≤14			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
57. b.5. (Individual PAHs) Pyrene See note 4	mg/L	Y	Y				≤ 11			
58. Radioactive substances (Gross alpha particle activity including radium 226, but excluding radon and uranium)	Picocuries/L	N	Y				≤ 5			
59. Selenium	ug/L	Y	N				≤ 5.0			
60. Silver	ug/L	Y	N				≤ 0.07			
61. Specific Conductance 25 degrees Celsius	us/cm	N	N				500 annual ave.			
63. 1,1,2,2-Tetra-chloroethane	ug/L	Y	Y				≤ 10.8 annual ave.			
64. Tetrachloroethylene (1,1,2,2-tetrachloroethene)	ug/L	Y	Y				≤ 8.85 annual ave.			
65. Thallium	ug/L	Y	N				≤ 6.3			
							13-38 degrees			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
66. Thermal Criteria	Celsius	N	N				annual ave.			
67. Total Dissolved Gases	Percent of the saturation value for gases at the existing atmospheric and hydrostatic pressures	N	N				≤ 110 % of saturation value			
68. Transparency	Depth of the compensation point for photosyn- thetic activity	N	N				Shall not be reduced by more than 10 % as compared to natural background value.			
69. Trichloroethylene (Trichloroethene)	ug/L	N	N				≤ 80.7 annual ave.			
71. Turbidity	Nephelo- metric	N	N				≤ 29 above natural background conditions			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.

Parameter	Units	P R I O R I T Y	C A R C I N O G E N	Class I: Potable Water Supply	Class II Shellfish Propagation or Harvesting	Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife			Class IV: Agricultural Water Supply	Class V: Navigation, Utility and Industrial Use
						SUB-CLASS 3-A	SUB-CLASS 3-B	SUB-CLASS 3-C		
72. Zinc See Note 4	ug/L	Y	N				$Zn \leq e^{(0.8473[\ln H] + 0.7614)}$			
Pesticides 73. a. Ethion	ug/L	Y	N				≤ 60 annual ave.			
73. b. Bromocil	ug/L						≤ 100 annual ave.			
73.c. Chlorpyrifos	ug/L						≤ 25 annual ave.			
73.d. Diuron	ug/L						≤ 2.00 annual ave.			

Notes: (1) 'Annual ave' means the maximum concentration at average annual flow conditions; (2) 'Max' means the maximum not to be exceeded at any time; (3) 'ln H' means the natural logarithm of total hardness expressed as milligrams/L of CaCO₃. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is < 25 mg/L and set at 400 mg/L if actual hardness is > 400 mg/L; (4) Criteria are protective of human health not of aquatic life.