TABLE 1

MISSOURI SURFACE WATER QUALITY CRITERIA
APPROVAL SUMMARY

Missouri uses a 1 x 10^{-6} Human Health Risk Factor

POLLUTANT	EPA 304(a) CMC Acute Aquatic Life µg/l	MO Acute Aquatic Life Use µg/l	EPA 304(a) CCC Chronic Aquatic Life µg/l	MO Chronic Aquatic Life Use µg/l	EPA MCL from SDWA µg/l	MO Public Drinking Supply µg/l	EPA Human Health Org. +Water µg/l 10^{-6} Risk Factor	EPA Human Health Org. ONLY µg/l 10^{-6} Risk Factor	MO Fish Cons. µg/l 10^{-6} Risk Factor
1.A PRIORITY POLLUTANTS									
Antimony 7440360					6	6	14		
Beryllium 7440417					4	4	No Criteria		
Cadmium 7440439 (H = 150 mg/L)	6.6	Use Specific (see 1.D)	3.0	Use Specific (see 1.D)	5	5	No Criteria		
Copper 7440508 (H = 150 mg/L)					1300	1,300	1,300		
Lead 7439921 (H = 150 mg/L)					15	15	No Criteria		
Nickel 7440020 (H = 150 mg/L)					100	100	610		
Zinc 7440666	165	Use Specific (see 1.D)	167	Use Specific (see 1.D)					

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Chromium VI 18540299	16	Use Specific (see 1.D)	11	Use Specific (see 1.D)					
Selenium 7782492			5.0	5.0	50	50	170		
Silver 7440224 (H = 150 mg/L)			No Criteria	N					
Thallium 7440280								6.3	6.3
Asbestos 1332214					7 million fibers/L	7 million fibers/L	7 million fibers/L		
Chlorobenzene 108907					No STD	100	680	21,000	21,000
Dichlorobromomethane 75274								46	46
1,2-Dichloropropane 78875								39	39

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Ethylbenzene 100414					700	700	3,100		
Methyl Chloride 74873					No STD	5	No Criteria		
Toluene 108883					1,000	1,000	6,800	200,000	200,000
1,2-Trans-Dichloroethylene 156605					100	100	700		
1,2-Cis-Dichloroethylene					70	70	No Criteria		
1,1,2-Trichloroethane 79005					5	5	0.60	42	42
2-Chlorophenol 95578								400	400
2,4-Dichlorophenol 120832					No STD	93	93	790	790
2,4-Dimethylphenol 105679					No STD	540	540	2,300	2,300
Pentachlorophenol 87865					1	1	0.28	8.2	8
Phenol 108952					No STD	100	21,000		

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2,4,6-Trichlorophenol 88062					No STD	2	2.1		
Acenaphthene 83329					No STD	1,200	1,200		
Anthracene 120127					No STD	9,600	9,600	110,000	110,000
Benzo-a-Anthracene 56553 (PAH)					No STD	0.0044	0.0044	0.049	0.049
Benzo-a-Pyrene 50328 (PAH)					0.2	0.2	0.0044	0.049	0.049
Benzo-k-Fluoranthene 207089 (PAH)					No STD	0.0044	0.0044	0.049	0.049
Bis2-Chloroisopropyl Ether 39638329					No STD	1,400 300(HA)	1,400		
Di (2-ethylhexyl) phthhalate 117817					6	6	1.8	5.9	5.9[1]

[1] Existing criterion

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Di (2-ethylhexyl) adipate					400	400	No Criteria		
Chrysene 218019 (PAH)					No STD	0.0044	0.0044	0.049	0.049
Dibenzo-a-h-Anthracene 53703 (PAH)					No STD	0.0044	0.0044	0.049	0.049
1,3-Dichlorobenzene 541731					600	600	400	2600	2600[2]
1,2-Dichlorobenzene 95501 (Other dichlorobenzenes)					600	600	2,700		
3-3'-Dichlorobenzidine 91941					No STD	0.04	0.04		
Fluoranthene 206440					No STD	300	300	370	370
Fluorene 86737					No STD	1,300	1,300	14,000	14,000
Hexachlorobenzene 118741					1	1	0.00075		

[2] Existing criterion

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Hexachlorocyclopentadiene 77474					50	50	240		
Ideno 1,2,3-cd-Pyrene 193395 (PAH)					No STD	0.0044	0.0044	0.049	0.049
Isophorone 78591					No STD	36	36	2,600	2,600
N-Nitrosodi-n-Propylamine 621647								1.4	1.4
Pyrene 129000					No STD	960	960	11,000	11,000
1,2,4-Trichlorobenzene 120821					70	70	260	940	940
Aldrin 309002					No STD	0.00013	0.00013		
gamma-BHC (Lindane)58899					0.2	0.2	0.019		
Chlordane 57749					2	2	0.0021		
Dieldrin 60571					No STD	0.00014	0.00014		
Endrin 72208					2	2	0.76		

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Heptachlor 76448					0.4	0.4	0.00021		
Heptachlor Epoxide 1024573					0.2	0.2	0.00010		
Toxaphene 8001352					3	3	0.00073		

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1.B NON-PRIORITY POLLUTANTS									
Alachlor					2	2	N		
Aluminum pH 6.5-9.0 7429905	750	750							
Atrazine					3	3			
Barium 7440393					2,000	2,000	1,000		
Carbofuran					40	40	N		
Chloride 16887006	860,000	860,000	230,000	230,000					
Chlorine 7782505	19	19ww	11	10ww 2cw					
Chlorophenoxy Herbicide 2,4,5-TP 93721					50	50	10		
Chlorophenoxy Herbicide 2,4-D 94757					70	70	100		
Dalapon					200	200	N		

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Dibromochloropropane					0.2	0.2	N		
Dinoseb					7	7	N		
Diquat					20	20	N		
Endothall					100	100	N		
Ethylene dibromide					0.05	0.05	N		
Fluoride					4,000	4,000	N		
Glyphosate					700	700	N		
Methoxychlor 72435					40	40	100		
Oil and Grease			No Criteria	10,000					
Oxamyl (vydate)					200	200	N		
Picloram					500	500	N		
Simazine					4	4	N		

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Styrene					100	100	N		
Sulfate and Chloride			No Criteria	120% of Natural Bkgnd.					
Sulfide-Hydrogen Sulfide 7783064			2.0	2.0					
Tetrachlorobenzene, 1,2,4,5- 95943								2.9	2.9
Trichlorophenol, 2,4,5- 95954					No STD	2,600	2,600	9,800	9,800
Xylenes (total)					10,000	10,000	N		

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1.C HEALTH ADVISORIES									
Ametryn						60			
Baygon						3			
Bentazon						20			
Bis-2-chloroisopropyl ether						300			
Bromacil						90			
Bromomethane						10			
Butylate						350			
Carbaryl						700			

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Carboxin						700			
Chloramben						100			
o-chlorotoluene						100			
p-chlorotoluene						100			
Chlorpyrifos						20			
DCPA(dacthal)[3]						4000			
Diazinon						0.6			
Dicamba						200			
Diisopropyl methylphosphonate						600			
Dimethyl methylphosphonate						100			

[3] No HA available, less than longer term values for child or adult

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1,3-dinitrobenzene						1			
Diphenamid						200			
Diphenylamine						200			
Disulfoton						0.3			
1,4-dithiane						80			
Diuron						10			
Fenamiphos						2			
Fluometron						90			
Fluorotrichloromethane						2000			
Fonofos						10			
Hexazinone						200			
Malathion						200			
Maleic hydrazide						4000			

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MCPA						10			
Methyl parathion						2			
Metolachlor						70			
Metribuzin						100			
Napththalene						20			
Nitroguanidine						700			
p-nitrophenol						60			
Paraquat						30			
Pronamide						50			
Propachlor						90			
Propazine						10			
Propham						100			
2,4,5-T						70			
Tebuthiuron						500			

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Terbacil						90			
Terbufos						0.9			
1,1,1,2-Tetrachlorothane						70			
1,2,3-trichloropropane						40			
Trifluralin						5			
Trinitroglycerol						5			
Trinitrotoluene						2			

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1.D Missouri Aquatic Life Use Criteria for site specific application for Selected Metals (µg/L)
(Hardness = 150 mg/L as $CaCO_3$)

Pollutant	Lakes		CWF		GWWF		LWWF	
	Acute	**Chronic**	**Acute**	**Chronic**	**Acute**	**Chronic**	**Acute**	**Chronic**
Cadmium			5.9	1.4				
Chromium *	16	11						
Zinc	161	147						

* - chromium criteria based on the toxicity of hexavalent chromium which is not based on hardness