TABLE 2
RECOMMENDED AND ADOPTED WATER QUALITY CRITERIA FOR TOXIC POLLUTANTS *

Chemical	EPA Recommended Criteria		ADEM Adopted Criteria	
	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)
1,1,1-Trichloroethane 71556	200,000	10,000		
1,1,2,2-Tetrachloroethane 79345	3	0.2	2.33	0.163
1,1,2-Trichloroethane 79005	8.9	0.55	9.10	0.575
1,1-Dichloroethylene 75354	20,000	300	172	65.2
1,2,4-Trichlorobenzene 120821	0.076	0.071	40.9	25.8
1,2-Dichlorobenzene 95501	3,000	1,000	755	344
1,2-Dichloroethane 107062	650	9.9	21.4	0.378
1,2-Dichloropropane 78875	31	0.90	8.49	0.492
1,2-Diphenylhydrazine 122667	0.2	0.03	0.117	0.0319
1,3-Dichlorobenzene 541731	10	7	562	256
1,3-Dichloropropene 542756	12	0.27	12.3	0.340
1,4-Dichlorobenzene 106467	900	300	112	51.1
2,3,7,8-TCDD (Dioxin) 1746016	5.1E-9	5.0E-9	2.7E-8	2.6E-8

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Chemical	EPA Recommended Criteria		ADEM Adopted Criteria	
	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)
2,4,6-Trichlorophenol 88062	2.8	1.5	1.41	0.979
2,4-Dichlorophenol 120832	60	10	172	65.2
2,4-Dimethylphenol 105679	3,000	100	498	291
2,4-Dinitrophenol 51285	300	10	3,111	68.5
2,4-Dinitrotoluene 121142	1.7	0.049	1.98	0.107
2-Chloronaphthalene 91587	1,000	800	924	695
2-Chlorophenol 95578	800	30	87.1	58.1
2-Methyl-4,6-Dinitrophenol 534521	30	2	165	12.6
3,3'-Dichlorobenzidine 91941	0.15	0.049	0.0166	0.0137
3-Methyl-4-Chlorophenol 59507	2,000	500		
Acenaphthene 83329	90	70	579	454
Acrolein 107028	400	3	5	4
Acrylonitrile 107131	7.0	0.061	0.1440	0.0447
Aldrin 309002	0.00000077	0.00000077	0.00003	0.00003
alpha-Hexachlorocyclohexane (HCH) 319846	0.00039	0.00036	0.0028	0.0019

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Chemical	EPA Recommended Criteria		ADEM Adopted Criteria	
	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)
alpha-Endosulfan 959988	30	20	51.9	41.6
Anthracene 120127	400	300	7,241	23,333
Antimony 7440360	640	5.6	373	5.5
Arsenic 7440382	0.14	0.018	0.3030	0.1205
Asbestos 1332214		7 million fibers/L		7 million fibers/L
Benzene 71432	16-58	0.58-2.1	15.5	1.12
Benzidine 92875	0.011	0.00014	0.0001	0.00007
Benzo(a)anthracene 56553	0.0013	0.0012	0.0107	0.0033
Benzo(a)pyrene 50328	0.0013	0.00012	0.0107	0.0033
Benzo(b)fluoranthene 205992	0.0013	0.00012	0.0107	0.0033
Benzo(k)fluoranthene 207089	0.013	0.012	0.0107	0.0033
beta-Hexachlorocyclohexane (HCH) 319857	0.0080	0.014	0.0100	0.0066
beta-Endosulfan 33213659	40	20	51.9	41.6
Bis(2-Chloro-1-methylethyl) Ether 108601	4,000	200	37,787	1,350
Bis(2-Chloroethyl) Ether 111444	2.2	0.030	0.307	0.0288

Chemical	EPA Recommended Criteria		ADEM Adopted Criteria	
	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)
Bis(2-Ethylhexyl) Phthalate 117817	0.37	0.32	1.28	0.847
Bromoform 75252	120	7.0	78.8	4.19
Butylbenzyl Phthalate 85687	0.10	0.10	1,127	971
Carbon Tetrachloride 56235	5	0.4	0.957	0.210
Chlordane 57749	0.00032	0.00031	0.0005	0.0005
Chlorobenzene 108907	800	100	906	121
Chlorodibromomethane 124481	21	0.80	7.41	0.3945
Chloroform 67663	2,000	60	102	5.43
Chrysene 218019	0.13	0.12	0.0107	0.0033
Copper 7440508		1,300		1,300
Cyanide 57125	400	4	9,333	138
Dibenzo(a,h)anthracene 53703	0.00013	0.00012	0.0107	0.0033
Dichlorobromomethane 75274	27	0.95	0.0166	0.0137
Dieldrin 60571	0.0000012	0.0000012	0.00003	0.00003
Diethyl Phthalate 84662	600	600	25,571	13,365

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Chemical	EPA Recommended Criteria		ADEM Adopted Criteria	
	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)
Dimethyl Phthalate 131113	2,000	2,000	648,148	227,273
Di-n-Butyl Phthalate 84742	30	20	2,622	1,499
Endosulfan Sulfate 1031078	40	20	51.9	41.6
Endrin 72208	0.03	0.03	0.035	0.035
Endrin Aldehyde 7421934	1	1	0.176	0.173
Ethylbenzene 100414	130	68	1,244	448
Fluoranthene 206440	20	20	81.2	81.2
Fluorene 86737	70	50	3,111	966
gamma-Hexachlorocyclohexane (HCH) [Lindane] 58899	4.4	4.2	1.077	0.712
Heptachlor 76448	0.0000059	0.0000059	0.00005	0.00005
Heptachlor Epoxide 1024573	0.000032	0.000032	0.00002	0.00002
Hexachlorobenzene 118741	0.000079	0.000079	0.0002	0.0002
Hexachlorobutadiene 87683	0.01	0.01	10.8	0.431
Hexachlorocyclopentadiene 77474	4	4	645	39.4

Chemical	EPA Recommended Criteria		ADEM Adopted Criteria	
	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)
Hexachloroethane 67721	0.1	0.1	1.92	1.09
Indeno(1,2,3-cd)pyrene 193395	0.0013	0.0012	0.0107	0.0033
Isophorone 78591	1,800	34	561	34.6
Methylmercury 22967926	0.3 mg $_{MeHg}$ per kg $_{fish}$			
Methyl Bromide 74839	10,000	100	871	46.4
Methylene Chloride 75092	1,000	20	346	4.60
Nickel 744000	4,600	610	993	411
Nitrobenzene 98953	600	10	404	16.8
N-Nitrosodimethylamine 62759	3.0	0.00069	1.76	0.0007
N-Nitrosodi-n-Propylamine 621647	0.51	0.0050	0.295	0.0049
N-Nitrosodiphenylamine 86306	6.0	3.3	3.50	2.35
Pentachlorophenol 87865	0.04	0.03	1.77	0.250
Phenol 108952	300,000	4,000	500,000	10,284
p,p -Dichlorodiphenyldichloroethane (DDD) 72548	0.00012	0.00012	0.0002	0.0002

Chemical	EPA Recommended Criteria		ADEM Adopted Criteria	
	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)	Fish Consumption Only (µg/L)	Fish + Water Consumption (µg/L)
p,p -Dichlorodiphenyldichloroethylene (DDE) 72559	0.000018	0.000018	0.0001	0.0001
p,p'-Dichlorodiphenyltrichloroethane (DDT) 50293	0.000030	0.000030	0.0001	0.0001
Polychlorinated Biphenyls (PCBs) 1336363	0.000064	0.000064	0.00004	0.00004
Pyrene 129000	30	20	2,333	724
Selenium 7782492	4,200	170	2,431	163
Tetrachloroethylene 127184	29	10	1.92	0.603
Thallium 7440280	0.47	0.24	0.274	0.174
Toluene 108883	520	57	8,723	1,206
Toxaphene 8001352	0.00071	0.00070	0.0002	0.0002
trans-1,2-Dichloroethylene 156605	4,000	100	5,907	137
Trichloroethylene 79016	7	0.6	17.5	2.40
Vinyl Chloride 75014	1.6	0.022	1.42	0.0246
Zinc 7440666	26,000	7,400	14,894	6,158

*** Summary:**

Table 2 identifies the EPA's national recommended water quality criteria for 99 toxic pollutants to protect human health and ADEM's adopted water quality criteria for 96 toxic pollutants. The former are based on *National Recommended Water Quality Criteria - Human Health Criteria Table*, https://www.epa.gov/wqc/national-recommended-water-quality-criteria-human-health-criteria-table (accessed Dec. 31, 2021). The latter are based on *Alabama Toxic Pollutant Criteria,* attached to electronic mail from Jennifer Haslbauer, Chief of the Standards and Planning Section, Water Quality Branch – Water Division, ADEM, to David A. Ludder, Law Office of David A. Ludder, PLLC (dated July 15, 2021).

ADEM has adopted water quality criteria that are less stringent than EPA's national recommended water quality criteria for 59 toxic pollutants. ADEM has adopted no criteria for another 3 toxic pollutants: 1,1,1-Trichloroethane, 3-Methyl-4-Chlorophenol, and Methylmercury. ADEM's less stringent and omitted toxic pollutant criteria are highlighted in yellow.

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