

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

Chemical	Aquatic Life* (µg/l)				Human Health* (µg/l)		
	Tier	IMZM	OMZM	OMZA	Tier	Drink	Nondrink
Acenaphthene	I	38	19	15	II	570	890
Acenaphthylene	SV	240	120	13	II	850	1,800
Acetonitrile (Methyl cyanide)	II	210,000	100,000	12,000		ID	ID
Acetophenone		ID	ID	ID			
Acrylonitrile	II	1,300	650	78	I	0.53 <sup>c</sup>	3.0 <sup>c</sup>
Aluminum					II	970	4,500
2-Amino-4,6-dinitrotoluene	II	320	160	18			
4-Amino-2,6-dinitrotoluene	II	200	98	11			
Ammonia	I	Table 35-1					
Aniline	I,I,II	59	30	4.1			
Anthracene	II	0.35	0.18	0.020	II	590	630
Antimony	II	1,800	900	190	I	9.7	780
Arsenic - Diss	I	680	340	150		NA	
Arsenic - TR	I	680	340	150	I	10 <sup>a</sup>	580
Barium	I,I,II	i	i	i	I	2,000 <sup>a</sup>	160,000
Benzene	II	1,400	700	160	I	12 <sup>c</sup>	310 <sup>c</sup>
Benzo(a)anthracene	SV	85	42	4.7			
Benzo(a)pyrene	SV	1.1	0.54	0.060	II	0.00002 <sup>c</sup>	0.00002 <sup>c</sup>
Benzo(b)fluoranthene	SV	47	23	2.6			
Benzo(g,h,i)perylene		ID	ID	ID			
Benzo(k)fluoranthene		ID	ID	ID			
Beryllium	II	g	g	g	I	17 <sup>c</sup>	130 <sup>c</sup>
Biphenyl	II	51	26	6.5			
Bis(2-ethylhexyl)phthalate	II	2,100	1,100	8.4	I	25 <sup>c</sup>	32 <sup>c</sup>

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

Chemical	Aquatic Life* (µg/l)				Human Health* (µg/l)		
	Tier	IMZM	OMZM	OMZA	Tier	Drink	Nondrink
Bismuth		ID	ID	ID		ID	ID
Boron	I,II	65,000	33,000	3,900	I	2,400	200,000
Bromide						ID	ID
Bromine	II	4.8	2.4	0.26			
Bromochloromethane		ID	ID	ID			
Bromodichloromethane	SV	6,200	3,100	340	I	6.8 <sup>c</sup>	180 <sup>c</sup>
3-Bromofluorobenzene		ID	ID	ID			
4-Bromofluorobenzene		ID	ID	ID			
Bromoform (Tribromomethane)	II	2,200	1,100	230	I	52 <sup>c</sup>	890 <sup>c</sup>
Bromomethane	See Methyl bromide						
1,3-Butadiene		ID	ID	ID			
2-Butanone (Methyl ethyl ketone)	II	400,000	200,000	22,000			
n-Butylbenzene		ID	ID	ID			
sec-Butylbenzene		ID	ID	ID			
tert-Butylbenzene		ID	ID	ID			
Butylbenzyl phthalate	II	260	130	23			
Cadmium - Diss	I	Table 35-9				NA	
Cadmium - TR	I	Table 35-9			I	14	730
Carbon disulfide	II	260	130	15			
Carbon tetrachloride	II	4,400	2,200	240	I	2.4 <sup>c</sup>	19 <sup>c</sup>
Chlordane					I	0.00025 <sup>c</sup>	0.00025 <sup>c</sup>
Chlorides					I	250,000 <sup>a</sup>	ID
Chlorine (wwh,ewh, mwh,cwh) - TRes	I	38	19	11		ID	ID

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

Chemical	Aquatic Life* (µg/l)				Human Health* (µg/l)		
	Tier	IMZM	OMZM	OMZA	Tier	Drink	Nondrink
Chlorine (lrw) - TRes	I	38	19	NA		ID	ID
Chlorine (ssh) - TRes	I	b	b	b		ID	ID
Chlorobenzene	II	850	420	47	I	470	3,200
Chlorodibromomethane	See Dibromochloromethane						
Chlorodibromopropane	See 1,2-Dibromo-3-chloropropane						
Chloroform (Trichloromethane)	II	2,600	1,300	140	I	56 <sup>c</sup>	1,700 <sup>c</sup>
Chloromethane	See Methyl chloride						
2-Chlorophenol	II	580	290	32	I,II	0.1 <sup>f</sup>	150
Chromium - Diss	I	Table 35-9				NA	
Chromium - TR	I	Table 35-9			I	140	14,000
Chromium VI - Diss	I	31	16	11	I	140	14,000
Chrysene	SV	85	42	4.7			
Cobalt	II	440	220	24		ID	ID
Copper - Diss	I	Table 35-9				NA	
Copper - TR	I	Table 35-9			I	790	64,000
Cyanide - amenable to chlorination	See Cyanide - free						
Cyanide - free	I	44	22	5.2	I	600	48,000
Cyanides					I	600	48,000
4,4'-DDT <sup>1</sup>					I	0.00015 <sup>c</sup>	0.00015 <sup>c</sup>
Dibenz(a,h)anthracene		ID	ID	ID			
Dibenzofuran	II	71	36	4.0			
Dibromochloromethane	SV	5,800	2,900	320	I	6.8 <sup>c</sup>	150 <sup>c</sup>
1,2-Dibromo-3-chloropropane		ID	ID	ID			
1,2-Dibromoethane	See Ethylene dibromide						

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

Chemical	Aquatic Life* (µg/l)				Human Health* (µg/l)		
	Tier	IMZM	OMZM	OMZA	Tier	Drink	Nondrink
Di-n-butyl phthalate					II	31	31
1,2-Dichlorobenzene	II	260	130	23	I	2,000	11,000
1,3-Dichlorobenzene	II	160	79	22	II	5,200	9,300
1,4-Dichlorobenzene	II	110	57	9.4	I	24 <sup>c</sup>	240 <sup>c</sup>
Dichlorobromomethane	See Bromodichloromethane						
Dichlorodifluoromethane		ID	ID	ID		ID	ID
1,1-Dichloroethane	SV	7,300	3,700	410	I	1,500	62,000
1,2-Dichloroethane	II	19,000	9,600	2,000	I	3.8 <sup>c</sup>	230 <sup>c</sup>
1,1-Dichloroethylene	II	3,800	1,900	210	II	0.56 <sup>c</sup>	15 <sup>c</sup>
1,2-Dichloroethylene <sup>2</sup>	II	18,000	8,800	970			
cis-1,2-Dichloroethylene		See 1,2-Dichloroethylene			I	880	36,000
trans-1,2-Dichloroethylene		See 1,2-Dichloroethylene			I	470	25,000
Dichloromethane	See Methylene chloride						
2,4-Dichlorophenol	II	210	110	11	I	0.3 <sup>f</sup>	320
1,2-Dichloropropane	II	6,500	3,300	520	I	9.1 <sup>c</sup>	290 <sup>c</sup>
1,3-Dichloropropene	II	30	15	1.7			
Dieldrin	I	0.47	0.24	0.056	I	0.0000065 <sup>c</sup>	0.0000065 <sup>c</sup>
Diethyl phthalate	II	2,000	980	220		ID	ID
Difluorodichloromethane	See Dichlorodifluoromethane						
2,4-Dimethylphenol	II	280	140	15	I	450	8,700
Dimethyl phthalate	II	6,400	3,200	1,100			
3,5-Dinitroaniline	II	430	210	70			
1,3-Dinitrobenzene	II	210	100	22			
2,4-Dinitrophenol					I	55	2,800
2,3-Dinitrotoluene	II	41	21	2.3			

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

Chemical	Aquatic Life* (µg/l)				Human Health* (µg/l)		
	Tier	IMZM	OMZM	OMZA	Tier	Drink	Nondrink
2,4-Dinitrotoluene	II	790	390	44			
2,5-Dinitrotoluene	II	100	50	5.6			
2,6-Dinitrotoluene	II	1,500	730	81			
3,5-Dinitrotoluene	II	1,700	860	95			
1,4-Dioxane		ID	ID	ID	I	32 <sup>c</sup>	2,500 <sup>c</sup>
Dissolved oxygen	I		Table 35-1				
Dissolved solids	I	ID	ID	1,500,000 <sup>d</sup>	I	750,000 <sup>a,e</sup> max. 500,000 <sup>a,e</sup> ave.	ID
Endrin	I	0.17	0.086	0.036			
Ethylbenzene	II	1,100	550	61	I	2,100	8,900
Ethylene dibromide (EDB) (1,2-Dibromoethane)		ID	ID	ID			
Ethylene glycol	II	2,600,000	1,300,000	140,000	II	56,000	4,500,000
Fluoranthene	II	7.4	3.7	0.80	II	9.4	9.5
Fluorene	I,II	220	110	19	II	250	320
Fluoride						ID	ID
Fluorobenzene		ID	ID	ID			
2-Fluorobiphenyl		ID	ID	ID			
2-Fluorophenol		ID	ID	ID			
Formaldehyde						ID	ID
Halomethanes	See criteria for individual chemicals						
Hexachlorobenzene					I	0.00045 <sup>c</sup>	0.00045 <sup>c</sup>
Hexachlorobutadiene					II	0.22 <sup>c</sup>	0.24 <sup>c</sup>
alpha-Hexachlorocyclohexane					I	0.0048 <sup>c</sup>	0.0053 <sup>c</sup>

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

Chemical	Aquatic Life* (µg/l)				Human Health* (µg/l)		
	Tier	IMZM	OMZM	OMZA	Tier	Drink	Nondrink
beta-Hexachlorocyclohexane					II	0.013 <sup>c</sup>	0.014 <sup>c</sup>
gamma-Hexachloro-cyclohexane (Lindane)	I,I,II	1.9	0.95	0.057	I	0.47	0.50
Hexachlorocyclohexane (technical grade)					I	0.013 <sup>c</sup>	0.014 <sup>c</sup>
Hexachloroethane					I	5.3 <sup>c</sup>	6.7 <sup>c</sup>
HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine)	II	2,500	1,200	220			
Indeno(1,2,3-c,d)pyrene		ID	ID	ID			
Iron - Soluble					I	300 <sup>a</sup>	
Isophorone	II	15,000	7,500	920		ID	ID
Isopropylbenzene	II	86	43	4.8	I	1,700	3,800
4-Isopropyltoluene	II	300	150	16			
Lead - Diss	I	Table 35-9				NA	
Lead - TR	I	Table 35-9				ID	ID
Lindane	See gamma-Hexachlorocyclohexane						
Magnesium						ID	ID
Manganese					I	50	61,000
MBAS (foaming agents)	I		500 <sup>f</sup>				
Mercury - Diss	I	2.9	1.4	0.77		NA	
Mercury <sup>1</sup> - TR	I	3.4	1.7	0.91	I	0.0031	0.0031
Methyl bromide (Bromomethane)	II	75	38	16	I	39	2,600
Methyl chloride (Chloromethane)					II	110 <sup>c</sup>	7,300 <sup>c</sup>
Methyl cyanide	See Acetonitrile						

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

Chemical	Aquatic Life* (µg/l)				Human Health* (µg/l)		
	Tier	IMZM	OMZM	OMZA	Tier	Drink	Nondrink
Methyl ethyl ketone	See 2-Butanone						
4-Methyl-2-pentanone		ID	ID	ID			
Methylene chloride (Dichloromethane)	II	22,000	11,000	1,900	I	47 <sup>c</sup>	2,600 <sup>c</sup>
2-Methylphenol	II	1,200	600	67			
3-Methylphenol	II	1,100	560	62			
4-Methylphenol	II	960	480	53			
Methyl tert-butyl ether	II	13,000	6,500	730			
Mirex					I	0.000074 <sup>c</sup>	0.000074 <sup>c</sup>
Molybdenum	II	370,000	190,000	20,000	I	120	10,000
Naphthalene	II	340	170	21	I	540	1,200
Nickel - Diss	I	Table 35-9				NA	
Nickel - TR	I	Table 35-9			I	470	43,000
Nitrate-N + Nitrite-N					I	10,000 <sup>a</sup>	ID
Nitrite-N					II	1,000 <sup>a</sup>	ID
Nitrobenzene	II	4,000	2,000	380			
Nitrocellulose		ID	ID	ID			
Nitroglycerine	II	320	160	18			
Nitroguanidine		ID	ID	ID			
2-Nitrophenol	II	1,300	650	73			
2-Nitrotoluene	II	1,300	640	71			
3-Nitrotoluene	II	760	380	42			
4-Nitrotoluene	II	820	410	46			
Oil & grease	I		10,000 <sup>f</sup>				
Parathion	I	0.13	0.065	0.013			

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

Chemical	Aquatic Life* (µg/l)				Human Health* (µg/l)		
	Tier	IMZM	OMZM	OMZA	Tier	Drink	Nondrink
Pentachlorobenzene					I	0.18	0.19
Pentachlorophenol	I	Table 35-10			II	1.0 <sup>a,c</sup>	1.6 <sup>c</sup>
Peracetic acid	II	330	160				
Perchlorate	I	40,000	20,000	10,000	I	20	3,600
pH	I			Table 35-1			
Phenanthrene	II	61	31	2.3			
Phenol (wwh,ewh,mwh)	I,I,II	9,400	4,700	400	I,II	1.0 <sup>f</sup>	2,400
Phenol (lrw)	I,I,II	9,400	4,700	NA	I,II	1.0 <sup>f</sup>	2,400
Phenol (cwh,ssh)	I,I,II	9,100	4,600	160	I,II	1.0 <sup>f</sup>	2,400
Phenolics	See criteria for individual chemicals						
Phosphate	See Phosphorus						
Phosphorus	I	Table 7-11	ID	ID	I	Table 7-11	ID
Polychlorinated biphenyls (PCBs) <sup>1</sup>					I	0.000026 <sup>c</sup>	0.000026 <sup>c</sup>
Polynuclear aromatic hydrocarbons (PAHs)	See criteria for individual chemicals						
n-Propyl benzene		ID	ID	ID		ID	ID
Propylene glycol	II	1,300,000	640,000	71,000		ID	ID
Pyrene	II	83	42	4.6	I	15	15
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	II	1,000	520	79			
SAS-310	II	10	5.0	0.61			
Selenium - Diss	I			4.6		NA	
Selenium - TR	I	120	62	5.0	I	130	3,100
Silver - Diss	I	h		ID		NA	
Silver (wwh,ewh,mwh)-TR	I	h		1.3	I	130	11,000



Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

Chemical	Aquatic Life* (µg/l)				Human Health* (µg/l)		
	Tier	IMZM	OMZM	OMZA	Tier	Drink	Nondrink
Silver (lrw) - TR	I	h		NA	I	130	11,000
Silver (ssh, cwh) - TR	I	h		0.06	I	130	11,000
Strontium	I,I,II	j	j	j	I	18,000	1,400,000
Styrene	II	570	290	32			
Sulfates					I	250,000 <sup>a</sup>	ID
Sulfide						ID	ID
Temperature	I	Table 35-1					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) <sup>1,3</sup>					I	0.000000 0086 <sup>c</sup>	0.000000 0086 <sup>c</sup>
1,1,1,2-Tetrachloroethane	II	1,500	770	85			
1,1,2,2-Tetrachloroethane	II	1,800	910	260	II	1.7 <sup>c</sup>	41 <sup>c</sup>
Tetrachloroethylene	II	850	430	53	I	320	1,800
Tetrahydrofuran	II	150,000	74,000	11,000			
Tetryl		ID	ID	ID			
Thallium	II	160	79	17		ID	ID
Tin	II	3,200	1,600	180		ID	ID
Titanium		ID	ID	ID		ID	ID
Toluene	II	1,100	560	62	I	5,600	51,000
Toxaphene					I	0.000068 <sup>c</sup>	0.000068 <sup>c</sup>
Tribromomethane	See Bromoform						
2,4,6-Tribromophenol	II	100	50	5.6			
1,1,1-Trichloroethane	II	1,400	690	76	I	73,000	1,600,000
1,1,2-Trichloroethane	II	6,600	3,300	740	II	6.0 <sup>c</sup>	170 <sup>c</sup>
Trichloroethylene	II	4,000	2,000	220	I	29 <sup>c</sup>	370 <sup>c</sup>
Trichloromethane	See Chloroform						

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).  
 Table numbers within this table refer to Chapter 3745-1 of the OAC.  
 Ohio EPA, Division of Surface Water. 4/9/21

Chemical	Aquatic Life* (µg/l)				Human Health* (µg/l)		
	Tier	IMZM	OMZM	OMZA	Tier	Drink	Nondrink
2,4,6-Trichlorophenol	II	79	39	4.9	I	27 <sup>c</sup>	190 <sup>c</sup>
1,2,4-Trimethylbenzene	II	280	140	15	SV	49	86
1,3,5-Trimethylbenzene	II	460	230	26	I	710	1,500
1,3,5-Trinitrobenzene	II	54	27	11			
2,4,6-Trinitrotoluene	II	230	120	13			
Urea	II	300,000	150,000	17,000		ID	ID
Vanadium	II	300	150	44		ID	ID
Vinyl chloride	II	17,000	8,400	930	I	0.48 <sup>c</sup>	28 <sup>c</sup>
Xylenes <sup>4</sup>	II	480	240	27	I	31,000	83,000
Zinc - Diss	I	Table 35-9				NA	
Zinc - TR	I	Table 35-9			I	5,000	35,000
Zirconium		ID	ID	ID			

\* Some of the aquatic life criteria in this table are listed in OAC 3745-1-35; the other aquatic life criteria have been developed pursuant to OAC 3745-1-40. Some of the human health criteria in this table are listed in OAC 3745-1-33 and 3745-1-34; the criteria based on protection against adverse aesthetic effects are listed in OAC 3745-1-37; the other human health criteria have been developed pursuant to OAC 3745-1-42.

Other water quality criteria:

Lake Erie temperature criteria are in OAC 3745-1-31. Those criteria supersede the criteria in this table, where applicable.

Wildlife criteria - Table 35-12.

Agricultural Water Supply criteria - Table 33-3

Recreational (fecal coliform, E. coli) criteria - Table 37-2

Biological (IBI, Miwb, ICI) criteria - Table 7-1

Legend:

All criteria and values are expressed as total unless specified otherwise.

Diss = dissolved; TR = total recoverable; TRes = total residual.

Blank space = Criterion not calculated; contact the Standards & Technical Support section.

ID = Insufficient data available to calculate criterion.

NA = Not applicable.

IMZM = Inside Mixing Zone Maximum.

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

OMZM = Outside Mixing Zone Maximum.

OMZA = Outside Mixing Zone Average.

Drink = Human health criterion applicable to Public Water Supply streams (2-route exposure).

Nondrink = Human health criterion - non Public Water Supply (1-route exposure).

Footnotes:

- <sup>1</sup> See Table 33-12 for the applicable wildlife criterion.
- <sup>2</sup> The Aquatic Life criteria for 1,2-dichloroethylene apply to the sum of cis-1,2-dichloroethylene and trans-1,2-dichloroethylene.
- <sup>3</sup> Regulation of the additive effects of chlorinated dibenzo dioxins and chlorinated dibenzo furans is explained in OAC 3745-2-07.
- <sup>4</sup> The Aquatic Life and Human Health criteria for xylenes apply to the sum of m-xylene, o-xylene and p-xylene.
- <sup>a</sup> This criterion is the maximum contaminant level (MCL) developed under the “Safe Drinking Water Act”.
- <sup>b</sup> No chlorine is to be discharged.
- <sup>c</sup> This criterion is based on a carcinogenic endpoint.
- <sup>d</sup> Equivalent 25EC specific conductance value is 2400 micromhos/cm.
- <sup>e</sup> Equivalent 25EC specific conductance values are 1200 micromhos/cm as a maximum and 800 micromhos/cm as a thirty-day average.
- <sup>f</sup> This criterion is based on protection against adverse aesthetic effects.

**g**

Beryllium	Form	Units	Equation	Criteria			
				100	200	300	400
IMZM	TR	µg/l	$e^{(1.609 [\ln H] - 2.181)}$	190	570	1100	1700
OMZM	TR	µg/l	$e^{(1.609 [\ln H] - 2.874)}$	93	280	540	870
OMZA	TR	µg/l	$e^{(1.609 [\ln H] - 5.017)}$	11	33	64	100

**h**

Silver	Form	Units	Equation	Criteria			
				100	200	300	400
IMZM	Diss	µg/l	$e^{(1.720 [\ln H] - 6.922)}$	2.7	8.9	18	29
OMZM	Diss	µg/l	$e^{(1.720 [\ln H] - 7.615)}$	1.4	4.5	9.0	15
IMZM	TR	µg/l	$e^{(1.720 [\ln H] - 6.759)}$	3.2	11	21	35
OMZM	TR	µg/l	$e^{(1.720 [\ln H] - 7.452)}$	1.6	5.3	11	17

Lake Erie Basin Aquatic Life and Human Health Tier I Criteria, Tier II Values and Screening Values (SV) contained in and developed pursuant to Chapters 3745-1 and 3745-2 of the Ohio Administrative Code (OAC).

Table numbers within this table refer to Chapter 3745-1 of the OAC.

Ohio EPA, Division of Surface Water. 4/9/21

i

Barium	Form	Units	Equation	Criteria					
				100	150	200	250	300	350*
IMZM	TR	mg/l	$e^{(0.8713 [\ln H] - 2.310)}$	5.5	7.8	10	12	14	16*
OMZM	TR	mg/l	$e^{(0.8713 [\ln H] - 3.003)}$	2.7	3.9	5.0	6.1	7.1	8.2*
OMZA	TR	mg/l	$e^{(0.8713 [\ln H] - 4.458)}$	0.64	0.91	1.2	1.4	1.7	1.9*

\*Barium criteria are capped at a water hardness of 350 mg/l

j

Strontium	Form	Units	Equation	Criteria					
				100	150	200	250	300	350*
IMZM	TR	mg/l	$e^{(1.299 [\ln H] - 1.279)}$	110	190	270	360	460	560*
OMZM	TR	mg/l	$e^{(1.299 [\ln H] - 1.994)}$	54	92	130	180	230	280*
OMZA	TR	mg/l	$e^{(1.299 [\ln H] - 2.945)}$	21	35	52	69	87	110*

\*Strontium criteria are capped at a water hardness of 350 mg/l