3745-1-35 **Aquatic life and wildlife criteria.**

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules and federal statutory provisions referenced in this rule, see rule 3745-1-03 of the Administrative Code.]

[Comment: For definitions of the use designation, see rule 3745-1-07 of the Administrative Code. For all other definitions, see rule 3745-1-02 of the Administrative Code.]

(A) The chemical-specific criteria listed in tables 35-1 to 35-9 of this rule apply as "Outside Mixing Zone" or "Inside Mixing Zone Maximum." For the purpose of setting water quality based effluent limits, the ~~criteria which apply~~ "Outside Mixing Zone" criteria apply~~shall be met~~ after the effluent and the receiving water are reasonably well mixed as provided in rules 3745-1-06 and 3745-2-05 of the Administrative Code. The criteria listed as "Inside Mixing Zone Maximum" ~~shall be applicable~~apply as end-of-pipe maximum effluent limits or as criteria to be met within a short distance of the effluent pipe except as provided in rule 3745-2-08 of the Administrative Code. Possible exceptions regarding the application of these criteria may apply as described in paragraph (C) of rule 3745-1-07 of the Administrative Code.

(B) The water quality criteria adopted in, or developed pursuant to, this rule shall apply as follows:

(1) The "Inside Mixing Zone Maximum" and "Outside Mixing Zone Maximum" water quality criteria for the protection of aquatic life listed in tables 35-1 to 35-8 of this rule, or site-specific modifications thereof, ~~shall~~ apply to all water bodies. Water quality criteria applicable to specific aquatic life use designations are listed where appropriate. The "Inside Mixing Zone Maximum" and "Outside Mixing Zone Maximum" water quality criteria identified for the warmwater habitat use designation and the ammonia criteria in table 35-3 of this rule apply to water bodies not assigned an aquatic life use designation.

(2) The "Outside Mixing Zone Average" water quality criteria for the protection of aquatic life listed in tables 35-1 to 35-8 of this rule, or site-specific modifications thereof, ~~shall~~ apply to all water bodies except those water bodies assigned the limited resource water use designation. However, the limited resource water "Outside Mixing Zone Average" water quality criteria for dissolved oxygen, pH, and temperature apply to water bodies assigned the limited resource water use designation.

Water quality criteria applicable to specific aquatic life use designations are listed where appropriate. The "Outside Mixing Zone Average" water quality criteria identified for the warmwater habitat use designation and the ammonia criteria in table 35-4 of this rule apply to water bodies not assigned an aquatic life use designation.

(3) Unless otherwise stated in this rule, the duration and frequency for aquatic life criteria is:

(a) One hour and not to be exceeded more than once in three years for OMZM criteria.

(b) Four days and not to be exceeded more than once in three years for OMZA criteria.

~~(3)~~ (4) Criteria for protection of wildlife listed in table 35-9 of this rule, or site-specific modifications thereof, are "Outside Mixing Zone Average" water quality criteria and ~~shall~~ apply to all water bodies located in the lake Erie drainage basin.

(C) Additional aquatic life criteria may be calculated pursuant to rule 3745-1-40 of the Administrative Code and will be available on the Ohio EPA website at https://epa.ohio.gov/divisions-and-offices/surface-water/reports-data/water-quality-standards-program.

For any pollutant for which it is demonstrated that a methodology or procedure cited in this chapter is not scientifically defensible, the director may apply an alternative methodology or procedure acceptable under 40 C.F.R. 131 when developing water quality criteria.

(D) Protection of aquatic life - whole-effluent approach.

Whole-effluent toxicity levels shall be applied in accordance with rules 3745-1-44 and 3745-33-07 of the Administrative Code.

Table 35-1. Statewide water quality criteria for the protection of aquatic life. ~~Page 1 of 2~~

Chemical	Form[1]	Units[2]	IMZM[3]	OMZM[3]	OMZA[3]
Acrolein	T	µg/l	5.9	3.0	3.0
~~Ammonia-N (WWH)[10]~~ Ammonia-N (WWH)[10]	T	mg/l	--	Table 35-2 & 35-3	~~Table 35-5~~ Table 35-4
~~Ammonia-N (EWH)~~	~~T~~	~~mg/l~~	~~--~~	~~Table 35-3~~	~~Table 35-6~~
~~Ammonia-N (MWH)~~	~~T~~	~~mg/l~~	~~--~~	~~Table 35-2~~	~~Table 35-7~~
~~Ammonia-N (SSH[4])~~	~~T~~	~~mg/l~~	~~--~~	~~Table 35-4~~	~~a~~
~~Ammonia-N (CWH)~~	~~T~~	~~mg/l~~	~~--~~	~~Table 35-4~~	~~Table 35-8~~
~~Ammonia-N (LRW)~~	~~T~~	~~mg/l~~	~~--~~	~~Table 35-2~~	~~--~~
Arsenic	D[6]	µg/l	680	340	150
Arsenic	TR[7]	µg/l	680	340	150
Cadmium[8]					
Carbaryl	T	µg/l	4.2	2.1	2.1
Chlorine (WWH, EWH, MWH, CWH)	R	µg/l	--	19	11
Chlorine (LRW)	R	µg/l	--	19	--
Chlorine (SSH[4])	R	µg/l	--	b	b

Chromium[8]

~~Table 35-1. Statewide water quality criteria for the protection of aquatic life. Page 2 of 2~~

~~Chemical~~	~~Form[1]~~	~~Units[2]~~	~~IMZM[3]~~	~~OMZM[3]~~	~~OMZA[3]~~
Chromium VI	D	µg/l	31	16	11
Copper[8]					
Cyanide					
(Lake Erie drainage basin)	free	µg/l	44	22	5.2
(Ohio river drainage basin)					
(WWH, EWH, MWH)	free	µg/l	92	46	12
(LRW)	free	µg/l	92	46	--
(SSH[4], CWH)	free	µg/l	45	22	5.2
Diazinon	T	µg/l	0.34	0.17	0.17
Dieldrin	T	µg/l	0.47	0.24	0.056
Dissolved oxygen[5] (WWH)	T	mg/l	--	4.0	5.0
Dissolved oxygen[5] (EWH)	T	mg/l	--	5.0	6.0
Dissolved oxygen[5] (MWH)	T	mg/l	--	3.0[c]	4.0
Dissolved oxygen[5] (SSH[4])	T	mg/l	--	a	a
Dissolved oxygen[5] (CWH)	T	mg/l	--	6.0	7.0
Dissolved oxygen[5] (LRW)	T	mg/l	--	2.0	3.0
Dissolved solids	T	mg/l	--	--	1500[d]
Endrin	T	µg/l	0.17	0.086	0.036
Fluoride[8]					
Lead[8]					
Lindane	T	µg/l	1.9	0.95	--
Mercury	D[6]	µg/l	2.9	1.4	0.77
Mercury	TR[7]	µg/l	3.4	1.7	0.91
Nickel[8]					
Nonylphenol	T	µg/l	55	28	6.6
Parathion	T	µg/l	0.13	0.065	0.013
Pentachlorophenol[9]					
Peracetic acid	R	µg/l	330	160	
pH (WWH, MWH)	--	s.u.	--	--	6.5-9.0
pH (EWH, CWH)	--	s.u.	--	--	e
pH (SSH[4])	--	s.u.	--	--	a
pH (LRW)	--	s.u.	--	--	6.5-9.0[f]
Selenium	D[6]	µg/l	--	--	~~4.6~~Table 35-7
~~Selenium~~	~~TR[7]~~	~~µg/l~~	~~--~~	~~--~~	~~5.0~~
Strontium[8]					
Temperature (WWH, MWH)	--	°F(°C)	--	~~Table 35-14~~ Table 35-8	~~Table 35-14~~ Table 35-8

Temperature (EWH, CWH)	--	^{O}F(^{O}C)	--	g	g
Temperature (SSH[4])	--	^{O}F(^{O}C)	--	a	a
Temperature (LRW)	--	^{O}F(^{O}C)	--	98(37)	94(34)
Tributyltin	T	µg/l	0.92	0.46	0.072
Zinc[8]					

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1 D = dissolved; R = total residual; T = total; TR = total recoverable.

2 mg/l = milligrams per liter (parts per million); µg/l = micrograms per liter (parts per billion); s.u. = standard units; ^{O}F = degrees ~~fahrenheit~~Fahrenheit; ^{O}C = degrees ~~celcius~~Celsius.

3 IMZM = inside mixing zone maximum; OMZM = outside mixing zone maximum; OMZA = outside mixing zone average.

4 This aquatic life habitat use designation is in effect only during the months of October to May.

5 For dissolved oxygen, OMZM means outside mixing zone minimum and OMZA means outside mixing zone minimum twenty-four-hour average.

6 These criteria are implemented by multiplying them by a translator approved by the director pursuant to rule 3745-2-04 of the Administrative Code.

7 These criteria apply in the absence of a translator approved by the director pursuant to rule 3745-2-04 of the Administrative Code.

8 These criteria are water hardness dependent. See table ~~35-9~~35-5 of this rule.

9 These criteria are water pH dependent. See table ~~35-10~~35-6 of this rule.

10 The equations for these criteria are below; See Tables 35-2 through 4 for values.

OMZM, *Oncorhynchus* present = MIN [((0.275/(1+$10^{7.204-pH}$)) + (39.0/(1+$10^{pH-7.204}$))) , (0.7249×((0.0114/(1+$10^{7.204-pH}$))+(1.6181/(1+$10^{pH-7.204}$))) × (23.12×$10^{0.036×(20-T)}$))]

OMZM, *Oncorhynchus* absent = 0.7249×((0.0114/(1+$10^{7.204-pH}$))+(1.6181/(1+$10^{pH-7.204}$))) × MIN(51.93, 23.12×$10^{0.036×(20-T)}$)

OMZA = 0.8876×((0.0278/(1+$10^{7.688-pH}$))+(1.1994/(1+$10^{pH-7.688}$))) × (2.126×$10^{0.028×(20-MAX(T,7))}$); duration and frequency not to exceed 2.5 times the OMZA as a 4-day average within the 30-days, more than once in three years on average.

a This criterion is the same as that for the aquatic life use designation in effect June to September. See footnote 4.

b No chlorine is to be discharged.

c The dissolved oxygen minimum at any time criterion for modified warmwater habitats in the Huron/Erie lake plain ecoregion, as identified in rules 3745-1-08 to 3745-1-30 of the Administrative Code, is 2.5 mg/l.

d Equivalent 25°C specific conductance value is 2400 micromhos/cm.

e pH is to be 6.5-9.0, with no change within that range attributable to human-induced conditions.

f Acid mine drainage streams over sandstone geotype are exempt from the pH criterion.

g At no time shall the water temperature exceed the temperature which would occur if there were no temperature change attributable to human activities.

Table 35-2.
Warmwater habitat, modified warmwater habitat and limited resource water outside mixing zone maximum total ammonia-nitrogen criteria (mg/l).

pH	6.5	6.7	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.8	9.0
Temp. (ºC)																						
0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.7	10.6	8.4	6.7	5.4	4.3	3.4	2.7	1.8	1.1
1	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.5	10.5	8.3	6.6	5.3	4.2	3.4	2.7	1.7	1.1
2	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.3	10.3	8.2	6.5	5.2	4.2	3.3	2.7	1.7	1.1
3	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.1	10.2	8.1	6.5	5.2	4.1	3.3	2.6	1.7	1.1
4	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.0	10.1	8.0	6.4	5.1	4.1	3.3	2.6	1.7	1.1
5	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.9	9.9	7.9	6.3	5.0	4.0	3.2	2.6	1.7	1.1
6	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.7	9.8	7.8	6.3	5.0	4.0	3.2	2.6	1.7	1.1
7	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.6	9.7	7.8	6.2	5.0	4.0	3.2	2.6	1.7	1.1
8	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.5	9.6	7.7	6.1	4.9	3.9	3.2	2.5	1.7	1.1
9	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.4	9.6	7.6	6.1	4.9	3.9	3.1	2.5	1.7	1.1
10	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.3	9.5	7.6	6.0	4.8	3.9	3.1	2.5	1.6	1.1
11	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.2	9.4	7.5	6.0	4.8	3.9	3.1	2.5	1.6	1.1
12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.1	9.3	7.5	6.0	4.8	3.8	3.1	2.5	1.6	1.1
13	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.1	9.3	7.4	5.9	4.8	3.8	3.1	2.5	1.7	1.1
14	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.0	9.2	7.4	5.9	4.7	3.8	3.1	2.5	1.7	1.1
15	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.9	10.9	9.2	7.4	5.9	4.7	3.8	3.1	2.5	1.7	1.1
16	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.8	10.9	9.2	7.3	5.9	4.7	3.8	3.1	2.5	1.7	1.2
17	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.8	10.8	9.1	7.3	5.9	4.7	3.8	3.1	2.5	1.7	1.2
18	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.7	10.8	9.1	7.3	5.8	4.7	3.8	3.1	2.5	1.7	1.2
19	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.7	10.8	9.1	7.3	5.8	4.7	3.8	3.1	2.5	1.7	1.2
20	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.7	10.7	9.1	7.3	5.8	4.7	3.8	3.1	2.5	1.7	1.2
21	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.6	10.7	9.1	7.3	5.8	4.7	3.8	3.1	2.6	1.7	1.2
22	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.6	10.7	9.0	7.3	5.9	4.7	3.8	3.1	2.6	1.8	1.3
23	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.6	10.7	9.1	7.3	5.9	4.7	3.9	3.2	2.6	1.8	1.3
24	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.6	10.7	9.1	7.3	5.9	4.8	3.9	3.2	2.6	1.8	1.3
25	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.6	10.7	9.1	7.3	5.9	4.8	3.9	3.2	2.6	1.9	1.3
26	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.8	10.0	8.5	6.8	5.5	4.5	3.7	3.0	2.5	1.8	1.3
27	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.8	11.0	9.4	8.0	6.4	5.2	4.2	3.5	2.8	2.4	1.7	1.2
28	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.0	10.3	8.8	7.5	6.0	4.9	4.0	3.3	2.7	2.2	1.6	1.2
29	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.9	11.2	9.6	8.2	7.0	5.7	4.6	3.7	3.1	2.5	2.1	1.5	1.1
30	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.1	10.5	9.0	7.7	6.6	5.3	4.3	3.5	2.9	2.4	2.0	1.5	1.1

Table 35-2. Temperature and pH-dependent values of the total ammonia-nitrogen acute criterion magnitude (also called OMZM) - unionid mussels present, *Oncorrhynchus* present.

	Temperature (degrees Celsius)																
pH	0-14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
6.5	33	33	32	29	27	25	23	21	19	18	16	15	14	13	12	11	9.9
6.6	31	31	30	28	26	24	22	20	18	17	16	14	13	12	11	10	9.5
6.7	30	30	29	27	24	22	21	19	18	16	15	14	13	12	11	9.8	9.0
6.8	28	28	27	25	23	21	20	18	17	15	14	13	12	11	10	9.2	8.5
6.9	26	26	25	23	21	20	18	17	15	14	13	12	11	10	9.4	8.6	7.9
7.0	24	24	23	21	20	18	17	15	14	13	12	11	10	9.4	8.6	8.0	7.3
7.1	22	22	21	20	18	17	15	14	13	12	11	10	9.3	8.5	7.9	7.2	6.7
7.2	20	20	19	18	16	15	14	13	12	11	9.8	9.1	8.3	7.7	7.1	6.5	6.0
7.3	18	18	17	16	14	13	12	11	10	9.5	8.7	8.0	7.4	6.8	6.3	5.8	5.3
7.4	15	15	15	14	13	12	11	9.8	9.0	8.3	7.7	7.0	6.5	6.0	5.5	5.1	4.7
7.5	13	13	13	12	11	10	9.2	8.5	7.8	7.2	6.6	6.1	5.6	5.2	4.8	4.4	4.0
7.6	11	11	11	10	9.3	8.6	7.9	7.3	6.7	6.2	5.7	5.2	4.8	4.4	4.1	3.8	3.5
7.7	9.6	9.6	9.3	8.6	7.9	7.3	6.7	6.2	5.7	5.2	4.8	4.4	4.1	3.8	3.5	3.2	3.0
7.8	8.1	8.1	7.9	7.2	6.7	6.1	5.6	5.2	4.8	4.4	4.0	3.7	3.4	3.2	2.9	2.7	2.5
7.9	6.8	6.8	6.6	6.0	5.6	5.1	4.7	4.3	4.0	3.7	3.4	3.1	2.9	2.6	2.4	2.2	2.1
8.0	5.6	5.6	5.4	5.0	4.6	4.2	3.9	3.6	3.3	3.0	2.8	2.6	2.4	2.2	2.0	1.9	1.7
8.1	4.6	4.6	4.5	4.1	3.8	3.5	3.2	3.0	2.7	2.5	2.3	2.1	2.0	1.8	1.7	1.5	1.4
8.2	3.8	3.8	3.7	3.5	3.1	2.9	2.7	2.4	2.3	2.1	1.9	1.8	1.6	1.5	1.4	1.3	1.2
8.3	3.1	3.1	3.1	2.8	2.6	2.4	2.2	2.0	1.9	1.7	1.6	1.4	1.3	1.2	1.1	1.0	0.96
8.4	2.6	2.6	2.5	2.3	2.1	2.0	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0	0.93	0.86	0.79
8.5	2.1	2.1	2.1	1.9	1.8	1.6	1.5	1.4	1.3	1.2	1.1	0.98	0.9	0.83	0.77	0.71	0.65
8.6	1.8	1.8	1.7	1.6	1.5	1.3	1.2	1.1	1.0	0.96	0.88	0.81	0.75	0.69	0.63	0.59	0.54
8.7	1.5	1.5	1.4	1.3	1.2	1.1	1.0	0.94	0.87	0.80	0.74	0.68	0.62	0.57	0.53	0.49	0.45
8.8	1.2	1.2	1.2	1.1	1.0	0.93	0.86	0.79	0.73	0.67	0.62	0.57	0.52	0.48	0.44	0.41	0.37
8.9	1.0	1.0	1.0	0.93	0.85	0.79	0.72	0.67	0.61	0.56	0.52	0.48	0.44	0.40	0.37	0.34	0.32
9.0	0.88	0.88	0.86	0.79	0.73	0.67	0.62	0.57	0.52	0.48	0.44	0.41	0.37	0.34	0.32	0.29	0.27

~~Table 35-3.~~

~~Exceptional warmwater habitat~~

~~outside mixing zone maximum total ammonia-nitrogen criteria (mg/l).~~

pH	6.5	6.7	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.8	9.0
Temp. (°C)																						
0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.6	10.9	9.3	7.8	6.6	5.2	4.2	3.3	2.6	2.1	1.7	1.1	0.7
1	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.4	10.7	9.1	7.7	6.5	5.2	4.1	3.3	2.6	2.1	1.7	1.1	0.7
2	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.2	10.6	9.0	7.6	6.4	5.1	4.1	3.2	2.6	2.1	1.6	1.1	0.7
3	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.1	10.4	8.9	7.5	6.3	5.0	4.0	3.2	2.5	2.0	1.6	1.1	0.7
4	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.9	10.3	8.8	7.4	6.2	5.0	4.0	3.2	2.5	2.0	1.6	1.0	0.7
5	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.8	10.2	8.7	7.3	6.2	4.9	3.9	3.1	2.5	2.0	1.6	1.0	0.7
6	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.6	10.1	8.6	7.3	6.1	4.9	3.9	3.1	2.5	2.0	1.6	1.0	0.7
7	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.5	9.9	8.5	7.2	6.0	4.8	3.8	3.1	2.5	2.0	1.6	1.0	0.7
8	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.4	9.8	8.4	7.1	6.0	4.8	3.8	3.0	2.4	2.0	1.6	1.0	0.7
9	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.9	11.3	9.8	8.3	7.1	5.9	4.7	3.8	3.0	2.4	1.9	1.6	1.0	0.7
10	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.8	11.2	9.7	8.3	7.0	5.9	4.7	3.7	3.0	2.4	1.9	1.6	1.0	0.7
11	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.7	11.1	9.6	8.2	6.9	5.8	4.7	3.7	3.0	2.4	1.9	1.5	1.0	0.7
12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.6	11.0	9.5	8.1	6.9	5.8	4.6	3.7	3.0	2.4	1.9	1.5	1.0	0.7
13	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.5	10.9	9.4	8.1	6.8	5.8	4.6	3.7	2.9	2.4	1.9	1.5	1.0	0.7
14	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.4	10.8	9.4	8.0	6.8	5.7	4.6	3.7	2.9	2.4	1.9	1.5	1.0	0.7
15	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.3	10.8	9.3	8.0	6.8	5.7	4.6	3.6	2.9	2.4	1.9	1.5	1.0	0.7
16	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.2	10.7	9.3	7.9	6.7	5.7	4.5	3.6	2.9	2.4	1.9	1.5	1.0	0.7
17	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.2	10.7	9.2	7.9	6.7	5.6	4.5	3.6	2.9	2.4	1.9	1.5	1.0	0.7
18	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.1	10.6	9.2	7.9	6.7	5.6	4.5	3.6	2.9	2.4	1.9	1.6	1.0	0.7
19	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.1	10.6	9.2	7.9	6.7	5.6	4.5	3.6	2.9	2.4	1.9	1.6	1.1	0.7
20	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.0	10.5	9.2	7.8	6.7	5.6	4.5	3.6	2.9	2.4	1.9	1.6	1.1	0.8
21	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.0	10.5	9.1	7.8	6.6	5.6	4.5	3.6	2.9	2.4	1.9	1.6	1.1	0.8
22	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.0	10.5	9.1	7.8	6.6	5.6	4.5	3.6	2.9	2.4	1.9	1.6	1.1	0.8
23	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.9	10.5	9.1	7.8	6.6	5.6	4.5	3.6	2.9	2.4	2.0	1.6	1.1	0.8
24	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.9	10.5	9.1	7.8	6.6	5.6	4.5	3.6	3.0	2.4	2.0	1.6	1.1	0.8
25	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.9	10.5	9.1	7.8	6.6	5.6	4.5	3.7	3.0	2.4	2.0	1.6	1.1	0.8
26	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.5	11.1	9.8	8.5	7.3	6.2	5.3	4.2	3.4	2.8	2.3	1.9	1.5	1.1	0.8
27	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.7	10.4	9.1	7.9	6.8	5.8	4.9	4.0	3.2	2.6	2.1	1.8	1.5	1.0	0.8
28	13.0	13.0	13.0	13.0	13.0	13.0	12.1	10.9	9.7	8.5	7.4	6.4	5.4	4.6	3.7	3.0	2.5	2.0	1.7	1.4	1.0	0.7
29	13.0	13.0	13.0	13.0	13.0	12.4	11.3	10.2	9.1	8.0	6.9	6.0	5.1	4.3	3.5	2.8	2.3	1.9	1.6	1.3	0.9	0.7
30	13.0	13.0	13.0	13.0	12.6	11.6	10.6	9.5	8.5	7.5	6.5	5.6	4.8	4.1	3.3	2.7	2.2	1.8	1.5	1.2	0.9	0.7

Table 35-3. Temperature and pH-dependent values of the total ammonia-nitrogen acute criterion magnitude (also called OMZM) - unionid mussels present, *Oncorhynchus* absent.

	Temperature (degrees Celsius)																				
pH	0-10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
6.5	51	48	44	41	37	34	32	29	27	25	23	21	19	18	16	15	14	13	12	11	9.9
6.6	49	46	42	39	36	33	30	28	26	24	22	20	18	17	16	14	13	12	11	10	9.5
6.7	46	44	40	37	34	31	29	27	24	22	21	19	18	16	15	14	13	12	11	9.8	9.0
6.8	44	41	38	35	32	30	27	25	23	21	20	18	17	15	14	13	12	11	10	9.2	8.5
6.9	41	38	35	32	30	28	25	23	21	20	18	17	15	14	13	12	11	10	9.4	8.6	7.9
7.0	38	35	33	30	28	25	23	21	20	18	17	15	14	13	12	11	10	9.4	8.6	7.9	7.3
7.1	34	32	30	27	25	23	21	20	18	17	15	14	13	12	11	10	9.3	8.5	7.9	7.2	6.7
7.2	31	29	27	25	23	21	19	18	16	15	14	13	12	11	9.8	9.1	8.3	7.7	7.1	6.5	6.0
7.3	27	26	24	22	20	18	17	16	14	13	12	11	10	9.5	8.7	8.0	7.4	6.8	6.3	5.8	5.3
7.4	24	22	21	19	18	16	15	14	13	12	11	9.8	9.0	8.3	7.7	7.0	6.5	6.0	5.5	5.1	4.7
7.5	21	19	18	17	15	14	13	12	11	10	9.2	8.5	7.8	7.2	6.6	6.1	5.6	5.2	4.8	4.4	4.0
7.6	18	17	15	14	13	12	11	10	9.3	8.6	7.9	7.3	6.7	6.2	5.7	5.2	4.8	4.4	4.1	3.8	3.5
7.7	15	14	13	12	11	10	9.3	8.6	7.9	7.3	6.7	6.2	5.7	5.2	4.8	4.4	4.1	3.8	3.5	3.2	2.9
7.8	13	12	11	10	9.3	8.5	7.9	7.2	6.7	6.1	5.6	5.2	4.8	4.4	4.0	3.7	3.4	3.2	2.9	2.7	2.5
7.9	11	9.9	9.1	8.4	7.7	7.1	6.6	6.0	5.6	5.1	4.7	4.3	4.0	3.7	3.4	3.1	2.9	2.6	2.4	2.2	2.1
8.0	8.8	8.2	7.6	7.0	6.4	5.9	5.4	5.0	4.6	4.2	3.9	3.6	3.3	3.0	2.8	2.6	2.4	2.2	2.0	1.9	1.7
8.1	7.2	6.8	6.3	5.8	5.3	4.9	4.5	4.1	3.8	3.5	3.2	3.0	2.7	2.5	2.3	2.1	2.0	1.8	1.7	1.5	1.4
8.2	6.0	5.6	5.2	4.8	4.4	4.0	3.7	3.4	3.1	2.9	2.7	2.4	2.3	2.1	1.9	1.8	1.6	1.5	1.4	1.3	1.2
8.3	4.9	4.6	4.3	3.9	3.6	3.3	3.1	2.8	2.6	2.4	2.2	2.0	1.9	1.7	1.6	1.4	1.3	1.2	1.1	1.0	0.96
8.4	4.1	3.8	3.5	3.2	3.0	2.7	2.5	2.3	2.1	2.0	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0	0.93	0.86	0.79
8.5	3.3	3.1	2.9	2.7	2.4	2.3	2.1	1.0	1.8	1.6	1.5	1.4	1.3	1.2	1.1	0.98	0.90	0.83	0.77	0.71	0.65
8.6	2.8	2.6	2.4	2.2	2.0	1.9	1.7	1.6	1.5	1.3	1.2	1.1	1.0	0.96	0.88	0.81	0.75	0.69	0.63	0.58	0.54
8.7	2.3	2.2	2.0	1.8	1.7	1.6	1.4	1.3	1.2	1.1	1.0	0.94	0.87	0.80	0.74	0.68	0.62	0.57	0.53	0.49	0.45
8.8	1.9	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0	0.93	0.86	0.79	0.73	0.67	0.62	0.57	0.52	0.48	0.44	0.41	0.37
8.9	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.93	0.85	0.79	0.72	0.67	0.61	0.56	0.52	0.48	0.44	0.40	0.37	0.34	0.32
9.0	1.4	1.3	1.2	1.1	1.0	0.93	0.86	0.79	0.73	0.67	0.62	0.57	0.52	0.48	0.44	0.41	0.37	0.34	0.32	0.29	0.27

Table 35-4.
Coldwater habitat and seasonal salmonid habitat outside mixing zone maximum total ammonia-nitrogen criteria (mg/l).

pH	6.5	6.7	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.8	9.0
Temp. (°C)																						
0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.6	10.9	9.3	7.8	6.6	5.2	4.2	3.3	2.6	2.1	1.7	1.1	0.7
1	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.4	10.7	9.1	7.7	6.5	5.2	4.1	3.3	2.6	2.1	1.7	1.1	0.7
2	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.2	10.6	9.0	7.6	6.4	5.1	4.1	3.2	2.6	2.1	1.6	1.1	0.7
3	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.1	10.4	8.9	7.5	6.3	5.0	4.0	3.2	2.5	2.0	1.6	1.1	0.7
4	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.9	10.3	8.8	7.4	6.2	5.0	4.0	3.2	2.5	2.0	1.6	1.0	0.7
5	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.8	10.2	8.7	7.3	6.2	4.9	3.9	3.1	2.5	2.0	1.6	1.0	0.7
6	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.6	10.1	8.6	7.3	6.1	4.9	3.9	3.1	2.5	2.0	1.6	1.0	0.7
7	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.5	9.9	8.5	7.2	6.0	4.8	3.8	3.1	2.5	2.0	1.6	1.0	0.7
8	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.4	9.8	8.4	7.1	6.0	4.8	3.8	3.0	2.4	2.0	1.6	1.0	0.7
9	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.9	11.3	9.8	8.3	7.1	5.9	4.7	3.8	3.0	2.4	1.9	1.6	1.0	0.7
10	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.8	11.2	9.7	8.3	7.0	5.9	4.7	3.7	3.0	2.4	1.9	1.6	1.0	0.7
11	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.7	11.1	9.6	8.2	6.9	5.8	4.7	3.7	3.0	2.4	1.9	1.5	1.0	0.7
12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.6	11.0	9.5	8.1	6.9	5.8	4.6	3.7	3.0	2.4	1.9	1.5	1.0	0.7
13	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.5	10.9	9.4	8.1	6.8	5.8	4.6	3.7	2.9	2.4	1.9	1.5	1.0	0.7
14	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.4	10.8	9.4	8.0	6.8	5.7	4.6	3.7	2.9	2.4	1.9	1.5	1.0	0.7
15	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.3	10.8	9.3	8.0	6.8	5.7	4.6	3.6	2.9	2.4	1.9	1.5	1.0	0.7
16	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.2	10.7	9.3	7.9	6.7	5.7	4.5	3.6	2.9	2.4	1.9	1.5	1.0	0.7
17	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.2	10.7	9.2	7.9	6.7	5.6	4.5	3.6	2.9	2.4	1.9	1.5	1.0	0.7
18	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.1	10.6	9.2	7.9	6.7	5.6	4.5	3.6	2.9	2.4	1.9	1.6	1.0	0.7
19	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.1	10.6	9.2	7.9	6.7	5.6	4.5	3.6	2.9	2.4	1.9	1.6	1.1	0.7
20	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.0	10.5	9.1	7.8	6.7	5.6	4.5	3.6	2.9	2.4	1.9	1.6	1.1	0.8
21	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.6	11.2	9.8	8.5	7.3	6.2	5.2	4.2	3.4	2.7	2.2	1.8	1.5	1.0	0.7
22	13.0	13.0	13.0	13.0	13.0	13.0	13.0	11.7	10.4	9.1	7.9	6.8	5.8	4.9	3.9	3.2	2.6	2.1	1.7	1.4	1.0	0.7
23	13.0	13.0	13.0	13.0	13.0	13.0	12.2	10.9	9.7	8.5	7.4	6.3	5.4	4.6	3.7	3.0	2.4	1.9	1.6	1.3	0.9	0.6
24	13.0	13.0	13.0	13.0	13.0	12.4	11.3	10.2	9.1	7.9	6.9	5.9	5.0	4.3	3.4	2.8	2.2	1.8	1.5	1.2	0.9	0.6
25	13.0	13.0	13.0	13.0	12.6	11.6	10.6	9.5	8.4	7.4	6.4	5.5	4.7	4.0	3.2	2.6	2.1	1.7	1.4	1.2	0.8	0.6
26	13.0	13.0	13.0	12.6	11.7	10.8	9.9	8.9	7.9	6.9	6.0	5.2	4.4	3.7	3.0	2.4	2.0	1.6	1.3	1.1	0.8	0.6
27	13.0	13.0	12.4	11.7	10.9	10.1	9.2	8.3	7.4	6.5	5.6	4.8	4.1	3.5	2.8	2.3	1.9	1.5	1.2	1.0	0.7	0.5
28	13.0	12.7	11.6	10.9	10.2	9.4	8.6	7.7	6.9	6.0	5.2	4.5	3.9	3.3	2.6	2.1	1.7	1.4	1.2	1.0	0.7	0.5
29	12.6	11.9	10.8	10.2	9.5	8.8	8.0	7.2	6.4	5.6	4.9	4.2	3.6	3.1	2.5	2.0	1.6	1.3	1.1	0.9	0.7	0.5
30	11.8	11.1	10.1	9.5	8.9	8.2	7.5	6.8	6.0	5.3	4.6	4.0	3.4	2.9	2.3	1.9	1.5	1.3	1.1	0.9	0.6	0.5

Table 35-4. Temperature and pH-dependent values of the total ammonia-nitrogen chronic criterion magnitude (also called OMZA) - unionid mussels present.

	Temperature (degrees C)																							
pH	0-7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
6.5	4.9	4.6	4.3	4.1	3.8	3.6	3.3	3.1	2.9	2.8	2.6	2.4	2.3	2.1	2.0	1.9	1.8	1.6	1.5	1.5	1.4	1.3	1.2	1.1
6.6	4.8	4.5	4.3	4.0	3.8	3.5	3.3	3.1	2.9	2.7	2.5	2.4	2.2	2.1	2.0	1.8	1.7	1.6	1.5	1.4	1.3	1.3	1.2	1.1
6.7	4.8	4.5	4.2	3.9	3.7	3.5	3.2	3.0	2.8	2.7	2.5	2.3	2.2	2.1	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.1
6.8	4.6	4.4	4.1	3.8	3.6	3.4	3.2	3.0	2.8	2.6	2.4	2.3	2.1	2.0	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.1
6.9	4.5	4.2	4.0	3.7	3.5	3.3	3.1	2.9	2.7	2.5	2.4	2.2	2.1	2.0	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.1	1.0
7	4.4	4.1	3.8	3.6	3.4	3.2	3.0	2.8	2.6	2.4	2.3	2.2	2.0	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.1	0.99
7.1	4.2	3.9	3.7	3.5	3.2	3.0	2.8	2.7	2.5	2.3	2.2	2.1	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.1	1.0	0.95
7.2	4.0	3.7	3.5	3.3	3.1	2.9	2.7	2.5	2.4	2.2	2.1	2.0	1.8	1.7	1.6	1.5	1.4	1.3	1.3	1.2	1.1	1.0	0.96	0.90
7.3	3.8	3.5	3.3	3.1	2.9	2.7	2.6	2.4	2.2	2.1	2.0	1.8	1.7	1.6	1.5	1.4	1.3	1.3	1.2	1.1	1.0	0.97	0.91	0.85
7.4	3.5	3.3	3.1	2.9	2.7	2.5	2.4	2.2	2.1	2.0	1.8	1.7	1.6	1.5	1.4	1.3	1.3	1.2	1.1	1.0	0.96	0.90	0.85	0.79
7.5	3.2	3.0	2.8	2.7	2.5	2.3	2.2	2.1	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.1	1.0	0.95	0.89	0.83	0.78	0.73
7.6	2.9	2.8	2.6	2.4	2.3	2.1	2.0	1.9	1.8	1.6	1.5	1.4	1.4	1.3	1.2	1.1	1.1	0.98	0.92	0.86	0.81	0.76	0.71	0.67
7.7	2.6	2.4	2.3	2.2	2.0	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.1	1.0	0.94	0.88	0.83	0.78	0.73	0.68	0.64	0.60
7.8	2.3	2.2	2.1	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.1	1.0	0.95	0.89	0.84	0.79	0.74	0.69	0.65	0.61	0.57	0.53
7.9	2.1	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.1	1.0	0.95	0.89	0.84	0.79	0.74	0.69	0.65	0.61	0.57	0.53	0.50	0.47
8	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.1	1.0	0.94	0.88	0.83	0.78	0.73	0.68	0.64	0.60	0.56	0.53	0.50	0.44	0.44	0.41
8.1	1.5	1.5	1.4	1.3	1.2	1.1	1.1	0.99	0.92	0.87	0.81	0.76	0.71	0.67	0.63	0.59	0.55	0.52	0.49	0.46	0.43	0.40	0.38	0.35
8.2	1.3	1.2	1.2	1.1	1.0	0.96	0.90	0.84	0.79	0.74	0.70	0.65	0.61	0.57	0.54	0.50	0.47	0.44	0.42	0.39	0.37	0.34	0.32	0.30
8.3	1.1	1.1	0.99	0.93	0.87	0.82	0.76	0.72	0.67	0.63	0.59	0.55	0.52	0.49	0.46	0.43	0.40	0.38	0.35	0.33	0.31	0.29	0.27	0.26
8.4	0.95	0.89	0.84	0.79	0.74	0.69	0.65	0.61	0.57	0.53	0.50	0.47	0.44	0.41	0.39	0.36	0.34	0.32	0.30	0.28	0.26	0.25	0.23	0.22
8.5	0.8	0.75	0.71	0.67	0.62	0.58	0.55	0.51	0.48	0.45	0.42	0.40	0.37	0.35	0.33	0.31	0.29	0.27	0.25	0.24	0.22	0.21	0.20	0.18
8.6	0.68	0.64	0.60	0.56	0.53	0.49	0.46	0.43	0.41	0.38	0.36	0.33	0.31	0.29	0.28	0.26	0.24	0.23	0.21	0.20	0.19	0.18	0.16	0.15
8.7	0.57	0.54	0.51	0.47	0.44	0.42	0.39	0.37	0.34	0.32	0.30	0.28	0.27	0.25	0.23	0.22	0.21	0.19	0.18	0.17	0.16	0.15	0.14	0.13
8.8	0.49	0.46	0.43	0.40	0.38	0.35	0.33	0.31	0.29	0.27	0.26	0.24	0.23	0.21	0.20	0.19	0.17	0.16	0.15	0.14	0.13	0.13	0.12	0.11
8.9	0.42	0.39	0.37	0.34	0.32	0.30	0.28	0.27	0.25	0.23	0.22	0.21	0.19	0.18	0.17	0.16	0.15	0.14	0.13	0.12	0.12	0.11	0.10	0.09
9	0.36	0.34	0.32	0.30	0.28	0.26	0.24	0.23	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.14	0.13	0.12	0.11	0.11	0.10	0.09	0.09	0.08

~~Table 35-5.~~

~~Warmwater habitat~~

~~outside mixing zone 30-day average total ammonia-nitrogen criteria (mg/l).~~

pH	6.5	6.7	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.8	9.0
Temp. (°C)																						
The following criteria apply during the months of December to February:																						
0-10	13.0	13.0	13.0	12.6	11.7	10.7	9.7	8.6	7.6	6.6	5.6	4.8	4.0	3.3	2.8	2.3	1.9	1.5	1.2	1.0	0.7	0.5
11	13.0	13.0	12.4	11.6	10.8	9.9	8.9	8.0	7.0	6.1	5.2	4.4	3.7	3.1	2.6	2.1	1.7	1.4	1.2	0.9	0.6	0.4
12	13.0	12.6	11.5	10.8	10.0	9.2	8.3	7.4	6.5	5.6	4.8	4.1	3.4	2.9	2.4	2.0	1.6	1.3	1.1	0.9	0.6	0.4
13	12.3	11.6	10.6	10.0	9.2	8.5	7.7	6.8	6.0	5.2	4.5	3.8	3.2	2.7	2.2	1.8	1.5	1.2	1.0	0.8	0.6	0.4
14	11.4	10.8	9.8	9.3	8.6	7.9	7.1	6.3	5.6	4.8	4.2	3.5	3.0	2.5	2.1	1.7	1.4	1.1	0.9	0.8	0.5	0.4
15	10.6	10.0	9.1	8.6	8.0	7.3	6.6	5.9	5.2	4.5	3.9	3.3	2.8	2.3	1.9	1.6	1.3	1.1	0.9	0.7	0.5	0.3
16	9.8	9.3	8.5	8.0	7.4	6.8	6.1	5.5	4.8	4.2	3.6	3.0	2.6	2.1	1.8	1.5	1.2	1.0	0.8	0.7	0.5	0.3
17	9.1	8.6	7.8	7.4	6.8	6.3	5.7	5.1	4.5	3.9	3.3	2.8	2.4	2.0	1.7	1.4	1.1	0.9	0.8	0.6	0.4	0.3
18	8.5	8.0	7.3	6.9	6.4	5.8	5.3	4.7	4.2	3.6	3.1	2.6	2.2	1.8	1.5	1.3	1.1	0.9	0.7	0.6	0.4	0.3
19	7.9	7.4	6.8	6.4	5.9	5.4	4.9	4.4	3.9	3.3	2.9	2.4	2.1	1.7	1.4	1.2	1.0	0.8	0.7	0.5	0.4	0.3
20	7.3	6.9	6.3	5.9	5.5	5.0	4.6	4.1	3.6	3.1	2.7	2.3	1.9	1.6	1.3	1.1	0.9	0.8	0.6	0.5	0.4	0.3
The following criteria apply during the months of March to November:																						
10	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	1.7	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
11	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	1.7	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
12	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	1.7	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
13	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.9	1.6	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
14	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.9	1.6	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
15	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
16	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
17	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2
18	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2
19	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2
20	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2
21	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.5	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
22	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.6	1.4	1.2	0.9	0.8	0.6	0.5	0.4	0.3	0.2	0.2
23	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.5	1.3	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2	0.2
24	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.4	1.2	1.0	0.8	0.7	0.5	0.4	0.4	0.3	0.2	0.1
25	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.3	1.1	1.0	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.1
26	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.2	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.1
27	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.2	1.0	0.8	0.7	0.5	0.4	0.4	0.3	0.2	0.2	0.1
28	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.1	0.9	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1
29	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.9	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1
30	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1

~~Table 35-6.~~

~~Exceptional warmwater habitat~~

~~outside mixing zone 30-day average total ammonia-nitrogen criteria (mg/l).~~

pH	6.5	6.7	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.8	9.0
Temp. (°C)																						
The following criteria apply during the months of December to February:																						
0-10	13.0	13.0	13.0	12.6	11.7	10.7	9.7	8.6	7.6	6.6	5.6	4.8	4.0	3.3	2.8	2.3	1.9	1.5	1.2	1.0	0.7	0.5
11	13.0	13.0	12.4	11.6	10.8	9.9	8.9	8.0	7.0	6.1	5.2	4.4	3.7	3.1	2.6	2.1	1.7	1.4	1.2	0.9	0.6	0.4
12	13.0	12.6	11.5	10.8	10.0	9.2	8.3	7.4	6.5	5.6	4.8	4.1	3.4	2.9	2.4	2.0	1.6	1.3	1.1	0.9	0.6	0.4
13	12.3	11.6	10.6	10.0	9.2	8.5	7.7	6.8	6.0	5.2	4.5	3.8	3.2	2.7	2.2	1.8	1.5	1.2	1.0	0.8	0.6	0.4
14	11.4	10.8	9.8	9.3	8.6	7.9	7.1	6.3	5.6	4.8	4.2	3.5	3.0	2.5	2.1	1.7	1.4	1.1	0.9	0.8	0.5	0.4
15	10.6	10.0	9.1	8.6	8.0	7.3	6.6	5.9	5.2	4.5	3.9	3.3	2.8	2.3	1.9	1.6	1.3	1.1	0.9	0.7	0.5	0.3
16	9.8	9.3	8.5	8.0	7.4	6.8	6.1	5.5	4.8	4.2	3.6	3.0	2.6	2.1	1.8	1.5	1.2	1.0	0.8	0.7	0.5	0.3
17	9.1	8.6	7.8	7.4	6.8	6.3	5.7	5.1	4.5	3.9	3.3	2.8	2.4	2.0	1.7	1.4	1.1	0.9	0.8	0.6	0.4	0.3
18	8.5	8.0	7.3	6.9	6.4	5.8	5.3	4.7	4.2	3.6	3.1	2.6	2.2	1.8	1.5	1.3	1.1	0.9	0.7	0.6	0.4	0.3
19	7.9	7.4	6.8	6.4	5.9	5.4	4.9	4.4	3.9	3.3	2.9	2.4	2.1	1.7	1.4	1.2	1.0	0.8	0.7	0.5	0.4	0.3
20	7.3	6.9	6.3	5.9	5.5	5.0	4.6	4.1	3.6	3.1	2.7	2.3	1.9	1.6	1.3	1.1	0.9	0.8	0.6	0.5	0.4	0.3
The following criteria apply during the months of March to November:																						
10	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.3	1.1	0.9	0.7	0.5	0.4	0.4	0.2	0.2
11	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.3	1.1	0.8	0.7	0.5	0.4	0.4	0.2	0.2
12	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.3	1.1	0.8	0.7	0.5	0.4	0.4	0.2	0.2
13	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.8	1.6	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
14	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.6	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
15	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.5	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
16	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.5	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
17	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.5	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.5	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
19	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.5	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
20	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.5	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
21	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.7	1.4	1.2	1.0	0.8	0.6	0.5	0.4	0.3	0.2	0.2
22	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.6	1.3	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2	0.2
23	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.4	1.2	1.0	0.8	0.7	0.5	0.4	0.4	0.3	0.2	0.1
24	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.3	1.1	1.0	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.1
25	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.3	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.1
26	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.2	1.0	0.8	0.7	0.6	0.4	0.4	0.3	0.2	0.2	0.1
27	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.1	0.9	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1
28	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.9	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1
29	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1
30	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.7	0.5	0.4	0.4	0.3	0.2	0.2	0.1	0.1

~~Table 35-7.~~

~~Modified warmwater habitat~~

~~outside mixing zone 30-day average total ammonia-nitrogen criteria (mg/l).~~

pH	6.5	6.7	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.8	9.0
Temp. (°C)																						
The following criteria apply during the months of December to February:																						
0-10	13.0	13.0	13.0	12.6	11.7	10.7	9.7	8.6	7.6	6.6	5.6	4.8	4.0	3.3	2.8	2.3	1.9	1.5	1.2	1.0	0.7	0.5
11	13.0	13.0	12.4	11.6	10.8	9.9	8.9	8.0	7.0	6.1	5.2	4.4	3.7	3.1	2.6	2.1	1.7	1.4	1.2	0.9	0.6	0.4
12	13.0	12.6	11.5	10.8	10.0	9.2	8.3	7.4	6.5	5.6	4.8	4.1	3.4	2.9	2.4	2.0	1.6	1.3	1.1	0.9	0.6	0.4
13	12.3	11.6	10.6	10.0	9.2	8.5	7.7	6.8	6.0	5.2	4.5	3.8	3.2	2.7	2.2	1.8	1.5	1.2	1.0	0.8	0.6	0.4
14	11.4	10.8	9.8	9.3	8.6	7.9	7.1	6.3	5.6	4.8	4.2	3.5	3.0	2.5	2.1	1.7	1.4	1.1	0.9	0.8	0.5	0.4
15	10.6	10.0	9.1	8.6	8.0	7.3	6.6	5.9	5.2	4.5	3.9	3.3	2.8	2.3	1.9	1.6	1.3	1.1	0.9	0.7	0.5	0.3
16	9.8	9.3	8.5	8.0	7.4	6.8	6.1	5.5	4.8	4.2	3.6	3.0	2.6	2.1	1.8	1.5	1.2	1.0	0.8	0.7	0.5	0.3
17	9.1	8.6	7.8	7.4	6.8	6.3	5.7	5.1	4.5	3.9	3.3	2.8	2.4	2.0	1.7	1.4	1.1	0.9	0.8	0.6	0.4	0.3
18	8.5	8.0	7.3	6.9	6.4	5.8	5.3	4.7	4.2	3.6	3.1	2.6	2.2	1.8	1.5	1.3	1.1	0.9	0.7	0.6	0.4	0.3
19	7.9	7.4	6.8	6.4	5.9	5.4	4.9	4.4	3.9	3.3	2.9	2.4	2.1	1.7	1.4	1.2	1.0	0.8	0.7	0.5	0.4	0.3
20	7.3	6.9	6.3	5.9	5.5	5.0	4.6	4.1	3.6	3.1	2.7	2.3	1.9	1.6	1.3	1.1	0.9	0.8	0.6	0.5	0.4	0.3
The following criteria apply during the months of March to November:																						
10	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.9	2.5	2.1	1.7	1.3	1.1	0.9	0.7	0.6	0.4	0.2
11	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.9	2.5	2.1	1.7	1.3	1.1	0.8	0.7	0.6	0.4	0.2
12	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.9	2.4	2.1	1.6	1.3	1.1	0.8	0.7	0.5	0.4	0.2
13	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.9	2.4	2.0	1.6	1.3	1.0	0.8	0.7	0.5	0.4	0.2
14	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.9	2.4	2.0	1.6	1.3	1.0	0.8	0.7	0.5	0.4	0.2
15	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.8	2.4	2.0	1.6	1.3	1.0	0.8	0.7	0.5	0.4	0.3
16	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.8	2.4	2.0	1.6	1.3	1.0	0.8	0.7	0.5	0.4	0.3
17	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.8	2.4	2.0	1.6	1.3	1.0	0.8	0.7	0.5	0.4	0.3
18	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.8	2.4	2.0	1.6	1.3	1.0	0.8	0.7	0.6	0.4	0.3
19	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.8	2.4	2.0	1.6	1.3	1.0	0.8	0.7	0.6	0.4	0.3
20	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.8	2.4	2.0	1.6	1.3	1.0	0.8	0.7	0.6	0.4	0.3
21	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.6	2.2	1.9	1.5	1.2	1.0	0.8	0.6	0.5	0.4	0.3
22	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.4	2.1	1.7	1.4	1.1	0.9	0.7	0.6	0.5	0.3	0.2
23	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.3	1.9	1.6	1.3	1.0	0.8	0.7	0.6	0.5	0.3	0.2
24	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.1	1.8	1.5	1.2	1.0	0.8	0.6	0.5	0.4	0.3	0.2
25	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	1.7	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2
26	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.6	1.3	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2
27	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	1.5	1.2	1.0	0.8	0.7	0.5	0.4	0.4	0.3	0.2
28	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.6	1.4	1.2	0.9	0.8	0.6	0.5	0.4	0.3	0.2	0.2
29	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.5	1.3	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2	0.2
30	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.4	1.2	1.0	0.8	0.7	0.5	0.5	0.4	0.3	0.2	0.2

Table 35-8.
Coldwater habitat
outside mixing zone 30-day average total ammonia-nitrogen criteria (mg/l).

pH	6.5	6.7	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.8	9.0
Temp. (°C)																						
0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.1	1.8	1.5	1.2	0.9	0.8	0.6	0.5	0.4	0.2	0.2
1	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.1	1.8	1.5	1.2	0.9	0.7	0.6	0.5	0.4	0.2	0.2
2	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.1	1.7	1.5	1.2	0.9	0.7	0.6	0.5	0.4	0.2	0.2
3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.0	1.7	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	1.7	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	1.7	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
6	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	1.7	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.2	0.2
7	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.9	1.6	1.4	1.1	0.9	0.7	0.6	0.4	0.4	0.2	0.2
8	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.4	1.1	0.9	0.7	0.6	0.4	0.4	0.2	0.2
9	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.3	1.1	0.9	0.7	0.6	0.4	0.4	0.2	0.2
10	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.3	1.1	0.9	0.7	0.5	0.4	0.4	0.2	0.2
11	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.3	1.1	0.8	0.7	0.5	0.4	0.4	0.2	0.2
12	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6	1.3	1.1	0.8	0.7	0.5	0.4	0.4	0.2	0.2
13	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.8	1.6	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
14	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.6	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
15	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	1.5	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.2	0.2
16	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	1.4	1.2	1.0	0.8	0.6	0.5	0.4	0.3	0.2	0.2
17	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.6	1.3	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2	0.1
18	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.5	1.2	1.0	0.8	0.7	0.5	0.4	0.4	0.3	0.2	0.1
19	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.4	1.2	1.0	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.1
20	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.3	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.1
21	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.2	1.0	0.8	0.7	0.5	0.4	0.4	0.3	0.2	0.2	0.1
22	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.1	0.9	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1
23	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.9	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.1	0.1
24	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.8	0.7	0.6	0.4	0.4	0.3	0.2	0.2	0.1	0.1
25	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1
26	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1
27	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.1
28	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1
29	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1
30	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1

Table ~~35-9~~35-5. Statewide water quality criteria for the protection of aquatic life for water hardness ~~Page 1 of 2~~ dependent criteria.

Chemical	Form[1]	Units[2]	Equation	Criteria[6] 100	200	300	400
Cadmium							
IMZM[3]	D[4]	µg/l	$e^{(1.128\ [\ln H] - 3.051)}$	8.5	19	29	41
OMZM[3]	D[4]	µg/l	$e^{(1.128\ [\ln H] - 3.744)}$	4.3	9.3	15	20
OMZA[3]	D[4]	µg/l	$e^{(0.7852\ [\ln H] - 2.810)}$	2.2	3.9	5.3	6.6
Cadmium							
IMZM[3]	TR[5]	µg/l	$e^{(1.128\ [\ln H] - 2.9936)}$	9.0	20	31	43
OMZM[3]	TR[5]	µg/l	$e^{(1.128\ [\ln H] - 3.6867)}$	4.5	9.9	16	22
OMZA[3]	TR[5]	µg/l	$e^{(0.7852\ [\ln H] - 2.715)}$	2.5	4.2	5.8	7.3
Chromium							
IMZM[3]	D[4]	µg/l	$e^{(0.819\ [\ln H] + 3.2667)}$	1100	2000	2800	3500
OMZM[3]	D[4]	µg/l	$e^{(0.819\ [\ln H] + 2.5736)}$	570	1000	1400	1800
OMZA[3]	D[4]	µg/l	$e^{(0.819\ [\ln H] + 0.5340)}$	74	130	180	230
Chromium							
IMZM[3]	TR[5]	µg/l	$e^{(0.819\ [\ln H] + 4.4187)}$	3600	6400	8900	11000
OMZM[3]	TR[5]	µg/l	$e^{(0.819\ [\ln H] + 3.7256)}$	1800	3200	4400	5600
OMZA[3]	TR[5]	µg/l	$e^{(0.819\ [\ln H] + 0.6848)}$	86	150	210	270
Copper							
IMZM[3]	D[4]	µg/l	$e^{(0.9422\ [\ln H] - 1.048)}$	27	52	76	99
OMZM[3]	D[4]	µg/l	$e^{(0.9422\ [\ln H] - 1.741)}$	13	26	38	50
OMZA[3]	D[4]	µg/l	$e^{(0.8545\ [\ln H] - 1.743)}$	9.0	16	23	29
Copper							
IMZM[3]	TR[5]	µg/l	$e^{(0.9422\ [\ln H] - 1.007)}$	28	54	79	100
OMZM[3]	TR[5]	µg/l	$e^{(0.9422\ [\ln H] - 1.700)}$	14	27	39	52
OMZA[3]	TR[5]	µg/l	$e^{(0.8545\ [\ln H]\ \ 1.702)}$	9.3	17	24	30
Fluoride							
IMZM	TR	mg/l	$e^{(0.5137\ [\ln H] - 0.6330)}$	20	29	35	41
OMZM	TR	mg/l	$e^{(0.5137\ [\ln H] - 0.06015)}$	10	14	18	20
OMZA	TR	mg/l	$e^{(0.5137\ [\ln H] - 0.7477)}$	5	7.2	8.9	10
Lead							
IMZM[3]	D[4]	µg/l	$e^{(1.273\ [\ln H] - 0.5964)}$	190	470	780	1100
OMZM[3]	D[4]	µg/l	$e^{(1.273\ [\ln H] - 1.289)}$	97	230	390	570
OMZA[3]	D[4]	µg/l	$e^{(1.273\ [\ln H] - 4.237)}$	5.1	12	21	30
Lead							
IMZM[3]	TR[5]	µg/l	$e^{(1.273\ [\ln H] - 0.3619)}$	240	590	990	1400

OMZM[3]	TR[5]	µg/l	$e^{(1.273\ [\ln H] - 1.055)}$	120	300	500	710
OMZA[3]	TR[5]	µg/l	$e^{(1.273\ [\ln H] - 4.003)}$	6.4	16	26	37
Nickel							
IMZM[3]	D[4]	µg/l	$e^{(0.846\ [\ln H] + 2.946)}$	940	1700	2400	3000
OMZM[3]	D[4]	µg/l	$e^{(0.846\ [\ln H] + 2.253)}$	470	840	1200	1500
OMZA[3]	D[4]	µg/l	$e^{(0.846\ [\ln H] + 0.0554)}$	52	93	130	170
Nickel							
IMZM[3]	TR[5]	µg/l	$e^{(0.846\ [\ln H] + 2.948)}$	940	1700	2400	3000
OMZM[3]	TR[5]	µg/l	$e^{(0.846\ [\ln H] + 2.255)}$	470	840	1200	1500
OMZA[3]	TR[5]	µg/l	$e^{(0.846\ [\ln H] + 0.0584)}$	52	94	130	170
Strontium							
IMZM[3]	TR[5]	mg/l	$e^{(1.299\ [\ln H] - 1.279)}$	110	270	460[7]	
OMZM[3]	TR[5]	mg/l	$e^{(1.299\ [\ln H] - 1.994)}$	54	130	230[7]	
Zinc							
IMZM[3]	D[4]	µg/l	$e^{(0.8473\ [\ln H] + 1.555)}$	230	420	590	760
OMZM[3]	D[4]	µg/l	$e^{(0.8473\ [\ln H] + 0.862)}$	120	210	300	380
OMZA[3]	D[4]	µg/l	$e^{(0.8473\ [\ln H] + 0.870)}$	120	210	300	380
Zinc							
IMZM[3]	TR[5]	µg/l	$e^{(0.8473\ [\ln H] + 1.577)}$	240	430	610	780
OMZM[3]	TR[5]	µg/l	$e^{(0.8473\ [\ln H] + 0.884)}$	120	220	300	390
OMZA[3]	TR[5]	µg/l	$e^{(0.8473\ [\ln H] + 0.884)}$	120	220	300	390

1 D = dissolved; TR = total recoverable.

2 µg/l = micrograms per liter (parts per billion).

3 IMZM = inside mixing zone maximum; OMZM = outside mixing zone maximum; OMZA = outside mixing zone average.

4 These criteria are implemented by multiplying them by a translator approved by the director pursuant to rule 3745-2-04 of the Administrative Code.

5 These criteria apply in the absence of a translator approved by the director pursuant to rule 3745-2-04 of the Administrative Code.

6 Numeric criteria are presented at example water hardnesses. The equations can be used to calculate numeric criteria at any water hardness up to 400 mg/l $CaCO_3$. "e" = the base e exponential function. "ln H" = the natural logarithm of the water hardness. The criteria at a water hardness of 400 mg/l $CaCO_3$ are used for water hardnesses above 400 mg/l $CaCO_3$.

7 These criteria are capped at a water hardness of 350 mg/l.

Table ~~35-10~~35-6. Statewide water quality criteria for the protection of aquatic life for water pH dependent criteria.

Chemical	Form[1]	Units[2]	Equation	Criteria[4] 6.5	7.5	8.0	9.0
Pentachlorophenol							
IMZM[3]	T	µg/l	$e^{(1.005\ [pH] - 4.176)}$	11	29	48	130
OMZM[3]	T	µg/l	$e^{(1.005\ [pH] - 4.869)}$	5.3	14	24	65
OMZA[3]	T	µg/l	$e^{(1.005\ [pH] - 5.134)}$	4.0	11	18	50

[1] T = total.

[2] µg/l = micrograms per liter (parts per billion).

[3] IMZM = inside mixing zone maximum; OMZM = outside mixing zone maximum; OMZA = outside mixing zone average.

[4] Numeric criteria are presented at example water pH. The equations can be used to calculate numeric criteria at any water pH between 6.5 and 9.0. "e" = the base e exponential function.

Table 35-7. Statewide chronic water quality criteria for the protection of aquatic life for dissolved selenium.

Media type	Fish tissue[2]		Water column[5]	
Criterion element	Egg/ovary[3]	Fish whole body or muscle[4]	Monthly average exposure (OMZA)	Intermittent exposure[6]
Magnitude[1]	15.1 mg/kg dw	8.5 mg/kg dw whole body or 11.3 mg/kg dw muscle (skinless, boneless filet)	1.5 µg/l in lentic (lake) aquatic systems 3.1 µg/l in lotic (stream) aquatic systems	$WQC_{int} = (WQC_{30\text{-}day} - C_{bkgrnd}(1-f_{int}))/f_{int}$
Duration	Instantaneous measurement[7]	Instantaneous measurement[7]	30 days	Number of days/month with an elevated concentration

Frequency	Not to be exceeded	Not to be exceeded	Not more than once in three years on average	Not more than once in three years on average

[1] mg/kg dw = milligrams per kilogram dry weight; µg/l = micrograms per liter

[2] Fish tissue elements are expressed as steady state.

[3] Egg/ovary supersedes any whole-body, muscle, or water column element when fish egg/ovary concentrations are measured, except as noted in footnote 5 below.

[4] Fish whole-body or muscle tissue supersedes water column element when both fish tissue and water concentrations are measured, except as noted in footnote 5 below.

[5] Water column values are based on dissolved total selenium in water and are derived from fish tissue values via bioaccumulation modeling. When selenium inputs are increasing, water column values are the applicable criterion element in the absence of steady-state condition fish tissue data.

[6] Where $WQC_{30\text{-}day}$ is the water column monthly element, for either a lentic or lotic waters; C_{bkgrnd} is the average background selenium concentration, and f_{int} is the fraction of any 30-day period during which elevated selenium concentrations occur, with f_{int} assigned a value ≥0.033 (corresponding to 1 day).

[7] Fish tissue data provide instantaneous point measurements that reflect integrative accumulation of selenium over time and space in a fish population at a given site.

Table ~~35-11~~35-8. Temperature criteria.

(A) General Ohio river basin - includes all waters of the state within the boundaries of the Ohio river basin, excluding the Ohio river and those water bodies or water body segments as designated in paragraphs (B) to (F) of this table. Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	47 (8.3)	47 (8.3)	51 (10.0)	54 (12.2)	59 (15.0)	65 (18.3)	67 (19.4)	70 (21.1)	74 (23.3)
Daily Maximum:	52 (11.1)	52 (11.1)	56 (13.3)	59 (15.0)	65 (18.3)	70 (21.1)	73 (22.8)	76 (24.4)	80 (26.7)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	82 (27.8)	82 (27.8)	82 (27.8)	82 (27.8)	73 (22.8)	71 (21.7)	65 (18.3)	60 (15.6)	47 (8.3)
Daily Maximum:	85 (29.4)	85 (29.4)	85 (29.4)	85 (29.4)	78 (25.6)	76 (24.4)	70 (21.1)	65 (18.3)	52 (11.1)

(B) Lower great Miami river - Steele dam in Dayton (river mile 81.3) to the confluence with the Ohio river. Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	49 (9.4)	49 (9.4)	53 (11.9)	56 (13.3)	59 (15.0)	65 (18.3)	67 (19.4)	70 (21.1)	75 (23.9)
Daily Maximum:	54 (12.2)	54 (12.2)	58 (14.4)	61 (16.1)	68 (20.0)	74 (23.3)	77 (25.0)	79 (26.1)	83 (28.3)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	85 (29.4)	85 (29.4)	85 (29.4)	85 (29.4)	78 (25.6)	71 (21.7)	66 (18.9)	63 (17.2)	49 (9.4)
Daily Maximum:	89 (31.7)	89 (31.7)	89 (31.7)	89 (31.7)	83 (28.3)	76 (24.4)	71 (21.7)	68 (20.0)	54 (12.2)

(C) Scioto river - Griggs dam in Columbus (river mile 136) to the confluence with the Ohio river. Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	47 (8.3)	47 (8.3)	51 (10.6)	54 (12.2)	59 (15.0)	62 (16.7)	67 (19.4)	72 (22.2)	75 (23.9)
Daily Maximum:	52 (11.1)	52 (11.1)	56 (13.3)	59 (15.0)	65 (18.3)	70 (21.1)	75 (23.9)	79 (26.1)	82 (27.8)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	83 (28.3)	83 (28.3)	83 (28.3)	83 (28.3)	75 (23.9)	71 (21.7)	65 (18.3)	58 (14.4)	47 (8.3)
Daily Maximum:	87 (30.6)	87 (30.6)	87 (30.6)	87 (30.6)	80 (26.7)	76 (24.4)	70 (21.1)	63 (17.2)	52 (11.1)

(D) Hocking river - entire mainstem. Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	45 (7.2)	45 (7.2)	51 (10.6)	56 (13.3)	59 (15.0)	65 (18.3)	67 (19.4)	70 (21.1)	74 (23.3)
Daily Maximum:	50 (10.0)	50 (10.0)	56 (13.3)	61 (16.1)	66 (18.9)	70 (21.1)	73 (22.8)	76 (24.4)	80 (26.7)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	83 (28.3)	83 (28.3)	83 (28.3)	83 (28.3)	77 (25.0)	65 (18.3)	62 (16.7)	58 (14.4)	45 (7.2)
Daily Maximum:	87 (30.6)	87 (30.6)	87 (30.6)	87 (30.6)	82 (27.8)	70 (21.1)	67 (19.4)	63 (17.2)	50 (10.0)

(E) Muskingum river - entire mainstem. Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	45 (7.2)	45 (7.2)	53 (11.7)	53 (11.7)	58 (14.4)	65 (18.3)	68 (20.0)	72 (22.2)	76 (24.4)
Daily Maximum:	50 (10.0)	50 (10.0)	58 (14.4)	58 (14.4)	63 (17.2)	70 (21.1)	74 (23.3)	77 (25.0)	84 (28.9)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	85 (29.4)	85 (29.4)	85 (29.4)	85 (29.4)	80 (26.7)	73 (22.8)	67 (19.4)	62 (16.7)	47 (8.3)
Daily Maximum:	89 (31.7)	89 (31.7)	89 (31.7)	89 (31.7)	85 (29.4)	77 (25.0)	72 (22.2)	67 (19.4)	52 (11.1)

(F) Mahoning river - Leavitt road dam (river mile 46.1) to the Ohio- Pennsylvania state line (river mile 12.6). Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	47 (8.3)	47 (8.3)	50 (10.0)	54 (12.2)	59 (15.0)	65 (18.3)	68 (20.0)	73 (22.8)	77 (25.0)
Daily Maximum:	53 (11.7)	53 (11.7)	57 (13.9)	61 (16.1)	65 (18.3)	70 (21.1)	76 (24.4)	79 (26.1)	84 (28.9)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	85 (29.4)	85 (29.4)	85 (29.4)	85 (29.4)	78 (25.6)	73 (22.8)	67 (19.4)	60 (15.6)	51 (10.6)
Daily Maximum:	89 (31.7)	89 (31.7)	89 (31.7)	89 (31.7)	83 (28.3)	77 (25.0)	72 (22.2)	66 (18.9)	55 (12.8)

(G) General lake Erie basin - includes all surface waters of the state within the boundaries of the lake Erie drainage basin, excluding lake Erie and those water bodies as designated in paragraphs (H) to (L) of this table. Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	44 (6.7)	44 (6.7)	48 (8.9)	51 (10.6)	54 (12.2)	60 (15.6)	64 (17.8)	66 (18.9)	72 (22.2)
Daily Maximum:	49 (9.4)	49 (9.4)	53 (11.7)	56 (13.3)	61 (16.1)	65 (18.3)	69 (20.6)	72 (22.2)	76 (24.4)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	82 (27.8)	82 (27.8)	82 (27.8)	82 (27.8)	75 (23.9)	67 (19.4)	61 (16.1)	54 (12.2)	44 (6.7)
Daily Maximum:	85 (29.4)	85 (29.4)	85 (29.4)	85 (29.4)	80 (26.7)	72 (22.2)	66 (18.9)	59 (15.0)	49 (9.4)

(H) Lake Erie tributary ~~estuaries~~lacustuaries - includes all lake Erie tributary ~~estuaries~~lacustuaries within the lake breakwaters and extending upstream to the lake Erie mean high water level. Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	-	-	-	-	-	-	-	-	-
Daily Maximum:	52 (11.1)	52 (11.1)	55 (12.8)	55 (12.8)	59 (15.0)	63 (17.2)	66 (18.9)	76 (24.4)	82 (27.8)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	84 (28.9)	84 (28.9)	84 (28.9)	84 (28.9)	-	-	-	-	-
Daily Maximum:	88 (31.1)	88 (31.1)	88 (31.1)	88 (31.1)	84 (28.9)	75 (23.9)	70 (21.1)	65 (18.3)	55 (12.8)

(I) Maumee river - Ohio-Indiana state line to Maumee river ~~estuary~~lacustuary. Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	45 (7.2)	45 (7.2)	47 (8.3)	53 (11.7)	58 (14.4)	61 (16.1)	67 (19.4)	70 (21.1)	75 (23.9)
Daily Maximum:	50 (10.0)	50 (10.0)	52 (11.1)	58 (14.4)	63 (17.2)	68 (20.0)	72 (22.2)	76 (24.4)	80 (26.7)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	85 (29.4)	85 (29.4)	85 (29.4)	85 (29.4)	80 (26.7)	71 (21.7)	65 (18.3)	58 (14.4)	45 (7.2)
Daily Maximum:	89 (31.7)	89 (31.7)	89 (31.7)	89 (31.7)	85 (29.4)	76 (24.4)	70 (21.1)	63 (17.2)	50 (10.0)

(J) Maumee bay - includes all waters of the state known as Maumee bay including the Maumee river ~~estuary~~lacustuary and the ~~estuary~~lacustuary portions of all tributaries entering Maumee bay to the lake Erie mean high water level. Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	47 (8.3)	47 (8.3)	48 (8.9)	50 (10.0)	52 (11.1)	57 (13.9)	61 (16.1)	65 (18.3)	71 (21.7)
Daily Maximum:	52 (11.1)	52 (11.1)	53 (11.7)	54 (12.2)	59 (15.0)	63 (17.2)	63 (18.9)	76 (24.4)	77 (25.0)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	83 (29.3)	83 (28.3)	83 (28.3)	83 (28.3)	75 (23.9)	69 (20.6)	64 (17.8)	59 (15.0)	47 (8.3)
Daily Maximum	87 (30.6)	87 (30.6)	87 (30.6)	87 (30.6)	80 (26.7)	74 (23.3)	69 (20.6)	64 (17.8)	52 (11.1)

(K) Sandusky bay - includes all waters of the state known as Sandusky bay including the Sandusky river ~~estuary~~lacustuary and the ~~estuary~~lacustuary portions of all tributaries entering Sandusky bay to the lake Erie mean high water level. Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	47 (8.3)	47 (8.3)	48 (8.9)	50 (10.0)	52 (11.1)	57 (13.9)	63 (17.2)	68 (20.0)	74 (23.3)
Daily Maximum:	52 (11.1)	52 (11.1)	53 (11.7)	55 (12.8)	57 (13.9)	62 (16.7)	68 (20.0)	73 (22.8)	79 (26.1)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	83 (28.3)	83 (28.3)	83 (28.3)	83 (28.3)	75 (23.9)	69 (20.6)	64 (17.8)	59 (15.0)	47 (8.3)
Daily Maximum:	87 (30.6)	87 (30.6)	87 (30.6)	87 (30.6)	80 (26.7)	74 (23.3)	69 (20.6)	64 (17.8)	52 (11.1)

(L) Cuyahoga river - headwaters of the Cuyahoga river gorge dam pool (river mile 46.2) to the Cuyahoga river ship channel (river mile 5.6). Shown as degrees Fahrenheit and (Celsius).

	Jan. 1-31	Feb. 1-29	Mar. 1-15	Mar. 16-31	Apr. 1-15	Apr. 16-30	May 1-15	May 16-31	June 1-15
Average:	45 (7.2)	45 (7.2)	51 (10.6)	53 (11.7)	55 (12.8)	60 (15.6)	65 (18.3)	71 (21.7)	80 (26.7)
Daily Maximum:	49 (9.4)	49 (9.4)	55 (12.8)	57 (13.9)	62 (16.7)	66 (18.9)	70 (21.1)	78 (25.6)	84 (28.9)

	June 16-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-15	Oct. 16-31	Nov. 1-30	Dec. 1-31
Average:	84 (28.9)	84 (28.9)	84 (28.9)	84 (28.9)	77 (25.0)	70 (21.1)	63 (17.2)	55 (12.8)	45 (7.2)
Daily Maximum	88 (31.1)	88 (31.1)	88 (31.1)	88 (31.1)	82 (27.8)	75 (23.9)	69 (20.6)	64 (17.8)	52 (11.1)

Table ~~35-12~~35-9. Water quality criteria for the protection of wildlife.

Additional wildlife criteria for the lake Erie basin may be calculated pursuant to rule 3745-1-43 of the Administrative Code and will be available on the Ohio EPA website at ~~http://www.epa.ohio.gov/dsw/wqs/criteria.aspx~~https://epa.ohio.gov/divisions-and-offices/surface-water/reports-data/water-quality-standards-program.

			Criteria (OMZA)[3]	
Chemical	Form[1]	Units[2]	lake Erie basin	Ohio river basin
DDT	T	mg/l	0.000011[a]	--
Mercury	TR	µg/l	0.0013	--
Polychlorinated biphenyls (PCBs)	T	µg/l	0.00012	0.001[b]
2,3,7,8-TCDD	T	µg/l	3.1E-9	--

1 T = total; TR = total recoverable.

2 µg/l = micrograms per liter (parts per billion).

3 OMZA = outside mixing zone average.

a This criterion applies to the sum of DDT and metabolites.

b In addition, any whole sample of any representative aquatic organisms shall not exceed 0.64 mg/kg (wet weight).