PLEASE NOTE: THIS COMMUNICATION IS EITHER 1) ONLY THE RECOMMENDATION OF AN RRC STAFF ATTORNEY AS TO ACTION THAT THE ATTORNEY BELIEVES THE COMMISSION SHOULD TAKE ON THE CITED RULE AT ITS NEXT MEETING, OR 2) AN OPINION OF THAT ATTORNEY AS TO SOME MATTER CONCERNING THAT RULE. THE AGENCY AND MEMBERS OF THE PUBLIC ARE INVITED TO SUBMIT THEIR OWN COMMENTS AND RECOMMENDATIONS (ACCORDING TO RRC RULES) TO THE COMMISSION.

RRC STAFF OPINION

AGENCY:Environmental Management CommissionRULE CITATION:15A NCAC 02B .0208, .0212, .0214, .0215, .0216, and .0218RECOMMENDED ACTION:RECOMMENDED ACTION:

X Object, based on:

X Failure to comply with the APA

<u>NOTE:</u> At the May 2022 meeting, the Rules Review Commission is scheduled to review the above referenced Rules. These Rules have been carried over from the April 2022 meeting because of a 4-4 tie vote. Additionally, these Rules are now subject to legislative review because the Commission has received more than 10 letters objecting to the Rules and requesting review.

The Commission has received additional and more-detailed comments on this set of Rules, both in favor of and in opposition, since the April meeting. Regulated entities have reported the immense expense they will have to expend to meet the <u>1,4-dioxane</u> surface water standards required by this proposed rule change [Greensboro has stated their estimates for advanced treatment capital costs to be approximately \$300M to upgrade their facility, and a doubling of their operating costs from \$19.5M to \$40.8M].

COMMENT:

This staff opinion recommends the same action as the opinion published for the April 2022 meeting regarding these Rules, and does so for the same reasons: The Rules at issue were not adopted in accordance with Part 2 of the APA, specifically G.S. 150B-21.4, which governs the fiscal and regulatory impact analysis of rules that requires the expenditure or distribution of funds.

Additionally, the recommended action is not asking the Commission to do something in contravention of historic norms. This opinion is also not alleging that the fiscal note prepared by the Environmental Management Commission is erroneous, because it is not for the Rules Review Commission to "check the math" of the fiscal note. This Commission must check whether the fiscal note "state[s] the amount of funds that would be expended or distributed as a result of the *proposed rule change* and explain how the amount was computed." N.C. Gen. Stat. § 150B-21.4.

In this instance, the "proposed rule change" would add 1,4 dioxane to an elaborate regulatory framework. The RRC must check whether the fiscal note prepared by the EMC complies with the APA, Article 2, and "state[s] the amount of funds that would be expended or distributed as a result of the [addition of 1,4 dioxane to this framework] "and explain how the amount was computed." EMC did not do this.

The "Regulatory Impact Analysis" [fiscal note], as it applies to this proposed rule change did not state *any* amount of funds to be expended or distributed, even as it qualitatively describes the anticipated costs (conventional treatment processes "are anticipated to be prohibitively expensive for local governments and the citizens served by public utilities"; schedules of compliance "will be common due to the high cost of treatment technology"; "it is worth acknowledging that the ongoing costs and benefits associated with monitoring and treatment of 1,4-dioxane are likely to be considerable").

This is not sufficient to comply with the APA ("...must state the amount of funds that would be expended..."). The fiscal note even states that "we [EMC] have not included benefit/cost estimates for 1,4-dioxane in this analysis." (fiscal note, p.4). If the APA requires that the amount of funds that would be expended or distributed be stated, then "we [EMC] did not attempt to monetize costs or benefits for 1,4-dioxane," (fiscal note, p. 17), certainly is not sufficient. Even though the APA acknowledges that it is not always possible to quantify the impact of a proposed rule change, it does require that the agency do so "to the greatest extent possible." "We did not attempt to monetize" is not 'assess costs and benefits "to the greatest extent possible," ' and the RRC should not allow EMC to make this change simply because OSBM has stated that this is sufficient.

Therefore, RRC should disapprove this set of Rules. The addition of 1,4-dioxane standards, without any attempt to assess the costs that will be billed to North Carolina taxpayers, does not comply with Article 2 of the APA. If the EMC wishes to add these surface water standards into their regulatory framework, they must first make a transparent assessment and "state the amount of funds that would be expended or distributed as a result of the proposed rule change and explain how the amount was computed.

1 2

32

15A NCAC 02B .0208 is amended as published in 35:22 NCR 2407-2433 as follows:

3 15A NCAC 02B .0208 STANDARDS FOR TOXIC SUBSTANCES AND TEMPERATURE

4 (a) Toxic Substances: the concentration of toxic substances, either alone or in combination with other wastes, in 5 surface waters shall not render waters injurious to aquatic life or wildlife, recreational activities, or public health, nor 6 shall it impair the waters for any designated uses. Specific standards for toxic substances to protect freshwater and 7 tidal saltwater uses are listed in Rules .0211 and .0220 of this Section, respectively. The narrative standard for toxic 8 substances and numerical standards applicable to all waters shall be interpreted as follows:

- 9 (1)The concentration of toxic substances shall not result in chronic toxicity to aquatic life. Any levels 10 in excess of the chronic value for aquatic life shall be considered to result in chronic toxicity. In 11 the absence of direct measurements of chronic toxicity, the concentration of toxic substances shall 12 not exceed the concentration specified by the fraction of the lowest LC50 value that predicts a no 13 effect chronic level as determined by the use of an acceptable Acute to Chronic Ratio (ACR) in 14 accordance with U.S. Environmental Protection Agency (EPA) "Guidelines for Deriving 15 Numerical Water Quality Criteria for the Protection of Aquatic Life and its Uses." In the absence 16 of an ACR, that toxic substance shall not exceed one-one hundredth (0.01) of the lowest LC50 or, 17 if it is demonstrated that a toxic substance has a half-life of less than 96 hours, the maximum concentration shall not exceed one-twentieth (0.05) of the lowest LC50. 18
- The concentration of toxic substances shall not exceed the level necessary to protect human health 19 (2)20 through exposure routes of fish tissue consumption, water consumption, recreation, or other route 21 identified for the water body. Fish tissue consumption shall include the consumption of shellfish. 22 These concentrations of toxic substances shall be determined as follows:
- 23 (A) For non-carcinogens, these concentrations shall be determined using a Reference Dose 24 (RfD) as published by the EPA pursuant to Section 304(a) of the Federal Water Pollution 25 Control Act as amended, a RfD issued by the EPA as listed in the Integrated Risk 26 Information System (IRIS) file, or a RfD approved by the Director after consultation with 27 the State Health director. Water quality standards or criteria used to calculate water 28 quality based effluent limitations to protect human health through the different exposure 29 routes shall be determined as follows: 30 (i) Fish tissue consumption: WQS = (RfD x RSC) x Body Weight / (FCR x BCF)31

where:

33	WQS = water quality standard or criteria;
34	RfD = reference dose;
35	RSC = Relative Source Contribution;
36	FCR = fish consumption rate (based upon 17.5 gm/person-day);

1		BCF = bioconcentration factor or bioaccumulation factor (BAF), as
2		appropriate.
3		Pursuant to Section 304(a) of the Federal Water Pollution Control Act as amended, BCF
4		or BAF values, literature values, or site specific bioconcentration data shall be based on
5		EPA publications; FCR values shall be average consumption rates for a 70 Kg adult for
6		the lifetime of the population; alternative FCR values may be used when it is considered
7		necessary to protect localized populations that may be consuming fish at a higher rate;
8		RSC values, when made available through EPA publications pursuant to Section 304(a)
9		of the Federal Clean Water Pollution Control Act to account for non-water sources of
10		exposure may be either a percentage (multiplied) or amount subtracted, depending on
11		whether multiple criteria are relevant to the chemical;
12		(ii) Water consumption (including a correction for fish consumption):
13		WQS = (RfD x RSC) x Body Weight / [WCR + (FCR x BCF)]
14		where:
15		WQS = water quality standard or criteria;
16		RfD = reference dose;
17		RSC = Relative Source Contribution;
18		FCR = fish consumption rate (based upon 17.5 gm/person-day);
19		BCF = bioconcentration factor or bioaccumulation factor (BAF), as
20		appropriate;
21		WCR = water consumption rate (assumed to be two liters per day for
22		adults).
23		To protect sensitive groups, exposure shall be based on a 10 Kg child drinking one liter
24		of water per day. Standards may also be based on drinking water standards based on the
25		requirements of the Federal Safe Drinking Water Act, 42 U.S.C. 300(f)(g)-1. For
26		non-carcinogens, specific numerical water quality standards have not been included in
27		this Rule because water quality standards to protect aquatic life for all toxic substances
28		for which standards have been considered are more stringent than numerical standards to
29		protect human health from non-carcinogens through consumption of fish. Standards to
30		protect human health from non-carcinogens through water consumption are listed under
31		the water supply classification standards in Rule .0211 of this Section. The equations
32		listed in this Subparagraph shall be used to develop water quality based effluent
33		limitations on a case-by-case basis for toxic substances that are not presently included in
34		the water quality standards. Alternative FCR values may be used when it is necessary to
35		protect localized populations that may be consuming fish at a higher rate;
36	(B)	For carcinogens, the concentrations of toxic substances shall not result in unacceptable
37		health risks and shall be based on a Carcinogenic Potency Factor (CPF). An unacceptable

1	health	risk for cancer shall be more than one case of cancer per one million people
2	expos	ed (10 ⁻⁶ risk level). The CPF is a measure of the cancer-causing potency of a
3	substa	ance estimated by the upper 95 percent confidence limit of the slope of a straight
4	line c	alculated by the Linearized Multistage Model or other appropriate model according
5	to U.S	5. Environmental Protection Agency Guidelines, FR 51 (185): 33992-34003; and FR
6	45 (2)	31 Part V): 79318-79379. Water quality standards or criteria for water quality based
7	efflue	nt limitations shall be calculated using the procedures given in this Part and in Part
8	(A) o	f this Subparagraph. Standards to protect human health from carcinogens through
9	water	consumption are listed under the water supply classification standards in Rules
10	.0212	, .0214, .0215, .0216, and .0218 of this Section. Standards to protect human health
11	from	carcinogens through the consumption of fish (and shellfish) only shall be applicable
12	to all	waters as follows:
13	(i)	Aldrin: 0.05 ng/l;
14	(ii)	Arsenic: 10 ug/l;
15	(iii)	Benzene: 51 ug/l;
16	(iv)	Carbon tetrachloride: 1.6 ug/l;
17	(v)	Chlordane: 0.8 ng/l;
18	(vi)	DDT: 0.2 ng/l;
19	(vii)	Dieldrin: 0.05 ng/l;
20	(viii)	Dioxin: 0.000005 ng/l;
21	(ix)	Heptachlor: 0.08 ng/l;
22	(x)	Hexachlorobutadiene: 18 ug/l;
23	(xi)	Polychlorinated biphenyls (total of all identified PCBs and congeners): 0.064
24		ng/l;
25	(xii)	Polynuclear aromatic hydrocarbons (total of all PAHs): 31.1 ng/l;
26	(xiii)	Tetrachloroethane (1,1,2,2): 4 ug/l;
27	(xiv)	Tetrachloroethylene: 3.3 ug/L; ug/l;
28	(xvi)	Trichloroethylene: 30 ug/l;
29	(xvii)	Vinyl chloride: 2.4 ug/l. <u>ug/l;</u>
30	<u>(xviii</u>	<u>1,4-Dioxane: 80 ug/l.</u>
31	The v	alues listed in Subparts (i) through (xvii) (xviii) of this Part may be adjusted by the
32	Comr	nission or its designee on a case-by-case basis to account for site-specific or
33	chem	ical-specific information pertaining to the assumed BCF, FCR, or CPF values or
34	other	data.
35	(b) Temperature: the Commissi	on may establish a water quality standard for temperature for specific water bodies
36	other than the standards specifie	d in Rules .0211 and .0220 of this Section upon a case-by-case determination that

37 thermal discharges to these waters that serve or may serve as a source or receptor of industrial cooling water provide

for the maintenance of the designated best use throughout a portion of the water body. Such revisions of the temperature standard shall be consistent with the provisions of Section 316(a) of the Federal Water Pollution Control Act, as amended. A list of such revisions shall be maintained and made available to the public by the Division.

History Note: Authority G.S. 143-214.1; 143-215.3(a)(1); *Eff. February 1, 1976; Amended Eff. May 1, 2007; April 1, 2003; February 1, 1993; October 1, 1989; January 1, 1985; September 9, 1979; Readopted Eff. November 1, 2019; Amended Eff. May 1, 2022.*

1 15A NCAC 02B .0212 is amended as published in 35:22 NCR 2407-2433 as follows:

Z		
3	15A NCAC 02B	.0212 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-I
4		WATERS
5	The following wa	ater quality standards shall apply to surface waters within water supply watersheds classified as WS-I.
6	Water quality sta	indards applicable to Class C waters as described in Rule .0211 of this Section shall also apply to
7	Class WS-I water	rs.
8	(1)	The best usage of waters classified as WS-I shall be as a source of water supply for drinking,
9		culinary, or food processing purposes for those users desiring maximum protection of their water
10		supplies in the form of the most stringent WS classification, and any best usage specified for Class
11		C waters. Class WS-I waters are waters located on land in public ownership and waters located in
12		undeveloped watersheds.
13	(2)	The best usage of waters classified as WS-I shall be maintained as follows:
14		(a) Water quality standards in a WS-I watershed shall meet the requirements as specified in
15		Item (3) of this Rule.
16		(b) Wastewater and stormwater point source discharges in a WS-I watershed shall meet the
17		requirements as specified in Item (4) of this Rule.
18		(c) Nonpoint source pollution in a WS-I watershed shall meet the requirements as specified in
19		Item (5) of this Rule.
20		(d) Following approved treatment, as defined in Rule .0202 of this Section, the waters shall
21		meet the Maximum Contaminant Level concentrations considered safe for drinking,
22		culinary, and food-processing purposes that are specified in 40 CFR Part 141 National
23		Primary Drinking Water Regulations and in the North Carolina Rules Governing Public
24		Water Supplies, 15A NCAC 18C .1500, incorporated by reference including subsequent
25		amendments and editions.
26		(e) Sources of water pollution that preclude any of the best uses on either a short-term or
27		long-term basis shall be deemed to violate a water quality standard.
28		(f) The Class WS-I classification may be used to protect portions of Class WS-II, WS-III, and
29		WS-IV water supplies. For reclassifications occurring after the July 1, 1992 statewide
30		reclassification, a WS-I classification that is requested by local governments shall be
31		considered by the Commission if all local governments having jurisdiction in the affected
32		areas have adopted a resolution and the appropriate ordinances as required by G.S. 143-
33		214.5(d) to protect the watershed or if the Commission acts to protect a watershed when
34		one or more local governments has failed to adopt protective measures as required by this
35		Sub-Item.
36	(3)	Water quality standards applicable to Class WS-I Waters shall be as follows:

2

1		(a)	MBAS	(Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the
2			aesthet	ic qualities of water supplies and to prevent foaming;
3		(b)	Total c	oliforms shall not exceed 50/100 ml (MF count) as a monthly geometric mean value
4			in wate	ersheds serving as unfiltered water supplies;
5		(c)	Chlorin	nated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from
6			taste ar	nd odor problems from chlorinated phenols;
7		(d)	Solids,	total dissolved: not greater than exceed 500 mg/l;
8		(e)	Total h	ardness: not greater than 100 mg/l as calcium carbonate (CaCO ₃ or Ca + Mg);
9		(f)	Toxic a	and other deleterious substances that are non-carcinogens:
10			(i)	Barium: 1.0 mg/l;
11			(ii)	Chloride: 250 mg/l;
12			(iii)	Nickel: 25 ug/l;
13			(iv)	Nitrate nitrogen: 10.0 mg/l;
14			(v)	2,4-D: 70 ug/l;
15			(vi)	2,4,5-TP (Silvex): 10 ug/l; and
16			(vii)	Sulfates: 250 mg/l;
17		(g)	Toxic a	and other deleterious substances that are carcinogens:
18			(i)	Aldrin: 0.05 ng/1;
19			(ii)	Arsenic: 10 ug/l;
20			(iii)	Benzene: 1.19 ug/1;
21			(iv)	Carbon tetrachloride: 0.254 ug/l;
22			(v)	Chlordane: 0.8 ng/1;
23			(vi)	Chlorinated benzenes: 488 ug/l;
24			(vii)	DDT: 0.2 ng/1;
25			(viii)	Dieldrin: 0.05 ng/1;
26			(ix)	Dioxin: 0.000005 ng/l;
27			(x)	Heptachlor: 0.08 ng/1;
28			(xi)	Hexachlorobutadiene: 0.44 ug/l;
29			(xii)	Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;
30			(xiii)	Tetrachloroethane (1,1,2,2): 0.17 ug/l;
31			(xiv)	Tetrachloroethylene: 0.7 ug/l;
32			(xv)	Trichloroethylene: 2.5 ug/l; and
33			(xvi)	Vinyl Chloride: 0.025 ug/l. ug/l; and
34			<u>(xvii)</u>	<u>1,4-Dioxane: 0.35 ug/l.</u>
35	(4)	Waste	water and	stormwater point source discharges in a WS-I watershed shall be permitted pursuant
36		to 15A	NCAC 0	2B .0104.

1	(5)	Nonpoint source pollution in a WS-I watershed shall not have an adverse impact, as defined in 15A
2		NCAC 02H .1002, on use as a water supply or any other designated use.
3		
4	History Note:	Authority G.S. 143-214.1; 143-215.3(a)(1);
5		Eff. February 1, 1976;
6		Amended Eff. January 1, 2015; May 1, 2007; April 1, 2003; October 1, 1995; February 1, 1993;
7		March 1, 1991; October 1, 1989;
8		Readopted Eff. November 1, 2019;
9		<u>Amended Eff. May 1, 2022.</u>
10		

1 15A NCAC 02B .0214 is amended as published in 35:22 NCR 2407-2433 as follows:

3 15A NCAC 02B .0214 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-II 4 WATERS 5 The following water quality standards shall apply to surface waters within water supply watersheds classified as 6 WS-II. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section shall also apply 7 to Class WS-II waters. 8 (1)The best usage of waters classified as WS-II shall be as a source of water supply for drinking, 9 culinary, or food-processing purposes for those users desiring maximum protection for their water 10 supplies where a WS-I classification is not feasible as determined by the Commission in accordance 11 with Rule .0212 of this Section and any best usage specified for Class C waters. 12 (2)The best usage of waters classified as WS-II shall be maintained as follows: 13 (a) Water quality standards in a WS-II watershed shall meet the requirements as specified in 14 Item (3) of this Rule. 15 (b) Wastewater and stormwater point source discharges in a WS-II watershed shall meet the 16 requirements as specified in Item (4) of this Rule. 17 Nonpoint source pollution in a WS-II watershed shall meet the requirements as specified (c) 18 in Item (5) of this Rule. 19 Following approved treatment, as defined in Rule .0202 of this Section, the waters shall (d) 20 meet the Maximum Contaminant Level concentrations considered safe for drinking, 21 culinary, and food-processing purposes that are specified in 40 CFR Part 141 National 22 Primary Drinking Water Regulations and in the North Carolina Rules Governing Public 23 Water Supplies, 15A NCAC 18C .1500. 24 Sources of water pollution that preclude any of the best uses on either a short-term or (e) 25 long-term basis shall be deemed to violate a water quality standard. 26 (f) The Class WS-II classification may be used to protect portions of Class WS-III and WS-IV 27 water supplies. For reclassifications of these portions of Class WS-III and WS-IV water 28 supplies occurring after the July 1, 1992 statewide reclassification, a WS-II classification 29 that is requested by local governments shall be considered by the Commission if all local 30 governments having jurisdiction in the affected areas have adopted a resolution and the 31 appropriate ordinances as required by G.S. 143-214.5(d) to protect the watershed or if the 32 Commission acts to protect a watershed when one or more local governments has failed to 33 adopt protective measures as required by this Sub-Item. 34 Water quality standards applicable to Class WS-II Waters shall be as follows: (3) 35 (a) MBAS (Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the 36 aesthetic qualities of water supplies and to prevent foaming;

2

1		(1)	0.1	
1		(b)	-	producing substances contained in sewage or other wastes: only such amounts,
2				r alone or in combination with other substances or wastes, as shall not cause
3			-	leptic effects in water supplies that cannot be corrected by treatment, impair the
4			-	ility of fish, or have an adverse impact, as defined in 15A NCAC 02H .1002, on any
5				age established for waters of this class;
6		(c)		nated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from
7				nd odor problems from chlorinated phenols;
8		(d)	Total h	ardness: not greater than 100 mg/l as calcium carbonate (CaCO ₃ or Ca + Mg);
9		(e)	Solids,	total dissolved: not greater than 500 mg/l;
10		(f)	Toxic a	and other deleterious substances that are non-carcinogens:
11			(i)	Barium: 1.0 mg/l;
12			(ii)	Chloride: 250 mg/l;
13			(iii)	Nickel: 25 ug/l;
14			(iv)	Nitrate nitrogen: 10.0 mg/l;
15			(v)	2,4-D: 70 ug/l;
16			(vi)	2,4,5-TP (Silvex): 10 ug/l; and
17			(vii)	Sulfates: 250 mg/l;
18		(g)	Toxic a	and other deleterious substances that are carcinogens:
19			(i)	Aldrin: 0.05 ng/1;
20			(ii)	Arsenic: 10 ug/l;
21			(iii)	Benzene: 1.19 ug/1;
22			(iv)	Carbon tetrachloride: 0.254 ug/l;
23			(v)	Chlordane: 0.8 ng/1;
24			(vi)	Chlorinated benzenes: 488 ug/l;
25			(vii)	DDT: 0.2 ng/1;
26			(viii)	Dieldrin: 0.05 ng/1;
27			(ix)	Dioxin: 0.000005 ng/l;
28			(x)	Heptachlor: 0.08 ng/1;
29			(xi)	Hexachlorobutadiene: 0.44 ug/l;
30			(xii)	Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;
31			(xiii)	Tetrachloroethane $(1,1,2,2)$: 0.17 ug/l;
32			(xiv)	Tetrachloroethylene: 0.7 ug/l;
33			(xv)	Trichloroethylene: 2.5 ug/l; and
34			(xvi)	Vinyl Chloride: 0.025 ug/l. ug/l; and
35			<u>(xvii)</u>	<u>1,4-Dioxane: 0.35 ug/l.</u>
36	(4)	Waster		stormwater point source discharges in a WS-II watershed shall meet the following
37	. /		ements:	
		1		

1		(a)	Discharges that qualify for a General NPDES Permit pursuant to 15A NCAC 02H .0127
2			shall be allowed in the entire watershed.
3		(b)	Discharges from trout farms that are subject to Individual NPDES Permits shall be allowed
4			in the entire watershed.
5		(c)	Stormwater discharges that qualify for an Individual NPDES Permit pursuant to 15A
6			NCAC 02H .0126 shall be allowed in the entire watershed.
7		(d)	No discharge of sewage, industrial, or other wastes shall be allowed in the entire watershed
8			except for those allowed by Sub-Items (a) through (c) of this Item or Rule .0104 of this
9			Subchapter, and none shall be allowed that have an adverse effect on human health or that
10			are not treated in accordance with the permit or other requirements established by the
11			Division pursuant to G.S. 143-215.1. Upon request by the Commission, a discharger shall
12			disclose all chemical constituents present or potentially present in their wastes and
13			chemicals that could be spilled or be present in runoff from their facility that may have an
14			adverse impact on downstream water quality. These facilities may be required to have spill
15			and treatment failure control plans as well as perform special monitoring for toxic
16			substances.
17		(e)	New domestic and industrial discharges of treated wastewater that are subject to Individual
18			NPDES Permits shall not be allowed in the entire watershed.
19		(f)	No new landfills shall be allowed in the Critical Area, and no NPDES permits shall be
20			issued for landfills that discharge treated leachate in the remainder of the watershed.
21		(g)	No new permitted sites for land application of residuals or petroleum contaminated soils
22			shall be allowed in the Critical Area.
23	(5)	Nonpo	int source pollution in a WS-II watershed shall meet the following requirements:
24		(a)	Nonpoint source pollution shall not have an adverse impact on waters for use as a water
25			supply or any other designated use.
26		(b)	Class WS-II waters shall be protected as water supplies that are located in watersheds that
27			meet average watershed development density levels specified for Class WS-II waters in
28			Rule .0624 of this Subchapter.
29			
30	History Note:	Author	rity G.S. 143-214.1; 143-215.3(a)(1);
31		Eff. Ma	ay 10, 1979;
32		Amena	led Eff. January 1, 2015; May 1, 2007; April 1, 2003; January 1, 1996; October 1, 1995;
33		Reado	pted Eff. November 1, 2019;
34		<u>Amena</u>	led Eff. May 1, 2022.
35			

1 15A NCAC 02B .0215 is amended as published in 35:22 NCR 2407-2433 as follows:

2

13

14

17

18

3 15A NCAC 02B.0215 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-III 4 WATERS

5 The following water quality standards shall apply to surface waters within water supply watersheds classified as 6 WS-III. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section shall also 7 apply to Class WS-III waters.

- 8 (1) The best usage of waters classified as WS-III shall be as a source of water supply for drinking, 9 culinary, or food-processing purposes for those users where a more protective WS-I or WS-II 10 classification is not feasible as determined by the Commission in accordance with Rules .0212 and 11 .0214 of this Section and any other best usage specified for Class C waters.
- 12 (2) The best usage of waters classified as WS-III shall be maintained as follows:
 - (a) Water quality standards in a WS-III watershed shall meet the requirements as specified in Item (3) of this Rule.
- 15(b)Wastewater and stormwater point source discharges in a WS-III watershed shall meet the16requirements as specified in Item (4) of this Rule.
 - (c) Nonpoint source pollution in a WS-III watershed shall meet the requirements as specified in Item (5) of this Rule.
- 19(d)Following approved treatment, as defined in Rule .0202 of this Section, the waters shall20meet the Maximum Contaminant Level concentrations considered safe for drinking,21culinary, or food-processing purposes that are specified in 40 CFR Part 141 National22Primary Drinking Water Regulations and in the North Carolina Rules Governing Public23Water Supplies, 15A NCAC 18C .1500.
- 24 (e) Sources of water pollution that preclude any of the best uses on either a short-term or
 25 long-term basis shall be deemed to violate a water quality standard.
- 26 (f) The Class WS-III classification may be used to protect portions of Class WS-IV water 27 supplies. For reclassifications of these portions of WS-IV water supplies occurring after 28 the July 1, 1992 statewide reclassification, a WS II classification more protective 29 classification, such as WS-III, that is requested by local governments shall be considered 30 by the Commission if all local governments having jurisdiction in the affected areas have 31 adopted a resolution and the appropriate ordinances as required by G.S. 143-214.5(d) to 32 protect the watershed or if the Commission acts to protect a watershed when one or more 33 local governments has failed to adopt protective measures as required by this Sub-Item.
- 34 (3) Water quality standards applicable to Class WS-III Waters shall be as follows:
- (a) MBAS (Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the
 aesthetic qualities of water supplies and to prevent foaming;

1		(b)	Odor p	roducing substances contained in sewage, industrial wastes, or other wastes: only
2			such ar	nounts, whether alone or in combination with other substances or wastes, as shall
3			not cau	se organoleptic effects in water supplies that cannot be corrected by treatment,
4			impair	the palatability of fish, or have an adverse impact, as defined in 15A NCAC 02H
5			.1002,	on any best usage established for waters of this class;
6		(c)	Chlorin	nated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from
7			taste ar	nd odor problems from chlorinated phenols;
8		(d)	Total h	ardness: not greater than 100 mg/l as calcium carbonate (CaCO ₃ or Ca + Mg);
9		(e)	Solids,	total dissolved: not greater than 500 mg/l;
10		(f)	Toxic a	and other deleterious substances that are non-carcinogens:
11			(i)	Barium: 1.0 mg/l;
12			(ii)	Chloride: 250 mg/l;
13			(iii)	Nickel: 25 ug/l;
14			(iv)	Nitrate nitrogen: 10.0 mg/l;
15			(v)	2,4-D: 70 ug/l;
16			(vi)	2,4,5-TP (Silvex): 10 ug/l; and
17			(vii)	Sulfates: 250 mg/l;
18		(g)	Toxic a	and other deleterious substances that are carcinogens:
19			(i)	Aldrin: 0.05 ng/1;
20			(ii)	Arsenic: 10 ug/l;
21			(iii)	Benzene: 1.19 ug/1;
22			(iv)	Carbon tetrachloride: 0.254 ug/l;
23			(v)	Chlordane: 0.8 ng/1;
24			(vi)	Chlorinated benzenes: 488 ug/l;
25			(vii)	DDT: 0.2 ng/1;
26			(viii)	Dieldrin: 0.05 ng/1;
27			(ix)	Dioxin: 0.000005 ng/l;
28			(x)	Heptachlor: 0.08 ng/1;
29			(xi)	Hexachlorobutadiene: 0.44 ug/l;
30			(xii)	Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;
31			(xiii)	Tetrachloroethane (1,1,2,2): 0.17 ug/l;
32			(xiv)	Tetrachloroethylene: 0.7 ug/l;
33			(xv)	Trichloroethylene: 2.5 ug/l; and
34			(xvi)	Vinyl Chloride: 0.025 ug/l. ug/l; and
35			<u>(xvii)</u>	1,4-Dioxane: 0.35 ug/l.
36	(4)	Waster	water and	stormwater point source discharges in a WS-III watershed shall meet the following
37		require	ements:	

1		(a)	Discharges that qualify for a General NPDES Permit pursuant to 15A NCAC 02H .0127
2			shall be allowed in the entire watershed.
3		(b)	Discharges from trout farms that are subject to Individual NPDES Permits shall be allowed
4			in the entire watershed.
5		(c)	Stormwater discharges that qualify for an Individual NPDES Permit pursuant to 15A
6			NCAC 02H .0126 shall be allowed in the entire watershed.
7		(d)	New domestic wastewater discharges that are subject to Individual NPDES Permits shall
8			not be allowed in the Critical Area and are allowed in the remainder of the watershed.
9		(e)	New industrial wastewater discharges that are subject to Individual NPDES Permits except
10			non-process industrial discharges shall not be allowed in the entire watershed.
11		(f)	No discharge of sewage, industrial, or other wastes shall be allowed in the entire watershed
12			except for those allowed by Sub-Items (a) through (e) of this Item or Rule .0104 of this
13			Subchapter, and none shall be allowed that have an adverse effect on human health or that
14			are not treated in accordance with the permit or other requirements established by the
15			Division pursuant to G.S. 143-215.1. Upon request by the Commission, a discharger shall
16			disclose all chemical constituents present or potentially present in their wastes and
17			chemicals that could be spilled or be present in runoff from their facility that may have an
18			adverse impact on downstream water quality. These facilities may be required to have spill
19			and treatment failure control plans as well as perform special monitoring for toxic
20			substances.
21		(g)	No new landfills shall be allowed in the Critical Area, and no NPDES permits shall be
22			issued for landfills to discharge treated leachate in the remainder of the watershed.
23		(h)	No new permitted sites for land application of residuals or petroleum contaminated soils
24			shall be allowed in the Critical Area.
25	(5)	Nonpoi	nt source pollution in a WS-III watershed shall meet the following requirements:
26		(a)	Nonpoint source pollution shall not have an adverse impact on waters for use as a water
27			supply or any other designated use.
28		(b)	Class WS-III waters shall be protected as water supplies that are located in watersheds that
29			meet average watershed development density levels specified Class WS-III waters in Rule
30			.0624 of this Subchapter.
31			
32	History Note:	Authori	ity G.S. 143-214.1; 143-215.3(a)(1);
33		Eff. Sep	otember 9, 1979;
34		Amende	ed Eff. January 1, 2015; May 1, 2007; April 1, 2003; January 1, 1996; October 1, 1995;
35		Octobe	r 1, 1989;
36		Readop	nted Eff. November 1, 2019;
37		Amende	<u>ed Eff. May 1, 2022.</u>

1 15A NCAC 02B .0216 is amended as published in 35:22 NCR 2407-2433 as follows:

3	15A NCAC 02B .0	0216 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-IV
4		WATERS
5	The following wate	er quality standards shall apply to surface waters within water supply watersheds classified as WS-
6	IV. Water quality s	tandards applicable to Class C waters as described in Rule .0211 of this Section shall also apply to
7	Class WS-IV water	rs.
8	(1) 7	The best usage of waters classified as WS-IV shall be as a source of water supply for drinking,
9	С	culinary, or food-processing purposes for those users where a more protective WS-I, WS-II or WS-
10	Ι	II classification is not feasible as determined by the Commission in accordance with Rules .0212
11	ť	hrough .0215 of this Section and any other best usage specified for Class C waters.
12	(2)	The best usage of waters classified as WS-IV shall be maintained as follows:
13	(a) Water quality standards in a WS-IV watershed shall meet the requirements as specified in
14		Item (3) of this Rule.
15	(b) Wastewater and stormwater point source discharges in a WS-IV watershed shall meet the
16		requirements as specified in Item (4) of this Rule.
17	(c) Nonpoint source pollution in a WS-IV watershed shall meet the requirements as specified
18		in Item (5) of this Rule.
19	(d) Following approved treatment, as defined in Rule .0202 of this Section, the waters shall
20		meet the Maximum Contaminant Level concentrations considered safe for drinking,
21		culinary, or food-processing purposes that are specified in 40 CFR Part 141 National
22		Primary Drinking Water Regulations and in the North Carolina Rules Governing Public
23		Water Supplies, 15A NCAC 18C .1500.
24	(e) Sources of water pollution that preclude any of the best uses on either a short-term or
25		long-term basis shall be deemed to violate a water quality standard.
26	(f) The Class WS-II or WS-III classifications may be used to protect portions of Class WS-IV
27		water supplies. For reclassifications of these portions of WS-IV water supplies occurring
28		after the July 1, 1992 statewide reclassification, a WS IV classification more protective
29		classification, such as a WS-II or WS-III, that is requested by local governments shall be
30		considered by the Commission if all local governments having jurisdiction in the affected
31		areas have adopted a resolution and the appropriate ordinances as required by G.S. 143-
32		214.5(d) to protect the watershed or if the Commission acts to protect a watershed when
33		one or more local governments has failed to adopt protective measures as required by this
34		Sub-Item.
35	(3) V	Water quality standards applicable to Class WS-IV Waters shall be as follows:
36	(a) MBAS (Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the

aesthetic qualities of water supplies and to prevent foaming;

37

2

1	(b)	Odor p	roducing substances contained in sewage, industrial wastes, or other wastes: only
2		such ar	nounts, whether alone or in combination with other substances or waste, as will not
3		cause c	organoleptic effects in water supplies that cannot be corrected by treatment, impair
4		the pala	atability of fish, or have an adverse impact, as defined in 15A NCAC 02H .1002, on
5		any bes	st usage established for waters of this class;
6	(c)	Chlorin	nated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from
7		taste ar	nd odor problems due to chlorinated phenols shall be allowed. Specific phenolic
8		compo	unds may be given a different limit if it is demonstrated not to cause taste and odor
9		probler	ns and not to be detrimental to other best usage;
10	(d)	Total h	ardness: not greater than 100 mg/l as calcium carbonate (CaCO ₃ or Ca + Mg);
11	(e)	Solids,	total dissolved: not greater than 500 mg/l;
12	(f)	Toxic a	and other deleterious substances that are non-carcinogens:
13		(i)	Barium: 1.0 mg/l;
14		(ii)	Chloride: 250 mg/l;
15		(iii)	Nickel: 25 ug/l;
16		(iv)	Nitrate nitrogen: 10.0 mg/l;
17		(v)	2,4-D: 70 ug/l;
18		(vi)	2,4,5-TP (Silvex): 10 ug/l; and
19		(vii)	Sulfates: 250 mg/l;
20	(g)	Toxic a	and other deleterious substances that are carcinogens:
21		(i)	Aldrin: 0.05 ng/1;
22		(ii)	Arsenic: 10 ug/l;
23		(iii)	Benzene: 1.19 ug/1;
24		(iv)	Carbon tetrachloride: 0.254 ug/l;
25		(v)	Chlordane: 0.8 ng/1;
26		(vi)	Chlorinated benzenes: 488 ug/l;
27		(vii)	DDT: 0.2 ng/1;
28		(viii)	Dieldrin: 0.05 ng/1;
29		(ix)	Dioxin: 0.000005 ng/l;
30		(x)	Heptachlor: 0.08 ng/1;
31		(xi)	Hexachlorobutadiene: 0.44 ug/l;
32		(xii)	Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;
33		(xiii)	Tetrachloroethane (1,1,2,2): 0.17 ug/l;
34		(xiv)	Tetrachloroethylene: 0.7 ug/l;
35		(xv)	Trichloroethylene: 2.5 ug/l; and
36		(xvi)	Vinyl Chloride: 0.025 ug/l. ug/l; and
37		<u>(xvii)</u>	<u>1,4-Dioxane: 0.35 ug/l.</u>

1	(4)	Wastewater and stormwater point source discharges in a WS-IV watershed shall meet the following	
2		requir	ements:
3		(a)	Discharges that qualify for a General NPDES Permit pursuant to 15A NCAC 02H .0127
4			shall be allowed in the entire watershed.
5		(b)	Discharges from domestic facilities, industrial facilities and trout farms that are subject to
6			Individual NPDES Permits shall be allowed in the entire watershed.
7		(c)	Stormwater discharges that qualify for an Individual NPDES Permit pursuant to 15A
8			NCAC 02H .0126 shall be allowed in the entire watershed.
9		(d)	No discharge of sewage, industrial wastes, or other wastes shall be allowed in the entire
10			watershed except for those allowed by Sub-Items (a) through (c) of this Item or Rule .0104
11			of this Subchapter, and none shall be allowed that have an adverse effect on human health
12			or that are not treated in accordance with the permit or other requirements established by
13			the Division pursuant to G.S. 143-215.1. Upon request by the Commission, dischargers or
14			industrial users subject to pretreatment standards shall disclose all chemical constituents
15			present or potentially present in their wastes and chemicals that could be spilled or be
16			present in runoff from their facility which may have an adverse impact on downstream
17			water supplies. These facilities may be required to have spill and treatment failure control
18			plans as well as perform special monitoring for toxic substances.
19		(e)	New industrial discharges of treated wastewater in the critical area shall meet the
20			provisions of Rule .0224(c)(2)(D), (E), and (G) of this Section and Rule .0203 of this
21			Section.
22		(f)	New industrial connections and expansions to existing municipal discharges with a
23			pretreatment program pursuant to 15A NCAC 02H .0904 shall be allowed in the entire
24			watershed.
25		(g)	No new landfills shall be allowed in the Critical Area.
26		(h)	No new permitted sites for land application residuals or petroleum contaminated soils shall
27			be allowed in the Critical Area.
28	(5)	Nonpoint source pollution in a WS-IV watershed shall meet the following requirements:	
29		(a)	Nonpoint source pollution shall not have an adverse impact on waters for use as a water
30			supply or any other designated use.
31		(b)	Class WS-IV waters shall be protected as water supplies that are located in watersheds that
32			meet average watershed development density levels specified for Class WS-IV waters in
33			Rule .0624 of this Subchapter.
34			
35	History Note:	Autho	rity G.S. 143-214.1; 143-215.3(a)(1);
36		Eff. Fe	ebruary 1, 1986;

1	Amended Eff. January 1, 2015; May 1, 2007; April 1, 2003; June 1, 1996; October 1, 1995; August
2	1, 1995; June 1, 1994;
3	Readopted Eff. November 1, 2019;
4	<u>Amended Eff. May 1, 2022.</u>

1 15A NCAC 02B .0218 is amended as published in 35:22 NCR 2407-2433 as follows:

2

3 15A NCAC 02B .0218 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-V 4 WATERS 5 The following water quality standards shall apply to surface waters within water supply watersheds classified as 6 WS-V. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section shall also apply 7 to Class WS-V waters. 8 (1)The best usage of waters classified as WS-V shall be as waters that are protected as water supplies 9 which are generally upstream and draining to Class WS-IV waters; waters previously used for 10 drinking water supply purposes; or waters used by industry to supply their employees, but not 11 municipalities or counties, with a raw drinking water supply source, although this type of use is not 12 restricted to WS-V classification; and all Class C uses. 13 (2) The best usage of waters classified as WS-V shall be maintained as follows: 14 Water quality standards in a WS-V water shall meet the requirements as specified in Item (a) 15 (3) of this Rule. 16 (b) Wastewater and stormwater point source discharges in a WS-V water shall meet the 17 requirements as specified in Item (4) of this Rule. 18 Nonpoint source pollution in a WS-V water shall meet the requirements as specified in (c) Item (5) of this Rule. 19 20 (d) Following approved treatment, as defined in Rule .0202 of this Section, the waters shall 21 meet the Maximum Contaminant Level concentrations considered safe for drinking, 22 culinary, or food-processing purposes that are specified in 40 CFR Part 141 National 23 Primary Drinking Water Regulations and in the North Carolina Rules Governing Public 24 Water Supplies, 15A NCAC 18C .1500. 25 The Commission or its designee may apply management requirements for the protection (e) 26 of waters downstream of receiving waters provided in Rule .0203 of this Section. 27 (f) The Commission shall consider a more protective classification for the water supply if a 28 resolution requesting a more protective classification is submitted from all local 29 governments having land use jurisdiction within the affected watershed. 30 Sources of water pollution that preclude any of the best uses on either a short-term or (g) 31 long-term basis shall be deemed to violate a water quality standard; 32 (3)Water quality standards applicable to Class WS-V Waters shall be as follows: 33 MBAS (Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the (a) 34 aesthetic qualities of water supplies and to prevent foaming;

35(b)Odor producing substances contained in sewage, industrial wastes, or other wastes: only36such amounts, whether alone or in combination with other substances or waste, as will not37cause organoleptic effects in water supplies that can not be corrected by treatment, impair

1			the palatability of fish, or have an adverse impact, as defined in 15A NCAC 02H .1002, on
1			any best usage established for waters of this class;
		(a)	
3		(c)	Chlorinated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from
4			taste and odor problems due to chlorinated phenols. Specific phenolic compounds may be
5			given a different limit if it is demonstrated not to cause taste and odor problems and not to
6			be detrimental to other best usage;
7		(d)	Total hardness: not greater than 100 mg/l as calcium carbonate (CaCO ₃ or Ca + Mg);
8		(e)	Solids, total dissolved: not greater than 500 mg/l;
9		(f)	Toxic and other deleterious substances that are non-carcinogens:
10			(i) Barium: 1.0 mg/l;
11			(ii) Chloride: 250 mg/l;
12			(iii) Nickel: 25 ug/l;
13			(iv) Nitrate nitrogen: 10.0 mg/l;
14			(v) 2,4-D: 70 ug/l;
15			(vi) 2,4,5-TP (Silvex): 10 ug/l; and
16			(vii) Sulfates: 250 mg/l;
17		(g)	Toxic and other deleterious substances that are carcinogens:
18			(i) Aldrin: 0.05 ng/1;
19			(ii) Arsenic: 10 ug/l;
20			(iii) Benzene: 1.19 ug/1;
21			(iv) Carbon tetrachloride: 0.254 ug/l;
22			(v) Chlordane: 0.8 ng/1;
23			(vi) Chlorinated benzenes: 488 ug/l;
24			(vii) DDT: 0.2 ng/1;
25			(viii) Dieldrin: 0.05 ng/1;
26			(ix) Dioxin: 0.000005 ng/l;
27			(x) Heptachlor: 0.08 ng/1 ;
28			(xi) Hexachlorobutadiene: 0.44 ug/l;
29			(xii) Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;
30			(xiii) Tetrachloroethane (1,1,2,2): 0.17 ug/l;
31			(xiv) Tetrachloroethylene: 0.7 ug/l;
32			(xv) Trichloroethylene: 2.5 ug/l; and
33			(xvi) Vinyl Chloride: 0.025 ug/l; and
34			(xvii) 1,4-Dioxane: 0.35 ug/l.
35	(4)	No dise	narge of sewage, industrial wastes, or other wastes shall be allowed that have an adverse
36			human health or that are not treated in accordance with the permit or other requirements
37			ed by the Division pursuant to G.S. 143-215.1. Upon request by the Commission,

1		dischargers or industrial users subject to pretreatment standards shall disclose all chemical
2		constituents present or potentially present in their wastes and chemicals that could be spilled or be
3		present in runoff from their facility which may have an adverse impact on downstream water quality.
4		These facilities may be required to have spill and treatment failure control plans as well as perform
5		special monitoring for toxic substances.
6	(5)	Nonpoint Source pollution in a WS-V water shall not have an adverse impact on waters for use as
7		water supply or any other designated use.
8		
9	History Note:	Authority G.S. 143-214.1; 143-215.3(a)(1);
10		<i>Eff. October 1, 1989;</i>
11		Amended Eff. January 1, 2015; May 1, 2007; April 1, 2003; October 1, 1995;
12		Readopted Eff. November 1, 2019;
13		Amended Eff. May 1, 2022.