

**62-302.531 Numeric Interpretations of Narrative Nutrient Criteria.**

(1) The narrative water quality criteria for nutrients in paragraphs 62-302.530(47)(a) and (b), F.A.C., applies to all Class I, Class II, and Class III waters.

(2) The narrative water quality criterion for nutrients in paragraph 62-302.530(47)(b), F.A.C., shall be numerically interpreted for both nutrients and nutrient response variables in a hierarchical manner as follows:

(a) Where a site specific numeric interpretation of the criterion in paragraph 62-302.530(47)(b), F.A.C., has been established by the Department, this numeric interpretation shall be the primary interpretation. If there are multiple interpretations of the narrative criterion for a waterbody, the most recent interpretation established by the Department shall apply. A list of the site specific numeric interpretations of paragraph 62-302.530(47)(b), F.A.C., may be obtained from the Department's internet site at <http://www.dep.state.fl.us/water/wqssp/swq-docs.htm> or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400.

1. The primary site specific interpretations are as follows:

a. Total Maximum Daily Loads (TMDLs) adopted under Chapter 62-304, F.A.C., that interpret the narrative water quality criterion for nutrients in paragraph 62-302.530(47)(b), F.A.C., for one or more nutrients or nutrient response variables;

b. Site specific alternative criteria (SSAC) for one or more nutrients or nutrient response variables as established under Rule 62-302.800, F.A.C.;

c. Estuary-specific numeric interpretations of the narrative nutrient criterion established in Rule 62-302.532, F.A.C.; or

d. Other site specific interpretations for one or more nutrients or nutrient response variables that are formally established by rule or final order by the Department, such as a Reasonable Assurance Demonstration pursuant to Rule 62-303.600, F.A.C., or Level II Water Quality Based Effluent Limitations (WQBEL) established pursuant to Rule 62-650.500, F.A.C. To be recognized as the applicable site specific numeric interpretation of the narrative nutrient criterion, the interpretation must establish the total allowable load or ambient concentration for at least one nutrient that results in attainment of the applicable nutrient response variable that represents achievement of the narrative nutrient criterion for the waterbody. A site specific interpretation is also allowable where there are documented adverse biological effects using one or more Biological Health Assessments, if information on chlorophyll *a* levels, algal mats or blooms, nuisance macrophyte growth, and changes in algal species composition indicate there are no imbalances in flora and a stressor identification study demonstrates that the adverse biological effects are not due to nutrients.

2. For the primary site specific interpretations in subparagraph 62-302.531(2)(a)1., F.A.C., the notice of rulemaking or other public notice shall state that the Department is establishing a site specific interpretation for the receiving waterbody, and offer an opportunity for a public meeting and public comment.

(b) If site specific numeric interpretations, as described in paragraph 62-302.531(2)(a), F.A.C., above, have not been established for a waterbody, but there is an established, quantifiable cause-and-effect relationship between one or more nutrients and nutrient response variables linked to a value that protects against an imbalance in the natural populations of the aquatic flora or fauna, then the numeric values for the nutrients or nutrient response variables, set forth in this paragraph (2)(b), shall be the applicable interpretations. Absent a numeric interpretation as established in paragraph 62-302.531(2)(a), F.A.C., site specific numeric interpretations are established as follows:

1. For lakes, the applicable numeric interpretations of the narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., for chlorophyll *a* are shown in the table below. The applicable interpretations for TN and TP will vary on an annual basis, depending on the availability of chlorophyll *a* data and the concentrations of nutrients and chlorophyll *a* in the lake, as described below. The applicable numeric interpretations for TN, TP, and chlorophyll *a* shall not be exceeded more than once in any consecutive three year period.

a. If there are sufficient data to calculate the annual geometric mean chlorophyll *a* and the mean does not exceed the chlorophyll *a* value for the lake type in the table below, then the TN and TP numeric interpretations for that calendar year shall be the annual geometric means of lake TN and TP samples, subject to the minimum and maximum limits in the table below. However, for lakes with color > 40 PCU in the West Central Nutrient Watershed Region, the maximum TP limit shall be the 0.49 mg/L TP streams threshold for the region; or

b. If there are insufficient data to calculate the annual geometric mean chlorophyll *a* for a given year or the annual geometric mean chlorophyll *a* exceeds the values in the table below for the lake type, then the applicable numeric interpretations for TN and TP shall be the minimum values in the table below.

Long Term Geometric Mean Lake Color and Alkalinity	Annual Geometric Mean Chlorophyll <i>a</i>	Minimum calculated numeric interpretation		Maximum calculated numeric interpretation	
		Annual Geometric Mean Total Phosphorus	Annual Geometric Mean Total Nitrogen	Annual Geometric Mean Total Phosphorus	Annual Geometric Mean Total Nitrogen
> 40 Platinum Cobalt Units	20 µg/L	0.05 mg/L	1.27 mg/L	0.16 mg/L <sup>1</sup>	2.23 mg/L
≤ 40 Platinum Cobalt Units and > 20 mg/L CaCO <sub>3</sub>	20 µg/L	0.03 mg/L	1.05 mg/L	0.09 mg/L	1.91 mg/L
≤ 40 Platinum Cobalt Units and ≤ 20 mg/L CaCO <sub>3</sub>	6 µg/L	0.01 mg/L	0.51 mg/L	0.03 mg/L	0.93 mg/L

<sup>1</sup> For lakes with color > 40 PCU in the West Central Nutrient Watershed Region, the maximum TP limit shall be the 0.49 mg/L TP streams threshold for the region.

c. For the purpose of subparagraph 62-302.531(2)(b)1., F.A.C., color shall be assessed as true color and shall be free from turbidity. Lake color and alkalinity shall be the long-term geometric mean, based on a minimum of ten data points over at least three years with at least one data point in each year. If insufficient alkalinity data are available, long-term geometric mean specific conductance values shall be used, with a value of <100 micromhos/cm used to estimate the 20 mg/L CaCO<sub>3</sub> alkalinity concentration until such time that alkalinity data are available.

2. For spring vents, the applicable numeric interpretation of the narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., is 0.35 mg/L of nitrate-nitrite (NO<sub>3</sub> + NO<sub>2</sub>) as an annual geometric mean, not to be exceeded more than once in any three calendar year period.

(c) For streams, if a site specific interpretation pursuant to paragraph 62-302.531(2)(a) or (2)(b), F.A.C., has not been established, biological information shall be used to interpret the narrative nutrient criterion in combination with Nutrient Thresholds. The narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., shall be interpreted as being achieved in a stream segment where information on chlorophyll *a* levels, algal mats or blooms, nuisance macrophyte growth, and changes in algal species composition indicates there are no imbalances in flora or fauna, and either:

1. The average score of at least two temporally independent SCIs performed at representative locations and times is 40 or higher, with neither of the two most recent SCI scores less than 35, or

2. The nutrient thresholds set forth in the table below are achieved.

Nutrient Watershed Region	Total Phosphorus Nutrient Threshold <sup>1</sup>	Total Nitrogen Nutrient Threshold <sup>1</sup>
Panhandle West	0.06 mg/L	0.67 mg/L
Panhandle East	0.18 mg/L	1.03 mg/L
North Central	0.30 mg/L	1.87 mg/L
Peninsular	0.12 mg/L	1.54 mg/L
West Central	0.49 mg/L	1.65 mg/L
South Florida	No numeric nutrient threshold. The narrative criterion in paragraph 62-302.530(47)(b), F.A.C., applies.	No numeric nutrient threshold. The narrative criterion in paragraph 62-302.530(47)(b), F.A.C., applies.

<sup>1</sup>These values are annual geometric mean concentrations not to be exceeded more than once in any three calendar year period.

(3) Except for data used to establish historical chlorophyll *a* levels, chlorophyll *a* data assessed under this Chapter shall be measured according to the DEP document titled "Applicability of Chlorophyll *a* Methods" (DEP-SAS-002/10), dated October 24, 2011, which is incorporated by reference herein. Copies of the chlorophyll *a* document may be obtained from the Department's internet site at <http://www.dep.state.fl.us/water/wqssp/swq-docs.htm> or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400. Chlorophyll *a* data collected after [7-3-12] shall be corrected for or free from the interference of phaeophytin.

(4) The loading of nutrients from a waterbody shall be limited as necessary to provide for the attainment and maintenance of water quality standards in downstream waters.

(5) To qualify as temporally independent samples, each SCI shall be conducted at least three months apart. SCIs collected at the same location less than three months apart shall be considered one sample, with the mean value used to represent the sampling period.

(6) To calculate an annual geometric mean for TN, TP, or chlorophyll *a*, there shall be at least four temporally-independent samples per year with at least one sample taken between May 1 and September 30 and at least one sample taken during the other months of the calendar year. To be treated as temporally-independent, samples must be taken at least one week apart.

(7) The numeric interpretation of the narrative nutrient criterion shall be applied over a spatial area consistent with its derivation.

(a) For numeric interpretations based on paragraph 62-302.531(2)(a), F.A.C., the spatial application of the numeric interpretation is as defined in the associated order or rule.

(b) For lakes covered under subparagraph 62-302.531(2)(b)1., F.A.C., the numeric interpretation shall be applied as a lake-wide or lake segment-wide average.

(c) For spring vents covered under subparagraph 62-302.531(2)(b)2., F.A.C., the numeric interpretation shall be applied in the surface water at or above the spring vent.

(d) For streams covered under paragraph 62-302.531(2)(c), F.A.C., the spatial application of the numeric interpretation shall be determined by relative stream homogeneity and shall be applied to waterbody segments or aggregations of segments as determined by the site-specific considerations.

(8) Load-based or percent reduction-based nutrient TMDLs or Level II Water Quality Based Effluent Limitations (WQBELs) pursuant to Chapter 62-650, F.A.C., do not need to be converted into concentration-based nutrient TMDLs or WQBELs to be used as the basis for the numeric interpretation of the narrative criterion. For percent reduction-based nutrient TMDLs, the associated allowable load or concentration is the numeric interpretation of the narrative criterion for the waterbody.

(9) The Commission adopts subsections 62-302.200(4), 62-302.200(16)-(17), 62-302.200(22)-(25), 62-302.200(35)-(37), 62-302.200(39), Rule 62-302.531, and subsection 62-302.532(3), F.A.C., to ensure, as a matter of policy, that nutrient pollution is addressed in Florida in an integrated, comprehensive and consistent manner. Accordingly, these rules shall be effective only if EPA approves these rules in their entirety, concludes rulemaking that removes federal numeric nutrient criteria in response to the approval, and determines, in accordance with 33 U.S.C. § 1313(c)(3), that these rules sufficiently address EPA's January 14, 2009 determination. If any provision of these rules is determined to be invalid by EPA or in any administrative or judicial proceeding, then the entirety of these rules shall not be implemented.

*Rulemaking Authority 403.061, 403.062, 403.087, 403.504, 403.704, 403.804 FS. Law Implemented 403.021, 403.061, 403.067, 403.087, 403.088, 403.141, 403.161, 403.182, 403.502, 403.702, 403.708 FS. History—New 7-3-12.*