

## CHAPTER 62-302 SURFACE WATER QUALITY STANDARDS

### 62-302.200 Definitions.

(1) "Acute **t**Toxicity" shall mean a concentration greater than one-third (1/3) of the amount lethal to 50% of the test organisms in 96 hours (96 hr LC<sub>50</sub>) for a species protective of the indigenous aquatic community for a substance not identified in paragraph 62-302.500(1)(c), F.A.C., or for mixtures of substances, including effluents.

(2) "Annual **a**Average **f**Flow" is the long-term harmonic mean flow of the receiving water, or an equivalent flow based on generally accepted scientific procedures in waters for which such a mean cannot be calculated. For waters for which flow records have been kept for at least the last three years, "long-term" shall mean the period of record. For all other waters, "long-term" shall mean three years (unless the Department finds the data from that period not representative of present flow conditions, based on evidence of land use or other changes affecting the flow) or the period of records sufficient to show a variation of flow of at least three orders of magnitude, whichever period is less. For nontidal portions of rivers and streams, the harmonic mean (Q<sub>hm</sub>) shall be calculated as

$$Q_{hm} = \frac{n}{\frac{1}{Q_1} + \frac{1}{Q_2} + \frac{1}{Q_3} + \frac{1}{Q_4} + \dots + \frac{1}{Q_n}},$$

in which each Q is an individual flow record and n is the total number of records. In lakes and reservoirs, the annual average flow shall be based on the hydraulic residence time, which shall be calculated according to generally accepted scientific procedures, using the harmonic mean flows for the inflow sources. In tidal estuaries and coastal systems or tidal portions of rivers and streams, the annual average flow shall be determined using methods described in EPA publication no. 600/6-85/002b pages 142 - 227, incorporated by reference in paragraph 62-4.246(9)(k), F.A.C., or by other generally accepted scientific procedures, using the harmonic mean flow for any freshwater inflow. If there are insufficient data to determine the harmonic mean then the harmonic mean shall be estimated by methods as set forth in the EPA publication Technical Support Document for Water Quality-Based Toxics Control (March 1991), incorporated by reference in paragraph 62-4.246(9)(d), F.A.C., or other generally accepted scientific procedures. In situations with seasonably variable effluent discharge rates, hold-and-release treatment systems, and effluent-dominated sites, annual average flow shall mean modeling techniques that calculate long-term average daily concentrations from long-term individual daily flows and concentrations in accordance with generally accepted scientific procedures.

(3) "Background" shall mean the condition of waters in the absence of the activity or discharge under consideration, based on the best scientific information available to the Department.

(4) "**Biological health assessment**" shall mean one of the following aquatic community-based biological evaluations: **Stream Condition Index (SCI), Lake Vegetation Index (LVI), or Shannon-Weaver Diversity Index.**

**(5) (4) "Chronic tToxicity"**

(a) For a substance without an aquatic life-based criterion in Rule 62-302.530, F.A.C., and where chronic toxicity studies evaluating the toxicity of the substance are available, or for mixtures of substances, including effluents, chronic toxicity shall mean the concentration that equals or exceeds the IC<sub>25</sub> on species protective of the indigenous aquatic community; or

(b) For a substance without an aquatic life-based criterion in Rule 62-302.530, F.A.C., and where chronic toxicity studies evaluating the toxicity of the substance on species protective of the indigenous aquatic community are not available, the chronic toxicity of a substance shall be established as a concentration greater than one-twentieth (1/20) of the amount lethal to 50% of the test organisms in 96 hours (96 hr LC<sub>50</sub>) for a species protective of the indigenous aquatic community.

**(6) (5) "Commission" shall mean the Environmental Regulation Commission.**

**(7) (6) "Compensation pPoint for pPhotosynthetic aActivity"** shall mean the depth at which one percent of the light intensity at the surface remains unabsorbed. The light intensities at the surface and subsurface shall be measured simultaneously by irradiance meters such as Kahlsico Underwater Irradiometer (Model No. 268 WA 310), or other device having a comparable spectral response.

**(8) (7) "Department" shall mean the Department of Environmental Protection.**

**(9) (8) "Designated uUse"** shall mean the present and future most beneficial use of a body of water as designated by the Environmental Regulation Commission by means of the classification system contained in this Chapter.

**(10) (9) "Dissolved mMetal"** shall mean the metal fraction that passes through a 0.45 micron filter.

**(11) (10) "Effluent lLimitation"** shall mean any restriction established by the Department on quantities, rates or concentrations of chemical, physical, biological or other constituents which are discharged from sources into waters of the State.

**(12) (11) "Exceptional eEcological sSignificance"** shall mean that a water body is a part of an ecosystem of unusual value. The exceptional significance may be in unusual species, productivity, diversity, ecological relationships, ambient water quality, scientific or educational interest, or in other aspects of the ecosystem's setting or processes.

**(13) (12) "Exceptional rRecreational sSignificance"** shall mean unusual value as a resource for outdoor recreation activities. Outdoor recreation activities include, but are not limited to, fishing, boating, canoeing, water skiing, swimming, scuba diving, or nature observation. The exceptional significance may be in the intensity of present recreational usage, in an unusual quality of recreational experience, or in the potential for unusual future recreational use or experience.

**(14) (13) "Existing uUses"** shall mean any actual beneficial use of the water body on or after November 28, 1975.

**(15) (14) "IC<sub>25</sub>" or "Inhibition Concentration 25%"** shall mean the concentration of toxicant that causes a 25% reduction in a biological response such as biomass, growth, fecundity, or reproduction in the test population when compared to the control population response.

**(16) "Intermittent stream"** shall mean that portion of a stream that does not flow sufficiently in years with average climatic and hydrologic conditions to conduct two

temporally-independent SCIs, as described in *Sampling and Use of the Stream Condition Index (SCI) for Assessing Flowing Waters: A Primer* (DEP/EA/002/07), which is incorporated by reference herein. Copies of the Primer may be obtained from the Department's internet site at <http://www.dep.state.fl.us/water> or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400.

(17) "Lake" shall mean a freshwater waterbody with a minimum of two acres of contiguous open water that is free from emergent vegetation. Aquatic or floating vegetation may be present in the open water. Lakes include ponds, reservoirs, impoundments, and other similar waterbody types, but do not include springs, streams, or wetlands.

(18) "Lake Vegetation Index (LVI)" shall mean a biological health assessment that measures lake health in predominantly freshwaters using aquatic plants, performed and calculated using the methodologies, dated 03-31-08, in DEP-SOP-002/01 LT 7500, DEP-SOP-002/01 LQ 7300 and DEP-SOP-001/01 FS 7220, which are incorporated by reference herein. Copies of the methodologies may be obtained from the Department's internet site at <http://www.dep.state.fl.us/water> or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400.

(19) (15) "Man-induced conditions which cannot be controlled or abated" shall mean conditions that have been influenced by human activities, and

(a) would remain after removal of all point sources,

(b) would remain after imposition of best management practices for non-point sources, and

(c) cannot be restored or abated by physical alteration of the water body, or there is no reasonable relationship between the economic, social and environmental costs and the benefits of restoration or physical alteration.

(20) (16) "Natural ~~bB~~ background" shall mean the condition of waters in the absence of man-induced alterations based on the best scientific information available to the Department. The establishment of natural background for an altered waterbody may be based upon a similar unaltered waterbody or on historical pre-alteration data.

(21) (17) "Nuisance ~~sS~~ species" shall mean species of flora or fauna whose noxious characteristics or presence in sufficient number, biomass, or areal extent may reasonably be expected to prevent, or unreasonably interfere with, a designated use of those waters.

(22) (18) "Nursery ~~aA~~ area of ~~iI~~ndigenous ~~aA~~quatic ~~lL~~ife" shall mean any bed of the following aquatic plants, either in monoculture or mixed: Halodule wrightii, Halophila spp., Potamogeton spp. (pondweed), Ruppia maritima (widgeon-grass), Sagittaria spp. (arrowhead), Syringodium filiforme (manatee-grass), Thalassia testudinum (turtle grass), or Vallisneria spp. (eel-grass), or any area used by the early-life stages, larvae and post-larvae, of aquatic life during the period of rapid growth and development into the juvenile states.

(23) "Nutrient" shall mean total nitrogen (TN), total phosphorus (TP) or their organic or inorganic forms.

(24) "Nutrient response variable" shall mean a biological variable, such as chlorophyll a, biomass, or structure of the phytoplankton, periphyton or vascular plant

community, that responds to nutrient load or concentration in a predictable and measurable manner.

(25) "Nutrient Watershed Region" shall be as defined by EPA on pages 75805 and 75806 in Volume 75, Number 233 of the Federal Register, as published on December 6, 2010, which are incorporated by reference. Copies of pages 75805 and 75806 may be obtained from the Department's internet site at <http://www.dep.state.fl.us/water> or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400.

(26) (19) "Outstanding Florida Waters" shall mean waters designated by the Environmental Regulation Commission as worthy of special protection because of their natural attributes.

(27) (20) "Outstanding National Resource Waters" shall mean waters designated by the Environmental Regulation Commission that are of such exceptional recreational or ecological significance that water quality should be maintained and protected under all circumstances, other than temporary lowering and the lowering allowed under Section 316 of the Federal Clean Water Act.

(28) (21) "Pollution" shall mean the presence in the outdoor atmosphere or waters of the state of any substances, contaminants, noise, or man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of air or water in quantities or levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, including outdoor recreation.

(29) (22) "Predominantly fFresh wWaters" shall mean surface waters in which the chloride concentration is less than 1,500 milligrams per liter.

(30) (23) "Predominantly mMarine wWaters" shall mean surface waters in which the chloride concentration is greater than or equal to 1,500 milligrams per liter.

(31) (24) "Propagation" shall mean reproduction sufficient to maintain the species' role in its respective ecological community.

(32) (25) "Secretary" shall mean the Secretary of the Department of Environmental Protection.

(33) (26) "Shannon-Weaver Diversity Index" shall mean: negative summation (from  $i=1$  to  $s$ ) of  $(n_i/N) \log_2 (n_i/N)$  where  $s$  is the number of species in a sample,  $N$  is the total number of individuals in a sample, and  $n_i$  is the total number of individuals in species  $i$ .

(34) (27) "Special Waters" shall mean water bodies designated in accordance with Section 62-302.700, F.A.C., by the Environmental Regulation Commission for inclusion in the Special Waters Category of Outstanding Florida Waters, as contained in Section 62-302.700, F.A.C. A Special Water may include all or part of any water body.

(35) "Spring vent" shall mean a location where groundwater flows through a natural opening in the ground onto the land surface or into a surface water.

(36) "Stream" shall mean a flowing, predominantly fresh surface water in a defined channel with banks, and includes rivers, creeks, branches, canals, spring runs, and other similar water bodies. Streams flow during average climatic and hydrologic conditions and do not include intermittent streams, wetlands, or portions of streams that exhibit lake characteristics (e.g., long water residence time, increased width, and predominance of lentic biological taxa).

(37) "Stream Condition Index (SCI)" shall mean a biological health assessment that measures stream health in predominantly freshwaters using benthic macroinvertebrates, performed and calculated using the methodologies, dated 03-31-08, in DEP-SOP-002/01 LT 7200, DEP-SOP-002/01 LQ 7400 and DEP-SOP-001/01 FS 7420, which are incorporated by reference herein. Copies of the methodologies may be obtained from the Department's internet site at <http://www.dep.state.fl.us/water> or by writing to the Florida Department of Environmental Protection, Standards and Assessment Section, 2600 Blair Stone Road, MS 6511, Tallahassee, FL 32399-2400. For water quality standards purposes, the Stream Condition Index shall not apply in the South Florida Nutrient Watershed Region.

(38) (28) "Surface ~~w~~Water" means water upon the surface of the earth, whether contained in bounds created naturally or artificially or diffused. Water from natural springs shall be classified as surface water when it exits from the spring onto the earth's surface.

(39) (29) "Total ~~r~~Recoverable ~~m~~Metal" shall mean the concentration of metal in an unfiltered sample following treatment with hot dilute mineral acid.

(40) (30) "Water quality criteria" shall mean elements of State water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports the present and future most beneficial uses.

(41) (31) "Water quality standards" shall mean standards composed of designated present and future most beneficial uses (classification of waters), the numerical and narrative criteria applied to the specific water uses or classification, the Florida antidegradation policy, and the moderating provisions, such as Site Specific Alternative Criteria, variances, mixing zones, or exemptions contained in this Rule and in F.A.C. Rule 62-4, adopted pursuant to Chapter 403, F.S.

(42) (32) "Waters" shall be as defined in Section 403.031(13), Florida Statutes.

(43) (33) "Zone of ~~m~~Mixing" or "~~m~~Mixing ~~z~~Zone" shall mean a volume of surface water containing the point or area of discharge and within which an opportunity for the mixture of wastes with receiving surface waters has been afforded.

Specific Authority 403.061, 403.062, 403.087, 403.504, 403.704, 403.804, 403.805 FS. Law Implemented 403.021, 403.031, 403.061, 403.085, 403.086, 403.087, 403.088, 403.502, 403.802 FS. History - New 05-29-90, Amended 2-13-92, Formerly 17-302.200, Amended 1-23-95, 5-15-02, 4-2-08, ~~- -11~~.

#### **62-302.530 Table: Surface Water Quality Criteria.**

The following table contains both numeric and narrative surface water quality criteria to be applied except within zones of mixing. The left-hand column of the Table is a list of constituents for which a surface water criterion exists. The headings for the water quality classifications are found at the top of the Table, and the classification descriptions for the headings are specified in subsection 62-302.400(1), F.A.C. Applicable criteria lie within the Table. The individual criteria should be read in conjunction with other provisions in water quality standards, including Rule 62-302.500, F.A.C. The criteria contained in Rule 62-302.500, F.A.C., also apply to all waters unless alternative or more stringent criteria are specified in Rule 62-302.530, F.A.C. Unless otherwise stated, all criteria express the maximum not to be exceeded at any time. In

some cases, there are separate or additional limits, which apply independently of the maximum not to be exceeded at any time. For example, annual average (denoted as “annual avg.” in the Table) means the maximum concentration at average annual flow conditions (see subsection 62-302.200(2), F.A.C.). **Numeric interpretations of the narrative nutrient criterion (paragraph 62-302.530 (47)(b), F.A.C.) shall be expressed as spatial averages and applied over a spatial area consistent with their derivation.** In applying the water quality standards, the Department shall take into account the variability occurring in nature and shall recognize the statistical variability inherent in sampling and testing procedures. The Department’s assessment methodology, set forth in Chapter 62-303, F.A.C., accounts for such natural and statistical variability when used to assess ambient waters pursuant to sections 305(b) and 303(d) of the Federal Clean Water Act.

((INSERT TABLE))

Specific Authority 403.061, 403.062, 403.087, 403.504, 403.704, 403.804 FS. Law Implemented 403.021, 403.061, 403.087, 403.088, 403.141, 403.161, 403.182, 403.502, 403.702, 403.708 FS. History–New 1-28-90, Formerly 17-3.065, Amended 2-13-92, 6-17-92, Formerly 17-302.540, 17-302.550, 17-302.560, 17-302.570, 17-302.580, Amended 4-25-93, Formerly 17-302.530, Amended 1-23-95, 1-15-96, 5-15-02, 7-19-04, 12-7-06, 8-5-10, **- -11.**

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

**(1) The narrative water quality criteria for nutrients in subsection 62-302.530(47), 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 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 shall apply. If a site specific numeric interpretation only addresses one nutrient (e.g., TP but not TN), the narrative shall be independently interpreted for the other nutrient. Site specific interpretations include:**

**1. Total Maximum Daily Loads (TMDLs) adopted under Chapter 62-304, F.A.C., for:**

**a. one or more nutrients or nutrient response variables, or**

**b. dissolved oxygen, if designed to achieve the requirements in paragraph 62-302.530(47)(b), F.A.C.; or**

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

**3. 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.**

**(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 threshold that protects against an imbalance in the natural populations of the aquatic flora or fauna, then the numeric thresholds for the nutrients or nutrient response variables 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 interpretation of the narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., is as follows:

a. The annual geometric mean concentrations shall not exceed the following values more than once in any three calendar year period:

Long Term Average Lake Color and Alkalinity	Chlorophyll a	Total Phosphorus	Total Nitrogen
> 40 and ≤ 140 Platinum Cobalt Units	20 µg/L	0.05 mg/L	1.27 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
≤ 40 Platinum Cobalt Units and < 20 mg/L CaCO <sub>3</sub>	6 µg/L	0.01 mg/L	0.51 mg/L

b. If there are sufficient data to calculate the annual geometric mean chlorophyll a and the magnitude of the chlorophyll a numeric interpretation set forth in sub-subparagraph 62-302.531(2)(b)1.a., F.A.C., above are not exceeded, then the total phosphorus and total nitrogen numeric interpretations shall be the annual geometric mean values of ambient samples, subject to the following upper and lower limits:

Long Term Average Lake Color and Alkalinity	Minimum calculated numeric interpretation		Maximum calculated numeric interpretation	
	Total Phosphorus	Total Nitrogen	Total Phosphorus	Total Nitrogen
> 40 and ≤ 140 Platinum Cobalt Units	0.05 mg/L	1.27 mg/L	0.16 mg/L	2.23 mg/L
≤ 40 Platinum Cobalt Units and > 20 mg/L CaCO <sub>3</sub>	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>	0.01 mg/L	0.51 mg/L	0.03 mg/L	0.93 mg/L

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 average, based on a minimum of ten data points over at least three years with at least one data point in each year. If alkalinity data are unavailable, long-term average 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 threshold until such time that alkalinity data are available.

d. For lakes with long-term average color above 140 Platinum Cobalt Units or with insufficient data to determine lake color and alkalinity as established in subparagraph d. above, the narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., shall apply.

[The Department is still evaluating available lake data and may propose region-specific criteria for Central Florida and other regions.]

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 neither paragraph 62-302.531(2)(a) nor (2)(b), F.A.C., above apply, reference-based nutrient thresholds shall be used to interpret the narrative nutrient criterion only in combination with biological information. The narrative nutrient criterion in paragraph 62-302.530(47)(b), F.A.C., shall be interpreted as being achieved in a stream if the nutrient impairment provisions of subsections 62-303.450(1) and (2), F.A.C., are not being exceeded and:

1. there is an average SCI score of 40 or higher for the two most recent temporally independent SCI evaluations performed at a representative location and time; or

2. the nutrient thresholds set forth in the table below are being attained, unless there is an average SCI score of less than 40 for the two most recent temporally independent SCI evaluations performed at a representative location and time, and a stressor identification study links the adverse biological effects to nutrients.

Nutrient Watershed Region	Reference-based Total Phosphorus <sup>1</sup>	Reference-based Total Nitrogen <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 interpretation. The narrative criterion in paragraph 62-302.530(47)(b), F.A.C., applies.	No numeric interpretation. 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

[During the public workshops and in the “Conceptual Framework” document, the Department described four main attainment outcomes when relying on a combination of reference-based thresholds and bioassessment data to interpret the narrative nutrient criterion for streams. However, when preparing the above rule language, the Department attempted to streamline/ simplify the language, resulting in only two, somewhat more complex outcomes, with additional outcomes described in the Impaired Waters Rule. Alternative language that more closely tracks the outcomes described in the framework document is provided below, and the Department would like feedback on the preferred approach.]

The narrative nutrient criterion of paragraph 62-302.530(47)(b), F.A.C., shall be interpreted in the following manner:

1. Streams that do not exceed the nutrient thresholds, have an average of the two most recent temporally independent SCI scores of 40 or higher at a location and time that is representative of the nutrient concentrations, and do not exceed the nutrient impairment provisions of subsections 62-303.450(1) and (2), F.A.C., meet the narrative nutrient criterion.

2. Streams that exceed the nutrient thresholds, but have an average of the two most recent temporally independent SCI scores of 40 or higher at a location and time that is representative of the nutrient concentrations, and do not exceed the nutrient impairment provisions of subsections 62-303.450(1) and (2), F.A.C., meet the narrative nutrient criterion.

3. Streams that do not exceed the nutrient thresholds and do not exceed the nutrient impairment provisions of subsections 62-303.450(1) and (2), F.A.C., but the average of the two most recent temporally independent SCI scores is less than 40 at a location and time that is representative of the nutrient concentrations, attain the narrative nutrient criterion unless a stressor identification study links the adverse biological effects to nutrients.

4. Streams that exceed the nutrient thresholds and the average of the two most recent temporally independent SCI scores at the same location is less than 40, or do not attain subsections 62-303.450(1) or (2), F.A.C., do not attain the narrative nutrient criterion unless a stressor identification study links the adverse biological effects to causal factor(s) other than nutrients.

(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/003/09), 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> 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 shall be corrected for or free from the interference of phaeophytin.

(4) In no case shall the loading of nutrients from a Class I, Class II, Class III, or Class III-Limited waterbody cause or contribute to an exceedance of water quality standards in a downstream waterbody.

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

(6) To calculate an annual geometric mean, 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. If the numeric interpretation is based on a TMDL or SSAC, the spatial application of the numeric interpretation is as defined in the TMDL document or SSAC rule. For lakes covered under subparagraph 62-302.531(2)(b)1., F.A.C., the numeric interpretation shall be applied as a lake-wide average. For spring vents covered under subparagraph 62-302.531(2)(b)2., F.A.C., the numeric interpretation shall be applied at or above the spring vent. 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 system homogeneity and shall be applied to waterbody segments or aggregations of segments as determined by the site-specific considerations.

(8) Load-based nutrient TMDLs do not need to be converted into concentration-based nutrient TMDLs to be used as the basis for the numeric interpretation of the narrative criterion.

Specific Authority 403.061, 403.062, 403.087, 403.504, 403.704, 403.804 FS. Law Implemented 403.021, 403.061, 403.087, 403.088, 403.141, 403.161, 403.182, 403.502, 403.702, 403.708 FS. History – New - -11.

#### **62-302.800 Site Specific Alternative Criteria.**

(1) Type I Site Specific Alternative Criteria: A water body, or portion thereof, may not meet a particular ambient water quality criterion specified for its classification, due to natural background conditions or man-induced conditions which cannot be controlled or abated. In such circumstances, and upon petition by an affected person or upon the initiation by the Department, the Secretary may establish a site specific alternative water quality criterion when an affirmative demonstration is made that an alternative criterion is more appropriate for a specified portion of waters of the state. Public notice and an opportunity for public hearing shall be provided prior to issuing any order establishing alternative criteria.

(a) The affirmative demonstration required by this section shall mean a documented showing that the proposed alternative criteria would exist due to natural background conditions or man-induced conditions which cannot be controlled or abated. Such demonstration shall be based upon relevant factors which include:

1. A description of the physical nature of the specified water body and the water pollution sources affecting the criterion to be altered.

2. A description of the historical and existing water quality of the parameter of concern including, spatial, seasonal, and diurnal variations, and other parameters or conditions which may affect it. Conditions in similar water bodies may be used for comparison.

3. A description of the historical and existing biology, including variations, which may be affected by the parameter of concern. Conditions in similar water bodies may be used for comparison.

4. A discussion of any impacts of the proposed alternative criteria on the designated use of the waters and adjoining waters.

(b) The Secretary shall specify, by order, the site specific criteria for the parameters which the Secretary determines to have been demonstrated by the preponderance of competent substantial evidence to be more appropriate.

(2) Type II Site Specific Alternative Criteria: In accordance with the procedures set forth below, affected persons may petition the Department to adopt an alternative water quality criterion for a specific water body, or portion thereof, on the basis of site-specific reasons other than those set forth above in subsection 62-302.800(1), F.A.C. The Department shall process any such petition as follows:

(a) No later than 60 days after receipt of a petition, the Department shall review the petition and notify the petitioner of whether the petition is sufficiently complete to enable the Department to evaluate the proposed site-specific alternative criterion under subparagraph (c) below. If the petition is not sufficiently complete, the Department shall request the submittal of additional information. The Department shall review any additional information within 60 days of receipt from the applicant and may then request only that information reasonably needed to clarify or answer new questions directly related to the additional information, unless the Department shows good cause for not having requested the information previously.

(b) Petitions deemed complete by the Department shall be processed under subparagraph (c). For any petition not deemed complete, if the petitioner believes that additional information requested by the Department under subparagraph (a) is not necessary to the Department's evaluation, the Department, at the petitioner's request, shall proceed to process the petition under subparagraph (c) below.

(c) The Department shall initiate rulemaking for the Commission to consider approval of the proposed alternative criterion as a rule if the petitioner meets all the requirements of this subparagraph and its subparts. The petitioner must demonstrate that the proposed criterion would fully maintain and protect human health, existing uses, and the level of water quality necessary to protect human health and existing and designated beneficial uses. If the petition fails to meet any of these requirements (including the required demonstration), the Department shall issue an order denying the petition. In deciding whether to initiate rulemaking or deny the petition, the Department shall evaluate the petition and other relevant information according to the following criteria and procedures:

1. The petition shall include all the information required under subparagraphs (1)(a)1.-4. above.

2. In making the demonstration required by this paragraph (c), the petition shall include an assessment of aquatic toxicity, except on a showing that no such assessment is relevant to the particular criterion. The assessment of aquatic toxicity shall show that physical and chemical conditions at the site alter the toxicity or bioavailability of the compound in question and shall meet the requirements and follow the Indicator Species procedure set forth in *Water Quality Standards Handbook* (December 1983), a publication of the United States Environmental Protection Agency, incorporated here by reference. If, however, the Indicator Species Procedure is not applicable to the proposed site-specific alternative criterion, the petitioner may propose another generally accepted scientific method or procedure to demonstrate with equal

assurance that the alternative criterion will protect the aquatic life designated use of the water body.

3. The demonstration shall also include a risk assessment that determines the human exposure and health risk associated with the proposed alternative criterion, except on a showing that no such assessment is relevant to the particular criterion. The risk assessment shall include all factors and follow all procedures required by generally accepted scientific principles for such an assessment, such as analysis of existing water and sediment quality, potential transformation pathways, the chemical form of the compound in question, indigenous species, bioaccumulation and bioconcentration rates, and existing and potential rates of human consumption of fish, shellfish, and water. If the results of the assessments of health risks and aquatic toxicity differ, the more stringent result shall govern.

4. The demonstration shall include information indicating that one or more assumptions used in the risk assessment on which the existing criterion is based are inappropriate at the site in question and that the proposed assumptions are more appropriate or that physical or chemical characteristics of the site alter the toxicity or bioavailability of the compound. Such a variance of assumptions, however, shall not be a ground for a proposed alternative criterion unless the assumptions characterize a factor specific to the site, such as bioaccumulation rates, rather than a generic factor, such as the cancer potency and reference dose of the compound. Man-induced pollution that can be controlled or abated shall not be deemed a ground for a proposed alternative criterion.

5. The petition shall include all information required for the Department to complete its economic impact statement for the proposed criterion.

6. For any alternative criterion more stringent than the existing criterion, the petition shall include an analysis of the attainability of the alternative criterion.

7. No later than 180 days after receipt of a complete petition or after a petitioner requests processing of a petition not found to be complete, the Department shall notify the petitioner of its decision on the petition. The Department shall publish in the Florida Administrative Weekly either a notice of rulemaking for the proposed alternative criterion or a notice of the denial of the petition, as appropriate, within 30 days after notifying the petitioner of the decision. A denial of the petition shall become final within 14 days unless timely challenged under Section 120.57, F.S.

(d) The provisions of this subsection do not apply to criteria contained in Rule 62-302.500, F.A.C., or criteria that apply to:

1. Biological Integrity (subsection 62-302.530(10), F.A.C.).
2. B.O.D. (subsection 62-302.530(11), F.A.C.).
- ~~3. Nutrients.~~
3. 4. Odor (subsections 62-302.500(1), 62-302.530(21), 62-302.530(48), and paragraphs 62-302.530 (49)(b) and 62-302.530(52)(a), F.A.C.).
4. ~~5.~~ Oils and Greases (subsection 62-302.530(49), F.A.C.).
5. ~~6.~~ Radioactive Substances (subsection 62-302.530(57), F.A.C.).
6. ~~7.~~ Substances in concentrations that injure, are chronically toxic to, or produce adverse physiological or behavioral response in humans, animals, or plants (subsection 62-302.530(61), F.A.C.).

~~7. 8.~~ Substances, other than nutrients, in concentrations that result in the dominance of nuisance species (subsection 62-302.200(20), F.A.C.).

~~8. 9.~~ Total Dissolved Gases (subsection 62-302.530(66), F.A.C.).

~~9. 10.~~ Any criterion or maximum concentration based on or set forth in paragraph 62-4.244(3)(b), F.A.C.

(e) Despite any failure of the Department to meet a deadline set forth in this subsection (2), the grant of an alternative criterion shall not become effective unless approved as a rule by the Commission.

(f) Nothing in this rule shall alter the rights afforded to affected persons by Chapter 120, F.S.

(3) Type III Site Specific Alternative Criteria (SSAC): Upon petition by an affected person or upon the initiation by the Department, the Department shall establish site specific alternative criteria for nutrients when an affirmative demonstration is made that the proposed alternative criteria are fully protective of the designated use for a specified portion of waters of the state. Public notice and an opportunity for public hearing shall be provided prior to adopting any order establishing alternative criteria under this subsection.

(a) The Department shall establish a Type III SSAC only if all of the following conditions are met:

1. The petitioner demonstrates that the waterbody fully supports the propagation and maintenance of a healthy, well-balanced population of fish and wildlife pursuant to subsection 62-302.800(4), F.A.C., at two spatially-independent stations representative of the waterbody. Biological health assessments must comply with the quality assurance requirements of Chapter 62-160, F.A.C. (including adherence to Sampling and Use of the Stream Condition Index (SCI) for Assessing Flowing Waters: A Primer (DEP-SAS-001/09), which was incorporated by reference in section 62-302.200(18), F.A.C., and Sampling and Use of the Lake Vegetation Index (LVI) for Assessing Lake Plant Communities in Florida: A Primer (DEP-SAS-002/09), which was incorporated by reference in section 62-302.200(37), F.A.C.) and shall be conducted during the water quality sampling period described in subparagraph 62-302.800(3)(a)2., F.A.C. There shall be a minimum of two assessments per station, with at least one assessment conducted during the final year.

2. The petitioner provides sufficient data to characterize existing water quality, including temporal variability, such as water quality data collected at the biological monitoring stations every other month over a three year period. Water quality data collected during extreme hydrologic conditions, such as flood and drought events that recur less than once in a twenty-five year period, shall be excluded from the analysis.

3. Downstream waters are attaining water quality standards pursuant to Chapter 62-303, F.A.C., related to nutrient conditions, or the nutrients delivered by the waterbody subject to the Type III SSAC meet the allocations of a downstream TMDL, or are demonstrated to not cause or contribute to nonattainment of water quality standards pursuant to Chapter 62-303, F.A.C. The demonstration of nonattainment shall be based on scientifically-defensible evidence, such as information on excess algal growth, nuisance aquatic plant coverage, or other phytoplankton, periphyton, and vascular plant community responses.

(b) The Type III SSAC shall be established at a level representative of nutrient concentrations that have been demonstrated to be protective of the designated use, while taking into account natural variability by using statistical methods appropriate to the data set.

(4) Biological health assessments are used to demonstrate full support of propagation and maintenance of a healthy, well-balanced population of fish and wildlife (Classes I, II, and III). Biological health assessments will be used by the Department to determine whether a site specific alternative criterion is appropriate and whether the designated use is fully protected.

(a) The designated use of propagation and maintenance of a healthy, well-balanced population of fish and wildlife is fully supported when the average of the two most recent temporally independent Stream Condition Index (SCI) scores or Lake Vegetation Index (LVI) scores at the same location are 40 or above (SCI) or 46 or above (LVI).

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

(5) (3) The Department shall modify permits of existing sources affected in a manner consistent with the Secretary's Order.

(6) (4) Additional relief from criteria established by this Chapter may be provided through exemption pursuant to Rule 62-4.243, F.A.C., or variances as provided for by Rule 62-110.104, F.A.C.

(7) (5) Type II sSite specific alternative criteria apply to the water bodies, or portions of the water bodies, listed below. For dissolved oxygen site specific alternative criteria, normal daily and seasonal fluctuations above the levels listed in the table below shall be maintained. For site specific alternative criteria with seasonal limits, the generally applicable criteria in Rule 62-302.530, F.A.C., apply at other times of the year.

Water Body and Class	Site Specific Alternative Criteria	County(s)
(a) Marine portions of the lower St. Johns River and its tributaries between Julington Creek and the mouth of the river. Class III.	Dissolved Oxygen not less than a minimum concentration of 4.0 mg/L, and a Total Fractional Exposure not greater than 1.0 over an annual evaluation period as defined by the following equation:	Duval/Clay/St. Johns

	$\left( \text{Total Fractional Exposure} \right) = \frac{\text{Days between } 4.0 - < 4.2 \text{ mg/L}}{16 \text{ day Max}} + \frac{\text{Days between } 4.2 - < 4.4 \text{ mg/L}}{21 \text{ day Max}} + \frac{\text{Days between } 4.4 - < 4.6 \text{ mg/L}}{30 \text{ day Max}} + \frac{\text{Days between } 4.6 - < 4.8 \text{ mg/L}}{47 \text{ day Max}} + \frac{\text{Days between } 4.8 - < 5.0 \text{ mg/L}}{55 \text{ day Max}}$ <p>where the number of days in an interval is based on the daily average Dissolved Oxygen concentration.</p>	
<p>(b) Discharge wetlands at the Orange County Eastern Water Reclamation Facility. Class III.</p>	<p>pH of not greater than 8.5 standard units.</p>	<p>Orange</p>
<p>(c) Fenholloway River from river mile -0.1 to river mile 3.5. Class III.</p>	<p>The annual average compensation depth for photosynthetic activity for phytoplankton shall not be decreased greater than 44.3 percent from background conditions as determined by an annual average compensation depth of at least 0.66 meters at river mile 0.53 (station F06). This value must be based on a minimum of 12 measurements during times when the average flow at Coe Island Bridge at river mile 7.15 measures less than 200 cubic feet per second.</p>	<p>Taylor</p>
<p>(d) Fenholloway River coastal waters (Apalachee Bay) as spatially defined by the coordinates (83° 49' 29.95" W, 29° 59' 38.70" N), (83° 45' 3.61" W, 29° 57' 22.10" N), (83° 47' 23.50" W, 29° 54' 5.01" N), and (83° 51' 45.47" W, 29° 56' 25.71" N). Class III.</p>	<p>The annual average down-welling light at 1 m depth at stations F10 (83° 47' 6.60" W, 29° 57' 4.20" N) and F11 (83° 48' 27.00" W, 29° 57' 38.40" N) shall be 27 percent or more of surface values based on a minimum of 12 measurements using a 2 pi sensor during times when the average flow at Hampton Springs Bridge (USGS gage 02325000 near Perry) is less than or equal to 60 cubic feet per second (after subtracting flows from permitted point sources).</p>	<p>Taylor</p>

Specific Authority 403.061, 403.062, 403.087, 403.504, 403.704, 403.804, 403.805 FS. Law Implemented 403.021, 403.061, 403.087, 403.088, 403.141, 403.161, 403.201, 403.502 FS. History—Formerly 17-3.05(4), Amended 3-1-79, 10-2-80, 2-1-83, Formerly 17-3.031, Amended 6-17-92, Formerly 17-302.800, Amended 5-15-02, 1-9-06, 6-28-06, 12-7-06, 8-5-07, 8-5-10, - -11.

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