

**CHAPTER 62-303
IDENTIFICATION OF IMPAIRED SURFACE WATERS**

**PART I
GENERAL**

62-303.200 Definitions.

As used in this chapter:

- (1) “Biological Health Assessment” “Bioassessment” shall mean an aquatic community-based biological evaluation consisting of one of the following procedures: Stream Condition Index, BioRecon, Lake Vegetation Condition Index, or Shannon-Weaver Diversity Index Stream Condition Index.
- (2) “BioRecon” shall mean a biological health assessment that measures stream health in predominantly fresh waters using benthic macroinvertebrates sampled via four sweeps of a D-frame dipnet and identification of the collected organisms to the lowest practical taxonomic level, performed and calculated using the methodologies, dated - -08, in DEP-SOP-001/01 LT 7100, DEP-SOP-001/01 LQ 7400 and DEP-SOP-001/01 FS 7410, which are incorporated by reference herein. evaluation conducted in accordance with standard operating procedures (SOPs) FT 3000, FS 7410, and LT 7100, as promulgated in Rule 62-160.800 F.A.C.
- (3) “Clean techniques” shall mean those applicable field sampling procedures and analytical methods referenced in “Method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, July 1996, USEPA, Office of Water, Engineering and Analysis Division, Washington, D.C.,” which is incorporated by reference.
- (4) “Department” or “DEP” shall mean the Florida Department of Environmental Protection.
- (5) “Designated use” 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 Chapter 62-302, F.A.C.
- (6) “Estuary” shall mean predominantly marine regions of interaction between rivers and nearshore ocean waters, where tidal action and river flow mix fresh and salt water. Such areas include bays, mouths of rivers, and lagoons.
- (7) “Impaired water” shall mean a water body or water body segment that does not meet its applicable water quality standards as set forth in Chapters 62-302 and 62-4, F.A.C, as determined by the methodology in Part III of this chapter, due in whole or in part to discharges of pollutants from point or nonpoint sources.
- (8) “Lake Vegetation Index (LVI)” shall mean a biological health assessment that measures lake (> 2 acres of open water) health in predominantly fresh waters using aquatic plants identified to the lowest practical taxonomic level, performed and calculated using the methodologies, dated - -08, in DEP-SOP-001/01 LT 7500, DEP-SOP-001/01 LQ 7300 and DEP-SOP-001/01 FS 7310, which are incorporated by reference herein. “Lake Condition Index” shall mean the benthic macroinvertebrate component of a biological evaluation conducted following the procedures outlined in “Development of Lake Condition Indexes (LCI) for Florida,” Florida Department of Environmental Protection, July, 2000, which is incorporated by reference.
- (9) “Natural 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.

(10) "Nuisance 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.

(11) "Open coastal waters" shall mean all gulf or ocean waters that are not classified as estuaries or open ocean waters.

(12) "Open ocean waters" means all surface waters extending seaward from the most seaward natural 90-foot (15-fathom) isobath. Contour lines may be determined from National Oceanic and Atmospheric Administration Charts.

(13) "Physical alterations" shall mean human-induced changes to the physical structure of the water body.

(14) "Planning list" shall mean the list of surface waters or segments for which assessments will be conducted to evaluate whether the water is impaired and a TMDL is needed, as provided in subsection 403.067(2), F.S.

(15) "Pollutant" shall be as defined in subsection 502(6) of the CWA. Characteristics of a discharge, including dissolved oxygen, pH, or temperature, shall also be defined as pollutants if they result or may result in the potentially harmful alteration of downstream waters.

(16) "Pollution" shall be as defined in subsection 502(19) of the CWA and subsection 403.031(2), F.S.

(17) "Predominantly fresh waters" shall mean surface waters in which the chloride concentration is less than 1,500 milligrams per liter or specific conductance is less than 4580 $\mu\text{mho/cm}$. Measurements for making this determination shall be taken within the bottom half of the water column.

(18) (17) "Predominantly marine waters" shall mean surface waters in which the chloride concentration at the surface is greater than or equal to 1,500 milligrams per liter or specific conductance is greater than or equal to 4580 $\mu\text{mho/cm}$. Measurements for making this determination shall be taken within the bottom half of the water column.

(19) (18) "Reference water" means a waterbody that exhibits a range of physical, chemical and biological characteristics approximating the natural background conditions of the same, or similar, type of waterbody within an ecologically similar region. A reference water may be representative of the water quality and structure and function of biological communities of natural background conditions even if there is evidence of limited human disturbance in the waterbody or watershed, as long as anthropogenic sources do not produce a significant measurable or predicted effect on the parameter of concern in the waterbody.

(20) (19) "Secretary" shall mean the Secretary of the Florida Department of Environmental Protection.

(21) "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 .

(22) (20) "Spill" shall mean a short-term, unpermitted discharge to surface waters, not to include sanitary sewer overflows or chronic discharges from leaking wastewater collection systems.

(23) (24) "Stream" shall mean a free-flowing, predominantly fresh surface water in a defined channel, and includes rivers, creeks, branches, canals, freshwater sloughs, and other similar water bodies.

(24) (22) "Stream Condition Index (SCI)" shall mean a biological health assessment that measures stream health in predominantly fresh waters using benthic macroinvertebrates sampled via 20 sweeps of a D-frame dipnet and identification of the collected organisms to the lowest

practical taxonomic level, performed and calculated using the methodologies, dated - -08, in DEP-SOP-001/01 LT 7200, DEP-SOP-001/01 LQ 7400 and DEP-SOP-001/01 FS 7420, which are incorporated by reference herein. evaluation conducted in accordance with SOPs FT 3000, FS 7420, and LT 7200, as promulgated in Rule 62-160.800, F.A.C.

~~(25)~~ ~~(23)~~ “Surface water” means those waters of the State upon the surface of the earth to their landward extent, 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.

~~(26)~~ ~~(24)~~ “Total maximum daily load” (TMDL) for an impaired water body or water body segment shall mean the sum of the individual wasteload allocations for point sources and the load allocations for nonpoint sources and natural background. Prior to determining individual wasteload allocations and load allocations, the maximum amount of a pollutant that a water body or water segment can assimilate from all sources without exceeding water quality standards must first be calculated. A TMDL shall include either an implicit or explicit margin of safety and a consideration of seasonal variations.

~~(27)~~ ~~(25)~~ “Trophic State Index” or “TSI” means the trophic state index for lakes, which is based on lake chlorophyll a, Total Nitrogen, and Total Phosphorus levels, and is calculated following the procedures outlined on pages 86 and 87 of the State’s 1996 305(b) report, which are incorporated by reference.

~~(28)~~ ~~(26)~~ “Verified list” shall mean the list of impaired water bodies or segments for which TMDLs will be calculated, as provided in subsection 403.067(4), F.S., and which will be submitted to EPA pursuant to paragraph 303(d)(1) of the CWA.

~~(29)~~ ~~(27)~~ “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.

~~(30)~~ ~~(28)~~ “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 (mixing zones, site-specific alternative criteria, and exemptions) contained in Chapter 62-302, F.A.C., and in Chapter 62-4, F.A.C., adopted pursuant to Chapter 403, F.S.

~~(31)~~ ~~(29)~~ “Water segment” shall mean a portion of a water body that the Department will assess and evaluate for purposes of determining whether a TMDL will be required. Water segments previously evaluated as part of the Department’s 1998 305(b) Report are depicted in the map titled “Water Segments of Florida,” which is incorporated by reference.

~~(32)~~ ~~(30)~~ “Waters” shall be those surface waters described in Section 403.031(13), Florida Statutes.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History - New 6-10-02, Amended 12-11-06, - -08.

PART II THE PLANNING LIST

62-303.310 Evaluation of Aquatic Life Use Support.

A Class I, II, or III water shall be placed on the planning list for assessment of aquatic life use support (propagation and maintenance of a healthy, well-balanced population of fish and wildlife) if, based on sufficient quality and quantity of data, it:

- (1) Exceeds applicable aquatic life-based thresholds as outlined in section 62-303.320, F.A.C.
- (2) Does not meet biological **health** assessment thresholds for its water body type as outlined in section 62-303.330, F.A.C., or
- (3) Exceeds nutrient thresholds as outlined in section 62-303.350, F.A.C.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History - New 6-10-02, Amended 12-11-06, **- -08**.

62-303.320 Aquatic Life-Based Water Quality Criteria Assessment.

(1) Water segments shall be placed on the planning list if, using objective and credible data, as defined by the requirements specified in this section, the number of samples that do not meet an applicable water quality criterion due to pollutant discharges is greater than or equal to the number listed in Table 1 for the given sample size. For sample sizes up to 500, waters are placed on the planning list when 10% or more of the samples do not meet the applicable criteria with a minimum of an 80% confidence level using a binomial distribution. For sample sizes greater than 500, the Department shall calculate the number of samples not meeting the criterion that are needed to list the waterbody with an 80% confidence level for the given sample size using the binomial distribution.

Table 1: Planning List

Minimum number of samples not meeting an applicable water quality criterion needed to put a water on the planning list with at least 80% confidence.					
Sample sizes		Are listed if they have at least this # of samples that do not meet a criterion	Sample sizes		Are listed if they have at least this # of samples that do not meet a criterion
From	To		From	To	
10	15	3	256	264	31
16	23	4	265	273	32
24	31	5	274	282	33
32	39	6	283	292	34
40	47	7	293	301	35
48	56	8	302	310	36
57	65	9	311	320	37
66	73	10	321	329	38
74	82	11	330	338	39
83	91	12	339	348	40
92	100	13	349	357	41
101	109	14	358	367	42
110	118	15	368	376	43
119	126	16	377	385	44
127	136	17	386	395	45
137	145	18	396	404	46
146	154	19	405	414	47
155	163	20	415	423	48
164	172	21	424	432	49
173	181	22	433	442	50
182	190	23	443	451	51
191	199	24	452	461	52
200	208	25	462	470	53
209	218	26	471	480	54
219	227	27	481	489	55
228	236	28	490	499	56
237	245	29	500	500	57
246	255	30			

(2) The Department’s Florida Storage and Retrieval (FLASTORET) database, or its successors, shall be the primary source of data used for determining whether samples do not meet water quality criteria. As required by rule 62-40.540(3), F.A.C., the Department, other state agencies, the Water Management Districts, and local governments collecting surface water quality data in Florida shall enter the data into FLASTORET within one year of collection. Other sampling entities that want to ensure their data will be considered for evaluation should ensure their data are entered into FLASTORET. The Department shall consider data submitted to the Department from other sources and databases if the data meet the sufficiency and data quality requirements of this section.

(3) Unless information presented to the Department demonstrates otherwise, data older than ten years at the time the water segment is proposed for listing on the planning list are not representative of current conditions and shall not be used to develop planning lists, except to evaluate historical trends in chlorophyll a or TSIs. Any determinations by the Department to use data older than 10 years shall be documented, and the documentation shall include the basis for the decision that the data are representative of current conditions. Further, more recent data shall take precedence over older data if:

(a) The newer data indicate a change in water quality and this change is related to changes in pollutant loading to the watershed or improved pollution control mechanisms in the watershed contributing to the assessed area, or

(b) The Department determines that the older data do not meet the data quality requirements of this section or are no longer representative of the water quality of the segment. The Department shall note for the record that the older data were excluded and provide details about why the older data were excluded.

(4) To place a water segment on the planning list using Table 1, a water segment shall have a minimum of ten samples for the ten-year period, with at least five temporally independent samples. To be treated as a temporally independent sample, samples shall be at least one week apart, regardless whether the samples are collected at different locations within the segment.

(a) Samples collected at the same location less than four days apart shall be considered as one sample, with the median value used to represent the sampling period. However, if any of the individual dissolved oxygen (DO) values are less than 1.5 mg/l or , for other parameters, individual values exceed acutely toxic levels as listed in Table 2, then the worst case value shall be used to represent the sampling period. The worst case value is the minimum value for DO, both the minimum and maximum for pH, or the maximum value for other parameters. However, when DO data are available from diel or depth profile studies, the lower tenth percentile value shall be used to represent worst case conditions for comparison against the minimum criteria.

(b) Samples collected within 200 meters of each other will be considered the same station or location, unless there is a tributary, an outfall, or significant change in the hydrography of the water.

(c) Samples collected from different stations within a water segment shall be assessed as separate samples even if collected at the same time.

(d) In making the determination to list water segments, the Department shall consider ambient background conditions, including seasonal and other natural variations.

Table 2. Acutely Toxic Levels for Parameters with Aquatic Life-Based Criteria			
Parameter	Units	Freshwater Value	Marine Value

Aldrin	ug/L	3	1.3
Aluminum	ug/L	750	N/A
Arsenic	ug/L	340	69
Cadmium	ug/L	$\exp((1.0166*(\ln H))-3.924)$	40
Chlordane	ug/L	2.4	0.09
Chlorine	ug/L	19	13
Chromium III	ug/L	$\exp((0.8190(\ln H))+3.7256)$	N/A
Chromium VI	ug/L	16	1100
Copper	ug/L	$\exp((0.9422*(\ln H))-1.700)$	5.8
Cyanide	ug/L	22	1
DDT	ug/L	1.1	0.13
Dieldrin	ug/L	0.24	0.71
Endosulfan	ug/L	0.22	0.034
Endrin	ug/L	0.086	0.037
Heptachlor	ug/L	0.52	0.053
Lead	ug/L	$\exp((1.273(\ln H))-1.460)$	221
Lindane	ug/L	0.95	0.16
Nickel	ug/L	$\exp((0.8460(\ln H))+2.255)$	75
Parathion	ug/L	0.065	N/A
Pentachlorophenol	ug/L	$\exp(1.005(\text{pH})-4.869)$	13
Selenium	ug/L	N/A	290
Silver	ug/L	$\exp((1.72(\ln H))-6.59)$	2.2
Toxaphene	ug/L	0.73	0.21
Zinc	ug/L	$\exp((0.8473(\ln H))+0.884)$	95

(5) For predominantly marine waters, the Department shall evaluate both the minimum allowable DO of 4.0 mg/l and the daily average DO criterion of 5.0 mg/l using Table 1. At least four temporally independent samples are required to calculate the daily average for any given day. For DO, temporally independent shall be defined as at least 4 hours apart. If there are sufficient data to determine daily averages for more than one day within a four-day period, the Department shall use the median value of the daily averages to represent the sampling period.

(6) Notwithstanding the requirements of paragraph (4), water segments shall be included on the planning list if:

(a) There are less than ten samples for the segment, but there are three or more temporally independent samples that do not meet an applicable water quality criterion, or

(b) More than one sample does not meet an acute toxicity-based water quality criterion listed in Chapter 62-302.530, F.A.C., or a water quality criterion for a synthetic organic compound or synthetic pesticide in any three year period.

(7) Values that exceed possible physical or chemical measurement constraints (pH greater than 14, for example) or that represent data transcription errors shall be excluded from the assessment. Outliers identified through statistical procedures shall be evaluated to determine whether they represent valid measures of water quality. If the Department determines that they are not valid, they shall be excluded from the assessment. However, the Department shall note for the record that the data were excluded and explain why they were excluded.

(8) The Department shall consider all readily available water quality data collected and analyzed in accordance with Chapter 62-160, F.A.C. If requested, the sampling agency must provide to the Department all of the data quality assessment elements listed in Table 2 of the

Department's Guidance Document "Data Quality Assessment Elements for Identification of Impaired Surface Waters" (DEP EAS 01-01, April 2001), which is incorporated by reference.

(9) For the assessment of metals criteria,

(a) Surface water data for mercury shall be collected and analyzed using clean sampling and analytical techniques, and

(b) The corresponding hardness value shall be required for freshwater metals criteria that are hardness dependent. If the ambient hardness value is less than 25 mg/L as CaCO₃, then a hardness value of 25 will be used to calculate the criteria. If data are not used due to sampling or analytical techniques or because hardness data were not available, the Department shall note for the record that data were excluded and explain why they were excluded.

(10) For the assessment of the monthly specific conductance criterion, water segments shall be included on the planning list if there is a sufficient number of samples that do not meet the criterion based on the methodology described in this section. However, paragraph 62-03.320(4)(a), F.A.C., does not apply, and all samples collected within a month will be averaged and assessed as one monthly sample.

(11) ~~(10)~~ Surface water data with values below the applicable practical quantification limit (PQL) or method detection limit (MDL) shall be assessed in accordance with Rules 62-4.246(6)(b)-(d) and (8), F.A.C.

(a) If sampling entities want to ensure that their data will be considered for evaluation, they should review the Department's list of approved MDLs and PQLs developed pursuant to Rule 62-4.246, F.A.C., and, if available, use approved analytical methods with MDLs below the applicable water quality criteria. If there are no approved methods with MDLs below a criterion, then the method with the lowest MDL should be used. Analytical results listed as below detection or below the MDL shall not be used for developing planning lists if the MDL was above the criteria and there were, at the time of sample collection, approved analytical methods with MDLs below the criteria on the Department's list of approved MDLs and PQLs.

(b) If appropriate analytical methods were used, then data with values below the applicable MDL will be deemed to meet the applicable water quality criterion and data with values between the MDL and PQL will be deemed to be equal to the MDL.

(12) ~~(14)~~ It should be noted that the data requirements of this rule constitute the minimum data set needed to assess a water segment for impairment. Agencies or groups designing monitoring networks are encouraged to consult with the Department to determine the sample design appropriate for their specific monitoring goals.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History - New 6-10-02, Amended 12-11-06, ~~- -08~~.

62-303.330 Biological Assessment.

(1) Biological data must meet the requirements of paragraphs (3) and (8) in section 62-303.320, F.A.C.

(2) **Biological health assessments Bioassessments** used to **evaluate predominantly fresh water assess** streams and lakes under this rule shall include BioRecons, Stream Condition **Index (SCI) scores Indices (SCIs)**, and **Lake Vegetation Index (LVI) scores** the **benthic macroinvertebrate component of the Lake Condition Index (LCI)**, which only applies to clear lakes with a color less than 20 platinum cobalt units. Because these **biological health assessment bioassessment** procedures

require specific training and expertise, persons conducting the **biological health assessments** **bioassessments** must comply with the quality assurance requirements of Chapter 62-160, F.A.C., attend at least eight hours of Department sanctioned field training, and pass a Department sanctioned field audit that verifies the sampler follows the applicable SOPs in Chapter 62-160, F.A.C., before their **biological health assessment** **bioassessment** data will be considered valid for use under this rule.

(3) **A water segment shall be included on the planning list using biological health assessments if it meets any of the following conditions, which constitute a failed biological health assessment score: Water segments with at least one failed bioassessment or one failure of the biological integrity standard, Rule 62-302.530(11), F.A.C., shall be included on the planning list for assessment of aquatic life use support.**

(a) **There is at least one failure of the biological health standard, subparagraph 62-302.500(3)(d)4., F.A.C.**

(b) **One of the two most recent Stream Condition Index scores, as defined in paragraph 62-302.500(3)(a), F.A.C., is:**

1. **A score of ≤ 34 (Category III); or**

2. **A 20 point reduction from the historic maximum value, as defined in paragraph 62-302.500(3)(c), F.A.C.**

(c) **One of the two most recent BioRecon scores, as defined in paragraph 62-302.500(3)(a), F.A.C., is ≤ 3 (Category III).**

(d) **One of the two most recent Lake Vegetation Index scores, as defined in paragraph 62-302.500(3)(a), F.A.C., is:**

1. **A score ≤ 37 (Category III); or**

2. **A 20 point reduction from the historic maximum value, as defined in paragraph 62-302.500(3)(c), F.A.C.**

(a) ~~In streams, the bioassessment shall be either an SCI or a BioRecon. Failure of a bioassessment for streams consists of a "poor" or "very poor" rating on the Stream Condition Index, or a "fail" rating on the BioRecon.~~

(b) ~~Failure for lakes consists of a "poor" or "very poor" rating on the Lake Condition Index.~~

(4) Other information relevant to the biological **health integrity** of the water segment, including toxicity tests and information about alterations in the type, nature, or function of a waterbody, shall also be considered when assessing aquatic life use support.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History - New 6-10-02, Amended 12-11-06, ~~- -08~~.

62-303.350 Interpretation of Narrative Nutrient Criteria and Implementation of Numeric Criterion for Springs.

(1) Trophic state indices (TSIs) and annual mean chlorophyll a values shall be the primary means for assessing whether a water should be assessed further for nutrient impairment. Other information indicating an imbalance in flora or fauna due to nutrient enrichment, including, but not limited to, algal blooms, excessive macrophyte growth, decrease in the distribution (either in density or areal coverage) of seagrasses or other submerged aquatic vegetation, changes in algal species richness, and excessive diel oxygen swings, shall also be considered.

(2) To be used to determine whether a waterbody should be assessed further for nutrient enrichment,

(a) Data must meet the requirements of paragraphs (2)-(4), (7), and (8) in rule 62-303.320, F.A.C.

(b) At least one sample from each season shall be required in any given year to calculate a Trophic State Index (TSI) or an annual mean chlorophyll a value for that year (for purposes of this chapter, the four seasons shall be January 1 through March 31, April 1 through June 30, July 1 through September 30, October 1 through December 31),

(c) If there are multiple chlorophyll a or TSI values within a season, the average value for that season shall be calculated from the individual values and the four quarterly values shall be averaged to calculate the annual mean for that calendar year,

(d) For data collected after the effective date of this rule, individual TSI values shall only be calculated when the nitrogen, phosphorus, and chlorophyll data were collected at the same time and location,

(e) If there are insufficient data used to calculate a TSI or an annual mean chlorophyll a value in the planning period, but there are data from at least four consecutive seasons, the mean TSI or mean chlorophyll a value for the consecutive seasons shall be used to assess the waterbody,

(f) There must be annual means from at least four years when evaluating the change in TSI over time pursuant to paragraph 62-303.352(3), F.A.C., and

(g) To be assessed under this rule, chlorophyll a data collected after the effective date of this rule shall be corrected chlorophyll a, except for data used to establish historical chlorophyll a levels. Corrected chlorophyll a is the calculated concentration of chlorophyll a remaining after the chlorophyll degradation product, phaeophytin a, has been subtracted from the uncorrected chlorophyll a measurement.

(3) When comparing changes in chlorophyll a or TSI values to historical levels, historical levels shall be based on the lowest five-year average for the period of record. To calculate a five-year average, there must be annual means from at least three years of the five-year period.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History - New 6-10-02, Amended 12-11-06, - -08.

62-303.354 Nutrients in Springs.

Springs shall be included on the planning list for nutrients if there is a sufficient number of samples from the spring that do not meet the applicable monthly mean nitrate-nitrite (NO₃-NO₂) criterion based on the methodology described in Rule 62-303.320, F.A.C., with the exception that paragraph 62-303.320(4)(a), F.A.C., does not apply. All samples collected within a month will be averaged and assessed as one monthly sample.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History - New 6-10-02, Amended 12-11-06, - -08.

62-303.370 Fish and Shellfish Consumption Use Support.

A Class I, II, or III water shall be placed on the planning list for fish and shellfish consumption if:

(1) There is a sufficient number of samples from the water segment that do not meet the applicable Class II water quality criteria for bacteriological quality based on the methodology

described in Rule 62-303.320, F.A.C., with the exception that paragraph 62-303.320(4)(a), F.A.C., does not apply and samples collected on different days within any four day period will be assessed as daily samples, or

(2) There is either a limited or no consumption fish consumption advisory, issued by the DOH, or other authorized governmental entity, in effect for the water segment, or

(3) Methylmercury concentrations in legally harvestable fish or shellfish collected, as per requirements under Chapter 62-160, F.A.C., from the water segment exceed 0.2 mg/kg, or

(4) ~~(3)~~ For Class II waters, the water segment includes an area that is classified by the Department of Agriculture and Consumer Services' Shellfish Environmental Assessment Section (SEAS) in one of the following shellfish harvesting classifications:

(a) Restricted or conditionally restricted,

(b) Conditionally approved, excluding any areas for which SEAS identified only wildlife as the potential source of bacteriological contamination for the shellfish harvesting area, or

(c) Prohibited, unless the prohibited classification is precautionary and not based on water quality data.

(5) ~~(4)~~ For Class II waters, the water segment includes a sampling location that has a median fecal coliform MPN value that exceeds 14 counts per 100 ml for the planning period. To calculate a median value for a sampling location, there shall be at least 10 samples collected during the planning period.

(6) ~~(5)~~ When evaluating a water segment for bacteriological quality under subsection (1), the criterion in subsection 62-302.530(6), F.A.C., used for fecal coliform shall be that the MPN shall not exceed 43 counts per 100 ml.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History—New 6-10-02, Amended 12-11-06, 9-4-07, ~~- -08~~.

PART III THE VERIFIED LIST

62-303.420 Aquatic Life-Based Water Quality Criteria Assessment.

(1) The Department shall reexamine the data used in rule 62-303.320, F.A.C., to determine whether water quality criteria are met.

(a) If values exceeding the criteria are not due to pollutant discharges or reflect natural background conditions, including seasonal or other natural variations, the water shall not be listed on the verified list. In such cases, the Department shall note for the record why the water was not listed and provide the basis for its determination that the exceedances were not due to pollutant discharges.

(b) If the Department has information suggesting that the values not meeting the criterion are due to natural background conditions, including information about the in-stream concentrations of TN, TP, and BOD relative to comparable reference waters for waterbodies with values below the DO criterion, it is the Department's intent to support that conclusion through the use of biological health bioassessment procedures referenced in rule section 62-303.330, F.A.C. The waterbody ~~water body~~ or segment shall not be included on the verified list for the parameter of concern if two or more independent biological health assessments bioassessments are conducted and no failures are reported. To qualify as temporally independent samples, each biological health assessment shall be conducted at least three months apart. In addition, the biological health assessments shall be

conducted at the location or downstream of where the samples were taken that led to placement on the planning list. These biological health assessments shall be conducted subsequent to the collection of samples that led to the placement on the planning list. 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. ~~To be treated as independent bioassessments, they must be conducted at least two months apart, within the assessed segment downstream of where the samples were measured, and after the samples were measured.~~

(2) If the water was listed on the planning list and there were insufficient data from the last five years preceding the planning list assessment to meet the data distribution requirements of subsection 303.320(4), F.A.C., and to meet a minimum sample size for verification of twenty samples, additional data will be collected as needed to provide a minimum sample size of twenty. Once these additional data are collected, the Department shall re-evaluate the data using the approach outlined in subsection rule 62-303.320(1), F.A.C., but using Table 3, and place waters on the verified list when 10% or more of the samples do not meet the applicable criteria, with a minimum of a 90% confidence level using a binomial distribution. The Department shall limit the analysis to data collected during the five years preceding the planning list assessment and the additional data collected pursuant to this paragraph. For sample sizes greater than 500, the Department shall calculate the number of samples not meeting the criterion that are needed for the given sample size using the binomial distribution.

Table 3: Verified List

Minimum number of samples not meeting an applicable water quality criterion needed to put a water on the Verified list with at least 90% confidence.					
Sample sizes		Are listed if they have at least this #of samples that do not meet a criterion	Sample sizes		Are listed if they have at least this # of samples that do not meet a criterion
From	To		From	To	
20	25	5	254	262	33
26	32	6	263	270	34
33	40	7	271	279	35
41	47	8	280	288	36
48	55	9	289	297	37
56	63	10	298	306	38
64	71	11	307	315	39
72	79	12	316	324	40
80	88	13	325	333	41
89	96	14	334	343	42
97	104	15	344	352	43
105	113	16	353	361	44
114	121	17	362	370	45
122	130	18	371	379	46
131	138	19	380	388	47
139	147	20	389	397	48
148	156	21	398	406	49
157	164	22	407	415	50

165	173	23
174	182	24
183	191	25
192	199	26
200	208	27
209	217	28
218	226	29
227	235	30
236	244	31
245	253	32

416	424	51
425	434	52
435	443	53
444	452	54
453	461	55
462	470	56
471	479	57
480	489	58
490	498	59
499	500	60

(3) If the **waterbody water** was placed on the planning list based on worst case values used to represent multiple samples taken during a four day period, the Department shall evaluate whether the worst case value should be excluded from the analysis pursuant to subsections (4) and (5). If the worst case value should not be used, the Department shall then re-evaluate the data following the methodology in **subsection rule** 62-303.420(2), F.A.C., using the more representative worst case value or, if all valid values are below acutely toxic levels, the median value.

(4) If the **waterbody water** was listed on the planning list based on samples that do not meet water quality criteria for metals, the metals data shall be excluded if it is determined that the quality assurance requirements of **subsection rule** 62-303.320(8), F.A.C., were not met or that the sample was not collected and analyzed using clean techniques, if the use of clean techniques is appropriate. The Department shall re-evaluate the remaining valid data using the methodology in **subsection rule** 62-303.420(2), F.A.C., excluding any data that cannot be validated.

(5) Values that exceed possible physical or chemical measurement constraints (pH greater than 14, for example) or that represent data transcription errors, outliers the Department determines are not valid measures of water quality, water quality criteria exceedances due solely to violations of specific effluent limitations contained in state permits authorizing discharges to surface waters, water quality criteria exceedances within permitted mixing zones for those parameters for which the mixing zones are in effect, and water quality data collected following contaminant spills, discharges due to upsets or bypasses from permitted facilities, or rainfall in excess of the 25-year, 24-hour storm, shall be excluded from the assessment carried out under this rule. However, the Department shall note for the record that the data were excluded and explain why they were excluded.

(6) Once the additional data review is completed pursuant to paragraphs (1) through (5), the Department shall re-evaluate the data and shall include waters on the verified list that meet the criteria in **subsection rules** 62-303.420(2) or **paragraph** 62-303.320(6)(b), F.A.C.

(7) Notwithstanding the requirements of paragraph (2), water segments shall also be included on the verified list if, based on representative data collected and analyzed in accordance with Chapter 62-160, F.A.C.:

(a) There are less than twenty samples, but there are five or more samples that do not meet an applicable water quality criterion based on data from at least five temporally independent sampling events, or

(b) Scientifically credible and compelling information regarding the magnitude, frequency, or duration of samples that do not meet an applicable water quality criterion provides overwhelming evidence of impairment. Any determinations to list waters based on this provision shall be documented, and the documentation shall include the basis for the decision.

(c) For any water chemistry data used to list waters under this paragraph, the Department shall include in the administrative record all of the applicable data quality assessment elements listed in Table 2 of the Department's Guidance Document "Data Quality Assessment Elements for Identification of Impaired Surface Waters" (DEP EAS 01-01, April 2001).

(8) If the water was placed on the planning list based on exceedances of the monthly specific conductance criterion, water segments shall be included on the verified list if the number of samples that do not meet the criterion meet the requirements in subsection 62-303.420(6), F.A.C., with the exception that paragraph 62-303.320(4)(a), F.A.C., does not apply. All samples collected within a month will be averaged and assessed as one monthly sample.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.021(11), 403.062, 403.067 FS. History - New 6-10-02, Amended 12-11-06, - -08.

62-303.430 Biological Impairment.

(1) All biological health assessments bioassessments used to list a water body segment on the verified list shall be conducted in accordance with Chapter 62-160, F.A.C., including Department-approved Standard Operating Procedures. To be used for placing waters on the verified list, any biological health assessments bioassessments conducted before the adoption of applicable SOPs for such biological health assessments bioassessments as part of Chapter 62-160, F.A.C., shall substantially comply with the subsequent SOPs.

(2) If the water was listed on the planning list based on biological health assessment bioassessment results, the water shall be determined to be biologically impaired if any of the following conditions occur:

a. The two most recent independent biological health assessments are failures, with scores in Category III, as defined in paragraph 62-302.500(3)(a), F.A.C. If the first failed biological health assessment for a freshwater stream was a BioRecon, then the second must be a Stream Condition Index.

b. The average of the two most recent independent Stream Condition Index scores is 20 or more points below the historic maximum value, as defined in paragraph 62-302.500(3)(c), F.A.C.

c. The average of the two most recent independent Lake Vegetation Index scores is 20 or more points below the historic maximum value, as defined in paragraph 62-302.500(3)(c), F.A.C. there were two or more failed bioassessments within the five years preceding the planning list assessment. If there were less than two failed bioassessments during the last five years preceding the planning list assessment, the Department will conduct an additional bioassessment. If the previous failed bioassessment was a BioRecon, then an SCI will be conducted. Failure of this additional bioassessment shall constitute verification that the water is biologically impaired.

(3) If the water was listed on the planning list based on other information specified in subsection rule 62-303.330(4), F.A.C., indicating biological impairment, the Department will conduct a biological health assessment bioassessment in the water segment, conducted in accordance with the methodology in rule 62-303.330, F.A.C., to verify whether the water is impaired. For predominantly fresh water streams, the biological health assessment bioassessment shall be an SCI. Failure of this biological health assessment bioassessment shall constitute verification that the water is biologically impaired. If available, other scientifically credible methods or procedures may be used to conduct biological health assessments in predominantly marine waters to verify that the water is biologically impaired.

(4) If a waterbody was listed on the planning list based on failure of a biological health assessment under subparagraph 62-302.500(3)(d)4., F.A.C., the Department will conduct a biological health assessment in accordance with the methodology in rule 62-303.330, F.A.C., to verify whether the water is impaired. If an SCI or LVI is not applicable under Chapter 62-160, F.A.C., then the biological health assessment shall be a Shannon-Weaver Diversity Index measurement or other scientifically credible method.

(5) (4) Following verification that a waterbody is biologically impaired, a water shall be included on the verified list for biological impairment if:

(a) There are water quality data reasonably demonstrating the particular pollutant(s) causing the impairment and the concentration of the pollutant(s); and

(b) One of the following demonstrations is made:

1. If there is a numeric criterion for the specified pollutant(s) in Chapter 62-302, F.A.C., but the criterion is met, an identification of the specific factors that reasonably demonstrate why the numeric criterion is not adequate to protect water quality and how the specific pollutant is causing the impairment, or

2. If there is not a numeric criterion for the specified pollutant(s) in Chapter 62-302, F.A.C., an identification of the specific factors that reasonably demonstrate how the particular pollutant(s) are associated with the observed biological effect.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History - New 6-10-02, Amended 12-11-06, - -08.

62-303.450 Interpretation of Narrative Nutrient Criteria and Implementation of Numeric Criterion for Springs.

(1) A water shall be placed on the verified list for impairment due to nutrients if there are sufficient data from the last five years preceding the planning list assessment, combined with historical data (if needed to establish historical chlorophyll a levels or historical TSIs), to meet the data sufficiency requirements of rule 62-303.350(2), F.A.C. If there are insufficient data, additional data shall be collected as needed to meet the requirements. Once these additional data are collected, the Department shall determine if there is sufficient information to develop a site-specific threshold that better reflects conditions beyond which an imbalance in flora or fauna occurs in the water segment. If there is sufficient information, the Department shall re-evaluate the data using the site-specific thresholds. If there is insufficient information, the Department shall re-evaluate the data using the thresholds provided in rule 62-303.351-.353, F.A.C., for streams, lakes, and estuaries, respectively. In any case, the Department shall limit its analysis to the use of data collected during the five years preceding the planning list assessment and the additional data collected in the second phase. If alternative thresholds are used for the analysis, the Department shall provide the thresholds for the record and document how the alternative threshold better represents conditions beyond which an imbalance in flora or fauna is expected to occur.

(2) If the water was listed on the planning list for nutrient enrichment based on other information indicating an imbalance in flora or fauna, as provided in Rule 62-303.350(1), F.A.C., the Department shall verify the imbalance before placing the water on the verified list for impairment due to nutrients and shall provide documentation supporting the imbalance in flora or fauna.

(3) The thresholds for impairment due to nutrients used under subsections (1) and (2) of this section are not required to be used during development of wasteload allocations or TMDLs.

(4) If a spring was listed on the planning list for nutrient enrichment based on exceedances of the monthly nitrate-nitrite criterion for springs, the spring shall be included on the verified list if the number of samples that do not meet the criterion meet the requirements in subsection 62-303.420(6), F.A.C., with the exception that paragraph 62-303.320(4)(a), F.A.C., does not apply. All samples collected within a month will be averaged and assessed as one monthly sample.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History - New 6-10-02, Amended 12-11-06, - -08.

62-303.470 Fish and Shellfish Consumption Use Support.

(1) In order to be used under this part, the Department shall review the data used by the DOH as the basis for fish consumption advisories and determine whether it meets the following requirements:

(a) The advisory is based on the statistical evaluation of fish tissue data from at least twelve fish collected from the specific water segment or water body to be listed,

(b) The data are collected in accordance with DEP SOP FS6000 (General Biological Tissue Sampling) and FS 6200 (Finfish Tissue Sampling), which are incorporated by reference, the sampling entity has established Data Quality Objectives (DQOs) for the sampling, and the data meet the DQOs, and

(c) There are sufficient data or other information from within the last 7.5 years that would support the continuation of the advisory. The Department shall document any decision to list waters with advisories older than 7.5 years, including the data supporting the continuation of the advisory or information demonstrating that older data are representative of current conditions.

(2) Waters with advisories determined to meet the requirements of this section or waters where scientifically credible and compelling information meeting the requirements of Chapter 62-160, F.A.C., indicates the applicable human health-based water quality criteria are not met shall be listed on the verified list. Any determinations to list waters based on this provision shall be documented, and the documentation shall include the basis for the decision.

(3) Waters that were placed on the planning list for fish tissue levels of methylmercury above 0.2 mg/kg in legally harvestable fish or shellfish shall be listed on the verified list provided the following conditions are met:

(a) The average fish tissue level of methylmercury in legally harvestable fish or shellfish is based on the statistical evaluation of fish or shellfish tissue data from at least twelve fish or shellfish collected within the last 7.5 years from the specific water segment or water body to be listed,

(b) The data are collected in accordance with DEP SOPs FS 6000 (General Biological Tissue Sampling), FS 6100 (Shellfish Tissue Sampling), and FS 6200 (Finfish Tissue Sampling), which are incorporated by reference.

(4) (3) Class II waters shall be included on the verified list for coliform impairment if, following review of the available data as described in subsection 62-303.460(2), F.A.C.

(a) The number of samples above 43 counts per 100 ml meet the requirement in subsection 62-303.420(6), F.A.C., with the exception that paragraph 62-303.320(4)(a), F.A.C., does not apply and samples collected on different days within any four day period will be assessed as daily samples, or

(b) The water segment includes a sampling location that has a median fecal coliform MPN value that exceeds 14 counts per 100 ml for the verified period. To calculate a median value for a sampling location, there shall be at least 20 samples collected during the verified period.

~~(5)~~ (4) Waters that qualify for placement on the planning list based on shellfish harvesting classification information shall be verified as impaired for fecal coliforms.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History—New 6-10-02, Amended 12-11-06, 9-4-07, ~~- -08~~.

62-303.500 Prioritization.

(1) When establishing the TMDL development schedule for water segments on the verified list of impaired waters, the Department shall prioritize impaired water segments according to the severity of the impairment and the designated uses of the segment, taking into account the most serious water quality problems; most valuable and threatened resources; and risk to human health and aquatic life. Impaired waters shall be prioritized as high, medium, or low priority.

(2) The following waters shall be designated high priority:

(a) Water segments where the impairment poses a threat to potable water supplies or to human health.

(b) Water segments where the impairment is due to a pollutant regulated by the CWA and the pollutant has contributed to the decline or extirpation of a federally listed threatened or endangered species, as indicated in the Federal Register listing the species.

(3) The following waters shall be designated low priority:

(a) Water segments that are listed before 2010 due to fish consumption advisories for mercury (due to the current insufficient understanding of mercury cycling in the environment).

(b) Man-made canals, urban drainage ditches, and other artificial water segments that are listed only due to exceedances of the dissolved oxygen criteria.

(c) Water segments that were not on a planning list of impaired waters, but which were identified as impaired during the second phase of the watershed management approach and were included in the verified list, unless the segment meets the criteria in paragraph (2) for high priority.

(4) All segments not designated high or low priority shall be medium priority and shall be prioritized based on the following factors:

(a) The presence of Outstanding Florida Waters.

(b) The presence of water segments that fail to meet more than one designated use.

(c) The presence of water segments with greater than twenty-five percent of the samples not meeting an applicable water quality criterion or alternative threshold with a minimum of a 90 percent confidence level.

(d) The presence of water segments that exceed more than one applicable water quality criteria.

~~(e)~~ The presence of water segments for streams that demonstrate a decline from Category I to Category II or III using the Stream Condition Index.

~~(f)~~ The presence of water segments for lakes that demonstrate a decline from Category I to Category II or III using the Lake Vegetation Index.

~~(g)~~ ~~(e)~~ Administrative needs of the TMDL program, including meeting a TMDL development schedule agreed to with EPA, basin priorities related to following the Department's watershed management approach, and the number of administratively continued permits in the basin.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History - New 6-10-02, Amended 12-11-06, ~~- -08~~.

PART IV MISCELLANEOUS PROVISIONS

62-303.720 Delisting Procedure.

(1) Waters on planning lists developed under this chapter that are verified to not be impaired during development of the verified list shall be removed from the State's planning list. Once a water segment is verified to not be impaired pursuant to Part III of this chapter, the data used to place the water on the planning list shall not be the sole basis for listing that water segment on future planning lists.

(2) Water segments shall be removed from the State's verified list only after completion of a TMDL for all pollutants causing impairment of the segment or upon demonstration that the water meets the water quality standard that was previously established as not being met.

(a) For waters listed due to failure to meet aquatic life use support based on water quality criteria or due to threats to human health based on single sample water quality criteria, the water shall be delisted when:

1. The number of samples that do not meet an applicable water quality criterion due to pollutant discharges is less than or equal to the number listed in Table 4 for the given sample size, with a minimum sample size of 30. Waters shall be delisted when 10% or less of the samples do not meet the applicable criterion with a minimum of a 90% confidence level using a binomial distribution, or

2. Following implementation of pollution control activities that are expected to be sufficient to result in attainment of applicable water quality standards, evaluation of new data indicates the water no longer meets the criteria for listing established in Rule 62-303.420, F.A.C., or

3. Following demonstration that the water was inappropriately listed due to flaws in the original analysis, evaluation of available data indicates the water does not meet the criteria for listing established in Rule 62-303.420, F.A.C. New data evaluated under subparagraph 62-303.720(2)(a)1., F.A.C., must meet the following requirements:

a. They must include samples collected during similar conditions (same seasons and general flow conditions) that the data previously used to determine impairment were collected, with no more than 50% of the samples collected in any one quarter,

b. The sample size must be a minimum of 30 samples, and

c. The data must meet the requirements of subsections 62-303.320(4), (6) and (7), F.A.C.

(b) For waters listed due to failure to meet aquatic life use support based on biological data, the water shall be delisted when there are no failures in the two most recent independent biological health assessments ~~the segment passes two independent follow-up bioassessments~~ and there have been no failed biological health assessments bioassessments for at least one year. The follow-up tests must meet the following requirements:

1. For streams, the new data may be two BioRecons or any combination of BioRecons and SCIs.

2. The biological health assessments bioassessments must be conducted during similar conditions (same seasons and general flow conditions) under which the previous biological health assessments bioassessments used to determine impairment were collected.

3. The data must meet the requirements of subsections 62-303.330(1) and (2), F.A.C.

(c) For waters listed due to fish consumption advisories, the water shall be delisted following the lifting of the advisory or when data complying with paragraphs 62-303.470(1)(a) and (b), F.A.C., demonstrate that the continuation of the advisory is no longer appropriate.

(d) For waters listed due to their shellfish bed management classification, the water shall be delisted upon reclassification of the shellfish harvesting area to approved, or for conditionally approved areas, when the only source identified by SEAS for the harvesting area is wildlife.

(e) For waters listed due to bathing area closure or advisory data, the water shall be delisted if the bathing area does not meet the listing thresholds in subsection 62-303.360(1), F.A.C., for five consecutive years.

(f) For waters listed based on impacts to potable water supplies, the water shall be delisted when applicable water quality criteria are met as defined in paragraph 62-303.380(1)(a), F.A.C., and when the causes resulting in higher treatment costs have been ameliorated.

(g) For waters listed pursuant to paragraph 62-303.460(3)(b), 62-303.470(3)(b), or 62-303.480(3)(b), F.A.C., the water shall be delisted when:

1. The criteria applicable to those sections are met for three consecutive years and there are sufficient new data available to calculate monthly values for at least the same seasons in which the exceedances occurred, or

2. Following a demonstration that the water was inappropriately listed due to flaws in the original analysis, including the use of a non-representative sample set.

(h) For waters listed pursuant to paragraph 62-303.460(3)(a), 62-303.470(3)(a), or 62-303.480(3)(a), F.A.C., the water shall be delisted upon meeting the delisting provisions in paragraph 62-303.720(2)(a), F.A.C.

(i) For waters listed based on a human health-based annual average criterion, the water shall be delisted when the annual average concentration is less than the criterion for three consecutive years.

(j) For waters listed based on nutrient impairment, the water shall be delisted if it does not meet the listing thresholds in Rule 62-303.450, F.A.C., for three consecutive years.

(k) For any listed water, the water shall be delisted if, following a change in approved analytical procedures, criteria, or water quality standards, evaluation of available data indicates the water no longer meets the applicable criteria for listing.

(l) For waters listed based on paragraph 62-303.420(7)(b) or subsection 62-303.470(3), F.A.C., the water shall be delisted if the Department determines the water is no longer impaired, based on scientifically credible and compelling information comparable in quantity and quality to the information used to make the initial listing decision. Any determinations to delist waters based on this provision shall be documented, and the documentation shall include the basis for the decision.

Table 4. Delisting				
Maximum number of samples that do not meet an applicable water quality criterion allowable to DELIST with at least 90% confidence.				
Sample Sizes	Maximum # of Samples not		Sample sizes	Maximum # of Samples not

		meeting a criterion allowable for delisting				meeting a criterion allowable for delisting
From	To			From	To	
30	37	0		279	289	21
38	51	1		290	300	22
52	64	2		301	311	23
65	77	3		312	323	24
78	90	4		324	334	25
91	103	5		335	345	26
104	115	6		346	356	27
116	127	7		357	367	28
128	139	8		368	378	29
140	151	9		379	389	30
152	163	10		390	401	31
164	174	11		402	412	32
175	186	12		413	423	33
187	198	13		424	434	34
199	209	14		435	445	35
210	221	15		446	456	36
222	232	16		457	467	37
233	244	17		468	478	38
245	255	18		479	489	39
256	266	19		490	500	40
267	278	20				

(m) For waters listed pursuant to paragraph 62-303.320(6)(b), F.A.C., the water shall be delisted when the applicable criteria are met for at least three consecutive years and there are new data available for the same seasons in which the previous exceedances occurred.

(3) Any delisting of waters from the verified list shall be approved by order of the Secretary at such time as the requirements of this section are met.

Specific Authority 403.061, 403.067 FS. Law Implemented 403.062, 403.067 FS. History—New 6-10-02, Amended 12-11-06, 9-4-07, - -08.