STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

FLORIDA WILDLIFE FEDERATION, INC.; SIERRA CLUB, INC.; CONSERVANCY OF SOUTHWEST FLORIDA, INC.; ENVIRONMENTAL CONFEDERATION OF SOUTHWEST FLORIDA, INC.; AND ST. JOHNS RIVERKEEPER, INC.,	)	
Petitioners,	)	
	)	Case No. 11-6137RP
vs.	)	
DEPARTMENT OF ENVIRONMENTAL PROTECTION,	)	
Respondent,	)	
and	)	
FLORIDA LEAGUE OF CITIES; JAMES SARTORI; CLAY COUNTY UTILITY AUTHORITY; FLORIDA PULP & PAPER ASSOCIATION ENVIRONMENTAL AFFAIRS, INC.; DESTIN WATER USERS, INC.; SOUTH WALTON COUNTY UTILITY CO., INC.; EMERALD COAST UTILITIES AUTHORITY; SOUTH FLORIDA WATER MANAGEMENT DISTRICT; THE FLORIDA ELECTRIC POWER COORDINATING GROUP, INC.; FLORIDA FRUIT AND VEGETABLE ASSOCIATION; FLORIDA SUGAR CANE LEAGUE; AND FLORIDA STORMWATER ASSOCIATION, INC.,	)	
Intervenors.	)	

FLORIDA WILDLIFE FEDERATION, INC.; SIERRA CLUB, INC.; CONSERVANCY OF SOUTHWEST FLORIDA, INC.; ENVIRONMENTAL CONFEDERATION OF SOUTHWEST FLORIDA, INC.; AND ST. JOHNS RIVERKEEPER, INC.,	)	
Petitioners,	)	
vs.	)	Case No. 12-0157RP
DEPARTMENT OF ENVIRONMENTAL PROTECTION,	)	
Respondent,	)	
and	)	
FLORIDA LEAGUE OF CITIES; JAMES SARTORI; CLAY COUNTY UTILITY AUTHORITY; FLORIDA PULP & PAPER ASSOCIATION ENVIRONMENTAL AFFAIRS, INC.; DESTIN WATER USERS, INC.; SOUTH WALTON COUNTY UTILITY CO., INC.; EMERALD COAST UTILITIES AUTHORITY; SOUTH FLORIDA WATER MANAGEMENT DISTRICT; THE FLORIDA ELECTRIC POWER COORDINATING GROUP, INC.; FLORIDA FRUIT AND VEGETABLE ASSOCIATION; FLORIDA SUGAR CANE LEAGUE; AND FLORIDA STORMWATER ASSOCIATION, INC.,	)	
Intervenors.	)	

FINAL ORDER

The final hearing in this case was held on February 27–29 and March 1-2 and 5, 2012, in Tallahassee, Florida, before Bram D. E. Canter, Administrative Law Judge of the Division of Administrative Hearings ("DOAH").

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STATEMENT OF THE ISSUES

The issues to be determined in these consolidated cases are whether existing Florida Administrative Code Rule 62-302.530(47)(b) of the Department of Environmental Protection ("Department"), referred to as the "narrative nutrient rule," is an invalid exercise of delegated legislative authority, and whether certain proposed rules of the Department, which amend Florida Administrative Code Chapters 62-302, entitled “Surface Water Quality Standards” and 62-303, entitled “Identification of Impaired Surface Waters,” are invalid exercises of delegated legislative authority.

PRELIMINARY STATEMENT

On March 1, 1979, the Department adopted a narrative water quality criterion for nutrients in Florida waters, codified as rule 62-302.530(47)(b). On November 10, 2011, the Department published in the Florida Administrative Weekly ("FAW") notices of its proposal to adopt rules amending chapters 62-302 and 62-303 related to the regulation of nutrients in surface waters. On December 1, 2011, a petition challenging the proposed rules, as well as existing rule 62-302.530(47)(b), as invalid exercises of delegated legislative authority was filed by Florida Wildlife Federation; Sierra Club, Inc.; Conservancy of Southwest Florida, Inc.; Environmental Confederation of Southwest Florida, Inc.;

and St. Johns Riverkeeper, Inc. The petition was assigned DOAH Case No. 11-6137RP.

On December 8, 2011, the Environmental Regulation Commission ("ERC") approved the proposed rules for adoption, with some changes and additions. On December 22, 2011, the Department published a Notice of Change in the FAW. On January 11, 2012, Petitioners filed a second petition challenging the proposed rules as amended. This second petition was assigned DOAH Case No. 12-0157RP. On January 12, 2012, Petitioners filed a Corrected Petition in DOAH Case No. 12-0157RP.

The cases were consolidated for hearing. Petitions to intervene in support of the validity of the existing and proposed rules were filed by: Florida League of Cities; James Sartori; Clay County Utility Authority; Florida Pulp & Paper Association Environmental Affairs, Inc.; Destin Water Users, Inc.; South Walton County Utility Co., Inc.; Emerald Coast Utilities Authority; South Florida Water Management District ("SFWMD"); the Florida Electric Power Coordinating Group, Inc.; Florida Fruit and Vegetable Association; Florida Sugar Cane League; and Florida Stormwater Association, Inc. These petitions to intervene were granted.

The Department filed a Motion for Summary Final Order in DOAH Case No. 12-0157RP. The motion was denied, but a ruling

was made that the proposed exclusion of certain waterbodies from the proposed numeric nutrient criteria does not constitute a change in the designated uses of the excluded waters. The Department later moved to dismiss Case No. 12-0157RP and for a motion in limine directed to all the challenged rules. These motions were denied. Florida Electric Power Coordinating Group's motion for summary final order regarding Petitioners' challenge to the existing nutrient criterion in Case No. 11-6137RP was denied.

On February 17, 2012, the Department filed a Notice of Technical Change Regarding Law Implemented For Existing and Proposed Rules Under Challenge. The change replaced a reference to section 403.021, Florida Statutes, in the "Law Implemented" section of the existing and proposed rules with section 403.021(11).

At the final hearing, Petitioners presented the testimony of: Dr. Brian Lapointe, Ph.D., accepted as an expert in marine nutrification; Dr. Joann Burkholder, Ph.D., accepted as an expert in nutrient pollution in marine, fresh and estuarine systems; and Allen Stewart, P.E., accepted as an expert in restoration of nutrient-impacted waters. Petitioners also presented the testimony of Darina Palacio as an authentication witness. Petitioners' Exhibits 100, 104, 111, 118, 136, 138, 142-143, 148, 161, 162, 165, 184-187, 324-328, 517, 712, and 717

were accepted into evidence. Petitioners' Exhibits 162A and 296 were placed in the record as proffers, but were not accepted into evidence.

The Department presented the testimony of: Drew Bartlett, accepted as an expert in water quality standards, water quality assessment and restoration; Daryll Joyner, accepted as an expert in water quality standards, water quality assessment, and water quality restoration; Russell Frydenborg, accepted as an expert in water quality standards and their derivation, aquatic ecosystems, biological assessment metrics and their derivation, and related statistical analyses; and Kenneth Weaver, accepted as an expert in surface water quality standards and statistics. Department Exhibits 400-402, 402A, 403, 403A, 404, 404A, 405, 405A, 406-424, 447, 454-458, and 464-468 were accepted into evidence.

Intervenor SFWMD presented the testimony of Dr. Christopher Madden, Ph.D., accepted as an expert in the ecology, health, water quality, flora, fauna and status of Florida Bay and Biscayne Bay and computer modeling of the two bays. SFWMD Exhibits 650-652, 654, and 659-660 were accepted into evidence.

Intervenor Florida Electric Power Coordinating Group, Inc., presented the testimony of Dr. Robert Weisberg, Ph.D., accepted as an expert in oceanography. FCG Exhibits 700-701, and 709 were accepted into evidence.

Intervenor Clay County Utility Authority presented the deposition transcript testimony of Dr. David Dilks, which was accepted into evidence as CCUA Exhibit 626.

Intervenor Florida Sugar Cane League Exhibit 510 was accepted into evidence.

Official recognition was of: the United States Environmental Protection Agency's January 14, 2009 "Necessity Determination"; its November 10, 2011 "Final Rule on Numeric Nutrient Criteria for Florida's Flowing Waters and Lakes"; and 40 CFR Part 131, dated December 6, 2010.

The 10-volume Transcript of the hearing was filed with DOAH. Petitioners filed a joint proposed final order. The Department and SFWMD filed a joint proposed final order. The remaining Intervenors filed a joint proposed final order and memorandum of law that adopted the Department's and SFWMD's proposed final order. Petitioners subsequently filed a Notice of Errata and a revised proposed final order. The proposed orders were carefully considered in the preparation of this Final Order.

FINDINGS OF FACT

A. The Parties

1. Petitioner, Florida Wildlife Federation ("FWF"), is a Florida not-for-profit corporation with its headquarters in Tallahassee, Florida. FWF has approximately 14,000 members

throughout the State. Its mission includes the preservation, management, and improvement of Florida's water resources and its fish and wildlife habitat.

2. Petitioner Sierra Club, Inc., is a non-profit public benefit corporation with its principal place of business in San Francisco, California. It has approximately 30,000 members living in Florida. Sierra Club's mission is to explore, enjoy, and protect wilderness and to educate the public to protect and restore the quality of the environment.

3. Petitioner, The Conservancy of Southwest Florida, Inc., is a Florida non-profit corporation with its primary place of business in Naples, Florida. It has approximately 6,000 members residing in Florida. The Conservancy is devoted to protecting the land, water, and wildlife of Southwest Florida.

4. Petitioner, Environmental Confederation of Southwest Florida ("ECOSWF"), is a Florida non-profit corporation with its primary place of business in Sarasota, Florida. ECOSWF has approximately 50 members consisting of other organizations and individuals living in Southwest Florida. ECOSWF focuses its efforts on protecting the environment of Southwest Florida, including Charlotte, Collier, DeSoto, Lee, Manatee, and Sarasota Counties.

5. Petitioner, St. Johns Riverkeeper, Inc., is a Florida non-profit corporation with its primary place of business in

Jacksonville, Florida. St. Johns Riverkeeper has over 1,000 members who use and enjoy the waters of the St. Johns River watershed for boating, fishing, and observing birds and other wildlife.

6. A substantial number of the members of each of the Petitioners use and enjoy water bodies throughout the state for a variety of purposes, including wading, walking, swimming, canoeing, sailing, sport boating, wildlife observation, photography, personal and commercial research, sport and commercial fishing, and collecting aquatic life for personal and commercial consumption.

7. The Department is the state agency authorized under section 403.061(10) and (11), Florida Statutes, to establish water quality standards. The Department is also authorized under section 403.067(3) to adopt assessment methodologies for determining whether water quality criteria are being attained in a particular waterbody.

8. Intervenors, Florida Electric Power Coordinating Group, Inc., Environmental Committee, Florida League of Cities, Florida Pulp & Paper Association, Environmental Affairs, Inc.. Florida Fruit and Vegetable Association, Inc., Florida Stormwater Association, Inc., and Florida Sugar Cane League, Inc., are organizations with a substantial number of members who are subject to the challenged rules.

9. Intervenors, Clay County Utility Authority, Destin Water Users, Inc., South Walton County Utility Co., and Emerald Coast Utilities serve water and/or wastewater customers. They operate wastewater treatment plants that are subject to the challenged rules.

10. Intervenor, James Sartori, is a farmer whose operations in Brevard and Highlands Counties are subject to the challenged rules.

11. Intervenor, SFWMD, is a regional governmental agency that oversees water resources, including water quality regulation, in the southern half of the state. The existing nutrient rule is incorporated by reference into the District's Environmental Resource Permitting Program and the proposed rules would be incorporated by reference as well.

12. The parties stipulated in their prehearing stipulation to additional facts regarding each party's substantial interests in the challenged rules.

B. Background

13. Florida's surface water quality standards have four components: designated uses; water quality criteria; an antidegradation policy; and moderating provisions. Fla. Admin. Code R. 62-302.200(31).

14. Surface waters are assigned one of six designated use classifications:

> Class I: potable water supplies
>
> Class II: shellfish propagation or harvesting
>
> Class III: fish consumption, recreation, propagation and maintenance of a healthy, well-balanced population of fish and wildlife
>
> Class III-Limited: fish consumption, recreation or limited recreation, and/or propagation and maintenance of a limited population of fish and wildlife
>
> Class IV: agricultural water supplies
>
> Class V: navigation, utility and industrial use

15. The "default" designation for surface waters is Class III. Unless otherwise specified by rule, all waterbodies are Class III waters.

16. The existing and proposed nutrient criteria apply to Class I, II, and III surface waters.

17. A definition for "nutrient" is included in proposed rule 62-302.200(22) and is not challenged by Petitioners:

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

18. Phosphorus and nitrogen are among the most common elements in the natural environment. All forms of life must use

nitrogen and phosphorus to build their cells and to carry out basic metabolic processes.

19. Florida's natural features, including flat topography, wetlands, warm and humid climate, nutrient-rich soils, and tropical storms and hurricanes are conducive to nutrient over-enrichment. Under natural conditions, episodic nutrient loading is not a problem. Short-term excesses are usually assimilated in the ecosystem by aquatic food webs without causing an imbalance in natural populations of aquatic flora and fauna.

20. Human-influenced (anthropogenic) nutrient loading is the cause of long-term imbalances in aquatic flora and fauna. The principal anthropogenic sources of nutrients are fertilizers, domestic wastewater, and livestock waste. The contribution of nutrients to Florida's surface waters from anthropogenic sources has been increasing.

21. Excess nutrient loading over long periods of time usually increases the number of macrophytes, macroalgae, and phytoplankton. Their excess growth can reduce light penetration and the amount of dissolved oxygen in the water column, which are fundamental to the health of other aquatic flora and fauna. A substantial increase in these organisms can lead to a decrease or loss of other species. Nutrient-sensitive species are reduced or eliminated. Nutrient-tolerant species dominate.

These conditions represent the imbalance that is referred to throughout this Final Order.

22. Once an imbalance occurs, it is difficult to restore the balance.

23. In 1979, the Department described nutrient pollution as "one of the most severe water quality problems facing the State." Fla. Admin. Code R. 62-302.300(13). In the same year, the "narrative nutrient criterion" was adopted. It has not changed since 1979. It is now codified as rule 62-302.530(47)(b):

> In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna.

24. Similar narrative nutrient criteria have been adopted in other states. However, nutrient pollution in Florida and nationwide has worsened due primarily to steady increases in human population and development.

25. In 1998, the United States Environmental Protection Agency ("EPA") expressed its expectation that all states would adopt numeric nutrient criteria by December 31, 2003. Although the Department spent millions of dollars studying the problem in Florida and trying to devise numeric criteria, another decade passed without the adoption of numeric criteria.

26. In 2008, the Department reported to the EPA that 1,049 miles of streams, 349,248 acres of lakes, and 902 square miles of estuaries were impaired as a result of excess nutrients. Florida's springs were also showing increased nutrients.

27. The Department reported a new concern regarding harmful algal blooms, which are blooms of such high concentration and/or areal extent that they adversely affect other aquatic flora and fauna. Toxic algae can be injurious to human health. Cyanobacteria can produce various kinds of toxins including hepatotoxins that affect the liver and can cause liver hemorrhaging, disease and death in wildlife and humans, renal toxins that affect the kidneys, dermatotoxins that cause skin problems such as lesions or blistering, and neurotoxins that interfere with nerve-impulse transmission causing spasms, convulsions, paralysis, and death. Together, these algal toxins are known as “cyanotoxins.” Red tide, a kind of dinoflagellate, can produce brevotoxins, which can cause respiratory distress when aerolized by wind and wave action.

28. The Florida Department of Health and its associated County Health Departments periodically issue health alert warnings about toxic algal blooms.

29. In January 2009, the EPA determined that numeric nutrient criteria are necessary for Florida to meet the requirements of the Clean Water Act. EPA determined that

"Florida's narrative nutrient criterion alone is not sufficient to protect applicable designated uses, and that numeric nutrient criteria are necessary."

30. On December 6, 2010, EPA published in the Federal Register proposed numeric nutrient criteria for Florida.

31. EPA's 2009 determination that numeric criteria are necessary for Florida and its 2010 proposed numeric criteria were challenged in the U.S. District Court for the Northern District of Florida and consolidated in Fla. Wildlife Fed., Inc. v. U.S. EPA, WL 537529, *35 (N.D. Fla. 2012). On February 18, 2012, Judge Hinkle issued his decision upholding the EPA determination and EPA's numeric nutrient criteria for lakes and springs. EPA's stream criteria and downstream protection values for unimpaired lakes were overturned. Id.

C. The Narrative Nutrient Criterion

32. The narrative criterion in rule 62-302.530(47)(b) is not being replaced by the proposed rules. It will remain in effect because the proposed rules are intended by the Department to be "numeric interpretations" of the narrative criterion.

33. The narrative criterion is not in the usual form for Florida's water quality criteria. The vast majority of water quality criteria are stated as specific concentrations of chemical constituents that represent a good condition for the waterbody. If these concentrations are not exceeded, the

waterbody is not polluted and its designated uses are protected. The narrative nutrient criterion, on the other hand, describes a bad condition that is prohibited.

34. However, the narrative nutrient criterion is not the only narrative water quality criterion or the only criterion that describes a bad condition that is prohibited. For example, the so-called "free-from rule," rule 62-302.500, states that all surface waters shall be free from discharges of substances that create a nuisance or that are present in concentrations that are acutely toxic, carcinogenic, mutagenic, or teratogenic to human beings or to significant wildlife.

35. Petitioners contend that the narrative nutrient criterion is arbitrary and capricious because it "illogically and irrationally attempts to protect . . . waters from adverse impacts of nutrient pollution with a criterion that is reactive rather [than] preventative." By "reactive" Petitioners mean that an imbalance in natural populations of aquatic flora and fauna must occur before the criterion is violated and the Department can or will react to do something about the violation, which Petitioners say is too late.

36. On its face, there is nothing illogical or irrational about the narrative criterion. There is nothing about the plain and ordinary meanings of the words used in the rule that make the rule illogical or irrational. The narrative criterion

expressly prohibits nutrient pollution, a prohibition which the Petitioners are all for.

37. At its core, Petitioners' argument is that the narrative criterion does not work. Petitioners' argument seems to draw on common sense; if there has been widespread nutrient pollution in Florida waters, then the Department's water quality criterion for nutrients is not preventing pollution. However, proving that nutrient pollution has not been prevented is not the same thing as proving that the narrative criterion is the cause.

38. Petitioners' evidence was not sufficient to demonstrate, for example, that in the absence of the narrative criterion, there would have been less nutrient pollution in Florida. The more persuasive evidence is that the narrative criterion has some beneficial effect in controlling nutrient pollution. The narrative criterion has been used, for example, to limit nutrient discharges in permits issued by the Department.

39. Two important factors must be accounted for when considering the nutrient pollution problems in Florida. First, much of the human-induced nutrient loading into surface waters is not regulated by the Department. Nutrient contributions from most agricultural operations and from septic tanks, for example, are not regulated by the Department, but by other governmental

entities. These and other human activities that contribute nutrients to surface waters do not involve any required analysis of how the nutrient loading may affect the balance of natural populations of aquatic flora and fauna in the receiving waters. They do not even involve notice to the Department.

40. There is more support in the record for the proposition that nutrient pollution in Florida is caused by a fragmented and uncoordinated regulatory system than for Petitioners' proposition that nutrient pollution is due to the Department's narrative criterion. Petitioners did not show that numeric criteria, alone, can prevent nutrient pollution in Florida.

41. Second, the effect of nutrients on aquatic flora and fauna is an extremely complicated subject. Nutrients occur naturally in surface waters and their concentrations vary naturally. The effects of nutrients on flora and fauna are dependent on many physical, chemical, and biological variables and these effects differ greatly between types of waterbodies (for example, streams and lakes or fresh and marine waters) as well as geographically.

42. Algal blooms can occur naturally, independent of any anthropogenic influence. Sporadic algal blooms are part of the natural flora of an aquatic ecosystem. Algal bloom dynamics are complex and are not completely understood. Whether a bloom will

produce cyanotoxins in concentrations that could be harmful to public health cannot be predicted.

43. Most water quality criteria are based on toxicity, which can be identified by a dose-response test. Most criteria are set at concentrations below the levels at which adverse effects are observed in test organisms. That approach cannot be used for nutrients because TN and TP can cause an imbalance in aquatic ecosystems at concentrations well below their toxic levels.

44. Although many general concepts associated with the effects of nutrients in surface waters are understood in the scientific community, there are important aspects that are still a matter of conjecture and debate. Pristine or severely degraded conditions in a particular waterbody associated with nutrient concentrations can be identified and described with relative ease. However, the current science does not provide a widely-applicable tipping point beyond which the natural balance of flora and fauna is upset or jeopardized.

45. Over the last several years, considerable scientific research, analysis, and debate have been dedicated to the purpose of designing nutrient criteria to better protect designated uses. However, the overarching goal of preventing an imbalance in natural populations of aquatic flora and fauna has not been abandoned. Petitioners' witnesses said nothing to

suggest that it is the wrong goal. The narrative criterion expresses this universally accepted goal.

46. Petitioners failed to prove that the narrative nutrient criterion is not designed to control and prohibit nutrient pollution. The record shows that there are more effective criteria that the Department can use to assess nutrient impacts and protect designated uses, such as those criteria in the proposed rules that are also challenged by Petitioners.

47. Because the narrative criterion will be "interpreted" with numeric criteria for many waterbodies, Petitioners' challenge is more precisely a question of whether the narrative nutrient criterion is an invalid exercise of delegated legislative authority in the context of its application to intermittent streams, wetlands, and other surface waters for which only the narrative criterion will be applicable.

48. Due to insufficient data and scientific knowledge, the Department is not yet able to adopt numeric criteria for intermittent streams, wetlands, and the other surface waters to which only the narrative criterion will apply. Petitioners did not prove that any of the surface waters excluded from the proposed numeric criteria are sources of drinking water or that there are human health hazards associated with toxic algae in these surface waters.

49. Petitioners failed to prove by a preponderance of the evidence that the narrative criterion contravenes the law implemented or is arbitrary or capricious.

D. Chapter 62-302, "Surface Water Quality Standards"

1. General

50. The proposed rules are lengthy and need not be reproduced in this Final Order. They are contained in Petitioners' Exhibit 712.[1/]

51. The proposed numeric criteria were developed in a deliberative process which involved considerable study over many years and input from numerous scientists. The record details these efforts, but it was not a matter of dispute, so it is not detailed here. It suffices to say that the Department's rulemaking effort was unusual in terms of time, cost, numbers of scientists involved, and the comprehensiveness of the investigations that were undertaken and the data that were reviewed.

52. The Department's position on disputed factual issues was supported by expert testimony, reports, graphs, and data summaries generated by investigations that involved many scientists focused on the specific objective of developing nutrient criteria. In contrast, Petitioners' position was usually supported only by expert opinions that were based on

data collected for different purposes and not presented or made a part of the record.

2. Rule 62-300.200, "Definitions"

53. Petitioners object to the proposed definition of "stream" in rule 62-300.200(36) because it excludes "non-perennial water segments." Petitioners referred to these waters as "intermittent streams." Petitioners contend that the exclusion of intermittent streams contravenes section 403.061(11), Florida Statutes, which requires the Department to establish water quality standards for all waters. Section 403.061(11) authorizes the Department to establish water quality standards "for the state as a whole or for any part of the state," but Petitioners argue that this language does not allow the Department to exclude from protection certain "types" of waters, such as intermittent streams.

54. The proposed definition of stream is "for purposes of interpreting the narrative nutrient criterion" through use of the numeric criteria in rule 62-302.531(2)(c). The exclusion of intermittent streams from the definition of "stream" means that the numeric criteria will not apply to intermittent streams, but the narrative nutrient criterion remains applicable to them.

55. The authority to establish water quality standards for "any part of" the state is reasonably interpreted by the Department to allow it to establish water quality standards for

specific waterbodies because each waterbody is located in a different part of the state. It is also reasonable for the Department to establish different water quality criteria for waterbodies that have different characteristics. Although Petitioners emphasize what is similar about perennial and non-perennial streams, there are also differences between them related to nutrient levels and biological responses.

56. It is not irrational for the Department to apply its new numeric criteria only to those streams for which it has sufficient data and understanding with respect to the response of flora and fauna to nutrients. Petitioners did not show that there are numeric nutrient criteria that would work well for all intermittent streams.

57. Petitioners object to parts of the definitions for "Lake Vegetation Index," "Nutrient Threshold," and "Stream Condition Index," but these objections were not raised in their petitions. Petitioners did not show how these definitions somehow fail to accurately describe the terms.

3. Rule 62-302.531, "Numeric Interpretations of Narrative Nutrient Criteria"

58. The numeric criteria form what the Department calls a hierarchy of interpretations of the narrative criterion. Hierarchy 1 interpretations are the Total Maximum Daily Loads (“TMDLs”), site-specific alternative criteria (“SSAC”), water

quality-based effluent limits ("WQBEL"), and other numeric water quality criteria for nutrients that the Department has already established for specific waterbodies. See (proposed) Fla. Admin Code R. 62-302.531(2)(a).

59. The Department is proposing new Hierarchy 1 interpretations for six Florida estuaries in proposed rule 62-302.532. Each estuary would have its own nutrient criteria.

60. Hierarchy 2 interpretations are numeric criteria that are proposed for a category of waters based on the Department's determination that a quantifiable cause and effect relationship exists between nutrient levels and biological responses in such waters. Hierarchy 2 criteria are proposed in rule 62-302.531(2)(b)1. and 2. for lakes and springs.

61. Hierarchy 3 interpretations are proposed for streams because the Department was unable to find statistically significant cause-and-effect relationships that can be applied generally to streams. The criteria in proposed rule 62-302.531(2)(c) establish a process for evaluating individual streams on a case-by-case basis, using numeric thresholds and biological data to determine whether they are meeting the narrative nutrient criterion.

62. For categories of waters that the Department has not yet been able to devise a reliable numeric criterion or system of evaluation, no new criteria are being proposed. The

narrative nutrient criterion will continue to apply to these categories, which include wetlands, certain estuaries, intermittent streams, and streams within the South Florida Watershed Region.

a. Lakes

63. The Department's numeric nutrient criteria for lakes are based on chlorophyll *a* levels. Chlorophyll *a* is an indicator of algal biomass and is correlated with nutrient concentrations.

64. The proposed criteria differentiate clear lakes, colored lakes with low alkalinity, and colored lakes with high alkalinity. The Department proposes a standard of 20 micrograms per liter (µg/L) of chlorophyll *a* in colored lakes and in clear lakes with high alkalinity. For clear lakes with low alkalinity, the numeric criterion is 6 µg/L chlorophyll *a*. See (proposed) Fla. Admin. Code R. 62-302.531(2)(b)1.

65. The Department established a range of TN and TP concentrations that corresponded to the chlorophyll *a* levels. For example, 20 µg/L chlorophyll *a* for colored lakes corresponds to a TN range of 1.27 milligrams per liter (mg/L) to 2.23 mg/L. Id.

66. If the chlorophyll *a* concentration in a lake does not exceed the chlorophyll *a* value in the rule, and the TN and TP concentrations in the lake do not exceed the maximum TN and TP

values in the rule, the lake is deemed be achieving a balance in natural populations of aquatic flora and fauna. If the chlorophyll *a* concentration in a lake exceeds the value in the rule, but the TN and TP concentrations in the lake do not exceed the minimum TN and TP values in the rule, the lake is still deemed to be healthy. If the chlorophyll *a* concentration in a lake exceeds the value in the rule and the TN or TP concentrations in the lake also exceed the minimum TN or TP values in the rule, then the lake nutrient criteria (and the narrative nutrient criterion) are not achieved.

67. These values in the rule for chlorophyll *a*, TN, and TP refer to the annual geometric mean of concentrations from at least four water samples. Compliance with the criteria is achieved by having no more than one exceedance in a three-year period. These same sampling and compliance requirements appear in other parts of the proposed rules and Petitioners' objections to these requirements are addressed later under a separate heading.

b. Springs

68. As with lakes, the Department found a strong correlation between nutrient levels and algal growth in springs. Proposed rule 62-302.531(2)(b)2. establishes the numeric interpretation of the narrative nutrient criteria for Florida springs as 0.35 mg/L of nitrate-nitrite (annual geometric mean).

c. Streams

69. Because no consistent cause and effect relationship was found between nutrients and biological responses in streams, the Department developed "threshold values" for TN and TP. These values are used in the evaluation of a stream. They are not used as values that cannot be exceeded.

70. The threshold nutrient values are derived from data for “benchmark" streams that are minimally disturbed. The benchmark streams were grouped according to geographic regions because streams differ from region to region. For each region, threshold TP and TN values were derived.

71. However, for streams in the South Florida Watershed Region, the data were inadequate to develop threshold nutrient values. The narrative criterion, alone, will apply to those streams.

72. The nutrient criteria for streams are achieved if chlorophyll *a* levels, algal mats or blooms, nuisance macrophyte growth, and changes in algal species composition indicates no imbalances in flora and fauna, and either the stream has a high Stream Condition Index (SCI) score, which is a measure of biological health based on benthic macroinvertebrates, or the nutrient thresholds in the rule are achieved. See (proposed) Fla. Admin Code R. 62-302.531(2)(c).

73. A stream with imbalanced flora and fauna would fail to achieve the streams nutrient criteria even if TN and TP concentrations are below the TN and TP benchmark thresholds. On the other hand, if nutrient concentrations exceed the TN and TP thresholds, a stream could still achieve the streams criteria if natural populations of flora and fauna are well-balanced, as shown by the floral evaluation and SCI score. These rule outcomes reflect the Department's determination that nutrient levels in streams, will not always correspond to floral and faunal health.

74. Petitioners object to the use of the SCI because they say it is primarily a measure of biological responses to human disturbance and not specifically to nutrient pollution. However, the SCI provides information about faunal health and, therefore, has a direct bearing on whether there is an imbalance of natural populations of aquatic fauna.

75. Petitioners object to the proposed use of the SCI because they say it is not a good test for the presence of algal toxins because not all macroinvertebrates are sensitive to algal toxins. However, the SCI is only one part of the streams criteria. The evidence shows that the streams criteria, taken as a whole, are reasonably designed to evaluate the presence and significance of algae.

76. Petitioners also object to the streams criteria because the floral component of the criteria requires an imbalance before the stream will be deemed to not achieve the criteria, which Petitioners contend is not protective. The argument presumes that there exists a numeric criterion that, if achieved, would always indicate a healthy ecosystem, and if exceeded, would always indicate an unhealthy ecosystem. Petitioners failed to prove the existence of such a criterion.

77. In determining the validity of EPA's proposed nutrient criteria for Florida's streams, Judge Hinkle stated that the "right target" for the numeric criteria was a value that would create an imbalance in flora or fauna.

d. Summary

78. The Department proved by a preponderance of the evidence that the proposed numeric criteria for lakes, springs, and streams are reasonably designed to prevent pollution and protect their designated uses.

4. Sample Size and Exceedance Frequency

79. The Department established minimum data requirements in the proposed rules for the calculation of annual geometric mean values for TP, TN, and chlorophyll *a*. The proposed rules require that the geometric mean be calculated from at least four water samples in a calendar year, with at least one sample collected between May 1 and September 30 and at least one sample

taken during the other months of the calendar year. The criteria are achieved if there is no more than one exceedance of the geometric mean in a three-year period.

80. Petitioners contend that these proposed sampling and compliance criteria are arbitrary and capricious and contravene law because more samples are needed to generate a reliable geometric mean and more samples should be required during the period May through September because that is when algal blooms occur most frequently. Petitioners believe that prevention of algal blooms should be the primary objective of the numeric criteria.

81. Petitioners' objections reflect a misunderstanding about the source of the data. For example, Petitioners contend in their proposed final order that "[a] rule which requires that only one chlorophyll *a* sample be collected during the algae season is scientifically irrational," but there is no such requirement in the proposed rules. Petitioners object to the "required sampling regime," but there is no required sampling regime. The proposed rules do not deal with sample collection.

82. Sampling requirements are normally associated with permits and the proposed rules do not address permits or permit requirements for nutrient discharges. The proposed rules do not limit the Department's authority to require permittees who have nutrient discharges to collect more than four samples annually

and more than one sample during the period May through September.

83. Nor do the proposed rules limit the number of water samples above four that may be used to calculate the annual geometric mean. If more than four data points exist, then more than four data points will be used to calculate the geometric mean. If more than one sample is available from the period May through September, then more than one sample from this period will be used in the calculation of the geometric mean (as long as there are at least three samples available from other months).

84. The proposed rules do not tell anyone to collect fewer samples than are being collected currently. The proposed rules reflect the fundamental fact that data are limited. The majority of water quality sampling is performed voluntarily by entities other than the Department, primarily by local and regional governments. Most waterbodies are not sampled on a monthly basis.

85. There are limited data available to determine achievement of any nutrient criterion. The proposed rules simply specify that at least four water samples must be used for this purpose, one of which must have been taken in the period May through September.

86. Petitioners' expert witness, Dr. Burkholder, offered a hypothetical example of a lake with four chlorophyll *a* samples that would generate a geometric mean indicating that the lake is balanced even though one of the values is high enough to indicate the presence of an algal bloom and a potential imbalance in aquatic flora or fauna.

87. If the proposed rules required the geometric mean to be calculated with at least 5 nutrient samples, then this hypothetical lake would have no geometric mean to calculate or consider. If the proposed rules required 10 or 12 data points to calculate the geometric mean and three or four samples from the period May through September, as recommended by Dr. Burkholder, many waterbodies could not be assessed.

88. Dr. Burkholder suggested that it is better to have no information for a waterbody than to have limited information that may erroneously indicate a waterbody is healthy when it is actually unhealthy. Dr. Burkholder did not quantify the probability of this "false negative." The Department's statistical analysis showed that it is insignificant.

89. The Department chose the minimum sample size that its statistical analysis showed would be reasonable for the intended purpose so that it could assess more waterbodies. That choice is as much a matter of policy as of science.

90. Algal blooms, even toxic algal blooms, occur naturally in the absence of human influence. Therefore, it is reasonable for the Department to avoid equating an algal bloom to an imbalance in natural populations of aquatic flora or fauna. The allowance for one exceedance in a three-year period accounts for natural fluctuations in nutrient levels.

91. The Department's statistical analysis showed that, in order to meet the 1-in-3-year exceedance criterion, long-term average concentrations of nutrients must be well below the numeric limits and thresholds. If the proposed criteria are being attained, the likelihood of a non-natural algal bloom should be small.

92. The Department proved by a preponderance of the evidence that the sample size and compliance criteria used in the proposed rules are reasonably designed to prevent pollution and protect designated uses.

5. 62-302.532, "Estuary-Specific Numeric Interpretations of the Narrative Nutrient Criteria"

93. Due to the wide variation in Florida's estuaries, the Department developed estuary-specific numeric criteria for them. The estuaries are further divided into sub-basins. Petitioners challenge the criteria developed for four of the estuaries: Biscayne Bay, Florida Bay, Florida Keys, and Tidal Cocohatchee River/Ten Thousand Islands.

94. The Department worked with the National Estuary Programs, the Marine Technical Advisory Committee, the EPA Science Advisory Board, and local scientists using a "weight-of-evidence" approach to assess the biological health of the four estuaries and develop numeric criteria. Special consideration was given to whether human-induced nutrient loading was the cause of any adverse condition or loss of ecosystem function.

95. The health of seagrasses in the estuaries was important in the assessment of nutrient conditions because excess nutrients cause high chlorophyll *a* concentrations, which reduce the sunlight seagrass needs to survive and thrive. Seagrasses provide critical habitat for a diverse community of flora and fauna.

96. The Department determined that the four estuaries were either biologically healthy or that any biological problems were caused by factors other than excess nutrients. Therefore, the Department's approach was to establish nutrient criteria for TN, TP, and chlorophyll *a* for each estuary that would maintain existing healthy conditions. The Department used data collected from a monitoring network established by Florida International University.

97. Dr. Lapointe objected to the Department's approach because red tide blooms have occurred in Florida estuaries, which he believes is an indication that existing conditions

include excess nutrients. However, the more persuasive evidence is that red tide blooms are not a reliable indicator of human-caused, excess nutrient loading and may indicate only a temporary imbalance in aquatic flora and fauna.

98. The estuary criteria are based on geometric means calculated from at least four samples and compliance is achieved if there is no more than one exceedance in a three-year period. Petitioners' objections to the sample size and exceedance frequency have already been discussed.

a. Biscayne Bay

99. Biscayne Bay was determined to have a healthy ecosystem. It has the third largest coral reef in the world. The seagrass communities are healthy and are expanding. Nutrient and chlorophyll *a* concentrations are low. There have been no toxic algal blooms or red tide events.

100. There are a number of conditions of concern in Biscayne Bay, but Department's analysis showed that the impairments are not caused by human-influenced nutrient enrichment. The decline in coral coverage, for example, is due primarily to high water temperature.

101. Petitioners' experts do not agree that Biscayne Bay is healthy, but their opinions were given less weight than the opinions of Dr. Madden, a SWFMD biologist, who is more familiar with current conditions in the Bay.

b. Florida Bay

102. The Department determined Florida Bay has well-balanced and diverse populations of flora and fauna. Existing biological problems are not caused by excess nutrients. There have been no toxic blooms in Florida Bay, or red tide events.

103. Seagrass communities in Florida Bay are healthy. Dr. Lapointe said there had been a substantial loss of seagrasses, but the loss occurred in the 1980's and 1990's. Seagrass coverage has been steadily increasing to the present.

104. There has been some of loss of corals in Florida Bay. The Department attributes the loss to reduced salinity. Dr. Lapointe believes that the loss was caused by excess nutrients, but his evidence was not persuasive.

c. Tidal Cocohatchee River/Ten Thousand Islands

105. The Department determined that the Tidal Cocohatchee River/Ten Thousand Islands estuaries had healthy, well-balanced populations of flora and fauna during the baseline period. Nutrient and chlorophyll *a* levels are low.

106. Dr. Lapointe testified that red drift algae blooms have occurred, which he attributes to excess nutrients, but he did not show how natural populations of aquatic flora and fauna were affected.

d. Florida Keys

107. The Department determined that the Florida Keys had a

healthy, well-balanced population of flora and fauna during the baseline period. Nutrient and chlorophyll *a* concentrations are low. The seagrass beds are healthy and extensive.

108. The decline in coral coverage in the Florida Keys is not caused by excess nutrients, but is due to other factors such as coral diseases and temperature. Coral coverage has been stable since 2009.

109. There was considerable dispute about the levels of nutrients in the Keys and whether their sources are anthropogenic. Petitioners did not present the data to support the opinions expressed by their expert.

e. Summary

110. These four estuaries are extremely valuable resources that deserve special care to prevent them from being lost to pollution. It was unfortunate that the expert witnesses were so far apart in their characterization of the health of the estuaries and their opinions about whether they are adversely affected currently by excess nutrients. However, the Department's extensive investigations and proceedings to evaluate the condition of the estuaries and to develop numeric criteria for them took into account the point of view of some participants that the estuaries are suffering from excess nutrients.

111. The Department proved by a preponderance of the evidence that the numeric criteria for these four estuaries are reasonably designed to prevent pollution and protect their designated uses.

6. Rule 62-302.800(3), Type III SSAC

112. Site-specific alternative criteria (SSAC) are criteria that are demonstrated to be more appropriate for a waterbody than the state-wide water quality criteria. They are adopted by rule on a case-by-case basis.

113. The existing rule provides for Type I and Type II SSAC. A Type I SSAC is adopted for a waterbody that does not meet a water quality criterion due to natural background conditions or man-induced conditions which cannot be controlled or abated. A Type II SSAC is one adopted when a waterbody does not meet a water quality criterion for other reasons. The proposed rules would establish a new Type III SSAC specifically for nutrients.

114. In their petition, Petitioners object to the Type III SSAC for reasons that have already been discussed in the context of rule 62-302.351. The evidence presented by Petitioners was not sufficient to demonstrate that the Type III SSAC provisions contravene law implemented or are arbitrary or capricious.

E. Chapter 62-303, "Identification of Impaired Surface Waters"

115. The impaired waters rule was first promulgated by the Department in 2002 in response to requirements of section 303(d) of the Clean Water Act. See § 403.067, Fla. Stat. Section 403.067(3)(b) required the Department to adopt by rule a methodology for determining the waters that are impaired. Impaired waters are waters that do not meet applicable water quality standards due in whole or in part to point and non-point discharges of pollutants. Fla. Admin. Code R. 62.303.200(7).

116. The existing rule contains a "planning list" of surface waters that are suspected of being impaired and a "verified list" of waters that have been confirmed as impaired. A waterbody can be placed on the verified list without first going on the planning list if the data are sufficient to confirm its impairment.

117. For waterbodies on the verified list, the Department develops TMDLs based on a priority ranking system. See Fla. Admin. Code R. 62-303.500. A TMDL is defined in rule 62-303.200(24):

> "Total maximum daily load" (TMDL) for an impaired water body or water body segment shall mean the sum of individual waste load allocations for point sources and load allocations for nonpoint sources and natural background. Prior to determining individual waste load allocations and load allocations, the maximum amount of a pollutant that a

> water body or water body 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.

118. The proposed rules would add a "study list" for waterbodies known to be impaired, but the cause of the impairment has not been determined. If the impairment is determined to be caused by a particular pollutant, then the waterbody is placed on the verified list and a TMDL would be developed. If the impairment is caused by something other than a pollutant, such as a physical or hydrologic alteration to the waterbody, then a TMDL would not be developed. See (proposed) Fla. Admin. Code R. 62-303.150.

119. Waters on the planning list and study list are slated for additional investigation.

120. The proposed rules would add a test for adverse trends. A stream, lake, or estuary would be placed on the planning list if there is a statistically significant increasing trend in the annual geometric means for TN, TP, or chlorophyll *a*. See (proposed) Fla. Admin Code R. 62-303.351(5), 62-303.352(3), 62-303.353(4). For springs, the trend test looks for increases in concentrations of nitrate-nitrite. See (proposed) Fla. Admin. Code R. 62-303.354(3).

121. A more robust trend test analysis is required to place a waterbody on the study list. The purpose of the trend analyses is to attempt to prevent an imbalance in flora and fauna from occurring in the future.

122. Petitioners object to the proposed changes to rule chapter 62-303 because it relies on the use of four water samples to calculate a geometric mean and the allowance for a 1-in-3-year exceedance of the various nutrient criteria. Those objections have already been discussed and are not repeated here.

123. Petitioners claim that the proposed rules use "an arbitrary and capricious sequence of biological assessments which require irrationally stringent proof of impairment and nutrient pollution causation." Petitioners did not prove this claim. The biological assessments are reasonably designed to determine whether an imbalance exists. Proof of impairment by human-caused nutrient loading is necessary and the level of proof required to determine the cause of the pollution is reasonable.

124. Petitioners assert that a waterbody will not make it to the verified list unless it exhibits an imbalance in flora or fauna, but that is consistent with the Clean Water Act and section 403.067. The failure to meet water quality standards is

the basis for placement on the verified list and development of a TMDL.

125. The Department proved by a preponderance of the evidence that the proposed rules amending rule chapter 62-303 are reasonably designed to identify, manage, and restore impaired waters.

F. Summary

126. The Department proved by a preponderance of the evidence that the challenged rules do not contravene the law implemented and are not arbitrary or capricious.

CONCLUSIONS OF LAW

Standing

127. Section 120.56(1)(a) provides that any person substantially affected by an existing or proposed rule may seek an administrative determination of the invalidity of the rule.

128. No party's standing to participate in these consolidated rule challenge cases was contested. The parties' stipulated facts regarding standing establish that the Petitioners and Intervenors are substantially affected by the challenged rules and, therefore, have standing to participate.

Case and Controversy

129. Under section 403.061, the Department has both the power and the duty to prohibit water pollution and to do so, in part, through the establishment of water quality standards.

Excessive nutrients can and do cause water pollution. Therefore, it is the duty of the Department to control and prohibit pollution caused by excessive nutrients.

130. The Department and Intervenors argue that chapter 403 does not require a particular degree of water quality protection, which is a matter within the discretion of the Department. This was also described as the Department's "sole prerogative." However, if the Department's discretion or prerogative were unlimited in this matter, it would follow that no person may challenge a Department rule establishing a water quality standard. That proposition is clearly contrary to chapter 120.

131. The Department does not have the discretion or prerogative to allow the pollution of surface waters to go un-abated. Neither may the Department adopt water quality standards that are not designed to prevent water pollution. See § 403.061(9), Fla. Stat.; Fla. Admin. Code R. 62-302.300(a).

132. The Department and Intervenors argued that Petitioners' challenge to the narrative criterion as "reactive" presumes how the Department uses or enforces the criterion and, therefore, is not a challenge to its facial validity, but an improper challenge to its application. See Fairfield Communities v. Fla. Land & Water Adjudicatory Comm'n, 522 So. 2d 1012, 1014 (Fla. 1st DCA 1988)(a rule challenge involves a

determination of the facial validity of the rule, not a determination of the validity of the rule's application to specific circumstances).

133. However, determining whether a rule is arbitrary or capricious involves more than a consideration of the words or numbers used in the rule. In this case, it requires consideration of facts dealing with the effects of nutrients on flora and fauna. It also requires consideration of what a water quality criterion is and how it is used by the Department. Although some of these same facts can be relevant in a permit or enforcement case in which a water quality criterion is being applied, that does not make the facts off-limits for consideration in a rule challenge. Only rules are being challenged by Petitioners.

General Rule Challenge Principles

134. An existing rule is presumed to be valid. St. Johns River Water Mgmt. Dist. v. Consolidated-Tomoka, 717 So. 2d 72, 76 (Fla. 1st DCA 1998); Jax Liquors, Inc. v. Div. of Alcoholic Beverages and Tobacco, 388 So. 2d 1306, 1308 (Fla. 1st DCA 1980). A rule that has been in effect for many years has a greater presumption of validity. Id. at 1308.

135. A person challenging an existing rule has the burden of proving by a preponderance of the evidence that the rule is

an invalid exercise of delegated legislative authority. § 120.56(3), Fla. Stat.

136. A proposed rule is not presumed to be valid or invalid. § 120.56(2)(c), Fla. Stat. A person challenging a proposed rule must state "with particularity" the reasons that the proposed rule is an invalid exercise of delegated legislative authority. § 120.56(2), Fla. Stat. At hearing, the petitioner has the burden of going forward with evidence to support the allegations in the petition. Id. If the challenger meets this burden, the burden of persuasion shifts to the agency to prove by a preponderance of the evidence that the proposed rule is not an invalid exercise of delegated legislative authority "as to the objections raised." Id.; Southwest Fla. Water Mgmt. Dist. v. Charlotte Cnty., 774 So. 2d 903, 908 (Fla. 2d DCA 2001), citing St. Johns River Water Mgmt. Dist. v. Consolidated-Tomoka, 717 So. 2d 72, 76 (Fla. 1st DCA 1998).

137. To the extent that an agency's rule is based on an interpretation of a statute that the agency administers, broad discretion and deference is accorded the agency's interpretation and it should be upheld when it is within the range of permissible interpretations. See Bd. of Podiatric Med. v. Fla. Med. Ass'n, 779 So. 2d 658, 660 (Fla. 1st DCA 2001), citing Bd. of Trustees of Internal Imp. Trust Fund v. Levy, 656 So. 2d 1359 (Fla. 1st DCA 1995).

138. An agency's interpretation should harmonize with all relevant parts of a statute, read together. Forsythe v. Longboat Key Beach Erosion Control Dist., 604 So. 2d 452, 455 (Fla. 1992). See also Barrington v. State, 199 So. 320, 323 (Fla. 1941).

139. An agency interpretation should not be overturned unless clearly erroneous. Legal Envtl. Assistance Found. v. Bd. of Cnty. Comm'rs of Brevard Cnty., 642 So. 2d 1081, 1083-4 (Fla. 1994).

140. Deference to the agency's interpretation is especially appropriate when the agency has made scientific determinations within its area of special expertise. See Island Harbor Bch. Club, Ltd. v. Dep't of Natural Res., 495 So. 2d 209, 223 (Fla. 1st DCA 1986).

141. An agency's interpretation of its own rules is also afforded great deference, and will not be overturned unless it is clearly arbitrary, capricious, or beyond the scope of its authority. Falk v. Beard, 614 So. 2d 1086, 1089 (Fla.1993).

Petitioners' Challenge

142. Petitioners' presentation at the final hearing included some opinions about how they believed the proposed rules could be made more protective. The validity of the proposed rules does not turn on whether they represent the best means to accomplish the agency's purposes. See Levy, 656 So. 2d

at 1364. Nor does Petitioners' characterization of the proposed rules as a "labyrinthine maze" state a ground for relief.

143. Petitioners' challenge is limited to whether the Department's existing narrative criterion and its proposed numeric criteria are invalid under sections 120.52(8)(c) and (e). Those sections provide that a proposed or existing rule is an invalid exercise of delegated legislative authority if:

> (c) The rule enlarges, modifies, or contravenes the specific provisions of law implemented, citation to which is required by s. 120.54(3)(a)1.; [or]
>
> * * *
>
> (e) The rule is arbitrary or capricious. A rule is arbitrary if it is not supported by logic or the necessary facts; it is capricious if it is adopted without thought or reason or is irrational.

144. Petitioners contend that the challenged rules contravene existing rule 62-302.300(7) wherein the ERC "urges" that there be no compromise where pollutant discharges pose a hazard to human health. Petitioners did not raise this issue in their petition or in the pre-hearing stipulation. Rule 62-302.300(7) is not a law implemented by the narrative criterion and subject to challenge pursuant to 120.52(8)(c). Furthermore, in context, it is apparent that the ERC is not referring to water quality criteria, but to the regulatory actions of the Department, which are beyond the scope of this rule challenge.

145. Petitioners claim that the narrative criterion and the proposed numeric criteria contravene section 403.021(2), which expresses the public policy to protect water quality and the beneficial uses of waters, and section 403.021(10), which expresses the public policy to protect drinking water sources.

146. The Department argues that when it made the technical change to the proposed rules to replace the reference to section 403.021 with section 403.021(11) as the law implemented for rule chapter 62-302, it rendered moot Petitioners' claim that these rules contravene sections 403.021(2) and 403.021(10).[2/]

147. "Technical" hardly describes a change that would limit the grounds upon which a rule may be challenged. However, an agency's listing of the law implemented is probably not controlling, and a challenger may show that other laws are implemented by a rule, but were omitted, or there are laws that were erroneously listed. See, e.g., Horowitz v. Plantation Gen. Hosp. Ltd. Part., 959 So. 2d 176, 183 (Fla. 2007)(The purpose and meaning of the statutory provisions relied upon by the agency must be examined in conjunction with any related statutory provisions). If the agency's listing of laws implemented is not controlling, a change to the list would qualify as a technical change.

148. In this case, the issue is largely academic because it is concluded that the challenged rules do not contravene sections 403.021(2) or (10).

149. On its face, the narrative nutrient criterion, which prohibits pollution, does not contravene the statement of public policy in section 403.021(2) to prevent pollution. Section 403.021(2) is reasonably interpreted as directing the Department to prevent pollution to the best of its ability. The Department's ability to prevent pollution through the adoption of water quality criteria is limited by such things as available data and scientific knowledge. Petitioners failed to prove that the continued application of the narrative nutrient criterion to intermittent streams, wetlands, and certain other surface waters is not reasonable and justified by the lack of sufficient data and scientific knowledge about nutrient dynamics in these waters.

150. With regard to the legislative policy expressed in section 403.021(10) to protect potential drinking water resources, Petitioners did not show that any of the surface waters to which only the narrative criterion will be applicable are sources of drinking water or that there are human health hazards associated with toxic algae in these surface waters. The Department proved by a preponderance of the evidence that

the proposed rules are reasonably designed to protect drinking water sources.

151. Petitioners contend that the proposed rules contravene section 403.021(11), which states that water quality standards should "take into account the variability occurring in nature" and the "statistical variability inherent in sampling and testing procedures that are used to express water quality standards." Petitioners argue that the proposed numeric criteria contravene this law because they require only one water quality sample from the period May through September, which is when algal blooms occur more frequently.

152. Section 403.021(11), read as a whole, reflects a legislative intent to protect dischargers. The intent is to allow a discharger to show that a deviation from water quality standards is due to natural variability or statistical variability and not due to the discharge. The statute is not directed to Petitioner's objective, which is to make sure that sampling requirements are designed to capture seasonally-affected phenomena such as algal blooms.

153. Furthermore, as explained in the Findings of Fact, the proposed rules do not place limits on water quality sampling. More than one sample from the period May through September will be used when more than one sample is available.

The Department demonstrated that the proposed rules account for natural variability and for statistical variability.

154. The Department proved by a preponderance of the evidence that the proposed rules do not contravene section 403.021(11) or any other law implemented.

155. A rule is arbitrary if it is not supported by fact or logic and capricious if it has been adopted with no thought or reason. Agrico Chem. Co. v. State Dep't. of Envtl. Reg., 365 So. 2d 759, 763 (Fla. 1st DCA 1978).

156. A rule is not arbitrary or capricious if it is shown to be a product of a process involving the thoughtful balancing of varying factors. Levy, 656 So. 2d at 1362. A rule is not arbitrary or capricious if there is any evidence to show a rational basis for the rule. Id. at 1363.

157. When examining scientific determinations, a reviewing court must generally be at its most deferential. See Island Harbor Beach Club, 495 So. 2d at 217; Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 103, 103 S. Ct. 2246, 2255, 76 L. Ed. 2d 437 (1983).

158. In this case, deference to the Department's scientific conclusions is appropriate.

159. Petitioners did not prove that the narrative criterion or the proposed rules are arbitrary or capricious. This was due in part to Petitioners' failure to present the

evidence upon which several of their experts' opinions were based. An expert opinion generally deserves less weight when it is based exclusively on facts and data that are not in evidence. See Riggins v. Mariner Boat Works, Inc., 545 So. 2d 430, 432 (Fla. 2d DCA 1989); Avila, Inc. v. Mesa, 381 So. 2d 1172, 1173 (Fla. 1st DCA 1980).

160. Petitioners claim that proposed rule chapter 62-303 "contains no mechanism for listing as impaired any Outstanding Florida Water that is exceeding its baseline nutrient pollution levels." Rule 62-302.700(1) states that Outstanding Florida Waters (OFW) are to be afforded the "highest protection" and no degradation is allowed in an OFW's baseline water quality. However, rule 62-302.700(7) states that "[t]he policy of this section shall be implemented through the permitting process pursuant to Rule 62-4.242, F.A.C" and that rule only addresses Department permits and water quality certifications.

161. The use of the word "policy" rather than "criteria" in rule 62-302.700(7) and the reference only to the "permitting process" leaves unclear whether the ERC intended the OFW "policy" to be treated like other water quality criteria so that if an OFW's baseline water quality is degraded, the OFW becomes an "impaired water" for purposes of section 303(d) of the Clean Water Act and section 403.067. It is not the role of the Administrative Law Judge to undertake an investigation of this

novel issue without the assistance of record evidence. The issue was not sufficiently explained or developed in the record, which was Petitioners' burden. See § 120.56(2), Fla. Stat.

CONCLUSION

Based on the foregoing Findings of Fact and Conclusions of Law, it is determined that

1. Petitioners failed to prove by a preponderance of the evidence that the narrative nutrient criterion is an invalid exercise of delegated legislative authority.

2. The Department proved by a preponderance of the evidence that the proposed rules are not invalid exercises of delegated legislative authority.

DONE AND ORDERED this 7th day of June, 2012, in Tallahassee, Leon County, Florida.

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Filed with the Clerk of the
Division of Administrative Hearings
this 7th day of June, 2012.

ENDNOTES

1/ In Exhibit 712, Petitioners highlighted in yellow the parts of the rules that they object to.

2/ Petitioners argue in their proposed final order that the narrative nutrient criterion and proposed numeric criteria contravene section 403.021(6), but that issue was not raised in their petition.

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NOTICE OF RIGHT TO JUDICIAL REVIEW

A party who is adversely affected by this Final Order is entitled to judicial review pursuant to section 120.68, Florida Statutes. Review proceedings are governed by the Florida Rules of Appellate Procedure. Such proceedings are commenced by filing the original notice of administrative appeal with the agency clerk of the Division of Administrative Hearings within 30 days of rendition of the order to be reviewed, and a copy of the notice, accompanied by any filing fees prescribed by law, with the clerk of the District Court of Appeal in the appellate district where the agency maintains its headquarters or where a party resides or as otherwise provided by law.