STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

JACQUELINE M. LANE; APALACHICOLA BAY AND RIVER KEEPER, INC.; SAVE OUR BAYS, AIR AND CANALS, INC.; FLORIDA PUBLIC INTEREST RESEARCH GROUP, CITIZEN LOBBY, INC.; SANTA ROSA SOUND COALITION; FRIENDS OF SAINT SEBASTIAN RIVER; LINDA YOUNG; AND SAVE OUR SUWANNEE, INC.,	)	Case Nos. 01-1332RP 01-1462RP 01-1463RP 01-1464RP 01-1465RP 01-1466RP 01-1467RP 01-1797RP
Petitioners,	)	
vs.	)	
DEPARTMENT OF ENVIRONMENTAL PROTECTION,	)	
Respondent,	)	
and	)	
FLORIDA ELECTRIC POWER COORDINATING GROUP, INC.; FLORIDA PULP AND PAPER ASSOCIATION ENVIRONMENTAL AFFAIRS, INC.; FLORIDA MANUFACTURING AND CHEMICAL COUNCIL, INC.; AND FLORIDA WATER ENVIRONMENT ASSOCIATION, INC.,	)	
Intervenors.	)	

FINAL ORDER

Pursuant to notice, a final hearing was held in these consolidated cases in accordance with Sections 120.56, 120.569, and 120.57(1), Florida Statutes, on September 4 through 7, 10 through 14, 17, and 19 through 21, 2001, in Tallahassee, Florida, before Stuart M. Lerner, a duly-designated Administrative Law Judge of the Division of Administrative Hearings.

APPEARANCES

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For Petitioners Apalachicola Bay And River Keeper, Inc.; Save Our Bays, Air and Canals, Inc.; Florida Public Interest Research Group, Citizen Lobby, Inc.; Santa Rosa Sound Coalition; Friends of Saint Sebastian River; Linda Young; and Save Our Suwannee, Inc.:

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STATEMENT OF THE ISSUES

Whether proposed Rule Chapter 62-303, Florida Administrative Code, which describes how the Department of Environmental Protection will exercise its authority under Section 403.067, Florida Statutes, to identify and list those surface waters in the state that are impaired for purposes of the state's total maximum daily load (commonly referred to as "TMDL") program, is an "invalid exercise of delegated legislative authority," within the meaning of Chapter 120, Florida Statutes, for the reasons asserted by Petitioners.

PRELIMINARY STATEMENT

On April 10, 2001, Petitioner Jacqueline M. Lane filed a rule challenge Petition with the Division of Administrative Hearings (Division), in which she stated the following under the

heading, "Disputed Issues of Material Fact, Statement of Facts that Warrant Reversal, and Statement of Specific Proposed Rules which Require Reversal":

> 8. Chapter 120.57(1)(e)2. F.S. requires that an agency must demonstrate that the unadopted rule:
>
> "b. Does not enlarge, modify, or contravene the specific provisions of law implemented;
>
> c. Is not vague, establishes adequate standards for agency decisions, or does not vest unbridled discretion in the agency;
>
> d. Is not arbitrary or capricious."
>
> Language in the proposed rule 62-303 which is in contravention to the above statute and will most likely result in Perdido Bay being taken off the [state's 305(b)] list [of "impaired water bodies" is] as follows:
>
> A) 62-303.100(5) "waters shall not be listed on the verified list if reasonable assurance is provided that, as a result of existing or proposed technology-based effluent limitations [. . . .]"
>
> B) 62-303.600(2) "If, as a result of the factors set forth in (1), the water segment is expected to attain water quality standards in the future and is expected to make reasonable progress toward attainment of water quality standards . . . ."
>
> These statements violate the provisions of the above F.S. 120.57, in that [they] vest unbridled discretion in the DEP, and [are] arbitrary and capricious. There is nothing in state law 403.067 which says anything about reasonable assurance. The Florida Statute in 403.067(3) and (4) clearly states that attainments of applicable water quality

> standards shall be confirmed by testing and shall be the standard for the decision on whether or not to do a TMDL. Statements in the proposed rule should be changed to read "after implementation of technology, waters shall be removed from the list or not put on the verified list <u>if testing confirms that all water quality standards are being met.</u>"
>
> 9. The following part of proposed rule 62-303 [is] in contravention of Florida Statute 403.067 as follows:
>
> (A) 62-303.430(4) requires identification of a specific factor or a specific pollutant before being put on the verified list. F.S. 403.067(3)(c) says "If water quality nonattainment is based on narrative or biological criteria, the specific factors concerning particular pollutants <u>shall be identified prior</u> to a total maximum daily load being developed for those criteria. . . ." I would interpret this statement to mean that further study would be required to identify the pollutant, not that the water segment would not be put on the verified list because the pollutant was unknown.

Petitioner Lane's Petition was docketed as DOAH Case No. 01-1332RP. A final hearing on the Petition was subsequently scheduled for May 11, 2001.

On April 13, 2001, Petitioners Linda Young; Save Our Bays, Air and Canals, Inc.; Florida Public Interest Research Group, Citizen Lobby, Inc.; Santa Rosa Sound Coalition; Friends of Saint Sebastian River; and Apalachicola Bay and River Keeper, Inc., filed separate Petitions with the Division, each challenging proposed Rule Chapter 62-303, Florida Administrative

Code, on identical grounds, including the proposed rule chapter's alleged inconsistency with federal law. These Petitions were docketed as DOAH Case Nos. 01-1462RP through 01-1467RP.

On April 20, 2001, the previously-assigned Administrative Law Judge, Judge Charles A. Stampelos, issued an Order consolidating DOAH Case Nos. 01-1332RP and 01-1462RP through 01-1467RP pursuant to Rule 28-106.108, Florida Administrative Code, and he also issued a Notice of Hearing scheduling the final hearing in these consolidated cases for May 16 and 17, 2001.

On that same date, April 20, 2001, Intervenor Florida Pulp and Paper Association Environmental Affairs, Inc. (FPPAEA) filed a Petition requesting leave to intervene in DOAH Case No. 01-1332RP and Intervenor Florida Electric Power Coordinating Group, Inc. (FCG) filed a Petition requesting leave to intervene in DOAH Case Nos. 01-1332RP and 01-1462RP through 01-1467RP. On April 23, 2001, Judge Stampelos entered an Order granting Intervenors FPPAEA and FCG the intervenor status they had requested and providing that such "[i]ntervention [was to] be in subordination to and in recognition of the main proceeding."

On April 24, 2001, Intervenor FPPAEA filed a Petition requesting leave to intervene in DOAH Case Nos. 01-1462RP through 01-1467RP. On May 9, 2001, Judge Stampelos entered an Order granting Intervenor FPPAEA the intervenor status it had

requested in DOAH Case Nos. 01-1462RP through 01-1467RP and providing that such "[i]ntervention [was to] be in subordination to and in recognition of the main proceeding."

On April 27, 2001, the Department of Environmental Protection (Department) filed a Motion requesting the entry of an order "dismissing the Petition filed by Jacqueline M. Lane, striking portions thereof, or in the alternative, for a more definite statement." On May 10, 2001, Judge Stampelos entered an Order on the Department's Motion, which provided, in pertinent part, as follows:

> It appears from a reading of Lane's Petition, and particularly paragraph 8, that Lane has specifically challenged proposed changes to proposed rule 62-303.100(5) and 62-303.600(2). On the other hand, it is unclear from reading paragraph 9 of the Petition whether Lane has specifically challenged any portion of proposed rule 62-303.430(4). To the extent Lane wishes to challenge a particular portion of this subsection then Lane can do so by filing an amended petition within 10 days of this Order.
>
> The undersigned agrees with the Department's position that Section 120.57(1)(e)2, Florida Statutes, does not apply in this rule challenge proceeding. This subsection applies only in administrative proceedings in which agency action determines the substantial interests of a party and is based on an unadopted rule. See Section 120.56(4)(e), Florida Statutes. The procedural aspects of this rule challenge are governed by Sections 120.569 and 120.57(1), Florida Statutes. See Section 120.56(1)(e), Florida Statutes. However,

> the general procedures and special provisions for challenging the validity of a proposed rule are set forth in Section 120.56(1) and (2), Florida Statutes. See also Sections 120.52(8) and 120.54, Florida Statutes. Accordingly, Lane's reference in her Petition to Section 120.57(1)(e)2, Florida Statutes, is stricken.
>
> Finally the undersigned does not have the authority to propose changes to the Department's proposed rules nor affirmatively make any changes in a final order. However, any comments mentioned by Lane in her Petition may be considered, if relevant to support her rule challenge.

In response to the Order, Petitioner Lane, on May 21, 2001, filed an Amended Petition, in which she identified the "portions of proposed Rule [Chapter] 62-303 which [she claimed] are an invalid exercise of F.S. 403.067," stating as follows:

> 7. Section 62-303.100(5) says:
>
> " waters shall not be listed on the verified list if reasonable assurance is provided that, as a result of existing or proposed technology-based effluent limitations and other pollution control programs under local, state, or federal authority, they will attain water quality standards in the future and reasonable progress towards attainment of water quality standards will be made by the time the next 303(d) list is scheduled to be submitted to EPA."
>
> Similarly, Section 62-303.600(2) says:
>
> " If, as a result of the factors set forth in (1), the water segment is expected to attain water quality standards in the future and is expected to make reasonable progress towards attainment of water quality standards by the time the next 303(d) list

is scheduled to be submitted to EPA, the segment shall not be listed on the verified list."

Both of these sections exceed the authority of F.S. 403.067(4). F.S. 403.067(4) says:

" If the department determines, based on the total maximum daily load assessment methodology described in subsection (3), that water quality standards are not being achieved and that technology-based effluent limitations and other pollution control programs under local, state, or federal authority, including Everglades restoration activities pursuant to s. 373.4592 and the National Estuary Program, which are designed to restore such waters for the pollutant of concern are not sufficient to result in attainment of applicable surface water quality standards, it shall confirm that determination by issuing a subsequent, updated list of those water bodies or segments for which total maximum daily loads will be calculated."

This "updated list" that is referred to in the above quote from F.S. 403.067(4) is the verified list of proposed rule 62-303. There is no language in statute 403.067 which says the water segment will not be on the verified list if the water segment is expected to meet water quality standards in the future or reasonable progress is being made toward meeting water quality standards. F.S. 403.067(2) is very clear about what water segments should have total maximum daily loads established-- those water segments which do not meet water quality standards. Using language which says that use of some future, unspecified technology would allow the water segment to remain off the verified list is capricious, vague, and vests too much discretion in the DEP.

8. Section 62-303.430(4) is also an invalid interpretation of Statu[t]e 403.067.

> Proposed rule 62-303.430(4) requires identification of a specific factor or a specific pollutant before being put on the verified list. F.S. 403.067(3)(c) says: "If water quality nonattainment is based on narrative or biological criteria, the specific factors concerning particular pollutants shall be identified prior (underline for emphasis) to a total maximum daily load being developed for those criteria . . . " I would interpret this to mean that further study would be required to identify the pollutant, not that the water segment would not be put on the verified list because the pollutant was unknown."

On May 1, 2001, at the request of the parties, Judge Stampelos rescheduled the final hearing in DOAH Case Nos. 01-1332RP and 01-1462RP through 01-1467RP for August 27 through 31 and September 4 through 7 and 10 through 14, 2001. On August 6, 2001, the final hearing was again rescheduled, this time for September 4 through 7, 10 through 14, and 17 through 21, 2001.

On May 2, 2001, Intervenor FCG filed a Motion for Partial Summary Final Order and Motion to Strike in DOAH Case Nos. 01-1462RP through 01-1466RP requesting the entry of an order "disposing of the issues concerning consistency with federal laws as set forth in the . . . rule challenge petitions filed [in these cases] on the grounds that inconsistency with federal law cannot be a basis for declaring this proposed rule invalid in this forum." The Department and Intervenor FPPAEA joined in the Motion on May 8, 2001, and May 9, 2001, respectively. On May 9, 2001, the Petitioners in DOAH Case Nos. 01-1462RP through

01-1466RP filed a Response to the Motion. Oral argument on the Motion before Judge Stampelos was held by telephone conference call on May 17, 2001. On May 22, 2001, Judge Stampelos issued an Order on the Motion, which provided as follows:

> After hearing argument of counsel, FCG's Motion is treated as a Motion to Strike and is hereby granted for the reasons stated below.
>
> Legal Discussion
>
> Petitioners are challenging several portions of Proposed Rule Chapter 62-303 ("identification of impaired surface waters") which establishes the Department's "methodology to identify surface waters of the state that will be included on the state's planning list of waters that will be assessed pursuant to subsections 403.067(2) and (3)" and "also establishes a methodology to identify impaired waters that will be included on the state's verified list of impaired waters, for which the Department will calculate Total Maximum Daily Loads (TMDLs), pursuant to subsection 403.067(4) . . . ." Proposed Rule 62-303.100(1). The Department is required to promulgate a TMDL methodology rule pursuant to Section 403.067(3)(b), Florida Statutes.
>
> Petitioners claim that several portions of the Proposed Rules are inconsistent with various provisions of the Clean Water Act (CWA), 33 U.S.C. Section 1251 et seq. and regulations promulgated by the Environmental Protection Agency (EPA), including 40 C.F.R. Section 130.7(b)(5) et seq.[1]. The Department and the Intervenors argue that any alleged inconsistency with the CWA and the cited federal regulations, cannot serve as a basis for declaring the proposed rules invalid in this rule challenge. The undersigned agrees.

Pursuant to Section 120.56(1)(a), Florida Statutes, any person substantially affected by an agency's proposed rule may seek an administrative determination of the invalidity of the rule on the ground that the rule is "an invalid exercise of delegated legislative authority." This phrase is defined in Section 120.52(8), Florida Statutes, as an "action that goes beyond the powers, functions, and duties delegated by the Legislature."

Section 120.52(8) lists seven circumstances in which a rule is an invalid exercise of delegated legislative authority. In addition to the seven numerated grounds for challenging a rule, Section 120.52(8) provides a set of general standards to be used in determining the validity of a rule in all cases. See also Section 120.536(1), Florida Statutes. These standards are contained in the closing paragraph of Section 120.52(8).

"Rulemaking is a legislative function, and as such, it is within the exclusive authority of the Legislature under the separation of powers provision of the Florida Constitution. . . . An administrative rule is valid only if adopted under a proper delegation of legislative authority. . . . It follows that the Legislature is free to define the standard for determining whether a rule is supported by legislative authority." Southwest Florida Water Management District v. Save the Manatee Club, Inc., 773 So. 2d 594, 598 (Fla. 1st DCA 2000) (citations omitted).

Challenges to proposed rules in hearings held under Section 120.56, Florida Statutes, "shall be conducted in the same manner provided by ss. 120.569 and 120.57, except that the administrative law judge's order shall be final agency action." Section 120.56(1)(e), Florida Statutes. "The

administrative law judge may declare the proposed rule wholly or partially invalid." Section 120.56(2)(b), Florida Statutes.

"Administrative bodies [such as the Department and the Division of Administrative Hearings] have no common law powers. They are creatures of the Legislature and what powers they have are limited to the statutes that create them." State ex rel. Greenberg v. Florida State Board of Dentistry, 297 So. 2d 628, 636 (Fla. 1st DCA 1974), cert. dismissed, 300 So. 2d 900 (Fla. 1974)(citations omitted). See also Miller v. State, Department of Environmental Regulation, 504 So. 2d 1325, 1327 (Fla. 1st DCA 1987). It has also been held that any reasonable doubt about the lawful existence of a particular power being ex[ercis]ed by an administrative agency is to be resolved against its exercise. Greenberg, 297 So. 2d at 636.

In 1999, the Legislature revised several provisions of Chapter 120, Florida Statutes, pertaining to the rulemaking authority of agencies. "The new law gives the agencies authority to 'implement or interpret' specific powers and duties contained in the enabling statute." Southwest Florida Water Management District, 773 So. 2d at 599. "[I]t is clear that the authority to adopt an administrative rule must be based on an explicit power or duty identified in the enabling statute. Otherwise, the rule is not a valid exercise of delegated legislative authority." Id. In essence, in 1999, the Legislature narrowed the authority of an agency to adopt rules.

Also in 1999, the Legislature enacted Section 403.031(21) defining "total maximum daily load" and Section 403.067, pertaining to the "establishment and implementation of total maximum daily loads." Sections 403.031(21) and 403.067, Florida Statutes. See also Chapter 99-223, Sections 2 and 3,

Laws of Florida and Chapter 99-53, Sections 9 and 10, Laws of Florida. In part, in the Legislative findings and intent portion of Section 403.067(1), "the Legislature declare[d] that the waters of the state are among its most basic resources and that the development of a total maximum daily load program for state waters as required by s. 303(d) of the Clean Water Act, Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq. will promote improvements in water quality throughout the state through the coordinating control of point and nonpoint sources of pollution." Section 403.067(1), Florida Statutes.

In enacting Section 403.067, the Legislature was aware of the requirements of the CWA and, in particular, 33 U.S.C. Section 1313(d) (a/k/a Section 303(d)), having referred to this subsection in Section 403.067. See, e.g., Section 403.067(2)(c), (9), and (11), Florida Statutes. See also Chapter 99-353, "Title," Laws of Florida ("creating s. 403.067, F.S.; authorizing the Department of Environmental Protection to adopt a process of listing surface waters not meeting water quality standards and for the process of establishing, allocating, and implementing total maximum daily loads applicable to such listed waters; providing specific authority for the department to implement s. 1313, 33 U.S.C.; providing legislative findings and intent; providing for a listing of surface waters; providing for an assessment; providing for an adopted list; providing for removal from the list; providing for calculation of total maximum daily load; providing for implementation; providing for rules; providing for application; providing for construction; providing for evaluation;") (emphasis added). Two legislative staff analyses also indicate a particular awareness of the import of the CWA. See House of Representatives as Revised by the Committee on Water & Resource Management Final

Analysis, CS/HB2067, June 14, 1999, Storage Name-h2067slz.wrm and Senate Staff Analysis and Economic Impact Statement, CS/SB2282, March 22, 1999.[2]

The Legislature authorized and clearly mandated that the Department "adopt by rule a methodology for determining those waters which are impaired." Section 403.067(3)(b), Florida Statutes. In plain language, the Legislature also stated:

"(9) Application.-- The provisions of this section are intended to supplement existing law, and nothing in this section shall be construed as altering any applicable state water quality standards or as restricting the authority otherwise granted to the department or a water management district under this chapter or chapter 373. <u>The exclusive means of state implementation of s. 303 (d) of the Clean Water Act Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq. shall be in accordance with the identification, assessment, calculation and allocation, and implementation provisions of this section.</u>"

Section 403.067(9), Florida Statutes (emphasis added). With respect to "implementation of additional programs," the Legislature also provided: "The department shall not implement, without prior legislative approval, any additional regulatory authority pursuant to s. 303(d) of the Clean Water Act or 40 C.F.R. part 130, if such implementation would result in water quality discharge regulation of activities not currently subject to regulation." Section 403.067(11), Florida Statutes.

Implementation of the CWA involves federal-state cooperation. The EPA and the Department have separate, yet often, intertwined, statutory duties and responsibilities. To this end, it appears that the CWA, and in particular 33 U.S.C.

Section 1313(d), gives the states a primary role to develop and implement the TMDL program, and material here, the methodology for determining waters which are impaired.[3] In this manner, consideration of the Proposed Rules presents a different situation from the consideration of the federal and state statutory scheme and proposed rules at issue in Flowers v. State of Florida, Department of Health and Rehabilitative Services, Case No. 89-1581RP, 1989 WL 644426, at *9 and *10 (Fla. Div. Admin. Hrgs. June 9, 1989), aff'd, 559 So. 2d 1142 (Fla. 1st DCA 1990).

Absent an express statement of congressional will that the states are "required" to implement 33 U.S.C. Section 1313(d) in a particular manner when developing a methodology as proposed here, and the Florida Legislature requiring the Department to implement the CWA in a different manner from that which is stated in Section 403.067, it would be inappropriate for an administrative law judge in this rule challenge proceeding to consider the validity of the Proposed Rules in light of the CWA and EPA regulations, and in a manner inconsistent with Section 403.067 and other Florida Statutes being implemented. See generally Curtis v. Taylor, 648 F.2d 946, 948 (5th Cir. 1980).

In summary, the Legislature, mindful of the requirements of the CWA, has implemented the cited provisions of the CWA in a particular manner and has mandated that the Department, in turn, implement the CWA, and adopt rules solely in accordance with Section 403.067, Florida Statutes. Thus, given the nature of this rule challenge proceeding and the statutory authority vested in the Department and the undersigned, it would be inappropriate to consider the validity of the Proposed Rules in light of the federal law and regulations cited by Petitioners.

Accordingly, it is, therefore,

ORDERED that FEPCG's Motion to Strike is granted and Petitioners' references to the CWA and the Code of Federal Regulations, as more particularly described in paragraph (ii), pages 9 and 10 of the Motion to Strike, are stricken.

On May 7, 2001, Petitioner Save Our Suwannee, Inc., filed a Petition with the Division challenging proposed Rule Chapter 62-303, Florida Administrative Code, on the same grounds that the Petitioners in DOAH Case Nos. 01-1462RP through 01-1466RP had relied upon in their Petitions. Petitioner Save Our Suwannee, Inc.'s Petition was docketed as DOAH Case No. 01-1797RP. On May 15, 2001, Petitioner Save Our Suwannee, Inc., filed a Request to Consolidate DOAH Case No. 01-1797RP with DOAH Case Nos. 01-1332RP and 01-1462RP through 01-1466RP. On May 16, 2001, Judge Stampelos entered an Order consolidating these cases.

On May 15, 2001, the Department filed a Notice advising that "the Environmental Regulation Commission, at its rule adoption hearing held April 26, 2001, [had] adopted certain amendments to the proposed rules being challenged in these consolidated cases" and that a "Notice of Change ha[d] been published in the May 11, 2001 issue of Florida Administrative Weekly."

On May 17, 2001, Intervenor Florida Manufacturing and

Chemical Council, Inc. (FMCC) filed a Petition to Intervene in DOAH Case Nos. 01-1332RP, 01-1462RP through 01-1466RP, and 01-1797RP. On May 18, 2001, Judge Stampelos entered an Order granting Intervenor FMCC the intervenor status it had requested and providing that such "[i]ntervention [was to] be in subordination to and in recognition of the main proceeding."

Intervenors FPPAEA and FCG, on May 18, 2001, and May 23, 2001, respectively, filed Petitions to Intervene in DOAH Case No. 01-1797RP. Intervenor FPPAEA's Petition to Intervene was granted by Judge Stampelos on May 18, 2001. Intervenor FCG's Petition to Intervene was granted by Judge Stampelos on May 24, 2001. Both Orders provided that the "[i]ntervention [granted therein was to] be in subordination to and in recognition of the main proceeding."

On May 29, 2001, Intervenor FCG filed a Motion Strike Federal References from Save Our Suwannee's Petition. The Department joined in the Motion on May 31, 2001. On June 6, 2001, Judge Stampelos issued an Order granting the Motion.

On May 31, 2001, Intervenor Florida Water Environment Association, Inc. (FWEA) filed a Petition to Intervene in DOAH Case Nos. 01-1332RP, 01-1462RP through 01-1466RP, and 01-1797RP. On June 1, 2001, Judge Stampelos entered an Order granting Intervenor FWEA the intervenor status it had requested and

providing that such "[i]ntervention [was to] be in subordination to and in recognition of the main proceeding."

On June 25, 2001, Petitioners Linda Young; Save Our Bays, Air and Canals, Inc.; Florida Public Interest Research Group, Citizen Lobby, Inc.; Santa Rosa Sound Coalition; Friends of Saint Sebastian River; Apalachicola Bay and River Keeper, Inc.; and Save Our Suwannee, Inc. (hereinafter referred to collectively as the "Joint Petitioners") filed a Motion requesting permission to file an Amended Petition "in conformity with" the rulings of Judge Stampelos announced in his Orders of May 22, 2001, and June 6, 2001, granting FCG's Motions to Strike. Joint Petitioners' Motion to Amend was accompanied by the Amended Petition they sought to file.[4]

In their Amended Petition, Joint Petitioners alleged that proposed Rule Chapter 62-303, Florida Administrative Code, suffered from the following "[f]acial [l]egal [f]laws" and "[e]vidence-[r]elated [l]egal flaws:

> Facial Legal Flaws
>
> 27. The proposed rule as a whole is invalid based on the flush left language in Section 120.52(8), Florida Statutes, by substituting a two-step process (i.e., development of "planning" and "verified" lists) for the three-step process imposed by the Legislature in subsections (2)-(4) of Section 403.067, Florida Statutes, (i.e., informal listing, assessing, and confirming), which effectively creates a formal rule barring listing even on a

"planning list" submitted to EPA except in accordance with assessment pursuant to methodology prescribed by DEP in the rule, even though the assessment methodology only should apply at the assessment and confirmation steps; and by providing for heightened non-statutory requirements at the latter (i.e., confirmation, or approved list) step (see Part III of Proposed [Rule Chapter] 62-303), in conflict with the confirmation process imposed by the Legislature in subsection (4) of Section 403.067.

28. Further, assuming arguendo DOAH correctly ruled on May 22, 2001, that "it would be inappropriate to consider the validity of the Proposed Rules in light of the federal law and regulations cited by Petitioners," DEP likewise lacks specific authority to characterize in the proposed rule what the CWA or the implementing federal regulations describe or allow. If DOAH is correct in its ruling then it follows that DEP has no power, duty, or authority to make any such characterizations in its proposed rule. Accordingly, based on DOAH's ruling, all such characterizations must be stricken from the proposed rule. See Proposed Fla. Admin. Code Rs. 62-303.100(1) and (2),.150(1) and (2),.200(21).

Evidence-Related Legal Flaws

29. In violation of the rulemaking methodology mandate in Section 403.067(3)(b), Florida Statutes, the proposed rule would reject or otherwise wrongly reduce the utility of "objective and credible data, studies and reports" material to assessing impairment, and conversely, give credence or definitiveness to other data, studies and reports in determining lack of impairment that do not rise to the level of "objective and credible" or are not sufficient to demonstrate lack of impairment. This defect is overarching and

pervasive throughout the rule, see Proposed Fla. Admin. Code Rs. 62-303.100, .150, .200, .300, .310, .320, .330, .340, .350, .351, .352, .353, .360, .370, .380, .400, .410, .420, .430, .440, .450, .460, .470, .480, and .720, including, but not limited to, through the instances of invalidity alleged further below. This wrongful data treatment will adversely impact assessment for impairment in virtually all water resource categories, including estuaries and other marine waters (62-303.200(5), .353), fresh water streams (62-303.150[sic](18), .351) and lakes (62-303.150[sic](7), .352), shellfish harvesting waters (62-303.370, .470), swimming waters (62-303.300(1), .360, .460), drinking water sources (62-303.380, .480), and fisheries (62-303.370, .470) and wildlife habitat; and for virtually all pollution assessment categories, including bioassessment (62-303.200(1), .330, .430), metals (62-303.200(2), .320(8), and .420(4)), nutrients (62-303.350-.353, .450), and toxicity (62-303.340, .440). See also Part III of Proposed Fla. Admin. Code R. 62-303, .430(4), .700(1), .710(1).

30. 62-303.100 of the proposed rule would create unauthorized exceptions to the objective and credible data requirement for mixing zones and other "moderating provisions," as well as natural and manmade conditions that can contribute to and exacerbate the impairment associated with point and non-point sources of pollution. See also 62-303.150[sic](23).

31. 62-303.100(5) of the proposed rule states that "[p]ursuant to section 403.067, F.S., impaired waters shall not be listed on the verified list if reasonable assurance is provided that, as a result of existing or proposed technology-based limitations and other pollution control programs under local, state, or federal authority, they will attain water quality standards in the future and reasonable progress towards

attainment of water quality standards will be made by the time the next 303(d) list is scheduled to be submitted to EPA." As discussed further below, the proposed rule provides no standards for determining the meaning of "reasonable progress," nor does it provide any limitation on the future date by which an otherwise impaired water will be expected to attain water quality standards. Further, there is no statutory basis in Section 403.067, Florida Statutes, to avoid listing waters based on a supposition that the impairment will be somewhat improved prior to the filing of the next 303(d) list with EPA.

32. Several sections of the proposed rule contain language that serves to improperly limit the number of samples or duration of samples that can be considered by DEP for TMDL assessment although the samples present objective and credible evidence of impairment. These samples are limited either temporally or by number. See 62-303.300, .310, .320, .330, .340, .350, .351, .352, .353, .360, .370, .380, .400, .410, .420, .430, .440, .450, .460, .470, .480, and .720.

33. 62-303.320 creates a system whereby the addition of a water segment onto the planning list is determined by the number of exceedances of water quality criteria. In order for a water segment to be included on the planning list the number of exceedances must be greater than the number allowed in Table 1 of the rule. The determination of potential impairment by means of binomial distribution, a procedure that does not account for the severity of exceedances of water quality criterion, past history of exceedances, and nature of the pollutants is not an appropriate means of determining the impairment of a water segment.

34. 62-303.320(6) states that "[o]utliers identified through statistical procedures

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."[5] 62-303.320(6), if adopted, would improperly permit DEP to exclude from consideration pollution created by point and nonpoint sources. The phrase "outliers identified through statistical procedures" also is vague and provides the DEP with an extreme and inappropriate amount of agency discretion not provided for in 403.067, Florida Statutes.

35. 62-303.330(2) states that "[b]ecause of the complexity of bioassessment procedures, persons conducting the bioassessment will, in addition to meeting the quality assurance requirements of Chapter 62-160, F.A.C., be required to pass a Department sanctioned field audit before their bioassessment data will be considered valid for use under this rule." Inasmuch as the proposed rule does not specify the requirements of the "Department sanctioned field audit" it is meaningless and lacks objectivity and credibility. See also paragraph 42 below. It provides no notice to the public of the requirements of the field audit. There must be assurances that the Department will apply one set of requirements to all people conducting these tests, that these requirements will be applied on a statewide basis, that the Department will have the resources to prevent any logjam regarding conducting field audits, and that these criteria will not exclude individuals who by reason of education or experience are capable of obtaining objective and credible data of use in whole or in part in assessing the biological health or other indicia of impairment in relation to any or all state waters.

36. Proposed rule 62-303.360(3) improperly states that "[a]dvisories, warnings, and closures based on red tides, rip tides,

sewage spills, sharks, medical wastes, hurricanes, or other factors not related to chronic discharges of pollutants shall not be included when assessing recreation use support. However, the Department shall note for the record that data were excluded and explain why they were excluded." Similarly, proposed rule 62-303.460(1) improperly states that ". . . [i]f the segment is listed on the planning list based on bathing area closures, advisories, or warnings issued by a local health department or county government, closures, advisories, or warnings based on red tides, rip tides, sewer line breaks, sharks, medical wastes, hurricanes, or other factors not related to chronic discharges of pollutants shall not be included when verifying primary contact and recreation use support." Red tides, sewage spills, and medical wastes can be in whole or in part related to point and non-point sources that can each present important indicia of impairment, as can acute discharges or pollutants. Further, the definition of "spill" in 62-303.200(16) of the proposed rule as ". . . a short-term, unpermitted discharge to surface waters, not to include sanitary sewer overflows or chronic discharges from leaking wastewater collection systems" would improperly exclude from consideration by including in the definition of spill many point and non-point sources that provide indicia of impairment. Further, "[a]dvisories, warnings, and closures" and other indicia of interference with swimming areas and other potentially harmful human contact with pollution will be improperly excluded, minimized, or discounted from consideration under proposed [Rules] 62-303.300(1), .360, and .460.

37. Parts III and IV of the proposed rule, as well as other sections of the proposed rule including 62-303.150[sic](6), (11), and (21), .370, and .380 contain language that wrongly relies in whole or in part on the

"Planning List" and the requirements set forth in proposed rule 62-303.320.

38. 62-303.420(2) creates a system whereby the addition of a water segment onto the verified list is determined by the number of exceedances of water quality criteri[a]. In order for a water segment to be included on the verified list the number of exceedances must be greater than the number allowed in Table 2 of the rule. The determination of potential impairment by means of binomial distribution, a procedure that does not account for the severity of exceedances of water quality criteri[a], past history of exceedances, and nature of the pollutants is not an appropriate means of determining the impairment of a water segment.

39. Proposed rule 62-303.420(5) states that "[o]utliers identified through statistical procedures, 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. However, the Department shall note for the record that the data were excluded and explain why they were excluded."[6] Similarly, proposed rule 62-303.440(3) improperly states that "[t]oxicity 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. However, the Department shall note for the record that the data were excluded and explain why they were excluded." These provisions would

improperly undercut the assessment of waters of the state that are impaired as a result of point and nonpoint discharges, as well as be vague and fraught with potential for abuse in application. Further, because violations of permit limits and other specified conditions would not count in the assessing of whether a water body is impaired, water bodies could be excluded that are in fact impaired, including in cases where one or more pollution emitting facilities have not been brought into compliance and yet have been allowed to continue operating. Holding or receiving a permit that is in turn violated does not make the affected water body any less impaired. Similarly, to effectively overlook the environmental effects associated with not effectively planning to meet the needs generated by large rainfall events that are a recurring part of the complex hydrodynamics of the Florida environment is inappropriate. Devastating damage to water quality and associated biota constituting impairment can arise from major storm events. Further, "outliers identified through statistical procedures" is vague and fraught with potential for abusive neglect.

40. The enabling statute does not authorize DEP's proposed prioritization rule, 62-303.500. Further, proposed rule 62-303.500(4)(a) states that "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." The designation of Outstanding Florida Waters as medium priority directly conflicts with Section 403.061(27), Florida Statutes, and 62-302.700(1), which states that "(1) It shall be the Department policy to afford the highest protection to Outstanding Florida Waters and Outstanding National Resource Waters. No degradation of water quality, other than that allowed in Rule 62-4.242(2) and (3), F.A.C., is to be permitted in

Outstanding Florida Waters and Outstanding National Resource Waters, respectively, notwithstanding any other Department rules that allow water quality lowering." Similarly, proposed rule 62-303.500(4)(c) prioritizes based on "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." Priority designation of a water segment should be based upon the level of impairment of the water segment not based upon the level of funding that the Department of Environmental Protection receives each year from the Legislature. It is the Department's obligation to apprise the Legislature of the funding needs associated with the environmental problems facing the State of Florida in order to obtain the funding necessary to carry out its statutory mandate, and it is the Legislature's responsibility to meet these funding needs.

41. Proposed rule 62-303.600 is not authorized by the enabling statute. 62-303.600(1) states that "[u]pon determining that a water body is impaired, the Department shall evaluate whether existing or proposed technology-based effluent limitations and other pollution control programs under local, state, or federal authority are sufficient to result in the attainment of applicable water quality standards." Similarly, 62-303.600(2) states that "[i]f, as a result of factors set forth in (1), the water segment is expected to attain water quality standards in the future and is expected to make reasonable progress towards attainment of water quality standards by the time the next 303(d) list is scheduled to be submitted to EPA, the segment shall not be listed on the verified list. The Department shall document the basis for its decision, noting any proposed

pollution control mechanisms and expected improvements in water quality that provide reasonable assurance that the water segment will attain applicable water quality standards." Neither provision of 62-303.600 justifies lack of consideration of the impaired status of an impaired water segment. 1f pollution control mechanisms are already in effect, and the water segment is still impaired, it is clear that those mechanisms have not provided the needed protection. Further, prevention of impairment is not rightly considered when it does not remove the impairment in real time contemporaneously with the impairment. Further, major delays are commonly associated with pollution control overhauls going into effect and remediating the environment, including in situations where one or more older facility has an existing permit. In that case, the addition of pollution control mechanisms to the permit typically will require (1) identifying the pollution control mechanisms sufficient to provide remediation, (2) if possible, reopening the permit to include those mechanisms or imposing the proposed changes as part of a renewal when a[n] administrative continuance is typically in place, (3) allowing for administrative challenges to permit changes, (4) issuance of the new permit, and (5) implementation. Each step[] involves significant uncertainty. Further, to expect those steps to be completed prior to submission of the next 303(d) list to EPA is unrealistic. Further, the proposed rule provides no meaningful standards for determining the meaning of "reasonable progress." In any event, the "reasonable progress" talisman is totally unsupported by the statute. There is no statutory basis in Section 403.067, Florida Statutes, for allowing waters to avoid listing based on a supposition that the impairment will be corrected or make "reasonable progress" prior to the filing of the next 303(d) list with EPA. Further,

there are no meaningful standards set forth to determine how the Department shall decide whether a water segment is "expected to attain water quality standards by the time the next 303(d) list is scheduled to be submitted to EPA. . . ." The fact that the Department must document the proposed pollution control mechanisms and the expected improvements only underscores the uncertainty of this process. If pollution control mechanisms are only proposed or potential they have not been included in the applicable permit. The fact that there is an expectation of improved water quality serves to underscore the point that as of the time the decision is being made impairment exists.

42. Further, the proposed rule and associated rulemaking process also have a host of other procedural and practical defects that work to the disadvantage of large segments of the affected citizenry. Section 120.54(2)(b), Florida Statutes, states that "[a]ll rules should be drafted in readable language. The language is readable if: 1. It avoids the use of obscure words and unnecessarily long or complicated constructions; and 2. It avoids the use of unnecessary technical or specialized language that is understood only by members of particular trades or professions." Proposed rule 62-303, when considered in its entirety, is in violation of Section 120.54(2)(b), Florida Statutes. Similarly, under Chapter 75 of 2001, Section 9, paragraph (i) of subsection (1) of section 120.54, Florida Statutes, "A rule may incorporate material by reference but only as the material exists on the date the rule is adopted." The proposed rule would be in part based on standard operating procedures and other processes and documents that do not now exist, are not incorporated by reference in the proposed rule, or are not meaningfully available to members of the public now and/or during the rulemaking

> workshop process related to the proposed rule including: "STORET," a database that is not incorporated by reference in the rules and that does not now function adequately, that malfunctioned continually during the entire workshop process associated with this rule, and that is reasonably expected to have continuing major problems for retrieving and managing data associated with the TMDL process and with evaluating the effects of the proposed rule on specific water bodies (see 62-303.320(2), (7)(b), .700(1)); and dependency on establishment of water segment designations by a process that is left without meaningful standards under the proposed rule (62-303.200(24)). See also Proposed Fla. Admin. Code Rs. 62-303.320(7)(b), and. 470(1)(b).

Joint Petitioners, in their Amended Petition, requested the following relief:

> A. [A]n administrative determination that DEP's proposed rule 62-303 is an invalid exercise of delegated legislative authority in that (1) DEP has materially failed to follow the applicable rulemaking procedures or requirements set forth in Chapter 120, Section 120.52(8)(a); (2) DEP has exceeded its grant of rulemaking authority, Section 120.52(8)(b), Florida Statutes; (3) DEP has enlarged, modified, and contravened the specific provisions of law allegedly implemented, Section 120.52(8)(c); (4) that the proposed rule is vague and fails to establish adequate standards for agency decisions, Section 120.52(8)(d); (5) that the proposed rule vests unbridled discretion in the agency, Section 120.52(8)(d); (6) that DEP has acted arbitrarily and capriciously, Section 120.52(8)(e); (7) that DEP has acted not based upon competent substantial evidence, Section 120.52(8)(f); and (8) that DEP has not implemented and interpreted the specific powers and duties

> granted by the enabling statute, Section 120.52(8)(g).
>
> H. [A]ll other relief as is appropriate under the circumstances, including, but not limited to, the award of Petitioners' reasonable attorney's fees and costs pursuant to Section 120,595, Florida Statutes.

On June 25, 2001, Joint Petitioners also filed a Motion for Summary Final Order on Limited Legal Grounds (more specifically, on those grounds set forth in paragraphs 27 and 28 of their Amended Petition and on the ground stated in paragraph 5 of their Amended Petition that, assuming arguendo the correctness of Judge Stampelos' May 22, 2001, Order, the Department lacks the authority "to characterize what the CWA or the implementing regulations describe or allow").

On July 2, 2001, Intervenors FCG, FMCC, and FWEA jointly filed a Response in Opposition to [Joint] Petitioners' Motion to Amend Petition and a Response in Opposition to [Joint] Petitioners' Motion for Summary Final Order; Intervenor FPPAEA filed a Joinder in Intervenors FCG's, FMCC's, and FWEA's Response in Opposition to [Joint] Petitioners' Motion for Summary Final Order; and the Department filed its own Response in Opposition to [Joint] Petitioners' Motion to Amend Petition and its own Response in Opposition to [Joint] Petitioners' Motion for Summary Final Order.

On July 12, 2001, Judge Stampelos issued an Order granting

Joint Petitioners' Motion to Amend, accepting Joint Petitioners' Amended Petition, and denying Joint Petitioners' Motion for Summary Final Order on Limited Legal Grounds.

On August 20, 2001, all of the Joint Petitioners except for Petitioner Young (hereinafter referred to collectively as "Corporate Petitioners") filed a Motion in Limine requesting the entry of an order "preclud[ing] Intervenor, FPPAEA, from challenging [their] standing in the final hearing" and "limiting FPPAEA's examination of [them] at the hearing to those issues involving [their] challenge to the Rule itself." On August 22, 2001, FPPAEA filed a Response in Opposition to [Corporate] Petitioners' Motion in Limine. That same day, August 22, 2001, oral argument on the Motion was held by telephone conference call before the undersigned (who had recently been reassigned these cases.) On August 23, 2001, the undersigned issued an Order which provided, in pertinent part, as follows:

> 1. The Orders granting FPPAEA intervenor status in these consolidated cases specifically provided that FPPAEA's "intervention [would] be in subordination to and in recognition of the propriety of the main proceeding." Accordingly, FPPAEA "must accept the record and pleadings as [it found] them and cannot raise new issues." National Wildlife Federation Inc. v. Glisson, 531 So. 2d 996 (Fla. 1st DCA 1988); see also Singletary v. Mann, 24 So. 2d 718 (Fla. 1946)("'As a general rule, an interven[o]r is not allowed to assail the jurisdiction of the court or to charge laches on the part of the plaintiff in

bringing the suit or to object to pleadings or process which the defendant or other party against whom it is employed has submitted to without objection. Having been permitted to come into the cause because of his interest in the subject matter of the suit, the interven[o]r is restricted to the issue as to such subject matter and cannot insist on raising or trying other issues not involved.'"); Lewis Oil Co., Inc. v. Alachua County, 496 So. 2d 184 (Fla. 1st DCA 1986)("Generally speaking, an intervening party's rights are subordinate to the principal issues raised by the original parties to an administrative action, and the intervening party is limited to litigating only his interests as affected by the principal issues."); and 39 Fla. Jur. 2d Parties Section 65 (2000)("Intervention must be in subordination to, and in recognition of, the propriety of the main proceeding, unless the court, in its discretion, orders otherwise. Thus, unless the court orders otherwise, an intervenor may not inject new issues into the suit, because one who intervenes in a pending suit must ordinarily come into the case as it exists, conform to the pleadings as he finds them, and take the case as he finds it; he cannot urge mere irregularities in the proceeding that the original parties have expressly or impliedly waived or avail himself of defenses that are personal to them.").

2. Lack of standing is an affirmative defense that, if not timely raised, is waived. See Krivanek v. Take Back Tampa Political Committee, 625 So. 2d 840 (Fla. 1993); Agency for Health Care Administration v. Baytree Lakeside Assisted Living Facility, 1999 WL 1486683 (Fla. DOAH 1999)(Recommended Order); U.S. Foodservice, Inc. v. School Board of Hillsborough County, 1998 WL 930094 (Fla. DOAH 1998)(Recommended Order); Island Marina, Inc. v. Department of Environmental Protection, 1996 WL 1060095 (Fla. DOAH 1996)(Final Order);and Paddock

> Construction Company, Inc. v. City of Eustis, 1990 WL 749241 (Fla. DOAH 1999)(Recommended Order). In these consolidated cases, Respondent has not contested the "corporate Petitioners'" standing and therefore FPPAEA, while entitled to participate (on the side of Respondent) in the litigation of the merits of the "corporate Petitioners'" challenge,[7] may not litigate the issue of the "corporate Petitioners'" standing to have their challenge heard. Cf. Lake Tahoe Watercraft Recreation Association v. Tahoe Regional Planning Agency, 24 F.Supp.2d 1062 (E.D. Cal. 1998)("The League is prohibited from raising a statute of limitations defense. An intervenor is limited to the field of litigation open to the original parties; it cannot enlarge the issues tendered by or arising out of plaintiff's bill. . . . The statute of limitations was not raised by TRPA [the defendant] and therefore goes beyond the scope of the original litigation."); and Torrington Co. v. U.S., 731 F.Supp. 1073 (CIT 1990)("The issue of standing was not challenged by either of the primary parties and therefore goes beyond the scope of the original litigation. . . . [A]n intervenor is limited to the field of litigation open to the original parties, and cannot enlarge the issues tendered by or arising out of plaintiff's bill. . . . [T]he intervenor 'takes the action as it has been framed by the parties therein,' and cannot use the right of intervention to interpose claims otherwise inappropriate.").
>
> 3. In view of the foregoing, the "corporate Petitioners'" Motion in Limine is granted.[8]

On August 30, 2001, Petitioner Lane filed a Memorandum of Law in Support of Petition. At the final hearing, the parties agreed that this Memorandum of Law in Support of Petition should be "considered by the Judge at the same time he considered legal

argument proposed by all of the parties" following the close of the hearing and before the issuance of this Final Order.

Prior to the final hearing, the parties filed a Prehearing Stipulation, which, among other things, contained the following "Statement of Facts Admitted" and "Issues of Law Agreed Upon":

> (e) Statement of Facts Admitted
>
> 1. A Notice of Rule Development, as to proposed Rule 62-303, was published 18 August 2000 in Volume 26, Number 33, of the Florida Administrative Weekly.
>
> 2. A Notice of Proposed Rulemaking, as to proposed Rule 62-303, was published 23 March 2001 in Volume 27, Number 12, of the Florida Administrative Weekly.
>
> 3. A Notice of Change, as to proposed Rule 62-303, was published 11 May 2001 in Volume 27, Number 19, of the Florida Administrative Weekly.
>
> (f) Issues of Law Agreed Upon
>
> 1. The Florida Administrative Procedure Act, Chapter 120, Florida Statutes, is applicable to this proceeding.
>
> 2. The parties stipulate to standing as to all petitioners.
>
> 3. The parties stipulate to standing as to all intervenors.

As noted above, the final hearing in these consolidated cases was held before the undersigned on September 4 through 7, 10 through 14, 17, and 19 through 21, 2001. A total of 30 witnesses testified at the hearing. The following Department of

Environmental Protection employees testified: Daryll Joyner,[9] Jerry Brooks, Eric Livingston, Russell Frydenborg, Lori Wolfe, Timothy Fitzpatrick, Dr. Thomas Atkeson, Dr. Richard Wieckowicz, Lee Edmiston, Donald Ray, Lawrence Donelon, and Glenn Butts. The following other state and local government employees testified: Barton Bibler of the Florida Department of Health; Robert DuBose of the Escambia County Health Department; Richard Budell and David Heil of the Florida Department of Agriculture and Consumer Services; and Robert Mattson of the Suwannee River Water Management District. Petitioners Lane and Young testified on their own behalf, along with the following representatives of the Corporate Petitioners: Svenn Lindskold of Save Our Suwannee, Inc.; Tim Glover of Friends of Saint Sebastian River; and Willard Vinson of Apalachicola Bay and River Keeper, Inc. The following other persons also testified: Barry Sulkin, Dr. Joan Rose, Dr. Wayne Isphording, John McFadden, Dr. Satya Mishra, Dr. Kenneth Reckhow, Dr. Kenneth Heck, and Dr. Joanne Burkholder. In addition to the testimony of these 30 witnesses, numerous exhibits were offered and received into evidence, including the depositions of Department employees Joseph Hand and Patrick Detscher.

At the close of the evidentiary portion of the final hearing on September 21, 2001, the undersigned established, pursuant to the parties' request, the following deadlines for

the filing of post-hearing submittals: proposed final orders-- 50 days from the date of the filing of the entire hearing transcript with the Division; and responses to proposed final orders-- 70 days from the date of the filing of the entire hearing transcript with the Division.

The complete transcript of the final hearing in these consolidated cases consists of 26 volumes. The first 18 volumes were filed with the Division on November 20, 2001. The final eight volumes were filed with the Division on November 26, 2001. On November 27, 2001, the undersigned issued an order advising the parties that, "in accordance with the deadlines established by the undersigned at the final hearing, the parties' proposed final orders [had to] be filed (that is, received by the Clerk of the Division of Administrative Hearings) no later than January 15, 2002, and the parties' responses to the other parties' proposed final orders [had to] be filed no later than February 4, 2002."

On January 14, 2002, Petitioner Lane filed a Motion to Amend Petitioner Lane's Petition to Include Issues She Raised at the Hearing. On January 15, 2002, the undersigned issued an Order denying the motion "without prejudice to Petitioner Lane's filing a second motion to amend her previously filed Amended Petition that identifies with particularity those provisions of proposed Rule Chapter 62-303, Florida Administrative Code, in

addition to proposed Rules 62-303.100(5) and 62-303.600(2), Florida Administrative Code, which she desires to challenge and explains why, in her opinion, these additional provisions constitute an invalid exercise of delegated legislative authority."

Petitioner Lane, Joint Petitioners, the Department, and Intervenor FPPAEA filed Proposed Final Orders on January 15, 2002. Intervenors FCG, FMCC, and FWEA jointly filed a Proposed Final Order on January 16, 2002.

On January 28, 2002, Petitioner Lane filed a Second Motion to Amend Her Previously Amended Petition, which provided as follows:

> COMES NOW Petitioner Lane, pursuant to Fla. Admin. Code R. 28-106.202 and to the ORDER of Administrative Law Judge (ALJ) Stuart M. Lerner dated January 15, 2002, and states with particularity those provisions of proposed Rule 62-303 which are an invalid exercise of delegated authority.
>
> 1. Sections 62-303.100(5) and 62-303.600(2) have been identified in a previous petition as an "invalid exercise of delegated legislative authority" (§ 120.56(1)(a) Fla. Stat.) and not comporting with requirements of § 120.57(1)(e)2. and § 120.52(8) Fla. Stat.
>
> 2. Section 62-303.320(4) and Section 62-303.350(3)[sic] require data from three out of four seasons. To really identify an "impaired water body," the season of the year when that impairment is expected to occur should be the time the water body is sampled.

3. Section 62-303.440(3) excludes data from upsets or bypasses. This data may be very necessary to identify impairment, especially if the upset has produced a long-lasting impairment.

4. Section 62-303.450(2) allows the Department to verify nutrient imbalance without specifying how the Department will determine "imbalance." This also allows the Department to have too much discretionary authority.

5. Section 62-303.720 has too many provisions which allow a water body to be taken off the verified list or planning list for reasons other than water quality standards are not [sic] being met.

6. Section 62-303.720(2)(j) is especially bad because allowing a water body to be delisted for some, as of now, unspecified change to an analytical procedure, is very vague and does not establish adequate standards for the Department.

7. Section 62-303.320(8)(a) concerning the use of "clean-technique" to analyze for mercury would cause most of the mercury data to be thrown out. Also the use of "Method 1669" as referenced in 62-303.200 (2) is not practical or feasible at this time. "Method 1669" was put out by the EPA as a guidance document only.

9. Section 62-303.420(4) requires metals data to be reevaluated using "clean technique" which is not necessary, practical, or feasible to determine toxicity of metals.

10. Section 62-303.400(1) requires the Department to place a water body on the verified list if it does not meet the "minimum criteria for surface waters" as established in Rule 62-302.500. Yet, the

Department has not utilized this Rule 62-302.500 in its permitting processes. Nor does this section (62-303.400) have any guidance as to how the "Minimum Criteria" rule will be applied.

11. Section 62-303.320(1) allows the use of a binomial distribution which may not be applicable in all cases.

12. Section 62-303.330(2) does not specify a bioassessment for estuaries because there is none at this time.

13. Section 62-303.350(1) allows an annual mean chlorophyll a value to determine nutrient impairment. An annual mean is not sufficient to determine impairment. A mean can also be easily manipulated to not find impairment.

14. Section 62-303.420(1)(a) and (b) allows "physical alterations which cannot be abated" to remove water bodies from the impaired waters list. So many water bodies in Florida have been physically altered and will never go back to the original condition. These alterations have, in many cases, caused problems, but this physical alteration exclusion clause in this rule goes beyond the intent of the enabling statute 403.067 and vests unbridled discretion in the Department.

15. Section 62-303.420(3) allows the Department to exclude worst-case values from the analysis. This again goes beyond the enabling statute and vests unbridled discretion in the Department.

16. Section 62-303.430(4)(a) and (b) requires that the pollutant causing impairment be known to be placed on the verified list. The Statute 403.067 says the pollutant must be known before a TMDL is done, not that a water body will not be put on the verified list if the pollutant is not

known. This section does not agree with the statute.

17. Section 62-303.460(2) requires the Department to determine the source of bacterial contamination and exclude data due to wildlife. Why exclude data from wildlife? Fecal contamination from wildlife will cause impairment.

18. Section 62-303.470(2) will allow a water to be left off the verified list if the pollutant is no longer allowed to be discharged. The water body can be listed and a TMDL will be very easily done for this pollutant.

19. In conclusion, the statute 403.067 requires water bodies to be identified as "impaired" if they are not meeting water quality standards. This proposed rule has so many exemptions that many waters which would have been classified as "impaired would be removed from the "impaired" waters list due to these exemptions.

WHEREFORE, I respectfully request the Court to allow me to amend my petition to include the issues I have raised in the preceding paragraphs.

CONFERENCE WITH OTHER PARTIES

I have conferred with the other parties. The Department of Environmental Protection (Winston Bor[ko]wski) and the Florida Pulp and Paper Association (Jeff Brown) do not consent to the ALJ allowing me to amend my petition. Jim Alves representing the Electric Power Coordinating Group and others, and Jerry Phillips, representing the other Petitioners, have no objection to the motion to amend.

On February 4, 2002, all of the parties, except for Intervenor FPPAEA, filed Responses to the opposing parties'

Proposed Final Orders. These Responses, along with the parties' Proposed Final Orders and Petitioner Lane's Memorandum in Support of Petition, have been carefully considered by the undersigned.

The Department, in its Response, stated the following with respect to Petitioner Lane's Second Motion to Amend Her Previously Amended Petition:

> As of the filing of this supplemental proposed final order, petitioner Lane has pending Petition[er] Lane's Second Motion to Amend Her Previously Amended Petition to which Respondent objected when consulted by the petitioner. Respondent asserts that to the extent Ms. Lane has raised issues in her proposed order, beyond her petition, they should not be considered. However, should the Court decide to entertain any such additional issues raised by petitioner Lane, Respondent reasserts its findings of fact and conclusion[s] of law as set out in its proposed final order as well as its response to related issues, as raised herein, in response to the proposed order filed by the affiliated petitioners.

To date, FPPAEA has not filed any written response to Petitioner Lane's Second Motion to Amend Her Previously Amended Petition. There having been no showing made that any party would be prejudiced by the granting of said Motion, the Motion is hereby GRANTED. See Florida Board of Medicine v. Florida Academy of Cosmetic Surgery, Inc., 808 So. 2d 243, 256 (Fla. 1st DCA 2002)(ALJ did not abuse discretion in granting

motion to amend rule challenge petition made during hearing where no showing made that allowing amendment would prejudice opposing party.).

In their Response to the Proposed Final Order jointly filed by Intervenors FCG, FMCC, and FWEA, Joint Petitioners moved for an order striking from these Intervenors' Proposed Final Order two references to federal law ("Clean Water Act Section 301(b)(2)(A)," wherein, FCG, FMCC, and FWEA noted in their Proposed Final Order, the term "reasonable further progress" is used, and "40 CFR 122.41," which is referenced in a Florida statutory provision, Section 403.0885(2), Florida Statutes, that FCG, FMCC, and FWEA recited in their Proposed Final Order.) Joint Petitioners argued that these references "violat[ed] Judge Stampelos' May 22, 2001, Order" striking the allegations made in the petitions that had originally been filed in DOAH Case Nos. 01-1462RP through 01-1466RP that proposed Rule Chapter 62-303, Florida Administrative Code, should be declared invalid because it is inconsistent with various provisions of the Clean Water Act and regulations promulgated thereunder. In the alternative, Joint Petitioners requested that the undersign reconsider Judge Stampelos' May 22, 2001, Order and "allow Petitioners to fully brief the Division on the violations of the Clean Water Act that are contained in the proposed rule." On February 11, 2002, Intervenors FCG, FMCC, and FWEA filed a Response opposing the

relief Joint Petitioners had requested. In their Response, Intervenors FCG, FMCC, and FWEA contended that the references made in their Proposed Final Order do not contravene Judge Stampelos' May 22, 2001, Order inasmuch as these references were not made "to demonstrate the proposed rules' consistency with federal TMDL requirements." The undersigned agrees with Intervenors FCG, FMCC, and FWEA that the references to federal law in their Proposed Final Order to which Joint Petitioners object are not in violation of Judge Stampelos' May 22, 2001, Order. Accordingly, Joint Petitioners' request that these references be stricken or that alternative relief be granted is hereby DENIED.[10]

FINDINGS OF FACT

Based upon the evidence adduced at hearing and the record as a whole, the following findings of fact are made to supplement the factual stipulations contained in the parties' Prehearing Stipulation:

State TMDL Legislation

1. Over the last 30 years, surface water quality management in Florida, like in the rest of the United States, has focused on the control of point sources of pollution (primarily domestic and industrial wastewater) through the issuance, to point source dischargers, of National Pollutant Discharge Elimination System (NPDES) permits, which specify

effluent-based standards with which the permit holders must comply. Although "enormously successful in dealing with . . . point sources" of pollution, the NPDES program has not eliminated water quality problems largely because discharges from other sources of pollution (nonpoint sources) have not been as successfully controlled.

2. In the late 1990's, the Department recognized that, to meet Florida's water quality goals, it was going to have to implement a TMDL program for the state. Wanting to make absolutely sure that it had the statutory authority to do so, the Department sought legislation specifically granting it such authority.

3. Jerry Brooks, the deputy director of the Department's Division of Water Resource Management, led the Department's efforts to obtain such legislation. He was assisted by Darryl Joyner, a Department program administrator responsible for overseeing the watershed assessment and groundwater protection sections within the Division of Water Resource Management. Participating in the drafting of the legislation proposed by the Department, along with Mr. Brooks and Mr. Joyner, were representatives of regulated interests. No representatives from the environmental community actively participated in the drafting of the proposed legislation.

4. The Department obtained the TMDL legislation it wanted

when the 1999 Florida Legislature enacted Chapter 99-223, Laws of Florida, the effective date of which was May 26, 1999.

5. Section 1 of Chapter 99-223, Laws of Florida, added the following to the definitions set forth in Section 403.031, Florida Statutes, which define "words, phrases or terms" for purposes of "construing [Chapter 403, Florida Statutes], or rules or regulations adopted pursuant [t]hereto":

> (21) "Total maximum daily load" is defined as the sum of the individual wasteload allocations for point sources[11] 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.

6. Section 4 of Chapter 99-223, Laws of Florida, added language to Subsection (1) of Section 403.805, Florida Statutes, providing that the Secretary of the Department, not the Environmental Regulation Commission, "shall have responsibility for final agency action regarding total maximum daily load calculations and allocations developed pursuant to s. 403.067(6)," Florida Statutes.

7. The centerpiece of Chapter 99-223, Laws of Florida, was Section 3 of the enactment, which created Section 403.067, Florida Statutes, dealing with the "[e]stablishment and implementation of total maximum daily loads." Section 403.067,

Florida Statutes, was amended in 2000 (by Chapter 2000-130, Laws of Florida) and again in 2001 (by Chapter 2001-74, Laws of Florida). It now reads, in its entirety, as follows:

> (1) LEGISLATIVE FINDINGS AND INTENT.-- In furtherance of public policy established in s. 403.021, the Legislature declares that the waters of the state are among its most basic resources and that the development of a total maximum daily load program for state waters as required by s. 303(d) of the Clean Water Act, Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq. will promote improvements in water quality throughout the state through the coordinated control of point and nonpoint sources of pollution.[12] The Legislature finds that, while point and nonpoint sources of pollution have been managed through numerous programs, better coordination among these efforts and additional management measures may be needed in order to achieve the restoration of impaired water bodies. The scientifically based total maximum daily load program is necessary to fairly and equitably allocate pollution loads to both nonpoint and point sources. Implementation of the allocation shall include consideration of a cost-effective approach coordinated between contributing point and nonpoint sources of pollution for impaired water bodies or water body segments and may include the opportunity to implement the allocation through nonregulatory and incentive-based programs. The Legislature further declares that the Department of Environmental Protection shall be the lead agency in administering this program and shall coordinate with local governments, water management districts, the Department of Agriculture and Consumer Services, local soil and water conservation districts, environmental groups, regulated interests, other appropriate state agencies, and affected pollution sources in developing and

executing the total maximum daily load program.

(2) LIST OF SURFACE WATERS OR SEGMENTS.--In accordance with s. 303(d) of the Clean Water Act, Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq., the department must submit periodically to the United States Environmental Protection Agency a list of surface waters or segments for which total maximum daily load assessments will be conducted. The assessments shall evaluate the water quality conditions of the listed waters and, if such waters are determined not to meet water quality standards, total maximum daily loads shall be established, subject to the provisions of subsection (4). The department shall establish a priority ranking and schedule for analyzing such waters.

(a) The list, priority ranking, and schedule cannot be used in the administration or implementation of any regulatory program. However, this paragraph does not prohibit any agency from employing the data or other information used to establish the list, priority ranking, or schedule in administering any program.

(b) The list, priority ranking, and schedule prepared under this subsection shall be made available for public comment, but shall not be subject to challenge under chapter 120.

(c) The provisions of this subsection are applicable to all lists prepared by the department and submitted to the United States Environmental Protection Agency pursuant to s. 303(d) of the Clean Water Act, Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq., including those submitted prior to the effective date of this act, except as provided in subsection (4).

(d) If the department proposes to implement total maximum daily load calculations or allocations established prior to the effective date of this act, the department shall adopt those calculations and allocations by rule by the secretary pursuant to ss. 120.536(1) and 120.54 and paragraph (6)(d).

(3) ASSESSMENT.--

(a) Based on the priority ranking and schedule for a particular listed water body or water body segment, the department shall conduct a total maximum daily load assessment of the basin in which the water body or water body segment is located using the methodology developed pursuant to paragraph (b). In conducting this assessment, the department shall coordinate with the local water management district, the Department of Agriculture and Consumer Services, other appropriate state agencies, soil and water conservation districts, environmental groups, regulated interests, and other interested parties.

(b) The department shall adopt by rule a methodology for determining those waters which are impaired. The rule shall provide for consideration as to whether water quality standards codified in chapter 62-302, Florida Administrative Code, are being exceeded, based on objective and credible data, studies and reports, including surface water improvement and management plans approved by water management districts under s. 373.456 and pollutant load reduction goals developed according to department rule. Such rule also shall set forth:

1. Water quality sample collection and analysis requirements, accounting for ambient background conditions, seasonal and other natural variations;

2. Approved methodologies;

3. Quality assurance and quality control protocols;

4. Data modeling; and

5. Other appropriate water quality assessment measures.

(c) If the department has adopted a rule establishing a numerical criterion for a particular pollutant, a narrative or biological criterion may not be the basis for determining an impairment in connection with that pollutant unless the department identifies specific factors as to why the numerical criterion is not adequate to protect water quality. If water quality non-attainment is based on narrative or biological criteria, the specific factors concerning particular pollutants shall be identified prior to a total maximum daily load being developed for those criteria for that surface water or surface water segment.

(4) APPROVED LIST.-- If the department determines, based on the total maximum daily load assessment methodology described in subsection (3), that water quality standards are not being achieved and that technology-based effluent limitations[13] and other pollution control programs under local, state, or federal authority, including Everglades restoration activities pursuant to s. 373.4592 and the National Estuary Program, which are designed to restore such waters for the pollutant of concern are not sufficient to result in attainment of applicable surface water quality standards, it shall confirm that determination by issuing a subsequent, updated list of those water bodies or segments for which total maximum daily loads will be calculated. In association with this updated list, the department shall establish priority rankings and schedules by which water bodies or segments will be subjected to total maximum

daily load calculations. If a surface water or water segment is to be listed under this subsection, the department must specify the particular pollutants causing the impairment and the concentration of those pollutants causing the impairment relative to the water quality standard. This updated list shall be approved and amended by order of the department subsequent to completion of an assessment of each water body or water body segment, and submitted to the United States Environmental Protection Agency. Each order shall be subject to challenge under ss. 120.569 and 120.57.

(5) REMOVAL FROM LIST.-- At any time throughout the total maximum daily load process, surface waters or segments evaluated or listed under this section shall be removed from the lists described in subsection (2) or subsection (4) upon demonstration that water quality criteria are being attained, based on data equivalent to that required by rule under subsection (3).

(6) CALCULATION AND ALLOCATION.--

(a) Calculation of total maximum daily load.

1. Prior to developing a total maximum daily load calculation for each water body or water body segment on the list specified in subsection (4), the department shall coordinate with applicable local governments, water management districts, the Department of Agriculture and Consumer Services, other appropriate state agencies, local soil and water conservation districts, environmental groups, regulated interests, and affected pollution sources to determine the information required, accepted methods of data collection and analysis, and quality control/quality assurance requirements. The analysis may include mathematical water

quality modeling using approved procedures and methods.

2. The department shall develop total maximum daily load calculations for each water body or water body segment on the list described in subsection (4) according to the priority ranking and schedule unless the impairment of such waters is due solely to activities other than point and nonpoint sources of pollution. For waters determined to be impaired due solely to factors other than point and nonpoint sources of pollution, no total maximum daily load will be required. A total maximum daily load may be required for those waters that are impaired predominantly due to activities other than point and nonpoint sources. The total maximum daily load calculation shall establish the amount of a pollutant that a water body or water body segment may receive from all sources without exceeding water quality standards, and shall account for seasonal variations and include a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. The total maximum daily load may be based on a pollutant load reduction goal developed by a water management district, provided that such pollutant load reduction goal is promulgated by the department in accordance with the procedural and substantive requirements of this subsection.

(b) Allocation of total maximum daily loads. The total maximum daily loads shall include establishment of reasonable and equitable allocations of the total maximum daily load among point and nonpoint sources that will alone, or in conjunction with other management and restoration activities, provide for the attainment of water quality standards and the restoration of impaired waters. The allocations may establish the maximum amount of the water pollutant from a given source or category of sources that may

be discharged or released into the water body or water body segment in combination with other discharges or releases. Allocations may also be made to individual basins and sources or as a whole to all basins and sources or categories of sources of inflow to the water body or water body segments. Allocations shall be designed to attain water quality standards and shall be based on consideration of the following:

1. Existing treatment levels and management practices;

2. Differing impacts pollutant sources may have on water quality;

3. The availability of treatment technologies, management practices, or other pollutant reduction measures;

4. Environmental, economic, and technological feasibility of achieving the allocation;

5. The cost benefit associated with achieving the allocation;

6. Reasonable timeframes for implementation;

7. Potential applicability of any moderating provisions such as variances, exemptions, and mixing zones; and

8. The extent to which nonattainment of water quality standards is caused by pollution sources outside of Florida, discharges that have ceased, or alterations to water bodies prior to the date of this act.

(c) Not later than February 1, 2001, the department shall submit a report to the Governor, the President of the Senate, and the Speaker of the House of Representatives containing recommendations, including draft

legislation, for any modifications to the process for allocating total maximum daily loads, including the relationship between allocations and the watershed or basin management planning process. Such recommendations shall be developed by the department in cooperation with a technical advisory committee which includes representatives of affected parties, environmental organizations, water management districts, and other appropriate local, state, and federal government agencies. The technical advisory committee shall also include such members as may be designated by the President of the Senate and the Speaker of the House of Representatives.

(d) The total maximum daily load calculations and allocations for each water body or water body segment shall be adopted by rule by the secretary pursuant to ss. 120.536(1), 120.54, and 403.805. The rules adopted pursuant to this paragraph shall not be subject to approval by the Environmental Regulation Commission. As part of the rule development process, the department shall hold at least one public workshop in the vicinity of the water body or water body segment for which the total maximum daily load is being developed. Notice of the public workshop shall be published not less than 5 days nor more than 15 days before the public workshop in a newspaper of general circulation in the county or counties containing the water bodies or water body segments for which the total maximum daily load calculation and allocation are being developed.

(7) IMPLEMENTATION OF TOTAL MAXIMUM DAILY LOADS.--

(a) The department shall be the lead agency in coordinating the implementation of the total maximum daily loads through water quality protection programs. Application of

a total maximum daily load by a water management district shall be consistent with this section and shall not require the issuance of an order or a separate action pursuant to s. 120.536(1) or s. 120.54 for adoption of the calculation and allocation previously established by the department. Such programs may include, but are not limited to:

1. Permitting and other existing regulatory programs;

2. Nonregulatory and incentive-based programs, including best management practices, cost sharing, waste minimization, pollution prevention, and public education;

3. Other water quality management and restoration activities, for example surface water improvement and management plans approved by water management districts under s. 373.456 or watershed or basin management plans developed pursuant to this subsection;

4. Pollutant trading or other equitable economically based agreements;

5. Public works including capital facilities; or

6. Land acquisition.

(b) In developing and implementing the total maximum daily load for a water body, the department, or the department in conjunction with a water management district, may develop a watershed or basin management plan that addresses some or all of the watersheds and basins tributary to the water body. These plans will serve to fully integrate the management strategies available to the state for the purpose of implementing the total maximum daily loads and achieving water quality restoration. The watershed or basin management planning process is intended to involve the broadest

possible range of interested parties, with the objective of encouraging the greatest amount of cooperation and consensus possible. The department or water management district shall hold at least one public meeting in the vicinity of the watershed or basin to discuss and receive comments during the planning process and shall otherwise encourage public participation to the greatest practical extent. Notice of the public meeting shall be published in a newspaper of general circulation in each county in which the watershed or basin lies not less than 5 days nor more than 15 days before the public meeting. A watershed or basin management plan shall not supplant or otherwise alter any assessment made under s. 403.086(3) and (4), or any calculation or allocation made under s. 403.086(6).

(c) The department, in cooperation with the water management districts and other interested parties, as appropriate, may develop suitable interim measures, best management practices, or other measures necessary to achieve the level of pollution reduction established by the department for nonagricultural nonpoint pollutant sources in allocations developed pursuant to paragraph (6)(b). These practices and measures may be adopted by rule by the department and the water management districts pursuant to ss. 120.536(1) and 120.54, and may be implemented by those parties responsible for nonagricultural nonpoint pollutant sources and the department and the water management districts shall assist with implementation. Where interim measures, best management practices, or other measures are adopted by rule, the effectiveness of such practices in achieving the levels of pollution reduction established in allocations developed by the department pursuant to paragraph (6)(b) shall be verified by the department. Implementation, in accordance with

applicable rules, of practices that have been verified by the department to be effective at representative sites shall provide a presumption of compliance with state water quality standards and release from the provisions of s.376.307(5) for those pollutants addressed by the practices, and the department is not authorized to institute proceedings against the owner of the source of pollution to recover costs or damages associated with the contamination of surface or ground water caused by those pollutants. Such rules shall also incorporate provisions for a notice of intent to implement the practices and a system to assure the implementation of the practices, including recordkeeping requirements. Where water quality problems are detected despite the appropriate implementation, operation, and maintenance of best management practices and other measures according to rules adopted under this paragraph, the department or the water management districts shall institute a reevaluation of the best management practice or other measures.

(d)1. The Department of Agriculture and Consumer Services may develop and adopt by rule pursuant to ss. 120.536(1) and 120.54 suitable interim measures, best management practices, or other measures necessary to achieve the level of pollution reduction established by the department for agricultural pollutant sources in allocations developed pursuant to paragraph (6)(b). These practices and measures may be implemented by those parties responsible for agricultural pollutant sources and the department, the water management districts, and the Department of Agriculture and Consumer Services shall assist with implementation. Where interim measures, best management practices, or other measures are adopted by rule, the effectiveness of such practices in achieving the levels of pollution reduction established in

allocations developed by the department pursuant to paragraph (6)(b) shall be verified by the department. Implementation, in accordance with applicable rules, of practices that have been verified by the department to be effective at representative sites shall provide a presumption of compliance with state water quality standards and release from the provisions of s.376.307(5) for those pollutants addressed by the practices, and the department is not authorized to institute proceedings against the owner of the source of pollution to recover costs or damages associated with the contamination of surface or ground water caused by those pollutants. In the process of developing and adopting rules for interim measures, best management practices, or other measures, the Department of Agriculture and Consumer Services shall consult with the department, the Department of Health, the water management districts, representatives from affected farming groups, and environmental group representatives. Such rules shall also incorporate provisions for a notice of intent to implement the practices and a system to assure the implementation of the practices, including recordkeeping requirements. Where water quality problems are detected despite the appropriate implementation, operation, and maintenance of best management practices and other measures according to rules adopted under this paragraph, the Department of Agriculture and Consumer Services shall institute a reevaluation of the best management practice or other measure.

2. Individual agricultural records relating to processes or methods of production, or relating to costs of production, profits, or other financial information which are otherwise not public records, which are reported to the Department of Agriculture and Consumer Services pursuant to this paragraph or pursuant to any rule adopted

pursuant to this paragraph shall be confidential and exempt from s. 119.07(1) and s. 24(a), Art. I of the State Constitution. Upon request of the department or any water management district, the Department of Agriculture and Consumer Services shall make such individual agricultural records available to that agency, provided that the confidentiality specified by this subparagraph for such records is maintained. This subparagraph is subject to the Open Government Sunset Review Act of 1995 in accordance with s. 119.15, and shall stand repealed on October 2, 2006, unless reviewed and saved from repeal through reenactment by the Legislature.

(e) The provisions of paragraphs (c) and (d) shall not preclude the department or water management district from requiring compliance with water quality standards or with current best management practice requirements set forth in any applicable regulatory program authorized by law for the purpose of protecting water quality. Additionally, paragraphs (c) and (d) are applicable only to the extent that they do not conflict with any rules promulgated by the department that are necessary to maintain a federally delegated or approved program.

(8) RULES.-- The department is authorized to adopt rules pursuant to ss. 120.536(1) and 120.54 for:

(a) Delisting water bodies or water body segments from the list developed under subsection (4) pursuant to the guidance under subsection (5);

(b) Administration of funds to implement the total maximum daily load program;

(c) Procedures for pollutant trading among the pollutant sources to a water body or water body segment, including a mechanism

for the issuance and tracking of pollutant credits. Such procedures may be implemented through permits or other authorizations and must be legally binding. No rule implementing a pollutant trading program shall become effective prior to review and ratification by the Legislature; and

(d) The total maximum daily load calculation in accordance with paragraph (6)(a) immediately upon the effective date of this act, for those eight water segments within Lake Okeechobee proper as submitted to the United States Environmental Protection Agency pursuant to subsection (2).

(9) APPLICATION.-- The provisions of this section are intended to supplement existing law, and nothing in this section shall be construed as altering any applicable state water quality standards or as restricting the authority otherwise granted to the department or a water management district under this chapter or chapter 373. The exclusive means of state implementation of s. 303(d) of the Clean Water Act, Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq. shall be in accordance with the identification, assessment, calculation and allocation, and implementation provisions of this section.

(10) CONSTRUCTION.-- Nothing in this section shall be construed as limiting the applicability or consideration of any mixing zone, variance, exemption, site specific alternative criteria, or other moderating provision.

(11) IMPLEMENTATION OF ADDITIONAL PROGRAMS.-- The department shall not implement, without prior legislative approval, any additional regulatory authority pursuant to s. 303(d) of the Clean Water Act or 40 C.F.R. part 130, if such implementation would result in water quality

> discharge regulation of activities not currently subject to regulation.
>
> (12) In order to provide adequate due process while ensuring timely development of total maximum daily loads, proposed rules and orders authorized by this act shall be ineffective pending resolution of a s. 120.54(3), s. 120.56, s. 120.569, or s. 120.57 administrative proceeding. However, the department may go forward prior to resolution of such administrative proceedings with subsequent agency actions authorized by subsections (2)-(6), provided that the department can support and substantiate those actions using the underlying bases for the rules or orders without the benefit of any legal presumption favoring, or in deference to, the challenged rules or orders.

Key Provisions of Law Referenced in Section 403.067, Florida Statutes

Section 403.021, Florida Statutes

8. Section 403.021, Florida Statutes, which is referenced in Subsection (1) of Section 403.067, Florida Statutes, provides, in pertinent part, as follows:

> (1) The pollution of the air and waters of this state constitutes a menace to public health and welfare; creates public nuisances; is harmful to wildlife and fish and other aquatic life; and impairs domestic, agricultural, industrial, recreational, and other beneficial uses of air and water.
>
> (2) It is declared to be the public policy of this state to conserve the waters of the state and to protect, maintain, and improve the quality thereof for public water supplies, for the propagation of wildlife and fish and other aquatic life, and for

domestic, agricultural, industrial, recreational, and other beneficial uses and to provide that no wastes be discharged into any waters of the state without first being given the degree of treatment necessary to protect the beneficial uses of such water.

* * *

(5) It is hereby declared that the prevention, abatement, and control of the pollution of the air and waters of this state are affected with a public interest, and the provisions of this act are enacted in the exercise of the police powers of this state for the purpose of protecting the health, peace, safety, and general welfare of the people of this state.

(6) The Legislature finds and declares that control, regulation, and abatement of the activities which are causing or may cause pollution of the air or water resources in the state and which are or may be detrimental to human, animal, aquatic, or plant life, or to property, or unreasonably interfere with the comfortable enjoyment of life or property be increased to ensure conservation of natural resources; to ensure a continued safe environment; to ensure purity of air and water; to ensure domestic water supplies; to ensure protection and preservation of the public health, safety, welfare, and economic well-being; to ensure and provide for recreational and wildlife needs as the population increases and the economy expands; and to ensure a continuing growth of the economy and industrial development.

(7) The Legislature further finds and declares that:

(a) Compliance with this law will require capital outlays of hundreds of millions of dollars for the installation of machinery, equipment, and facilities for the treatment

of industrial wastes which are not productive assets and increased operating expenses to owners without any financial return and should be separately classified for assessment purposes.

(b) Industry should be encouraged to install new machinery, equipment, and facilities as technology in environmental matters advances, thereby improving the quality of the air and waters of the state and benefiting the citizens of the state without pecuniary benefit to the owners of industries; and the Legislature should prescribe methods whereby just valuation may be secured to such owners and exemptions from certain excise taxes should be offered with respect to such installations.

(c) Facilities as herein defined should be classified separately from other real and personal property of any manufacturing or processing plant or installation, as such facilities contribute only to general welfare and health and are assets producing no profit return to owners.

(d) In existing manufacturing or processing plants it is more difficult to obtain satisfactory results in treating industrial wastes than in new plants being now planned or constructed and that with respect to existing plants in many instances it will be necessary to demolish and remove substantial portions thereof and replace the same with new and more modern equipment in order to more effectively treat, eliminate, or reduce the objectionable characteristics of any industrial wastes and that such replacements should be classified and assessed differently from replacements made in the ordinary course of business.

* * *

(10) It is the policy of the state to ensure that the existing and potential

> drinking water resources of the state remain free from harmful quantities of contaminants. The department, as the state water quality protection agency, shall compile, correlate, and disseminate available information on any contaminant which endangers or may endanger existing or potential drinking water resources. It shall also coordinate its regulatory program with the regulatory programs of other agencies to assure adequate protection of the drinking water resources of the state.
>
> (11) It is the intent of the Legislature that water quality standards be reasonably established and applied to take into account the variability occurring in nature. The department shall recognize the statistical variability inherent in sampling and testing procedures that are used to express water quality standards. The department shall also recognize that some deviations from water quality standards occur as the result of natural background conditions. The department shall not consider deviations from water quality standards to be violations when the discharger can demonstrate that the deviations would occur in the absence of any human-induced discharges or alterations to the water body.

Rule Chapter 62-302, Florida Administrative Code

9. Rule Chapter 62-302, Florida Administrative Code, which is referenced in Subsection (3)(b) of Section 447.067, Florida Statutes, contains Florida's "[s]urface water quality standards."

10. Rule 62-302.300, Florida Administrative Code, is entitled, "Findings, Intent, and Antidegradation Policy for Surface Water Quality," and provides as follows:

(1) Article II, Section 7 of the Florida Constitution requires abatement of water pollution and conservation and protection of Florida's natural resources and scenic beauty.

(2) Congress, in Section 101(a)(2) of the Federal Water Pollution Control Act, as amended,[14] declares that achievement by July 1, 1983, of water quality sufficient for the protection and propagation[15] of fish, shellfish, and wildlife, as well as for recreation in and on the water, is an interim goal to be sought whenever attainable. Congress further states, in Section 101(a)(3), that it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited.

(3) The present and future most beneficial uses of all waters of the State have been designated by the Department by means of the Classification system set forth in this Chapter pursuant to Subsection 403.061(10), F.S.[16] Water quality standards[17] are established by the Department to protect these designated uses.[18]

(4) Because activities outside the State sometimes cause pollution[19] of Florida's waters, the Department will make every reasonable effort to have such pollution abated.

(5) Water quality standards apply equally to and shall be uniformly enforced in both the public and private sector.

(6) Public interest shall not be construed to mean only those activities conducted solely to provide facilities or benefits to the general public. Private activities conducted for private purposes may also be in the public interest.

(7) The Commission, recognizing the complexity of water quality management and

the necessity to temper regulatory actions with the technological progress and the social and economic well-being of people, urges, however, that there be no compromise where discharges of pollutants constitute a valid hazard to human health.

(8) The Commission requests that the Secretary seek and use the best environmental information available when making decisions on the effects of chronically and acutely toxic substances and carcinogenic, mutagenic, and teratogenic substances. Additionally, the Secretary is requested to seek and encourage innovative research and developments in waste treatment alternatives that might better preserve environmental quality or at the same time reduce the energy and dollar costs of operation.

(9) The criteria set forth in this Chapter are minimum levels which are necessary to protect the designated uses of a water body. It is the intent of this Commission that permit applicants should not be penalized due to a low detection limit associated with any specific criteria.

(10)(a) The Department's rules that were adopted on March 1, 1979 regarding water quality standards are designed to protect the public health or welfare and to enhance the quality of waters of the State. They have been established taking into consideration the use and value of waters of the State for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.

(b) Under the approach taken in the formulation of the rules adopted in this proceeding:

1. The Department's rules that were adopted on March 1, 1979 regarding water quality standards are based upon the best scientific knowledge related to the protection of the various designated uses of waters of the State; and

2. The mixing zone,[20] zone of discharge, site specific alternative criteria, exemption, and equitable allocation provisions are designed to provide an opportunity for the future consideration of factors relating to localized situations which could not adequately be addressed in this proceeding, including economic and social consequences, attainability, irretrievable conditions, natural background,[21] and detectability.

(c) This is an even-handed and balanced approach to attainment of water quality objectives. The Commission has specifically recognized that the social, economic and environmental costs may, under certain special circumstances, outweigh the social, economic and environmental benefits if the numerical criteria are enforced statewide. It is for that reason that the Commission has provided for mixing zones, zones of discharge, site specific alternative criteria, exemptions and other provisions in Chapters 62-302, 62-4, and 62-6, F.A.C. Furthermore, the continued availability of the moderating provisions is a vital factor providing a basis for the Commission's determination that water quality standards applicable to water classes in the rule are attainable taking into consideration environmental, technological, social, economic and institutional factors. The companion provisions of Chapters 62-4 and 62-6, F.A.C., approved simultaneously with these Water Quality Standards are incorporated herein by reference as a substantive part of the State's comprehensive program for the control, abatement and prevention of water pollution.

(d) Without the moderating provisions described in (b)2. above, the Commission would not have adopted the revisions described in (b)1. above nor determined that they are attainable as generally applicable water quality standards.

(11) Section 403.021, Florida Statutes, declares that the public policy of the State is to conserve the waters of the State to protect, maintain, and improve the quality thereof for public water supplies, for the propagation of wildlife, fish and other aquatic life, and for domestic, agricultural, industrial, recreational, and other beneficial uses. It also prohibits the discharge of wastes into Florida waters without treatment necessary to protect those beneficial uses of the waters.

(12) The Department shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources, and all cost-effective and reasonable best management practices for nonpoint source control. For the purposes of this rule, highest statutory and regulatory requirements for new and existing point sources are those which can be achieved through imposition of effluent limits required under Sections 301(b) and 306 of the Federal Clean Water Act (as amended in 1987) and Chapter 403, F.S. For the purposes of this rule, cost-effective and reasonable best management practices for nonpoint source control are those nonpoint source controls authorized under Chapters 373 and 403, F.S., and Department rules.

(13) The Department finds that excessive nutrients (total nitrogen and total phosphorus) constitute one of the most severe water quality problems facing the State. It shall be the Department's policy to limit the introduction of man-induced nutrients into waters of the State.

Particular consideration shall be given to the protection from further nutrient enrichment of waters which are presently high in nutrient concentrations or sensitive to further nutrient concentrations and sensitive to further nutrient loadings. Also, particular consideration shall be given to the protection from nutrient enrichment of those waters presently containing very low nutrient concentrations: less than 0.3 milligrams per liter total nitrogen or less than 0.04 milligrams per liter total phosphorus.

(14) Existing uses and the level of water quality necessary to protect the existing uses shall be fully maintained and protected. Such uses may be different or more extensive than the designated use.

(15) Pollution which causes or contributes to new violations of water quality standards or to continuation of existing violations is harmful to the waters of this State and shall not be allowed. Waters having water quality below the criteria established for them shall be protected and enhanced. However, the Department shall not strive to abate natural conditions.

(16) If the Department finds that a new or existing discharge will reduce the quality of the receiving waters below the classification established for them or violate any Department rule or standard, it shall refuse to permit the discharge.

(17) If the Department finds that a proposed new discharge or expansion of an existing discharge will not reduce the quality of the receiving waters below the classification established for them, it shall permit the discharge if such degradation is necessary or desirable under federal standards and under circumstances which are clearly in the public interest, and if all other Department requirements are

met. Projects permitted under Part IV of Chapter 373, F.S., shall be considered in compliance with this subsection if those projects comply with the requirements of subsection 373.414(1), F.S.; also projects permitted under the grandfather provisions of Sections 373.414(11) through (16), F.S., or permitted under Section 373.4145, F.S., shall be considered in compliance with this subsection if those projects comply with the requirements of Rule 62-312.080(2), F.A.C.

(18)(a) Except as provided in subparagraphs (b) and (c) of this paragraph, an applicant for either a general permit or renewal of an existing permit for which no expansion of the discharge is proposed is not required to show that any degradation from the discharge is necessary or desirable under federal standards and under circumstances which are clearly in the public interest.

(b) If the Department determines that the applicant has caused degradation of water quality over and above that allowed through previous permits issued to the applicant, then the applicant shall demonstrate that this lowering of water quality is necessary or desirable under federal standards and under circumstances which are clearly in the public interest. These circumstances are limited to cases where it has been demonstrated that degradation of water quality is occurring due to the discharge.

(c) If the new or expanded discharge was initially permitted by the Department on or after October 4, 1989, and the Department determines that an antidegradation analysis was not conducted, then the applicant seeking renewal of the existing permit shall demonstrate that degradation from the discharge is necessary or desirable under federal standards and under circumstances which are clearly in the public interest.

11. Rule 62-302.400, Florida Administrative Code,

classifies all surface waters of the state "according to designated uses." The rule provides for five classifications: Class I ("Potable Water Supplies"); Class II ("Shellfish Propagation or Harvesting"); Class III ("Recreation, Propagation of a Healthy, Well-Balanced Population of Fish and Wildlife": Fresh and Marine); Class IV ("Agricultural Water Supplies"); and Class V ("Navigation, Utility and Industrial Use").[22] See Rule 62-302.400(1), Florida Administrative Code.

12. These "[w]ater quality classifications are arranged in order of degree of protection required, with Class I water having generally the most stringent water quality criteria[23] and Class V the least. However, Class I, II, and III surface waters share water quality criteria established to protect recreation and the propagation and maintenance of a healthy well-balanced population of fish and wildlife." Rule 62-302.400(4), Florida Administrative Code. Waters designated as "Outstanding Florida Waters and Outstanding National Resource Waters" are given "special protection." See Rule 62-302.700(1) and (7), Florida Administrative Code ("It shall be the Department policy to afford the highest protection to Outstanding Florida Waters and Outstanding National Resource Waters. No degradation of water quality, other than that allowed in Rule 62-4.242(2) and (3), F.A.C., is to be permitted in Outstanding Florida Waters and Outstanding National Resource Waters, respectively,

notwithstanding any other Department rules that allow water quality lowering. . . . The policy of this section shall be implemented through the permitting process pursuant to Section 62-4.242, F.A.C.").[24]

13. According to Subsection (5) of Rule 62-302.400, Florida Administrative Code,

> Criteria applicable to a classification are designed to maintain the minimum conditions necessary to assure the suitability of water for the designated use of the classification. In addition, applicable criteria are generally adequate to maintain minimum conditions required for the designated uses of less stringently regulated classifications. Therefore, unless clearly inconsistent with the criteria applicable, the designated uses of less stringently regulated classifications shall be deemed to be included within the designated uses of more stringently regulated classifications.

14. "The specific water quality criteria corresponding to each surface water classification are listed in Rules 62-302.500 and 62-302.530," Florida Administrative Code. Rule 62-302.400(3), Florida Administrative Code.

15. Subsection (1) of Rule 62-302.500, Florida Administrative Code, sets forth what are known as the "free froms." It provides as follows:

> (1) Minimum Criteria.
>
> All surface waters of the State shall at all places and at all times be free from:

(a) Domestic, industrial, agricultural, or other man-induced non-thermal components of discharges which, alone or in combination with other substances or in combination with other components of discharges (whether thermal or non-thermal):

1. Settle to form putrescent deposits or otherwise create a nuisance; or

2. Float as debris, scum, oil, or other matter in such amounts as to form nuisances; or

3. Produce color, odor, taste, turbidity, or other conditions in such degree as to create a nuisance; or

4. Are acutely toxic; or

5. Are present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant, locally occurring, wildlife or aquatic species, unless specific standards are established for such components in Rules 62-302.500(2) or 62-302.530; or

6. Pose a serious danger to the public health, safety, or welfare.

(b) Thermal components of discharges which, alone, or in combination with other discharges or components of discharges (whether thermal or non-thermal):

1. Produce conditions so as to create a nuisance; or

2. Do not comply with applicable provisions of Rule 62-302.500(3), F.A.C.

(c) Silver in concentrations above 2.3 micrograms/liter in predominantly marine waters.

16. Rule 62-302.530, Florida Administrative Code, has a table that

> contains both numeric and narrative surface water quality criteria to be applied except within zones of mixing. The left-hand column of the Table is a list of constituents [or parameters] for which a surface water criterion exists. The headings for the water quality classifications are found at the top of the Table. Applicable criteria lie within the Table. The individual criteria should be read in conjunction with other provisions in water quality standards, including Rules 62-302.500 and 62-302.510, F.A.C. The criteria contained in Rules 62-302.500 or 62-302.510 also apply to all waters unless alternative or more stringent criteria are specified in Rule 62-302.530, F.A.C. Unless otherwise stated, all criteria express the maximum not to be exceeded at any time. In some cases, there are separate or additional limits, such as annual average criteria, which apply independently of the maximum not to be exceeded at any time.

The following are the specific parameters listed in the table: Alkalinity; Aluminum; Ammonia (un-ionized); Antimony; Arsenic (total and trivalent); Bacteriological Quality (Fecal Coliform Bacteria); Bacteriological Quality (Total Coliform Bacteria); Barium; Benzene; Beryllium; Biological Integrity; BOD (Biochemical Oxygen Demand); Bromine (free molecular); Cadmium; Carbon Tetrachloride; Chlorides; Chlorine (total residual); Chromium (trivalent and hexavalent); Chronic Toxicity; Color; Conductance (specific); Copper; Cyanide; Detergents; 1,1-Dichloroethylene (1,1-di-chloroethene); Dichloromethane

(methylene chloride); 2,4-Dinitrotoluene; Dissolved Oxygen; Dissolved Solids; Fluorides; Halomethanes; Hexachlorobutadiene; Iron; Lead; Manganese; Mercury; Nickel; Nitrate; Nuisance Species;[25] Nutrients;[26] Odor; Oils and Greases; Pesticides and Herbicides (2,4,5-TP; 2-4-D; Aldrin; Betahexachlorocyclohexane; Chlordane; DDT; Demeton; Dieldrin; Endosulfan; Endrin: Guthion; Heptachlor; Lindane; Malathion; Methoxychlor; Mirex; Parathion; Toxaphene); pH; Phenolic Compounds; Phosphorous (Elemental); Polycyclic Aromatic Hydrocarbons; Radioactive Substances; Selenium; Silver; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Thallium; Total Dissolved Gases; Transparency; Trichloroeylene (trichloroethene); Turbidity; and Zinc.

17. Rule 62-302.800, Florida Administrative Code, provides for the establishment of "[s]ite [s]pecific [a]lternative [c]riteria" where a water body, or portion thereof, does "not meet a particular ambient water quality criterion specified for its classification, due to natural background conditions or man-induced conditions which cannot be controlled or abated."[27]

Section 303(d) of the Clean Water Act

18. Section 303(d) of the Clean Water Act (33 U.S.C. Section 1313(d)), which is referenced in Subsections (1), (2), (9), and (11) of Section 447.067, Florida Statutes, provides as follows:

Identification of areas with insufficient controls; maximum daily load; certain effluent limitations revision

(1)(A) Each State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.

(B) Each State shall identify those waters or parts thereof within its boundaries for which controls on thermal discharges under section 1311 of this title are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.

(C) Each State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load, for those pollutants which the Administrator identifies under section 1314(a)(2) of this title as suitable for such calculation. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

(2) Each State shall submit to the Administrator from time to time, with the first such submission not later than one hundred and eighty days after the date of publication of the first identification of pollutants under section 1314(a)(2)(D) of this title, for his approval the waters

identified and the loads established under paragraphs (1)(A), (1)(B), (1)(C), and (1)(D) of this subsection. The Administrator shall either approve or disapprove such identification and load not later than thirty days after the date of submission. If the Administrator approves such identification and load, such State shall incorporate them into its current plan under subsection (e) of this section. If the Administrator disapproves such identification and load, he shall not later than thirty days after the date of such disapproval identify such waters in such State and establish such loads for such waters as he determines necessary to implement the water quality standards applicable to such waters and upon such identification and establishment the State shall incorporate them into its current plan under subsection (e) of this section.

(3) For the specific purpose of developing information, each State shall identify all waters within its boundaries which it has not identified under paragraph (1)(A) and (1)(B) of this subsection and estimate for such waters the total maximum daily load with seasonal variations and margins of safety, for those pollutants which the Administrator identifies under section 1314(a)(2) of this title as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish and wildlife.

(4) Limitations on revision of certain effluent limitations

(A) Standard not attained

For waters identified under paragraph (1)(A) where the applicable water quality standard has not yet been attained, any effluent limitation based on a total maximum daily load or other waste load allocation

> established under this section may be revised only if (i) the cumulative effect of all such revised effluent limitations based on such total maximum daily load or waste load allocation will assure the attainment of such water quality standard, or (ii) the designated use which is not being attained is removed in accordance with regulations established under this section.
>
> (B) Standard attained
>
> For waters identified under paragraph (1)(A) where the quality of such waters equals or exceeds levels necessary to protect the designated use for such waters or otherwise required by applicable water quality standards, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section, or any water quality standard established under this section, or any other permitting standard may be revised only if such revision is subject to and consistent with the antidegradation policy established under this section.

Development of Proposed Rule Chapter 62-303, Florida Administrative Code

19. The rule development process that culminated in the adoption of proposed Rule Chapter 62-303, Florida Administrative Code, began shortly after the enactment of Chapter 99-223, Laws of Florida, when the Department decided, consistent with its routine practice in complex rulemaking cases, to form a technical advisory committee (TAC) to assist the Department in developing an "identification of impaired surface waters" rule by rendering advice to the Department concerning technical and scientific matters.[28]

20. The Department solicited nominations for TAC membership from stakeholder groups, but ultimately rejected the nominations it received and instead selected individuals it believed were best qualified to contribute based upon their expertise (in areas including water quality monitoring, water quality chemistry, water quality modeling, estuarine ecology, wetland ecology, analytical chemistry, statistics, bioassessment procedures, limnology, coastal ecology, fish biology, and hydrology).

21. The first TAC meeting was held August 12, 1999. There were 12 subsequent TAC meetings, the last two of which were held on August 4, 2000, and August 28, 2000. The TAC meetings were held in various locations throughout the state (Pensacola, Tallahassee, Jacksonville, Gainesville, Orlando, Tampa, St. Petersburg, and West Palm Beach) and were open to public, with members of the public able to make comments. All 13 TAC meetings were noticed in the Florida Administrative Weekly.

22. The TAC meetings were chaired by Mr. Joyner, who was the Department employee primarily responsible for drafting an "identification of impaired surface waters" rule. Mr. Joyner emphasized to the TAC members that their role was simply to give advice and make recommendations to the Department and that their advice and recommendations might not be followed. As it turned

out, there were several instances where the Department rejected a TAC recommendation.

23. In addition to seeking the advice of experts on technical and scientific matters, the Department wanted to hear from stakeholders regarding policy issues. Towards that end, it took steps to establish a Policy Advisory Committee (PAC). An organizational meeting of the PAC was held on March 24, 2000, in Tallahassee, the day after the seventh TAC meeting (which was also held in Tallahassee). After being told about the government in the sunshine and public records laws with which they would have to comply as PAC members, "no one wanted to be on the PAC." The consensus of those present was to "just have public meetings [to elicit stakeholder input] and not have a formal PAC." The Department acted accordingly. Following this March 24, 2000, meeting, the Department abandoned its efforts to form a PAC and instead held four public meetings to obtain input from the public regarding policy questions involved in crafting an "identification of impaired surface waters" rule. The last two of these public meetings were combined with the last two TAC meetings (held on August 4, 2000, and August 28, 2000). Each of the five "policy" public meetings held by the Department (including the March 24, 2000, PAC organizational meeting) were noticed in the Florida Administrative Weekly.

24. The Department also held two rule development

workshops (one on September 7, 2000, and the other on December 7, 2000), both of which were also noticed in the Florida Administrative Weekly. Between the time these two rule development workshops were held, Mr. Joyner met with representatives of regulated interests and the environmental community to discuss their thoughts regarding what should be included in an "identification of impaired surface waters" rule.

25. Throughout the rule development process, the Department also received and considered written comments from interested persons.

26. Information about the rule development process was posted on the Department's web site for the public to read.

27. The Department e-mailed approximately 350 persons (whose names were on a list of interested persons compiled by the Department) to notify them in advance of any meetings and workshops on proposed Rule Chapter 62-303, Florida Administrative Code.

28. Proposed Rule Chapter 62-303, Florida Administrative Code, underwent numerous revisions during the rule development process. Whenever a revised version of the proposed rule chapter was prepared, the Department sent a copy of it, via e-mail, to the persons on the Department's 350 "interested persons" e-mail list.

29. Changes to proposed Rule Chapter 62-303, Florida Administrative Code, were made not only in response to comments made by members of the TAC and stakeholders, but also in response to comments made by staff of the Region IV office of the United States Environmental Protection Agency (EPA), with whom Department staff had extensive discussions regarding the proposed rule chapter.

30. The Environmental Regulation Commission (ERC) "exercise[s] the standard-setting authority of the [D]epartment."[29] In March of 2001, approximately 19 months after the first TAC meeting, the Department was ready to present its most recent version of proposed Rule Chapter 62-303, Florida Administrative Code, to the ERC for adoption. Accordingly, it published a Notice of Proposed Rulemaking in the March 23, 2001 (Volume 27, Number 12) edition of the Florida Administrative Weekly announcing that a hearing on the proposed rule chapter would be held before the ERC on April 26, 2001. The Notice contained the complete text of the proposed rule chapter, as well as the following statement of "[p]urpose, effect, and summary":

> The purpose of the proposed new rule is to establish a methodology to identify impaired waters that will be included on the State's verified list of impaired waters, for which the Department will calculate Total Maximum Daily Loads, pursuant to subsection 403.067(4), Florida Statutes (F.S.), and

> which will be submitted to the United States Environmental Protection Agency pursuant to subparagraphs 303(d)(1)(A) and 303(d)(1)(C) of the Clean Water Act. As directed by 403.067, F.S., the development of the State's 303(d) list will be a two-step process; waters will first be identified as potentially impaired and then any impairment will be verified before listing the water. The rule implements this statutory direction by providing a methodology to identify surface waters of the state that will be included on a "planning list" of waters. Pursuant to subsection 403.067(2) and (3), F.S., the Department will evaluate the data used to place these waters on the planning list, verify that the data meet quality assurance and data sufficiency requirements of the "verified list," and collect additional data, as needed, to complete the assessment. The rule also provides information about the listing cycle, the format of the verified list, and delisting procedures.

31. At the ERC's regularly scheduled March 29, 2001, meeting, Mr. Joyner formally briefed the ERC on the status of the rule development process (as he had previously done at ERC's regularly scheduled meetings on June 29, 2000, August 24, 2000, December 5, 2000, and January 25, 2001). At the March 29, 2001, meeting, Mr. Joyner went through the proposed rule chapter with the ERC "paragraph by paragraph."

32. As noted above, prior to the scheduled April 26, 2001, ERC hearing, petitions challenging the proposed rule chapter (as published in the March 23, 2001, edition of the Florida Administrative Weekly) were filed with the Division by

Petitioner Lane (on April 10, 2001) and by all Joint Petitioners excluding Save Our Suwannee, Inc. (on April 13, 2001).

33. On April 21, 2001, all Joint Petitioners excluding Save Our Suwannee, Inc., filed a Request with ERC asking:

> A. that rulemaking proceedings regarding proposed Rule 62-303 be conducted under the provisions of Sections 120.569 and 120.57, Florida Statutes, as to all parties, or alternatively at least to the six petitioners;
>
> B. that the evidentiary processes involved under the provisions of Sections 120.569 and 120.57, Florida Statutes, be combined with the already pending DOAH proceedings of all parties, or at least the six petitioners; and
>
> C. that rulemaking proceedings, as to proposed Rule 62-303, be suspended pending completion of the evidentiary processes before DOAH as well as the DOAH ruling on the pending petitions, as to all parties or at least the six petitioners.

34. The Request was considered and denied by the ERC at the outset of its hearing on the proposed rule chapter, which was held as scheduled on April 26, 2001. That same day, the ERC issued a written order denying the Request, which read, in pertinent part as follows:

> But for their request to combine the requested evidentiary proceeding with the existing rule challenges pending before DOAH, Petitioners have requested conversion of the instant rulemaking proceeding to an evidentiary hearing or "draw out." A draw out is authorized under proper circumstances

by Section 120.54(3)(c)2, Florida Statutes, which states:

"Rulemaking proceedings shall be governed solely by the provisions of this section unless a person timely asserts that the person's substantial interests will be affected in the proceeding and affirmatively demonstrates to the agency that the proceeding does not provide adequate opportunity to protect those interests. If the agency determines that the rulemaking proceeding is not adequate to protect the person's interests, it shall suspend the rulemaking proceeding and convene a separate proceeding under the provisions of ss. 120.569 and 120.57. Similarly situated persons may be requested to join and participate in the separate proceeding. Upon conclusion of the separate proceeding, the rulemaking proceeding shall be resumed."

A participant in the rulemaking proceeding who requests such relief is asking to "draw out" of the rulemaking proceeding and for the agency to afford the party an evidentiary hearing in lieu thereof.[30]

A copy of each of the six petitions filed by the parties with DOAH was attached to the joint notice now before the Commission. But for minor variations in allegations to establish standing, each of the six petitions sets out seventeen (17) counts with each count asserting that a particular provision, or provisions, of proposed Rule 62-303 is an invalid exercise of delegated legislative authority or otherwise a violation of Section 403.067, F.S., or the federal Clean Water Act.

None of the individual petitions, or the joint notice, demonstrate that the pending rulemaking proceeding fails to protect the petitioners' substantial interests, nor have petitioners raised any factual issues that would require a separate evidentiary hearing

> beyond the scope of the DOAH proceedings already pending. Under these circumstances, Section 120.56(2)(b), F.S., specifically allows an agency to proceed with all other steps in the rulemaking process, except for final adoption, while a DOAH rule challenge is pending.[31]
>
> In view of the foregoing, and in exercising its discretion as afforded by Section 120.54(3)(c)2., F.S., the Commission has determined that the rulemaking proceeding adequately protects the interests asserted by each of the six petitioners who joined in the joint notice as filed April 20th, 2001. Accordingly, the petitioners' joint request for relief therein is denied.

35. The version of the proposed rule chapter published in the March 23, 2001, edition of the Florida Administrative Weekly, with some modifications, was adopted by the ERC at its April 26, 2001, meeting (at which members of the public were given the opportunity to comment prior to ERC deliberation).

36. The modifications were noticed in a Notice of Change published in the May 11, 2001, edition (Volume 27, Number 19) of the Florida Administrative Weekly.

Contents of the ERC-Adopted Version of Proposed Rule Chapter 62-303, Florida Administrative Code

37. Proposed Rule Chapter 62-303, Florida Administrative Code, is entitled, "Identification of Impaired Surface Waters." It is divided into four parts.

Part I: Overview

38. Part I of proposed Rule Chapter 62-303, Florida

Administrative Code, contains the following "general" provisions: Proposed Rules 62-303.100, 62-303.150, and 62-303.200, Florida Administrative Code.

Part I: Proposed Rule 62-303.100, Florida Administrative Code

39. Proposed Rule 62-303.100, Florida Administrative Code, is entitled, "Scope and Intent." It provides an overview of the proposed rule chapter and reads as follows:

> (1) This chapter establishes a methodology to identify surface waters of the state that will be included on the state's planning list of waters that will be assessed pursuant to subsections 403.067(2) and (3), Florida Statutes (F.S.). It also establishes a methodology to identify impaired waters that will be included on the state's verified list of impaired waters, for which the Department will calculate Total Maximum Daily Loads (TMDLs), pursuant to subsection 403.067(4) F.S., and which will be submitted to the United States Environmental Protection Agency (EPA) pursuant to paragraph 303(d)(1) of the Clean Water Act (CWA).
>
> (2) Subsection 303(d) of the CWA and section 403.067, F.S., describe impaired waters as those not meeting applicable water quality standards, which is a broad term that includes designated uses, water quality criteria, the Florida antidegradation policy, and moderating provisions. However, as recognized when the water quality standards were adopted, many water bodies naturally do not meet one or more established water quality criteria at all times, even though they meet their designated use.[32] Data on exceedances of water quality criteria will provide critical information about the status of assessed

waters, but it is the intent of this chapter to only list waters on the verified list that are impaired due to point source or nonpoint source pollutant discharges. It is not the intent of this chapter to include waters that do not meet water quality criteria solely due to natural conditions or physical alterations of the water body not related to pollutants. Similarly, it is not the intent of this chapter to include waters where designated uses are being met and where water quality criteria exceedances are limited to those parameters for which permitted mixing zones or other moderating provisions (such as site-specific alternative criteria) are in effect. Waters that do not meet applicable water quality standards due to natural conditions or to pollution not related to pollutants shall be noted in the state's water quality assessment prepared under subsection 305(b) of the CWA.

(3) This chapter is intended to interpret existing water quality criteria and evaluate attainment of established designated uses as set forth in Chapter 62-302, F.A.C., for the purposes of identifying water bodies or segments for which TMDLs will be established. It is not the intent of this chapter to establish new water quality criteria or standards, or to determine the applicability of existing criteria under other provisions of Florida law. In cases where this chapter relies on numeric indicators of ambient water quality as part of the methodology for determining whether existing narrative criteria are being met, these numeric values are intended to be used only in the context of developing a planning list and identifying an impaired water pursuant to this chapter. As such, exceedances of these numeric values shall not, by themselves, constitute violations of Department rules that would warrant enforcement action.

(4) Nothing in this rule is intended to limit any actions by federal, state, or local agencies, affected persons, or citizens pursuant to other rules or regulations.

(5) Pursuant to section 403.067, F.S., impaired waters shall not be listed on the verified list if reasonable assurance is provided that, as a result of existing or proposed technology-based effluent limitations and other pollution control programs under local, state, or federal authority, they will attain water quality standards in the future and reasonable progress towards attainment of water quality standards will be made by the time the next 303(d) list is scheduled to be submitted to EPA.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.021(11). 403.062, 403.067, FS.
History -- New

40. Subsection (1) of proposed Rule 62-303.100, Florida Administrative Code, refers to the narrowing and winnowing process (more fully described in subsequent portions of the proposed rule chapter) that will yield the Department's "updated list" of waters for which TMDLs will be calculated, which list will be submitted to the EPA in accordance with Section 303(d) of the Clean Water Act. (The Department last submitted such a list to the EPA in 1998. This list is referred to by the Department as its 1998 303(d) list.)

41. The Department's intent not to include on its "updated list" of waters for which TMDLs will be calculated those

"[w]aters that do not meet applicable water quality standards due to natural conditions or to pollution not related to pollutants," as provided in Subsection (2) of proposed Rule 62-303.100, Florida Administrative Code, is consistent with the view expressed in Section 403.067, Florida Statutes, that TMDLs are appropriate only where there is man-induced pollution involving the discharge (from either a point or nonpoint source) of identifiable pollutants. See, e.g., Section 403.067(1), Florida Statutes ("[T]he development of a total maximum daily load program for state waters as required by s. 303(d) of the Clean Water Act, Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq. will promote improvements in water quality throughout the state through the coordinated control of point and nonpoint sources of pollution"); Section 403.067(4), Florida Statutes ("If a surface water or water segment is to be listed under this subsection, the department must specify the particular pollutants causing the impairment and the concentration of those pollutants causing the impairment relative to the water quality standard."); and Section 403.067(6)(a)2., Florida Statutes ("For waters determined to be impaired due solely to factors other than point and nonpoint sources of pollution, no total maximum daily load will be required.").

42. While "[w]aters that do not meet applicable water quality standards due to natural conditions or to pollution not

related to pollutants" will not appear on the Department's "updated list" of waters for which TMDLs will be calculated, they will be included in the "water quality assessment prepared under subsection 305(b) of the CWA" (305(b) Report), which provides as follows:

> (1) Each State shall prepare and submit to the Administrator by April 1, 1975, and shall bring up to date by April 1, 1976, and biennially thereafter, a report which shall include--
>
> (A) a description of the water quality of all navigable waters in such State during the preceding year, with appropriate supplemental descriptions as shall be required to take into account seasonal, tidal, and other variations, correlated with the quality of water required by the objective of this chapter (as identified by the Administrator pursuant to criteria published under section 1314(a) of this title) and the water quality described in subparagraph (B) of this paragraph;
>
> (B) an analysis of the extent to which all navigable waters of such State provide for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allow recreational activities in and on the water;
>
> (C) an analysis of the extent to which the elimination of the discharge of pollutants and a level of water quality which provides for the protection and propagation of a balanced population of shellfish, fish, and wildlife and allows recreational activities in and on the water, have been or will be achieved by the requirements of this chapter, together with recommendations as to additional action necessary to achieve such

> objectives and for what waters such additional action is necessary;
>
> (D) an estimate of (i) the environmental impact, (ii) the economic and social costs necessary to achieve the objective of this chapter in such State, (iii) the economic and social benefits of such achievement, and (iv) an estimate of the date of such achievement; and
>
> (E) a description of the nature and extent of nonpoint sources of pollutants, and recommendations as to the programs which must be undertaken to control each category of such sources, including an estimate of the costs of implementing such programs.
>
> (2) The Administrator shall transmit such State reports, together with an analysis thereof, to Congress on or before October 1, 1975, and October 1, 1976, and biennially thereafter.

43. The declaration made in Subsection (3) of proposed Rule 62-303.100, Florida Administrative Code, that "[t]his chapter is intended to interpret existing water quality criteria and evaluate attainment of established designated uses as set forth in Chapter 62-302, F.A.C., for the purposes of identifying water bodies or segments for which TMDLs will be established" is similar to that made in Subsection (9) of Section 403.067, Florida Statutes, that "[t]he provisions of this section are intended to supplement existing law, and nothing in this section shall be construed as altering any applicable state water quality standards."

44. Subsection (5) of proposed Rule 62-303.100, Florida Administrative Code, together with proposed Rule 62-303.600, Florida Administrative Code (which will be discussed later), are designed to give effect to and make more specific the language in Subsection (4) of Section 403.067, Florida Statutes, that an impaired water may be listed on the Department's "updated list" of waters for which TMDLs will be calculated only "if technology-based effluent limitations and other pollution control programs under local, state, or federal authority, including Everglades restoration activities pursuant to s. 373.4592 and the National Estuary Program, which are designed to restore such waters for the pollutant of concern are not sufficient to result in attainment of applicable surface water quality standards."

45. Section 403.061, Florida Statutes, which is cited as the "[s]pecific [a]uthority" for proposed Rule 62-303.100, Florida Statutes (and every other proposed rule in the proposed rule chapter), authorizes the Department to, among other things, "[a]dopt rules pursuant to ss. 120.536(1) and 120.54 to implement the provisions of [Chapter 403, Florida Statutes]." See Section 403.061(7), Florida Statutes.

46. Section 403.062, Florida Statutes, which is included among the statutory provisions cited in proposed Rule 62-303.100, Florida Statutes (and every other proposed rule in the

proposed rule chapter) as the "[l]aw [i]mplemented," reads as follows:

> Pollution control; underground, surface, and coastal waters.-- The department and its agents shall have general control and supervision over underground water, lakes, rivers, streams, canals, ditches, and coastal waters under the jurisdiction of the state insofar as their pollution may affect the public health or impair the interest of the public or persons lawfully using them.

Part I: Proposed Rule 62-303.150, Florida Administrative Code

47. Proposed Rule 62-303.150, Florida Administrative Code, explains the "[r]elationship [b]etween [p]lanning and [v]erified [l]ists." It provides as follows:

> (1) The Department shall follow the methodology in Section 62-303 300 to develop a planning list pursuant to subsection 403.067(2), F.S. As required by subsection 403.067(2), F.S., the planning list shall not be used in the administration or implementation of any regulatory program, and shall be submitted to EPA for informational purposes only. Waters on this planning list will be assessed pursuant to subsection 403.067(3) F.S., as part of the Department's watershed management approach. During this assessment, the Department shall determine whether the water body is impaired and whether the impairment is due to pollutant discharges using the methodology in Part III. The resultant verified list of impaired waters, which is the list of waters for which TMDLs will be developed by the Department pursuant to subsection 403.067(4), will be adopted by Secretarial Order and will be subject to challenge under subsection [sic] 120.569 and 120.57 F.S. Once adopted, the list will be submitted to

the EPA pursuant to paragraph 303(d)(1) of the CWA.

(2) Consistent with state and federal requirements, opportunities for public participation, including workshops, meetings, and periods to submit comments on draft lists, will be provided as part of the development of planning and verified lists.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

48. The initial drafts of proposed Rule Chapter 62-303, Florida Administrative Code, provided for merely a single list of impaired waters needing TMDLs. It was only after the last TAC meeting (and before the first rule development workshop) that the concept of having two lists (a preliminary, "planning list" of potentially impaired waters requiring further assessment and a final, "verified list . . . of waters for which TMDLs will be developed by the Department") was incorporated into proposed Rule Chapter 62-303, Florida Administrative Code, by Department staff (although the idea of having a "potentially impaired subset" of impaired waters was discussed at TAC meetings). Such action was taken in response to concerns raised during the rule development process that the proposed rule chapter, as then drafted with its one-list methodology, "was too restrictive, that it would only get a small subset of waters on [the Departments 303(d)] list." To decrease, in a manner consistent with the provisions of Section 403.067, Florida

Statutes, the chance that an impaired water needing a TMDL would be erroneously excluded, Department staff revised the proposed rule chapter to provide for a two-step listing process where potentially impaired waters would first be placed on a "planning list" based upon criteria generally less "restrictive" than the listing criteria contained in the previous drafts of the proposed rule chapter and then further tested (if necessary) and assessed to verify if, based upon criteria generally more rigorous than the "planning list" criteria, they should be included on a "verified list" of waters needing TMDLs (to be submitted to the EPA as the state's "updated" 303(d) list). Weighing against Department staff making it any easier for a water to be placed on the "verified list" was the significant regulatory consequence of such action. Erroneously listing a water as needing a TMDL would result in the unnecessary expenditure of considerable time, money, and effort. The more rigorous the listing criteria, the less likely it would be that a water would be listed erroneously and such unnecessary expenditures made.

49. Subsequent to the ERC's adoption of proposed Rule Chapter 62-303, Florida Administrative Code, the National Research Council (NRC),[33] through one of its committees,[34] acting at the request of Congress to analyze the scientific basis of the nationwide TMDL program, issued a report entitled,

"Assessing the TMDL Approach to Water Quality Management" (NRC Publication). In the NRC Publication, the committee endorses a "two-list process" like the one incorporated in proposed Rule Chapter 62-303, Florida Administrative Code, explaining as follows:

> Determining whether there should be some minimum threshold of data available when evaluating waterbodies for attainment of water quality standards is an issue of great concern to states. On the one hand, many call for using only the "best science" in making listing decisions, while others fear that many impaired waters will not be identified in the wait for additional data. The existence of a preliminary list addresses these concerns by focusing attention on waters suspected to be impaired without imposing on stakeholders and the agencies the consequences of TMDL development, until additional information is developed and evaluated.

50. According to Subsection (1) of proposed Rule 62-303.150, Florida Administrative Code, "[w]aters on th[e] planning list will be assessed pursuant to subsection 403.067(3) F.S., as part of the Department's watershed management approach." The following are the major concepts incorporated in the "Department's watershed management approach":

> - The <u>basin management</u> unit is the geographic or spatial unit used to divide the state into smaller areas for assessment--generally groups of Hydrologic Unit Codes (HUCs)[35] . . . .
>
> - The <u>basin management cycle</u> is the five-year cycle within which watersheds are

assessed and management plans developed and implemented.

- The Management Action Plan (MAP), a document developed over the five-year cycle and subsequently updated every five years, describes the watershed's problems and how participants plan to address them.

- Forums and communications networks allow participants to collect and evaluate as much information as possible on their individual basins and to reach a consensus on strategic monitoring, priority water bodies, and management strategies.

- The statewide basin management schedule establishes the proposed sequence for assessing individual watersheds. . . .

51. Each individual basin cycle under the "Department's watershed management approach" takes five years to complete, and is "repeated every five years." It is, in other words, an iterative process. The five phases of the cycle are as follows: Phase I: Preliminary Basin Assessment; Phase II: Strategic Monitoring; Phase III: Data Analysis and TMDL Development; Phase IV: Management Action Plan; and Phase V: Implementation.

52. The first two phases of the cycle are discussed in greater detail in proposed Rule 62-303.700, Florida Administrative Code.

Part I: Proposed Rule 62-303.200, Florida Administrative Code

53. Proposed Rule 62-303.200, Florida Administrative Code, contains definitions of various terms and phrases used in

proposed Rule Chapter 62-303, Florida Administrative Code. It provides as follows:

> As used in this chapter:
>
> (1) "BioRecon" shall mean a bioassessment conducted following the procedures outlined in "Protocols for Conducting a Biological Reconnaissance in Florida Streams," Florida Department of Environmental Protection, March 13. 1995, which is incorporated by reference.
>
> (2) "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.
>
> (3) "Department" or "DEP" shall mean the Florida Department of Environmental Protection.
>
> (4) "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.
>
> (5) "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.
>
> (6) "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.

(7) "Lake Condition Index" shall mean the benthic macroinvertebrate component of a bioassessment 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.

(8) "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.

(9) "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.

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

(11) "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.

(12) "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.

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

(14) "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.

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

(16) "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.

(17) "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.

(18) "Stream Condition Index" shall mean a bioassessment conducted following the procedures outlined in "Development of the Stream Condition Index (SCI) for Florida," Florida Department of Environmental Protection, May, 1996, which is incorporated by reference.

(19) "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.

(20) "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.

(21) "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.

(22) "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.

(23) "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.

(24) "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.

(25) "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

54. There are some high salinity waters of the state that, although they do not have riverine input, nonetheless meet the definition of "estuary" found in Subsection (5) of proposed Rule 62-303.200, Florida Administrative Code, because they are "bays" or "lagoons," as those terms are used in the second sentence of Subsection (5).

55. Rule Chapter 62-4, Florida Administrative Code, which is referenced in Subsections (6) and (23) of proposed Rule 62-303.200, Florida Administrative Code, addresses the subject of "[p]ermits."

56. According to Subsection (1) of Rule 62-4.210, Florida Administrative Code, "[n]o person shall construct any installation or facility which will reasonably be expected to be a source of . . . water pollution without first applying for and receiving a construction permit from the Department unless exempted by statute or Department rule."

57. Subsection (1) of Rule 62-4.240, Florida Administrative Code, requires that "[a]ny person intending to

discharge wastes into the waters of the State shall make application to the Department for an operation permit."

58. An "operation permit" must:

> (a) Specify the manner, nature, volume and frequency of the discharge permitted;
>
> (b) Require proper operation and maintenance of any pollution abatement facility by qualified personnel in accordance with standards established by the Department; and
>
> (c) Contain such additional conditions, requirements and restrictions as the Department deems necessary to preserve and protect the quality of the receiving waters and to ensure proper operation of the pollution control facilities.

Rule 62-4.240(3), Florida Administrative Code.

59. "An operation permit [will] be issued only if all Department requirements are met, including the provisions of Rules 62-302.300 and 62-302.700 and Rule 62-4.242, F.A.C." Rule 62-4.240(2), Florida Administrative Code.

60. Subsection (1) of Rule 62-4.242, Florida Administrative Code, describes "[a]ntidegradation [p]ermitting [r]equirements." It provides as follows:

> (a) Permits shall be issued when consistent with the antidegradation policy set forth in Rule 62-302.300 and, if applicable, Rule 62-302.700.
>
> (b) In determining whether a proposed discharge which results in water quality degradation is necessary or desirable under federal standards and under circumstances

which are clearly in the public interest, the department shall consider and balance the following factors:

1. Whether the proposed project is important to and is beneficial to the public health, safety, or welfare (taking into account the policies set forth in Rules 62-302.100, 62-302.300, and, if applicable, 62-302.700); and

2. Whether the proposed discharge will adversely affect conservation of fish and wildlife, including endangered or threatened species, or their habitats; and

3. Whether the proposed discharge will adversely affect the fishing or water-based recreational values or marine productivity in the vicinity of the proposed discharge; and

4. Whether the proposed discharge is consistent with any applicable Surface Water Improvement and Management Plan that has been adopted by a Water Management District and approved by the Department.

(c) In addition to subsection (b) above, in order for a proposed discharge (other than stormwater discharges meeting the requirements of Chapter 62-25, F.A.C.), to be necessary or desirable under federal standards and under circumstances which are clearly in the public interest, the permit applicant must demonstrate that neither of the following is economically and technologically reasonable:

1. Reuse of domestic reclaimed water.

2. Use of other discharge locations, the use of land application, or reuse that would minimize or eliminate the need to lower water quality.

61. Subsections (2) and (3) of Rule 62-4.242, Florida

Administrative Code, prescribe "[s]tandards [a]pplying to Outstanding Florida Waters" and "[s]tandards [a]pplying to Outstanding National Resource Waters," respectively.

62. Subsection (4) of Rule 62-4.242, Florida Administrative Code, "prescribe[s] the means by which the Department, upon the petition of a license applicant, will equitably allocate among such persons [directly discharging significant amounts of pollutants into waters which fail to meet one or more of the water quality criteria applicable to those waters] the relative levels of abatement responsibility of each for abatement of those pollutants."

63. Subsection (1) of Rule 62-4.244, Florida Administrative Code, provides that the Department, upon application, may "allow the water quality adjacent to a point of discharge to be degraded to the extent that only the minimum conditions described in subsection 62-302.500(1), Florida Administrative Code, apply within a limited, defined region known as the mixing zone"; provided, that the "mixing zone" does not "significantly impair any of the designated uses of the receiving body of water."

64. Subsection 502(6) of the Clean Water Act (33 U.S.C. Section 1362(6)), which is referenced in Subsection (12) of proposed Rule 62-303.200, Florida Administrative Code, provides as follows:

> The term "pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. This term does not mean (A) "sewage from vessels or a discharge incidental to the normal operation of a vessel of the Armed Forces" within the meaning of section 1322 of this title; or (B) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if such State determines that such injection or disposal will not result in the degradation of ground or surface water resources.

65. Subsection 502(19) of the Clean Water Act (33 U.S.C. Section 1362(19)), which is referenced in Subsection (13) of proposed Rule 62-303.200, Florida Administrative Code, provides as follows:

> The term "pollution" means the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.

66. In Chapter 403, Florida Statutes, the definition of "pollution" is found, not in Subsection (2) of Section 403.031, Florida Statutes, as indicated in Subsection (13) of proposed Rule 62-303.200, Florida Administrative Code, but in Subsection (7) of the statute.

67. The "water segments" referenced in the second sentence of Subsection (24) of proposed Rule 62-303.200, Florida Administrative Code, are, for the most part, either approximately five linear miles each (in the case of streams) or approximately five square miles each (in the case of waters not in a defined channel).

68. Subsection (13) of Section 403.031, Florida Statutes, which is referenced in Subsection (25) of proposed Rule 62-303.200, Florida Administrative Code, provides that "'[w]aters' include, but are not limited to, rivers, lakes, streams, springs, impoundments, wetlands, and all other waters or bodies of water, including fresh, brackish, saline, tidal, surface, or underground waters."

69. The other terms and phrases defined in proposed Rule 62-303.200, Florida Administrative Code, will be discussed, where appropriate, later in this Final Order.

Part II: Overview

70. Part II of proposed Rule Chapter 62-303, Florida Administrative Code, contains the following provisions, which describe the "planning list" of potentially impaired waters and how the list will be compiled: Proposed Rules 62-303.300, 62-303.320, 62-303.330, 62-303.340, 62-303.350, 62-303.351, 62-303.352, 62-303.353, 62-303.360, 62-303.370, and 62-303.380, Florida Administrative Code.

Part II: Proposed Rule 62-303.300, Florida Administrative Code

71. Proposed Rule 62-303.300, Florida Administrative Code, is entitled, "Methodology to Develop the Planning List." It provides as follows:

> (1) This part establishes a methodology for developing a planning list of waters to be assessed pursuant to subsections 403.067(2) and (3), F.S. A waterbody shall be placed on the planning list if it fails to meet the minimum criteria for surface waters established in Rule 62-302.500, F.A.C.; any of its designated uses, as described in this part; or applicable water quality criteria, as described in this part. It should be noted that water quality criteria are designed to protect either aquatic life use support, which is addressed in sections 62-303.310-353, or to protect human health, which is addressed in sections 62-303.360-380.
>
> (2) Waters on the list of water segments submitted to EPA in 1998 that do not meet the data sufficiency requirements for the planning list shall nevertheless be included in the state's initial planning list developed pursuant to this rule.
>
> Specific Authority 403.061, 403.067, FS.
> Law Implemented 403.062, 403.067, FS.
> History -- New

72. The second sentence of Subsection (1) of proposed Rule 62-303.300, Florida Administrative Code, incorporates the concept of "independent applicability" by providing that only one of the listed requirements need be met for a water to be placed on the "planning list."

73. At the April 26, 2001, rule adoption hearing, the ERC initially voted to delete from proposed Rule Chapter 62-303, Florida Administrative Code, the language in Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code. The ERC, however, later in the hearing, reversed itself after learning of a letter, dated April 26, 2001, that was sent to the Department by Beverly H. Bannister, the Director of the EPA's Region 4 Water Management Division. Ms. Bannister's letter read, in pertinent part, as follows:

> EPA expressed significant concern that, under earlier versions of the IWR [Impaired Waters Rule], waters currently identified as impaired on the State's 1998 Section 303(d) list which were determined to have "insufficient data" would be removed from the State's Section 303(d) list and also not appear on the State's planning list with its associated requirement for additional data collection. As a result of EPA concerns, the latest version of the IWR provides that waters on the current 1998 Section 303(d) list that do not meet the data sufficiency requirement of the planning list will be placed on the IWR's planning list, and sufficient data will be collected to verify the water's impairment status.
>
> In further discussions with the State regarding the EPA's concern about the 2002 Section 303(d) list, the State has committed to review all waters on the 1998 303(d) list and include all waters that meet the verification requirements of the IWR on the State's 2002 list. In addition, the State will also review all available data from 1989 to 1998 for development of a statewide planning list and include on the 2002 list any additional waters that meet the

verification requirements, based on data from 1994 to 1998. (The State is unable to do a complete assessment for data gathered in 1999, 2000, and 2001 because of a national problem in the upload of data into the new Federal STORET data system.) Those waters on the 1998 303(d) list that do not meet the verification requirements will be de-listed for "good cause" and placed on the State's planning list as insufficient to verify the water's use-support status according to the methodology in the IWR. The "good cause" justification for de-listing the waters is based on several factors: 1) the requirements of the State Rule that these waters be moved to a planning list for additional data collection and assessment that will occur within a reasonable period of time; 2) a determination will be made that the waters are either impaired (and placed on the 303(d) list) or attaining its uses; and 3) the State's commitment to EPA that waters on the planning list that appeared on the State's 1998 Section 303(d) list will be monitored and assessed during the first or second rotation through the State's Watershed Management Process consistent with the schedule for TMDL development in EPA's consent decree with Earthjustice. High priority water/pollutant combinations will be monitored and assessed during the first rotation of the watershed cycle (i.e., within 5 years of 2001), and low priority water/pollutant combinations will be monitored and assessed during the second rotation of the watershed cycle (i.e., within 10 years of 2001). After this additional data collection and assessment, the water will be added to the appropriate future 303(d) list if the water is verified to be impaired, or the water will be "de-listed" based on the "good cause" justification that the water is attaining its uses. Waters on the 1998 303(d) list where sufficient data exists to demonstrate the water is meeting the IWR's planning list

> criteria for use support will be de-listed in the 2002 303(d) list submittal. It is EPA's view that this process will achieve the intent of the CWA and will provide sufficient documentation of the waters still requiring TMDLs by FDEP.

74. Together with the data collection requirements found in Part III of the proposed rule chapter, Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code, ensures that all waters on the Department's 1998 303(d) list (which list is referenced in Subsection (2)(c) of Section 403.067, Florida Statutes) will be assessed by the Department and that they will not be eliminated from consideration for TMDL development simply because there is not enough data to determine whether a TMDL is needed.

Part II: Proposed Rule 62-303.310, Florida Administrative Code

75. Proposed Rule 62-303.310, Florida Administrative Code, is entitled, "Evaluation of Aquatic Life Use Support." It provides as follows:

> 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 water quality criteria as outlined in section 62-303.320,

(2) does not meet biological assessment thresholds for its water body type as outlined in section 62-303.330,

(3) is acutely or chronically toxic as outlined in section 62-303.340, or

(4) exceeds nutrient thresholds as outlined in section 62-303.350.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

76. This proposed rule, like Subsection (1) of proposed Rule 62-303.300, Florida Administrative Code, incorporates the concept of "independent applicability." A water need meet only one of the four listed benchmarks to be placed on the "planning list for assessment of aquatic life use support."

77. Each of these benchmarks is discussed at greater length in one or more of the subsequent sections of Part II of the proposed rule chapter.

Part II: Proposed Rule 62-303.320, Florida Administrative Code

78. Proposed Rule 62-303.320, Florida Administrative Code, addresses the "[e]xceedances of [a]quatic [l]ife-[b]ased [w]ater [q]uality [c]riteria" benchmark described in Subsection (1) of proposed Rule 62-303.310, Florida Administrative Code. It cites Sections 403.061 and 403.067, Florida Statutes, as its "[s]pecific [a]uthority" and Sections 403.062 and 403.067,

Florida Statutes, as the "[l]aw[s] [i]mplemented" by the proposed rule.

79. Proposed Rule 62-303.320, Florida Administrative Code, establishes a statistical method (involving "data modeling," as that term is used in Subsection (3)(b)4. of Section 403.067, Florida Statutes) for use in determining whether a water should be placed on the "planning list."

80. It is not feasible, due to limited resources, to examine a water body at every point to determine its true overall condition. Rather, samples must be taken over time and inferences drawn from the sampling results, taking into consideration the "variability [of water quality] occurring in nature" and "that some deviations from water quality standards occur as the result of natural background conditions" (as the Legislature observed in Subsection (11) of Section 403.021, Florida Statutes). The process is, necessarily, characterized by a lack of certainty and the possibility of error. As stated in the NRC Publication:

> Given the finite monitoring resources, it is obvious that the number of sampling stations included in the state program will ultimately limit the number of water quality measurements that can be made at each station. Thus, in addition to the problem of defining state waters and designing the monitoring network to assess those waters, fundamental statistical issues arise concerning how to interpret limited data from individual sampling stations.

> Statistical inference procedures must be used on the sample data to test hypotheses about whether the actual condition in the water body meets the criterion. Thus, water quality assessment is a hypothesis-testing procedure.
>
> A statistical analysis of sample data for determining whether a water body is meeting a criterion requires the definition of a null hypothesis; for listing a water body, the null hypothesis would be that the water is not impaired. The analysis is prone to the possibility of both Type I error (a false conclusion that an unimpaired water is impaired) and Type II error (a false conclusion that an impaired water is not impaired). . . .

81. The TAC and Department staff had extensive discussions regarding the issue of what particular type of "statistical analysis" to incorporate in the proposed rule chapter before deciding on a binomial distribution analysis.

82. The binomial model is a time-tested nonparametric statistical method that is used where there are two possible outcomes, such as, in the case of water quality sampling, whether a water quality criterion has been exceeded or not.

83. A parametric statistical analysis, based upon an assumption of normal distribution, which, unlike the binomial model incorporated in the proposed rule chapter, takes into account the magnitude of exceedances,[36] was considered, but reasonably rejected by the TAC and Department staff because it was anticipated that, in many instances, the number of samples

available to the Department would not be adequate to make the underlying distributional assumption with the requisite degree of certainty.

84. The binomial model, which takes sample size into consideration, offers greater certainty with a limited number of samples than does the parametric statistical analysis that the TAC and Department staff rejected.

85. Nonetheless, even in the case of the binomial model, the more samples there are, the more precise the analysis will be. Both Type I errors (false positives) and Type II errors (false negatives) decrease as sample size increases.

86. To ensure greater analytic precision, proposed Rule 62-303.320, Florida Administrative Code, and its counterpart in Part III of the proposed rule chapter (proposed Rule 62-303.420, Florida Administrative Code) contain reasonable minimum sample size requirements (ten, with limited exceptions, for placement on the "planning list," and 20 for placement on the "verified list," which is ten more than the TAC recommended[37]).

87. The NRC Publication contains the following discussion regarding the appropriateness of employing a binomial model to identify impaired waters needing TMDLs:

> The committee does not recommend any particular statistical method for analyzing monitoring data and for listing waters. However, one possibility is that the binomial hypothesis test could be required

> as a minimum and practical first step (Smith et al., 2001). The binomial method is not a significant departure from the current approach--called the raw score approach--in which the listing process treats all sample observations as binary values that either exceed the criterion or do not, and the binomial method has some important advantages. For example, one limitation of the raw score approach is that it does not account for the total number of measurements made. Clearly, 1 out of 6 measurements above the criterion is a weaker case for impairment than is 6 out of 36. The binomial hypothesis test allows one to take sample size into account. By using a statistical procedure, sample sizes can be selected and one can explicitly control and make trade-offs between error rates. (see Smith et al., 2001, and Gibbons, in press, for guidance in managing the risk of false positive and false negative errors). Several states, including Florida and Virginia, are considering or are already using the binomial hypothesis test to list impaired waters. Detailed examples of how to apply the test are beyond the scope of this document, but can be found in Smith et al. (2001) and the proposed Chapter 62-303 of the Florida Administrative Code.

In a footnote, the committee added the following:

> The choice of Type I error rate is based on the assessor's willingness to falsely categorize a water body. It also is the case that, for any sample size, the Type II error rate decreases as the acceptable Type I error rate increases. The willingness to make either kind of mistake will depend on the consequences of the resulting action (more monitoring, costs to do a TMDL plan, costs to implement controls, possible health risk) and who bears the cost (public budget, private parties, etc.). The magnitude and burden of a Type I versus Type II error depend on the statement of the null

> hypothesis and on the sample size. When choosing a Type I error rate, the assessor may want to explicitly consider these determinants of error rates.

88. The TAC recommended a Type I error rate of five percent (or, stated differently, a confidence level of 95 percent) be used in making listing decisions.[38]

89. Department staff responsible for drafting the proposed rule chapter, believing that, as a matter of policy, a 95 percent confidence level was too high and that a higher Type I error rate should be tolerated in order to reduce Type II error, reasonably settled on an 80 percent confidence level for placement on the "planning list" and a 90 percent confidence level for placement on the "verified list."

90. Scientific studies generally do not employ a confidence level below 80 percent. A 50 percent confidence level is "comparable to flipping a coin."

91. Use of the binomial model to determine impairment for purposes of TMDL development (based upon exceedances of water quality criteria) further requires the selection of a fixed "exceedance frequency" representing an acceptable rate of violation beneath which a water segment will not be considered impaired.

92. A permissible "exceedance frequency" accounts for the natural variability of water quality and the uncertainty that

the measurements taken are representative of the overall condition of the water segment sampled.

93. The Department, pursuant to EPA guidance, has historically used a ten percent "exceedance frequency" for purposes of identifying, in its 305(b) Report, waters not meeting their designated uses. The TAC and Department staff agreed that a ten percent "exceedance frequency" should likewise be incorporated in the proposed rule chapter.

94. The NRC Publication contains the following discussion regarding "exceedance frequencies" in general and a ten percent "exceedance frequency" in particular:

> Whether the binomial or the raw score approach is used, there must be a decision on an acceptable frequency of violation for the numeric criterion, which can range from 0 percent of the time to some positive number. Under the current EPA approach, 10 percent of the sample measurements of a given pollutant made at a station may exceed the applicable criterion without having to list the surrounding waterbody. The choice of 10 percent is meant to allow for uncertainty in the decision process. Unfortunately, simply setting an upper bound on the percentage of measurements at a station that may violate a standard provides insufficient information to properly deal with the uncertainty concerning impairment.
>
> The choice of acceptable frequency of violation is also supposed to be related to whether the designated use will be compromised, which is clearly dependent on the pollutant and on waterbody characteristics such as flow rate. A determination of 10 percent cannot be

> expected to apply to all water quality situations. In fact, it is inconsistent with federal water quality criteria for toxics that specify allowable violation frequencies of either one day in three years, four consecutive days in three years, or 30 consecutive days in three years (which are all less than 10 percent). Embedded in the EPA raw score approach is an implication that 10 percent is an acceptable violation rate, which it may not be in certain circumstances.

95. Nonetheless, as the chairman of the committee that produced the NRC Publication, Dr. Kenneth Reckhow, testified at the final hearing in these consolidated cases when asked whether he "believe[d] that a determination of ten percent exceedance [frequency] cannot be expected to apply to all water quality situations": the "notion of one size fits all is . . . a pragmatic approach to the limits of what can be done in a regulatory environment." Dr. Reckhow, during his testimony, declined to "endorse[] as a scientist" the use of an "exceedance frequency" of ten percent (as opposed to some other "particular level"),[39] but he stated his opinion (which the undersigned accepts) that "it is important to select a level, and from a science perspective it would be useful to see states employ a level like that or levels roughly around that point and see how effectively they have worked in terms of achieving the goal of meeting designated uses."

96. Subsection (1) of proposed Rule 62-303.320, Florida Administrative Code, sets forth in tabular form, by sample size (from ten samples to 500 samples), the minimum number of exceedances needed for placement on the "planning list." It provides as follows:

> (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 exceedances of 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. This table provides the number of exceedances that indicate a minimum of 10% exceedance frequency with a minimum of an 80% confidence level using a binomial distribution.
>
> Table 1: Planning List
>
> Minimum number of measured exceedances needed to put a water on the Planning list with at least 80% confidence that the actual exceedance rate is greater than or equal to ten percent.

Sample Sizes		Are listed if they have at least this # of exceedances
From	To	
10	15	3
16	23	4
24	31	5
32	39	6
40	47	7
48	56	8
57	65	9
66	73	10
74	82	11
83	91	12

92	100	13
101	109	14
110	118	15
119	126	16
127	136	17
137	145	18
146	154	19
155	163	20
164	172	21
173	181	22
182	190	23
191	199	24
200	208	25
209	218	26
219	227	27
228	236	28
237	245	29
246	255	30
256	264	31
265	273	32
274	282	33
283	292	34
293	301	35
302	310	36
311	320	37
321	329	38
330	338	39
339	348	40
349	357	41
358	367	42
368	376	43
377	385	44
386	395	45
396	404	46
405	414	47
415	423	48
424	432	49
433	442	50
443	451	51
452	461	52
462	470	53
471	480	54
481	489	55
490	499	56
500	500	57

The "calculations [reflected in Table 1] are correct."

97. Subsection (2) of proposed Rule 62-303.320, Florida Administrative Code, provides as follows:

> The U.S. Environmental Protection Agency's Storage and Retrieval (STORET) database shall be the primary source of data used for determining water quality criteria exceedances. 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 STORET 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 STORET. 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.

98. STORET is a "centralized data repository" maintained by the EPA. It contains publicly available water quality data, contributed by state agencies and others, on waters throughout the nation.

99. Subsection (3) of Rule 62-40.540, Florida Administrative Code, which is referenced in Subsection (2) of proposed Rule 62-303.320, Florida Administrative Code, provides that "[t]he U.S. Environmental Protection Agency water quality data base (STORET) shall be the central repository of the state's water quality data" and that"[a]ll appropriate water quality data collected by the Department, Districts, local

governments, and state agencies shall be placed in the STORET system within one year of collection."

100. At the end of 1998, STORET underwent a major overhaul. It is "now more accommodating of meta data," which is auxiliary information about the underlying data.

101. As Ms. Bannister indicated in her April 26, 2001, letter to the Department, there was a "problem in the upload of data into the new Federal STORET data system." This new version of STORET is still not "very user-friendly."

102. Subsection (2) of proposed Rule 62-303.320, Florida Administrative Code, however, while it strongly encourages the entry of data into STORET, does not require that data be entered into STORET to be considered by the Department in determining whether there have been the requisite number of exceedances for placement on the "planning list," as the last sentence of Subsection (2) makes abundantly clear.

103. Subsection (3) of proposed Rule 62-303.320, Florida Administrative Code, imposes reasonable age-related restrictions on what data can be used to determine whether a water should be placed on the "planning list" based upon "[e]xceedances of [a]quatic [l]ife-[b]ased [w]ater [q]uality [c]riteria." It provides as follows:

> When determining water quality criteria exceedances, data older than ten years shall not be used to develop planning lists.

> 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.

104. These provisions are reasonably designed to increase the likelihood that the decision to place a water on the "planning list" will be based upon data representative of the water's current conditions. While the data that will be excluded from consideration by Subsection (3) of proposed Rule 62-303.320, Florida Administrative Code, may be objective and credible data, such data merely reflects what the conditions of the water in question were at the time the samples yielding the data were collected. Declining to rely on this data because it is too old to be a reliable indicator of current conditions is not unreasonable.

105. The TAC recommended that listing decisions be based on data no older than five years.[40] Department staff, however,

believed that, for purposes of compiling a "planning list," a ten-year cut-off was more appropriate.

106. The binomial model is predicated on independent sampling. Subsection (4) of proposed Rule 62-303.320, Florida Administrative Code, addresses "in a very straightforward, simple, but reasonable way, the notion of spatial independence and temporal independence." It provides as follows:

> To be assessed for water quality criteria exceedances using Table 1, a water segment shall have a minimum of ten, temporally independent samples for the ten year period. To be treated as an independent sample, samples from a given station shall be at least one week apart. Samples collected at the same location less than seven days apart shall be considered as one sample, with the median value used to represent the sampling period. However, if any of the individual values exceed acutely toxic levels, then the worst case value shall be used to represent the sampling period. The worst case value is the minimum value for dissolved oxygen, both the minimum and maximum for pH, or the maximum value for other parameters. However, when data are available from diel or depth profile studies, the lower tenth percentile value shall be used to represent worst case conditions. For the purposes of this chapter, 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. Data from different stations within a water segment shall be treated as separate samples even if collected at the same time. However, there shall be at least five independent sampling events during the ten year assessment period, with at least one sampling event conducted in three of the four seasons of

> the calendar year. For the purposes of this chapter, the four seasons shall be January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31.

107. States may set their "[a]quatic [l]ife-[b]ased [w]ater [q]uality [c]riteria" at either acutely toxic levels or chronically toxic levels. The EPA, based on data from toxicity tests, has determined what these acutely toxic levels and chronically toxic levels should be, and it has provided its recommendations to the states for their use in setting appropriate water quality criteria. With one exception (involving silver in predominantly marine waters), the Department, in Rule Chapter 62-302, Florida Administrative Code, has opted to establish "[a]quatic [l]ife-[b]ased [w]ater [q]uality [c]riteria" at chronically toxic levels, rather than at acutely toxic levels, because chronic-toxicity-based criteria are, in the Department's view, "more protective." Subsection (4) of proposed Rule 62-303.320, Florida Administrative Code, will require the Department, under certain circumstances, to determine whether acutely toxic levels of parameters listed in Rule Chapter 62-302, Florida Administrative Code (other than silver in predominantly marine waters) have been exceeded. Neither the Department's existing rules, nor the proposed rule chapter, specifies what these levels are. In making this

determination, the Department intends to use the acutely toxic levels recommended by the EPA.

108. The last two sentences of Subsection (4) of proposed Rule 62-303.320, Florida Administrative Code, address "seasonal . . . variations," as required by Subsection (3)(b)1. of Section 403.067, Florida Statutes, and do so in a manner consistent with the TAC's recommendation on the matter. As Subsection (3)(b)1. of Section 403.067, Florida Statutes, suggests, water quality may vary from season to season. Such variations tend to be more pronounced in the northern part of the state than in South Florida in the case of certain parameters, such as dissolved oxygen, which is usually "at its critical condition" during the warmer months. While certain types of exceedances may be more likely to occur during a particular season or seasons of the year, exceedances may occur at any time during the year. Department staff, as recommended by the TAC, included the last two sentences in Subsection (4) of proposed Rule 62-303.320, Florida Administrative Code, in a reasonable effort to avoid a situation where a listing decision would be based upon skewed data (provided by persons "with an agenda") reflecting only isolated instances of worst or best case conditions, as opposed to "data . . . spread throughout the year as much as possible." Data from each of the four seasons of the calendar year were not required "because then some data sets might be excluded just

because they missed a quarterly sample," an outcome the TAC and Department staff considered to be undesirable because they "wanted to be all-inclusive and . . . capture all waters that in fact might even potentially be impaired" on the "planning list." Notwithstanding the "three out of four seasons" data sufficiency requirement of Subsection (4) of proposed Rule 62-303.320, Florida Administrative Code, because the proposed rule establishes an "exceedance frequency" threshold of ten percent, a water may qualify for placement on the "planning list" under the proposed rule even though all of the exceedances evidenced by the data in the Department's possession (covering at least three of the four seasons of the year) occurred in the one season when conditions are typically at their worst for the water. (If there were other exceedances, they would not be excluded from consideration under the proposed rule simply because they occurred during a time of year when exceedances are atypical.) The "three out of four seasons" requirement does not completely protect against persons "with an agenda" obtaining the result they want by providing the Department skewed data, but, as Dr. Reckhow testified at the final hearing, it would be difficult, if not impossible, for the Department to devise a rule which provides for Department consideration of data submitted by members of the public and, at the same time, completely "prevent[s] someone who is clever [enough] from

contriving the analysis." As Dr. Reckhow pointed out, to counteract the data submissions of such a person, those who believe that the data is not truly representative of the overall condition of the water can "collect their own data and make the[ir] case" to the Department.

109. Subsection (5) of proposed Rule 62-303.320, Florida Administrative Code, which reads as follows, provides two exceptions to the data sufficiency requirements of Subsection (4) of the proposed rule:

> 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 exceedances of an applicable water quality criterion, or
>
> (b) there are more than one exceedance of an acute toxicity-based water quality criterion in any three year period.

110. The "three or more exceedances" exception (found in Subsection (5)(a) of proposed Rule 62-303.320, Florida Administrative Code) to the proposed rule's minimum sample size requirement of ten was not something that the "TAC ever voted on." It was included in the proposed rule by Department staff at the request of Petitioners.

111. As noted above, the only "acute toxicity-based water quality criterion" in Rule Chapter 62-302, Florida

Administrative Code, is the criterion for silver in predominantly marine waters. Accordingly, Subsection (5)(b) of proposed Rule 62-330.320, Florida Administrative Code, applies only where that criterion has been exceeded (more than once in a three year period).

112. Subsection (6) of proposed Rule 62-330.320, Florida Administrative Code, provides that certain data (described therein) will be excluded from consideration by the Department in determining whether a water should be placed on the "planning list" pursuant to the proposed rule. It reads as follows:

> 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.

113. The exclusion of the data described in Subsection (6) of proposed Rule 62-330.320, Florida Administrative Code, is entirely appropriate. Indeed, it would be unreasonable for the Department to consider such data.

114. Earlier versions of Subsection (6) of proposed Rule 62-330.320, Florida Administrative Code, automatically excluded outliers from consideration. The ERC-adopted version, however,

provides that outliers will first be identified[41] and then examined and, only if they are determined by the Department, using its "best professional judgment," not to be "valid measures of water quality," will they be excluded from consideration. (Values, although extreme, may nonetheless "represent valid measures of water quality.").

115. Subsection (7) of proposed Rule 62-303.320, Florida Administrative Code, which provides as follows, addresses "[q]uality assurance and [q]uality control protocols," as those terms are used in Subsection (3)(b)3. of Section 403.067, Florida Statutes:

> The Department shall consider all readily available water quality data. However, to be used to determine water quality exceedances,
>
> (a) data shall be collected and analyzed in accordance with Chapter 62-160, F.A.C., and
>
> (b) for data collected after one year from the effective date of this rule, the sampling agency must provide to the Department, either directly or through entry into STORET, 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.

116. Rule Chapter 62-160, Florida Administrative Code, which is referenced in Subsection (7)(a) of proposed Rule 62-303.320, Florida Administrative Code, contains "[q]uality

assurance requirements" that, with certain limited exceptions, "apply to all programs, projects, studies, or other activities which are required by the Department, and which involve the measurement, use, or submission of environmental data or reports to the Department." Rule 62-160.110, Florida Administrative Code. Adherence to quality assurance requirements such as those in Rule Chapter 62-160, Florida Administrative Code, is essential to obtaining data that is objective and credible. Compliance with these requirements makes it less likely that sampling results will be inaccurate.

117. DEP EAS 01-01, April 2001, which is incorporated by reference in Subsection (7)(b) of proposed Rule 62-303.320, Florida Administrative Code, provides as follows:

> The Department relies on environmental data from a variety of sources to carry out its mission. Those data must satisfy the needs for which they are collected, comply with applicable standards, specifications and statutory requirements, and reflect a consideration of cost and economics. Careful project planning and routine project and data reviews, are essential to ensure that the data collected are relevant to the decisions being made.
>
> Many aspects of a project affect data quality. Sampling design, selection of parameters, sampling technique, analytical methodologies and data management activities are a few such aspects, whether the data are being collected for a compliance program, or for research activities. The level of quality of each of those elements will affect the final management decisions that

are based on a project's outcome. Data quality assessment is one activity that is instrumental in ensuring that data collected are relevant and appropriate for the decisions being made.

Depending on the needs of the project, the intended use of the final data and the degree of confidence required in the quality of the results, data quality assessment can be conducted at many levels. For the purposes of identification of impaired surface waters, the level of data quality assessment to be conducted (Table 1) requires providing the appropriate data elements (Table 2).

If the data and applicable data elements are in an electronic format, data quality assessments can be performed automatically on large volumes of data using software tools, without significant impact to staffing. Department programs can realize significant improvement in environmental protection without additional process using these types of review routinely.

Table 1: Recommended Quality Assessment Checks

Quality Test

Review to determine if analyses were conducted within holding times
Review for qualifiers indicative of problems
Screen comments for keywords indicative of problems
Review laboratory certification status for particular analyte at the time analysis was performed
Review data to determine if parts are significantly greater than the whole (e.g., ortho-P>total phosphorous, NH3>TKN, dissolved metal>total metal)
Screen data for realistic ranges (e.g., is pH<14?)

Review detection limits and quantification limits against Department criteria and program action levels to ensure adequate sensitivity
Review for blank contamination

Table 2: Data Elements Related to Quality Assessment

ID	Element	Description
1	Sample ID	Unique Field Sample Identifier
2	Parameter Name	Name of parameter measured
3	Analytical Result	Result for the analytical measurement
4.	Result Units	Units in which measurement is reported
5	DEP Qualifiers	Qualifier code describing specific QA conditions as reported by the data provider
6	Result Comments	Free-form text where data provider relates information they consider relevant to the result
7	Date (Time) of Sample Collection	
8	Date (Time) of Sample Preparations	
9	Date (Time) of Sample Analysis	
10	Analytical Method	Method number used for sample analysis

11	Prep Method	Method number used for sample preparation prior to analysis
12	Sample Matrix	Was the sample a surface water or groundwater sample, a fresh-water or saltwater sample
13	DOH Certificate Number/ Laboratory ID	Certificate number issued by the Department of Health's lab certification program
14	Preservatives Added	Description of preservatives added to the sample after collection
15	MDL	Method detection limit for a particular result
16	PQL	Practical quantification limit for a particular result
17	Sample Type	Field identifying sample nature (e.g., environmental sample, trip blank, field blank, matrix spike, etc.
18	Batch ID	Unambiguous reference linking samples prepped or analyzed together (e.g., trip preparation,

		analysis Ids)
19	Field, Lab Blank Results	Results for field/laboratory blank analysis required by the methods
20	CAS Number	CAS registry number of the parameter measured

Having the auxiliary information listed in Table 2 of DEP EAS 01-01 will help the Department evaluate the data that it receives from outside sources to determine whether the data are usable (for purposes of implementing the provisions of the proposed rule chapter).

118. Subsection (8) of proposed Rule 62-303.320, Florida Administrative Code, also addresses "[q]uality assurance and [q]uality control protocols." It reads as follows:

> To be used to determine exceedances 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 to determine exceedances of freshwater metals criteria that are hardness dependent, and if the ambient hardness value is less than 25 mg/L as $CaCO_3$, 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.

119. The "clean sampling and analytical techniques" referenced in Subsection (8)(a) of proposed Rule 62-303.320, Florida Administrative Code, are, as noted above, defined in Subsection (2) of proposed Rule 62-303.200, Florida Administrative Code, as "those applicable field sampling procedures and analytical methods" permitted by the EPA's "Method 1669."

120. "Method 1669" is a "performance-based," "guidance document" that, as its "Introduction" and introductory "Note," which read, in pertinent part, as follows, reveal, allows for the use of procedures other than those specifically described therein for "[s]ampling [a]mbient [w]ater for [t]race [m]etals at EPA [w]ater [q]uality [c]riteria [l]evels":

> . . . . In developing these methods, EPA found that one of the greatest difficulties in measuring pollutants at these levels was precluding sample contamination during collection, transport, and analysis. The degree of difficulty, however, is dependent on the metal and site-specific conditions. This method, therefore, is designed to provide the level of protection necessary to preclude contamination in nearly all situations. It is also designed to provide the protection necessary to produce reliable results at the lowest possible water quality criteria published by EPA. In recognition of the variety of situations to which this method may be applied, and in recognition of continuing technological advances, the method is performance-based. Alternative

> procedures may be used, so long as those procedures are demonstrated to yield reliable results. . . .
>
> Note: This document is intended as guidance only. Use of the terms "must," "may," and "should" are included to mean that the EPA believes that these procedures must, may, or should be followed in order to produce the desired results when using this guidance. In addition, the guidance is intended to be performance-based, in that the use of less stringent procedures may be used as long as neither samples nor blanks are contaminated when following those modified procedures. Because the only way to measure the performance of the modified procedures is through the collection and analysis of uncontaminated blank samples in accordance with this guidance and the referenced methods, it is highly recommended that any modification be thoroughly evaluated and demonstrated to be effective before field samples are collected.

121. Subsection (8)(a) of proposed Rule 62-303.320, Florida Administrative Code, requires that "Method 1669"-permitted procedures be used only where a water is being tested to determine if it exceeds the criterion for mercury (.012 micrograms per liter in the case of Class I waters and Class III freshwaters, and .025 micrograms per liter in the case of Class II waters and Class III marine waters).

122. Use of these procedures is necessary to avoid the sample contamination (from, among other things, standard lab bottles, hair, dandruff, atmospheric fallout, and pieces of cotton from clothing) which commonly occurs when standard, non-

"Method 1669"-permitted techniques are used. Because "the criteria [for mercury are] so low" and may be exceeded due solely to such contamination, it is essential to employ "Method 1669"-permitted techniques in order to obtain results that are reliable and meaningful.

123. The "Method 1669"-permitted techniques are approximately five times more costly to employ than standard techniques and the Department's laboratory is the only laboratory in the state (with the possible exception of a laboratory at Florida International University) able to provide "clean sampling and analytical techniques" to measure mercury levels in surface water. Nonetheless, as Timothy Fitzpatrick, the Department's chief chemist, testified at the final hearing in these consolidated cases:

> [I]f you want to measure methyl mercury or total mercury in surface water, you have to use clean techniques or you're measuring noise. And the whole purpose behind using clean techniques is to do sound science and to have confidence in the number. It's not to determine whether or not you're throwing out a body of data. It's to be able to get numbers that make sense. And there's no point in having a database full of information that's virtually worthless because it contains noise, analytical noise.

124. As Subsection (8)(b) of proposed Rule 62-303.320, Florida Administrative Code, suggests, there are certain "metals for which the actual water quality criterion itself changes as

the hardness [of the water, measured in milligrams per liter calcium carbonate] changes." Criteria for these metals are set (in the table contained in Rule 62-302.530, Florida Administrative Code) at higher levels for high hardness waters than for low hardness waters. To know which criterion applies in a particular case, the Department needs to know the hardness of the water sampled.

125. Subsection (9) of proposed Rule 62-303.320, Florida Administrative Code, guards against reliance on data that, due to the use of inappropriate methods, may fail to reveal exceedances that actually exist. It provides as follows:

> 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.

126. Subsections (6)(b) through (d) and (8) of Rule 62-4.246, Florida Administrative Code, provide as follows:

(6) All results submitted to the Department for permit applications and monitoring shall be reported as follows:

(a) The approved analytical method and corresponding Department-established MDL and PQL levels shall be reported for each pollutant. The MDLs and PQLs incorporated in the permit shall constitute the minimum reporting levels for each parameter for the life of the permit. The Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those incorporated in the permit. All results with laboratory MDLs and PQLs lower than those established in the permit shall be reported to the Department. Unless otherwise specified, all subsequent references to MDL and PQL pertain to the MDLs and PQLs incorporated in the permit.

(b) Results greater than or equal to the PQL shall be reported as the measured quantity.

(c) Results less than the PQL and greater than or equal to the MDL shall be reported as less than the PQL and deemed to be equal to the MDL.

(d) Results less than the MDL shall be reported as less than the MDL.

* * *

(8) The presence of toxicity (as

> established through biomonitoring), data from analysis of plant or animal tissue, contamination of sediment in the vicinity of the installation, intermittent violations of effluent limits or water quality standards, or other similar kinds of evidence reasonably related to the installation may indicate that a pollutant in the effluent may cause or contribute to violations of water quality criteria. If there is such evidence of possible water quality violations, then (unless the permittee has complied with subsection (9) below) in reviewing reports and applications to establish permit conditions and determine compliance with permits and water quality criteria, the Department shall treat any result less than the MDL of the method required in the permit or the method as required under subsection (10) below or any lower MDL reported by the permittee's laboratory as being one half the MDL (if the criterion equals or exceeds the MDL) or one half of the criterion (if the criterion is less than the MDL), for any pollutant. Without the permission of the applicant, the Department shall not use any values determined under this subsection or subsection (9) below for results obtained under a MDL superseded later by a lower MDL.

127. The final subsection of proposed Rule 62-303.320, Florida Administrative Code, Subsection (10), provides as follows:

> 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.

128. Proposed Rule 62-303.320, Florida Administrative Code, establishes a relatively "rigid" framework, based upon statistical analysis of data, with little room for the exercise of "best professional judgment," for determining whether a water qualifies for placement on the "planning list." There are advantages to taking such a "cookbook" approach. It promotes administrative efficiency and statewide uniformity in listing decisions. Furthermore, as Dr. Reckhow pointed out during his testimony, it lets the public know "how a [listing] decision is arrived at" and therefore "makes it easier for the public to get engaged and criticize the outcome."

129. Such "rigidity," however, comes at a price, as Dr. Reckhow acknowledged, inasmuch as observations and conclusions (based upon those observations) made by the "experienced biologist who really understands the system . . . get[] lost."

130. While proposed Rule 62-303.320, Florida Administrative Code, may rightfully be characterized as a "rigid statistical approach," it must be remembered that, in the subsequent portions of Part II of the proposed rule chapter, the Department provides other ways for a water to qualify for placement on the "planning list." A discussion of these alternatives follows.

Part II: Proposed Rule 62-303.330, Florida Administrative Code

131. Proposed Rule 62-303.330, Florida Administrative Code, is entitled, "Biological Assessment." As noted in Subsection (2) of proposed Rule 62-303.310, Florida Administrative Code, it "outline[s]" the requirements that must be met for a water to qualify for placement on the "planning list" based upon a failure to "meet biological assessment thresholds for its water body type." It lists Sections 403.061 and 403.067, Florida Statutes, as its "[s]pecific [a]uthority" and Sections 403.062 and 403.067, Florida Statutes, as the "[l]aw [i]mplemented."

132. A "[b]iological [a]ssessment" provides more information about the overall ability of a water to sustain aquatic life than does the "data used for determining water quality exceedances" referenced in Subsection (2) of proposed Rule 62-303.320, Florida Administrative Code. This is because "[b]iological [a]ssessment[s]," as is noted in the NRC Publication, "integrate the effects of multiple stressors over time and space." As Mr. Joyner pointed out in his testimony, a "[b]iological [a]ssessment" is "more than just a snapshot like a water quality sample is of the current water quality [at the particular location sampled]."

133. Unlike proposed Rule 62-303.320, Florida Administrative Code, proposed Rule 62-303.330, Florida Administrative Code, deals with "biological criteria," not "numerical criteri[a]," as those terms are used in Subsection (3)(c) of Section 403.067, Florida Statutes, and the method it establishes for determining "planning list" eligibility does not involve statistical analysis.

134. Subsection (1) of proposed Rule 62-303.330, Florida Administrative Code, provides that "[b]iological data must meet the requirements of paragraphs (3) and (7) in section 62-303.320," Florida Administrative Code, which, as noted above, impose age ("paragraph" (3)) and quality assurance/quality control and data submission ("paragraph" (7)) restrictions on the use of data. While the "biological component of STORET is not . . . usable" at this time and the biological database maintained by the Department "is not a database where members of the public can input data," pursuant to "paragraph" (7)(b) of proposed Rule 62-303.320, Florida Administrative Code, data collected by someone outside the Department that is not entered into either STORET or the Department's own biological database may still be considered by the Department if it is provided "directly" to the Department.

135. Inasmuch as "[b]iological [a]ssessment[s]" reflect the "effects of multiple stressors over time and space," failed

assessments are no more likely during one particular time of the year than another. Consequently, there is no need to limit the time of year in which "[b]iological [a]ssessment[s]" may be conducted.

136. The first sentence of Subsection (2) of proposed Rule 62-303.330, Florida Administrative Code, provides that "[b]ioassessments used to assess streams and lakes under this rule shall include BioRecons, Stream Condition Indices (SCIs), and the benthic macroinvertebrate component of the Lake Condition Index (LCI), which only applies to clear lakes with a color less than 40 platinum cobalt units."

137. The BioRecon and SCI, as those terms are defined in Subsections (1) and (18), respectively, of proposed Rule 62-303.200, Florida Administrative Code, are rapid bioassessment protocols for streams developed by the Department. They are "similar to the original rapid bioassessment protocols that were designed by the U.S. EPA in [19]89." Conducting a BioRecon or SCI requires the deployment of a Standard D frame dip net approximately one and a half meters in length (including its handle), which is used to obtain samples of the best available habitat that can be reached. The samples are obtained by taking "sweeps" with the one and a half meter long dip net.

138. Both wadable and non-wadable streams can be, and have been, sampled using this method prescribed by the BioRecon and

SCI, although sampling is "more challenging when the water body is deeper than waist deep." In these cases, a boat is used to navigate to the areas where sampling will occur. The sampling "methods are identical regardless of the depth of the water."

139. The BioRecon and SCI both include an assessment of the health of the habitat sampled, including the extent of habitat smothering from sediments and bank instability. The purpose of such an assessment is "to ascertain alteration of the physical habitat structure critical to maintenance of a healthy biological condition."

140. Like all bioassessment protocols, the BioRecon and SCI employ "reasonable thresholds" of community health (arrived at by sampling "reference sites," which are the least affected and impacted sites in the state) against which the health of the sampled habitat is measured. Impairment is determined by the sampled habitat's departure from these "reasonable thresholds" (which represent expected or "reference" conditions).

141. The BioRecon is newer, quicker and less comprehensive than the SCI. Only four sweeps of habitat are taken for the BioRecon, compared to 20 sweeps for the SCI. Furthermore, the BioRecon takes into consideration only three measures of community health (taxa richness, Ephemeroptera/ Plecoptera/Tricoptera Index, and Florida Index), whereas the SCI takes into account four additional measures of community health.

For these reasons, the BioRecon is considered a "screening version" of the SCI.

142. Like the BioRecon and the SCI, the LCI is a "comparative index." Conditions at the sampled site are compared to those at "reference sites" to determine the health of the aquatic community at the sampled site.

143. Samples for the LCI are taken from the sublittoral zone of the targeted lake,[42] which is divided into twelve segments. Using a petite PONAR or Ekman sampler dredge, a sample is collected from each of the twelve segments. The twelve samples are composited into a single, larger sample, which is then examined to determine what organisms it contains. The results of such examination are considered in light of six measures of community health: Total taxa, EOT taxa, percent EOT, percent Diptera, the Shannon-Weiner Diversity Index, and the Hulbert Index. Lakes larger than 1,000 acres are divided into two subbasins or into quadrants (as appropriate), and each subbasin or quadrant is sampled separately, as if it were a separate site.

144. It is essential that persons conducting BioRecons, SCIs, and LCIs know the correct sampling techniques to use and have the requisite amount of taxonomic knowledge to identify the organisms that may be found in the samples collected. For this reason, a second sentence was included in Subsection (2) of

proposed Rule 62-303.330, Florida Administrative Code, which reads as follows:

> Because these bioassessment procedures require specific training and expertise, persons conducting the 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 bioassessment data will be considered valid for use under this rule.

145. The Department has developed SOPs for BioRecons, SCIs, and LCIs, which are followed by Department personnel who conduct these bioassessments. The Department is in the process of engaging in rulemaking to incorporate these SOPs in Rule Chapter 62-160, Florida Administrative Code, but had not yet, as of the time of the final hearing in these consolidated cases, completed this task.[43]

146. Subsection (3) of proposed Rule 62-303.330, Florida Administrative Code, provides as follows:

> Water segments with at least one failed bioassessment or one failure of the biological integrity standard, Rule 62-302.530(11), shall be included on the planning list for assessment of aquatic life use support.
>
> (a) In streams, the bioassessment can be 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 not meeting the minimum

thresholds established for all three metrics (taxa richness, Ephemeroptera/Plecoptera/Tricoptera Index, and Florida Index) on the BioRecon.

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

147. Subsection (11) of Rule 62-302.530, Florida Administrative Code, prescribes the following "biological integrity standard[s]" for Class I, II and III waters:

Class I

The Index for benthic macroinvertebrates shall not be reduced to less than 75% of background levels as measured using organisms retained by a U.S. Standard No. 30 sieve and collected and composited from a minimum of three Hester-Dendy type artificial substrate samplers of 0.10 to $0.15m^2$ area each, incubated for a period of four weeks.

Class II

The Index for benthic macroinvertebrates shall not be reduced to less than 75% of established background levels as measured using organisms retained by a U.S. Standard No. 30 sieve and collected and composited from a minimum of three natural substrate samples, taken with Ponar type samplers with minimum sampling area of 225^2.

Class III: Fresh

The Index for benthic macroinvertebrates shall not be reduced to less than 75% of established background levels as measured using organisms retained by a U.S. Standard No. 30 sieve and collected and composited from a minimum of three Hester-Dendy type artificial substrate samplers of 0.10 to

> $0.15m^2$ area each, incubated for a period of four weeks.
>
> Class III: Marine
>
> The Index for benthic macroinvertebrates shall not be reduced to less than 75% of established background levels as measured using organisms retained by a U.S. Standard No. 30 sieve and collected and composited from a minimum of three natural substrate samples, taken with Ponar type samplers with minimum sampling area of 225^2.

The "Index" referred to in these standards is the Shannon-Weaver Diversity Index.

148. Subsection (4) of proposed Rule 62-303.330, Florida Administrative Code, which reads as follows, allows the Department to rely upon "information relevant to the biological integrity of the water," other than a failure of a BioRecon, SCI, or LCI or a failure of the "biological integrity standard" set forth in Subsection (11) of Rule 62-302.530, Florida Administrative Code, to place a water on the "planning list" where the Department determines, exercising its "best professional judgment," that such "information" reveals that "aquatic life use support has [not] been maintained":

> Other information relevant to the biological integrity of the water segment, including information about alterations in the type, nature, or function of a water, shall also be considered when determining whether aquatic life use support has been maintained.

The "other information" that would warrant placement on the "planning list" is not specified in Subsection (4) because, as Mr. Frydenborg testified at the final hearing, "[t]he possibilities are so vast."

149. Proposed Rule 62-303.330, Florida Administrative Code, does not make mention of any rapid type of bioassessment for estuaries, the failure of which will lead to placement of a water on the "planning list," for the simple reason that the Department has yet to develop such a bioassessment.[44] Estuaries, however, may qualify for "planning list" placement under proposed Rule 62-303.330, Florida Administrative Code, based upon "one failure of the biological integrity standard," pursuant to Subsection (3) of the proposed rule,[45] or based upon "other information," pursuant to Subsection (4) of the proposed rule (which may include "information" regarding seagrasses, aquatic macrophytes, or algae communities).

Part II: Proposed Rule 62-303.340, Florida Administrative Code

150. Proposed Rule 62-303.340, Florida Administrative Code, is entitled, "Toxicity," and, as noted in Subsection (3) of proposed Rule 62-303.310, Florida Administrative Code, "outline[s]" the requirements that must be met for a water to qualify for placement on the "planning list" based upon it being "acutely or chronically toxic." These requirements, like those

found in proposed Rule 62-303.330, Florida Administrative Code, relating to "[b]iological [a]ssessment[s]," are not statistically-based. They are as follows:

> (1) All toxicity tests used to place a water segment on a planning list shall be based on surface water samples in the receiving water body and shall be conducted and evaluated in accordance with Chapter 62-160, F.A.C., and subsections 62-302.200(1) and (4), F.A.C., respectively.
>
> (2) Water segments with two samples indicating acute toxicity within a twelve month period shall be placed on the planning list. Samples must be collected at least two weeks apart over a twelve month period, some time during the ten years preceding the assessment.
>
> (3) Water segments with two samples indicating chronic toxicity within a twelve month period shall be placed on the planning list. Samples must be collected at least two weeks apart, some time during the ten years preceding the assessment.
>
> Specific Authority 403.061, 403.067, FS.
> Law Implemented 403.062, 403.067, FS.
> History -- New

151. Subsection (1) of Rule 62-320.200, Florida Administrative Code, which is referenced in Subsection (1) of proposed Rule 62-303.340, Florida Administrative Code, defines "acute toxicity." It provides as follows:

> "Acute Toxicity" shall mean the presence of one or more substances or characteristics or components of substances in amounts which:
>
> (a) are greater than one-third (1/3) of the amount lethal to 50% of the test organisms

> in 96 hours (96 hr LC50) where the 96 hr LC50 is the lowest value which has been determined for a species significant to the indigenous aquatic community; or
>
> (b) may reasonably be expected, based upon evaluation by generally accepted scientific methods, to produce effects equal to those of the concentration of the substance specified in (a) above.

152. Subsection (4) of Rule 62-320.200, Florida Administrative Code, which is also referenced in Subsection (1) of proposed Rule 62-303.340, Florida Administrative Code, defines "chronic toxicity." It provides as follows:

> "Chronic Toxicity" shall mean the presence of one or more substances or characteristics or components of substances in amounts which:
>
> (a) are greater than one-twentieth (1/20) of the amount lethal to 50% of the test organisms in 96 hrs (96 hr LC50) where the 96 hr LC50 is the lowest value which has been determined for a species significant to the indigenous aquatic community; or
>
> (b) may reasonably be expected, based upon evaluation by generally accepted scientific methods, to produce effects equal to those of the concentration of the substance specified in (a) above.

153. Testing for "acute toxicity" or "chronic toxicity," within the meaning of Subsections (1) and (4) of Rule 62-320.200, Florida Administrative Code (and therefore proposed Rule 62-303.340, Florida Administrative Code) does not involve

measuring the level of any particular parameter in the water sampled.

154. Rather, the tests focus upon the effects the sampled water has on test organisms. Mortality is the end point that characterizes "acute toxicity." "Chronic toxicity" has more subtle effects, which may include reproductive and/or growth impairment.

155. Historically, the Department has tested effluent for "acute toxicity" and "chronic toxicity," but it has not conducted "acute toxicity" or "chronic toxicity" testing in receiving waters.

156. The requirement of Subsections (2) and (3) of proposed Rule 62-303.340, Florida Administrative Code, that test data be no older than ten years old is reasonably designed to make it less likely that a water will be placed on the "planning list" based upon toxicity data not representative of the water's current conditions.

157. Requiring that toxicity be established by at least "two samples" taken "at least two weeks apart" during a "twelve month period," as do Subsections (2) and (3) of proposed Rule 62-303.340, Florida Administrative Code, is also a prudent measure intended to minimize inappropriate listing decisions. To properly determine whether toxicity (which can "change over time") is a continuing problem that may be remedied by TMDL

implementation, it is desirable to have more than one sample indicating toxicity. "The judgment was made [by the TAC] that two [samples] would be acceptable to make that determination." The TAC "wanted to include as much data regarding . . . toxicity . . . , and therefore lowered the bar in terms of data sufficiency . . . to only two samples."

158. As noted above, the "minimum criteria for surface waters established in Rule 62-302.500, F.A.C.," which, if not met, will result in a water being placed on the "planning list" pursuant to Subsection (1) of proposed Rule 62-303.300, Florida Administrative Code, include the requirement that surface waters not be "acutely toxic." Whether a water should be placed on the "planning list" because it fails to meet this "minimum criterion" (or "free from") will be determined in light of the provisions of proposed Rule 62-303.340, Florida Administrative Code.

159. Except for "[s]ilver in concentrations above 2.3 micrograms/liter in predominantly marine waters," "acute toxicity" is the only "free from" addressed in any portion of Part II of the proposed rule chapter outside of Subsection (1) of proposed Rule 62-303.300, Florida Administrative Code.

Part II: Proposed Rules 62-303.350 through 62-303.353, Florida Administrative Code

160. Proposed Rules 62-303.350 through 62-303.353, Florida Administrative Code, address "nutrients."

161. Nutrients, which consist primarily of nitrogen and phosphorous, stimulate plant growth (and the production of organic materials).

162. Waste water treatment facilities, certain industrial facilities that discharge waste water, phosphate mines, and agricultural and residential lands where fertilizers are used are among the sources of nutrients that affect water bodies in Florida.

163. Nutrients are important to the health of a water body, but when they are present in excessive amounts, problems can arise. Excessive amounts of nutrients can lead to certain species, typically algaes, out-competing native species that are less able to use these nutrients, which, in turn, results in a change in the composition of the aquatic population and, subsequently, the animal population. Factors influencing how a water body responds to nutrient input include location, water body type, ecosystem characteristics, water flow, and the extent of light inhibition.

164. As Mr. Frydenborg testified at the final hearing, nutrients are "probably the most widespread and pervasive cause

of environmental disturbance in Florida" and they present "the biggest challenge [that needs to be] overcome in protecting aquatic systems." See also Rule 62-302.300(13), Florida Administrative Code ("The Department finds that excessive nutrients (total nitrogen and total phosphorus) constitute one of the most severe water quality problems facing the State.").

165. As noted above, nutrients are among the parameters for which water quality criteria have been established by the Department in Rule 62-302.530, Florida Administrative Code. The criterion for nutrients set forth in Subsection (48)(b) of the rule (which applies to all "water quality classifications") is a "narrative . . . criterion," as that term is used in Subsection (3)(c) of Section 403.067, Florida Statutes. It is as follows: "In no case shall nutrient concentrations of a body of water be altered as to cause an imbalance of natural populations of aquatic flora or fauna."

166. Proposed Rule 62-303.350, Florida Administrative Code, is entitled, "Interpretation of Narrative Nutrient Criteria," and, as noted in Subsection (4) of proposed Rule 62-303.310, Florida Administrative Code, "outline[s]" the requirements that must be met for a water to qualify for placement on the "planning list" based upon excessive "nutrient enrichment." It lists Sections 403.061 and 403.067, Florida

Statutes, as its "[s]pecific [a]uthority" and Sections 403.062 and 403.067, Florida Statutes, as the "[l]aw [i]mplemented."

167. Subsection (1) of proposed Rule 62-303.350, Florida Administrative Code, reads as follows:

> 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.

168. Any type of water body (stream, estuary, or lake) may be placed on the "planning list" based upon the "other information" described in the second sentence of Subsection (1) of proposed Rule 62-303.350, Florida Administrative Code. Whether to do so in a particular case will involve the exercise of "best professional judgment" on the part of the Department.

169. The items specifically mentioned in the second sentence of Subsection (1) of proposed Rule 62-303.350, Florida Administrative Code, "[a]lgal blooms, excessive macrophyte growth, decrease in the distribution (either in density or areal coverage) of seagrasses or other submerged aquatic vegetation,[46] changes in algal species richness, and excessive diel oxygen swings," are all indicators of excessive "nutrient enrichment."

The "but not limited to" language in this sentence makes it abundantly clear that this is not an exhaustive listing of "other information indicating an imbalance in flora or fauna due to nutrient enrichment" that will be considered by the Department in determining whether a water should be placed on the "planning list."

170. During the rule development process, there were a number of members of the public who expressed the view that the Department's possession of the "information" described in the second sentence of Subsection (1) of proposed Rule 62-303.350, Florida Administrative Code, should be the sole basis for determining "nutrient impairment" and that TSIs and annual mean chlorophyll a values should not be used.

171. Department staff rejected these suggestions and drafted the proposed rule chapter to provide for additional ways, using TSIs and annual mean chlorophyll a values, for a water to make the "planning list" based upon excessive "nutrient enrichment."

172. Chlorophyll a is the photosynthetic pigment in algae.

173. Measuring chlorophyll a concentrations in water is a reasonable surrogate for measuring the amount of algal biomass present (which is indicative of the extent of nutrient enrichment inasmuch as nutrients promote algal growth).

174. Chlorophyll a values, expressed in micrograms per liter, reflect the concentration of suspended algae (phytoplankton) in the water.[47]

175. High amounts of chlorophyll a indicate that there have been algal blooms.

176. Algal blooms represent significant increases in algal population (phytoplankton) over a short period of time. They have a deleterious effect on the amount of dissolved oxygen in the water.

177. Algal blooms may occur in any season. There are no adequate means to predict when they will occur.

178. An annual mean chlorophyll a value reflects the level of nutrient enrichment occurring in a water over the course of a year. Biologists look at these values when studying the productivity of aquatic systems. Using an annual mean is the "best way" of determining whether nutrient enrichment is a consistent enough problem to cause an imbalance in flora or fauna.

179. The TSI was developed for the Department's use in preparing 305(b) Reports.

180. It is a "tried and true method" of assessing lakes (and only lakes) for "nutrient impairment."

181. No comparable special index exists for other types of water bodies in this state.

182. TSI values are derived from annual mean chlorophyll a, as well as nitrogen and phosphorous, values (which are composited).

183. The process of "[c]alculating the Trophic State Index for lakes" was described in the "State's 1996 305(b) report" (on page 86) as follows:

> The Trophic State Index effectively classifies lakes based on their chlorophyll levels and nitrogen and phosphorous concentrations. Based on a classification scheme developed in 1977 by R.E. Carlson, the index relies on three indicators-- Secchi depth, chlorophyll, and total phosphorous-- to describe a lake's trophic state. A ten unit change in the index represents a doubling or halving or algal biomass.
>
> The Florida Trophic State Index is based on the same rationale but also includes total nitrogen as a third indicator. Attempts in previous 305(b) reports to include Secchi depth have caused problems in dark-water lakes and estuaries, where dark waters rather than algae diminish transparency. For this reason, our report drops Secchi depth as a category.
>
> We developed Florida lake criteria from a regression analysis of data on 313 Florida lakes. The desirable upper limit for the index is 20 micrograms per liter of chlorophyll, which corresponds to an index of 60. Doubling the chlorophyll concentration to 40 micrograms per liter increases the index to 70, which is the cutoff for undesirable (or poor) lake quality. Index values from 60 to 69 represent fair water quality. . . .

> The Nutrient Trophic State Index is based on phosphorous and nitrogen concentrations and the limiting nutrient concept. The latter identifies a lake as phosphorous limited if the nitrogen-to-phosphorous concentration ratio is greater than 30, nitrogen limited if the ratio is less than 10, and balanced (depending on both nitrogen and phosphorous) if the ratio is 10 to 30. The nutrient ratio is thus based solely on phosphorous if the ratio is greater than 30, solely on nitrogen if less than 10, or on both nitrogen and phosphorous if between 10 and 30.
>
> We calculated an overall Trophic State Index based on the average of the chlorophyll and nutrient indices. Calculating an overall index value requires both nitrogen and phosphorous measurements.

184. Subsections (2) and (3) of proposed Rule 62-303.350, Florida Administrative Code, which provide as follows, impose reasonable data sufficiency and quality requirements for calculating TSIs and annual mean chlorophyll a values and changes in those values from "historical levels":

> (2) To be used to determine whether a water should be assessed further for nutrient enrichment,
>
> (a) data must meet the requirements of paragraphs (2)-(4), (6), and (7) in rule 62-303.320,
>
> (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, and
>
> (c) 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).
>
> (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.

185. These requirements do not apply to the "other information" referenced in the second sentence of Subsection (1) of proposed Rule 62-303.350, Florida Administrative Code. As was stated in the NRC Publication, and as Department staff recognized, "data are not the same as information."

186. Subsection (2)(b) of proposed Rule 62-303.350, Florida Administrative Code, being more specific, modifies Subsection (2)(a) of the proposed rule, to the extent that Subsection (2)(a) incorporates by reference the requirement of Subsection (4) of proposed Rule 62-303.320, Florida Administrative Code, that "at least one sampling event [be] conducted in [only] three of the four seasons of the calendar year."

187. Requiring data from at least each season is appropriate because the data will be used to arrive at numbers that represent annual means. Furthermore, as noted above, there is no season in which bloom events never occur in this state.

188. Four years of data, as required by Subsection (2)(c) of proposed Rule 62-303.350, Florida Administrative Code, establishes a "genuine trend" in the TSI.

189. The requirement, in Subsection (2)(c) of proposed Rule 62-303.350, Florida Administrative Code, that the "lowest five-year average for the period of the record" be used to establish "historical levels" was intended to make it easier for a water to be placed on the "planning list" for "nutrient impairment."

190. Proposed Rules 62-303.351, 62-303.352, and 62-303.353, Florida Administrative Code, establish reasonable statewide TSI and annual mean chlorophyll a values, which if exceeded, will result in a water being placed on the "planning list."[48]

191. In establishing these statewide threshold values, Department staff took into consideration that averaging values obtained from samples taken during bloom events with lower values obtained from other samples taken during the course of the year (to get an annual mean value for a water) would minimize the impact of the higher values and, accordingly, they set the thresholds at levels lower than they would have if the thresholds represented, not annual mean values, but rather values that single samples, evaluated individually, could not exceed.

192. Department staff recognized that the statewide thresholds they set "may not be protective of very low nutrient waters." They therefore, in proposed Rules 62-303.351, 62-303.352, and 62-303.353, Florida Administrative Code, reasonably provided that waters not exceeding these thresholds could nonetheless get on the "planning list" for "nutrient impairment" based upon TSI values (in the case of lakes) or annual mean chlorophyll a values (in the case of streams and estuaries) if these values represented increases, of sufficient magnitude, as specified in the proposed rules, over "historical levels."

193. Proposed Rule 62-303.351, Florida Administrative Code, is entitled, "Nutrients in Streams," and reads as follows:

> A stream or stream segment shall be included on the planning list for nutrients if the following biological imbalances are observed:
>
> (1) algal mats are present in sufficient quantities to pose a nuisance or hinder reproduction of a threatened or endangered species, or
>
> (2) annual mean chlorophyll a concentrations are greater than 20 ug/l or if data indicate annual mean chlorophyll a values have increased by more than 50% over historical values for at least two consecutive years.
>
> Specific Authority 403.061, 403.067, FS.
> Law Implemented 403.062, 403.067, FS.
> History -- New

194. The TAC and Department staff investigated the possibility of evaluating "nutrient impairment" in streams by looking at the amount of attached algae (measured in milligrams of chlorophyll a per square meter) as opposed to suspended algae, but "weren't able to come up with" an appropriate "number." They were advised of a "paper" in which the author concluded that 150 milligrams of chlorophyll a per square meter was "indicative of imbalances in more northern conditions rivers." Reviewing Florida data, the TAC and Department staff determined that this threshold would be "non-protective in our state" inasmuch as the "the highest chlorophylls" in the Florida data they reviewed were 50 to 60 milligrams of chlorophyll a per square meter.

195. Subsection (1) of proposed Rule 62-303.351, Florida Administrative Code, which describes, in narrative terms, another type of "information indicating an imbalance in flora or fauna due to nutrient enrichment" (in addition to those types of information specified in Subsection (1) of proposed Rule 62-303.350, Florida Administrative Code), was included in proposed Rule 62-303.351 in lieu of establishing a numerical "milligrams of chlorophyll a per square meter" threshold.

196. The term "nuisance," as used in Subsection (1) of proposed Rule 62-303.351, Florida Administrative Code, was

intended to have the same meaning as it has in Rule 62-302.500, Florida Administrative Code.

197. "Nuisance species," as used in Rule Chapter 62-500, Florida Administrative Code, are defined as "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."

198. Mr. Joyner knew that the Suwannee River "had problems with algal mats[49] and that those algal mats might hinder reproduction of the sturgeon" in the river. The "hinder reproduction of a threatened or endangered species" language was inserted in Subsection (1) of proposed Rule 62-303.351, Florida Administrative Code, "to address things like that" occurring in the Suwannee River.

199. It was "very difficult" for the TAC and Department staff to come up with a "micrograms per liter" threshold for Subsection (2) of proposed Rule 62-303.351, Florida Administrative Code.

200. All available data on Florida streams were reviewed before the TAC and Department staff decided on a threshold.

201. The threshold ultimately selected, 20 micrograms per liter, "represents approximately the 80th percentile value currently found in Florida streams," according to the data

reviewed. The "20 micrograms per liter" threshold, combined with the other provisions of the proposed rule and the second sentence of proposed Rule 62-303.350, Florida Administrative Code, was "thought to be something that would hold the line on future [nutrient] enrichment," particularly with respect to streams "like the lower St. Johns River which tends to act more like a lake."

202. Anything over 20 micrograms per liter of chlorophyll a "is a clear indication that an imbalanced situation is occurring."

203. There are some streams in Florida that have high nutrient concentrations but, because of flow conditions and water color, also have low levels of chlorophyll a in the water column (reflecting that the nutrients' presence in the water has not resulted in significant algal growth). That these streams would not qualify for placement on the "planning list" pursuant to proposed Rule 62-303.351, Florida Administrative Code, as drafted, did not concern the TAC and Department staff because they thought it appropriate "to focus on [the] realized impairment" caused by nutrients, not on their mere presence in the stream. If these nutrients travel downstream and adversely affect the downstream water to such an extent that the downstream water qualifies for a TMDL, "all the sources upstream

would be addressed" in the TMDL developed for the downstream water.

204. Pursuant to Subsection (2) of proposed Rule 62-303.351, Florida Administrative Code, streams with "very, very low chlorophylls," well under 20 micrograms per liter, can nonetheless qualify for placement on the planning list based upon two consecutive years of increased annual mean chlorophyll a values "over historical values." In the case of a stream with "historical values" of two micrograms per liter, for instance, the increase would need to be only more than one microgram per liter.

205. Proposed Rule 62-303.352, Florida Administrative Code, is entitled, "Nutrients in Lakes," and reads as follows:

> For the purposes of evaluating nutrient enrichment in lakes, TSIs shall be calculated based on the procedures outlined on pages 86 and 87 of the State's 1996 305(b) report, which are incorporated by reference. Lakes or lake segments shall be included on the planning list for nutrients if:
>
> (1) For lakes with a mean color greater than 40 platinum cobalt units, the annual mean TSI for the lake exceeds 60, unless paleolimnological information indicates the lake was naturally greater than 60, or
>
> (2) For lakes with a mean color less than or equal to 40 platinum cobalt units, the annual mean TSI for the lake exceeds 40, unless paleolimnological information indicates the lake was naturally greater than 40, or

> (3) For any lake, data indicate that annual mean TSIs have increased over the assessment period, as indicated by a positive slope in the means plotted versus time, or the annual mean TSI has increased by more than 10 units over historical values. When evaluating the slope of mean TSIs over time, the Department shall use a Mann's one-sided, upper-tail test for trend, as described in Nonparametric Statistical Methods by M. Hollander and D. Wolfe 16 (1999 ed.), pages 376 and 724 (which are incorporated by reference), with a 95% confidence level.
>
> Specific Authority 403.061, 403.067, FS.
> Law Implemented 403.062, 403.067, FS.
> History -- New

206. As noted above, a TSI value of 60, the threshold established in Subsection (1) of proposed Rule 62-303.352, Florida Administrative Code, for darker-colored lakes, is the equivalent of a chlorophyll a value of 20 micrograms per liter, which is the "micrograms per liter" threshold for streams established in Subsection (2) of proposed Rule 62-303.351, Florida Administrative Code.

207. A TSI value 40, the threshold established in Subsection (2) of proposed Rule 62-303.352, Florida Administrative Code, for lighter-colored lakes, corresponds to a chlorophyll a value of five micrograms per liter, which "is an extremely low level." A TSI value of 40 is "very protective for that particular category of lake[s]."

208. A lower threshold was established for these lighter-colored lakes (having a mean color less than or equal to 40 platinum cobalt units) because it was felt that these lakes needed "extra protection." Providing such "extra protection" is reasonably justified inasmuch as these lakes (due to their not experiencing the "infusion of leaf litter" that affects darker-colored lakes) tend to have a "lower nutrient content naturally" and therefore "very different aquatic communities" than their darker counterparts.

209. Some lakes are naturally eutrophic or even hyper-eutrophic. Inasmuch as the TMDL program is not designed to address such natural occurrences, it makes sense to provide, as Subsections (1) and (2) of proposed Rule 62-303.352, Florida Administrative Code, do, that the TSI thresholds established therein will not apply if "paleolimnological information" indicates that the TSI of the lake in question was "naturally greater" than the threshold established for that type of lake (60 in the case of a darker-colored lake and 40 in the case of a lighter-colored lake).

210. Lakes with TSI values that do not exceed the appropriate threshold may nonetheless be included on the "planning list" based upon "increas[es] in TSIs" pursuant to Subsection (3) of proposed Rule 62-303.352, Florida Administrative Code.

211. Any statistically significant increase in TSI values "over the assessment period," as determined by "use [of] a Mann's one-sided, upper-tail test for trend" and a "95% confidence level" (which the TAC recommended inasmuch as it is "the more typical scientific confidence level"), or an increase in the annual mean TSI of more than ten units "over historical values," will result in a lake being listed pursuant to Subsection (3) of proposed Rule 62-303.352, Florida Administrative Code.

212. The first of these two alternative ways of a lake getting on the "planning list" based upon "increas[es] in TSIs" is "more protective" than the second. Under this first alternative, a lake could be listed before there was more than a ten unit increase in the annual mean TSI "over historical values."

213. A ten-unit increase in the annual mean TSI represents a doubling (or 100 percent increase) "over historical values." As noted above, pursuant to Subsection (3) of proposed Rule 62-303.351, Florida Administrative Code, only a 50 percent increase "over historical values" in annual mean chlorophyll a values is needed for a stream to make the "planning list" and, as will be seen, proposed Rule 62-303.353, Florida Administrative Code, contains a similar "50 percent increase" provision for estuaries; however, because "lakes are much more responsive to

nutrients," Department staff reasonably believed that "the ten-unit change was a protective measure."

214. Proposed Rule 62-303.353, Florida Administrative Code, is entitled, "Nutrients in Estuaries," and reads as follows:

> Estuaries or estuary segments shall be included on the planning list for nutrients if their annual mean chlorophyll a for any year is greater than 11 ug/l or if data indicate annual mean chlorophyll a values have increased by more than 50% over historical values for at least two consecutive years.
>
> Specific Authority 403.061, 403.067, FS.
> Law Implemented 403.062, 403.067, FS.
> History -- New

215. Estuaries are at "the very bottom" of the watershed. The amount of nutrients in an estuary is dependent, not only on what is occurring in and around the immediate vicinity of the estuary,[50] but also "what is coming down" any river flowing into it. Not all of the nutrients in the watershed reach the estuary inasmuch as "there is assimilation and uptake along the way."

216. The "11 micrograms per liter" threshold ultimately selected as a "protective number in terms of placing estuaries on the 'planning list'" was recommended by the TAC following a review of data reflecting trends with respect to chlorophyll a levels in various Florida estuaries. In addition, the TAC heard a presentation concerning the "modeling work" done by the Tampa

Bay National Estuary Program to establish "site-specific" chlorophyll a targets for segments of Tampa Bay, including the target of 13.2 micrograms per liter that was established for the Hillsborough Bay segment of Tampa Bay, which is "closer to the [nutrient] sources" than other parts of Tampa Bay. The TAC also considered information about "various bloom situations" in estuaries which led to the "general feeling" that an estuarine algal bloom involved chlorophyll a values "considerably higher" than 11 micrograms per liter.

217. An alternative method for an estuary to make the "planning list" for "nutrient impairment" based upon a 50 percent increase in annual mean chlorophyll a values "over historical values" was included in proposed Rule 62-303.353, Florida Administrative Code, because the "11 micrograms per liter" threshold was not expected "to be adequately protect[ive]" of "the very clear sea grass communities" like those found in the Florida Keys.

Part II: Proposed Rule 62-303.360, Florida Administrative Code

218. Proposed Rule 62-303.360, Florida Administrative Code, establishes four separate ways for a water to be placed on the "planning list" for failing to provide "primary contact and recreation use support." It reads as follows:

Primary Contact and Recreation Use Support

(1) A Class I, II, or III water shall be placed on the planning list for primary contact and recreation use support if:

(a) the water segment does not meet the applicable water quality criteria for bacteriological quality based on the methodology described in section 62-303.320, or

(b) the water segment includes a bathing area that was closed by a local health Department or county government for more than one week or more than once during a calendar year based on bacteriological data, or

(c) the water segment includes a bathing area for which a local health Department or county government has issued closures, advisories, or warnings totaling 21 days or more during a calendar year based on bacteriological data, or

(d) the water segment includes a bathing area that was closed or had advisories or warnings for more than 12 weeks during a calendar year based on previous bacteriological data or on derived relationships between bacteria levels and rainfall or flow.

(2) For data collected after August 1, 2000, the Florida Department of Health (DoH) database shall be the primary source of data used for determining bathing area closures.

(3) Advisories, warnings, and closures based on red tides, rip tides, sewage spills, sharks, medical wastes, hurricanes, or other factors not related to chronic discharges of pollutants shall not be included when assessing recreation use support. However, the Department shall note

for the record that data were excluded and explain why they were excluded.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

219. The "water quality criteria for bacteriological quality" referenced in Subsection (1)(a) of proposed Rule 62-303.360, Florida Administrative Code, are set forth in Subsections (6) and (7) of Rule 62-303.530, Florida Administrative Code, which provide as follows:

(6) Parameter: Bacteriological Quality (Fecal Coliform Bacteria)

Units: Number per 100 ml (Most Probable Number (MPN) or Membrane Filter (MF))

Class I: MPN or MF counts shall not exceed a monthly average of 200, nor exceed 400 in 10% of the samples, nor exceed 800 on any one day. Monthly averages shall be expressed as geometric means based on a minimum of 5 samples taken over a 30 day period.

Class II: MPN shall not exceed a median value of 14 with not more than 10% of the samples exceeding 43, nor exceed 800 on any one day.

Class III: Fresh: MPN or MF counts shall not exceed a monthly average of 200, nor exceed 400 in 10% of the samples, nor exceed 800 on any one day. Monthly averages shall be expressed as geometric means based on a minimum of 10 samples taken over a 30 day period.

Class III: Marine: MPN or MF counts shall not exceed a monthly average of 200, nor exceed 400 in 10% of the samples, nor exceed

800 on any one day. Monthly averages shall be expressed as geometric means based on a minimum of 10 samples taken over a 30 day period.

(7) Parameter: Bacteriological Quality (Total Coliform Bacteria)

Units: Number per 100 ml (Most Probable Number (MPN) or Membrane Filter (MF))

Class I: < = 1,000 as a monthly avg., nor exceed 1,000 in more than 20% of samples examined during any month, nor exceed 2,400 at any time using either MPN or MF counts.

Class II: Median MPN shall not exceed 70 and not more than 10% of the samples shall exceed an MPN of 230.

Class III: Fresh: < = 1,000 as a monthly average, nor exceed 1,000 in more than 20% of samples examined during any month, < = 2,400 at any time. Monthly averages shall be expressed as geometric means based on a minimum or 10 samples taken over a 30 day period, using either the MPN or MF counts.

Class III: Marine: < = 1,000 as a monthly average, nor exceed 1,000 in more than 20% of samples examined during any month, < = 2,400 at any time. Monthly averages shall be expressed as geometric means based on a minimum or 10 samples taken over a 30 day period, using either the MPN or MF counts.

220. Fecal coliform bacteria are found in the feces of animals and humans.

221. They can be identified in the laboratory "fairly easily, usually within 24 to 48 hours" and "are used worldwide as indicators of fecal contamination and potential public health risks."

222. Enterococci are another "distinct group of bacteria." They too are found in animal and human feces.

223. The recommendation has been made that enterococci be used as bacteriological "indicators" for assessing "public health risk and swimmability," particularly in marine waters.

224. The Department, however, is not convinced that there is "sufficient science at this time" to warrant adoption of this recommendation in states, like Florida, with "warmer climates," and it has not amended Rule 62-303.530, Florida Administrative Code, to provide for the assessment of bacteriological quality using enterococci counts.[51]

225. The statistical "methodology described in [proposed Rule] 62-303.320," Florida Administrative Code (which is incorporated by reference in Subsection (1)(a) of proposed Rule 62-303.360, Florida Administrative Code) is as appropriate for determining whether a water should be placed on the "planning list" based upon exceedances of bacteriological water quality criteria as it is for determining whether a water should be placed on the "planning list" for "[e]xceedances of [a]quatic [l]ife-[b]ased [c]riteria."

226. Unlike Subsection (1)(a) of proposed Rule 62-303.360, Florida Administrative Code, Subsections (1)(b), (1)(c), and (1)(d) of the proposed rule, at least indirectly, allow for

waters to be placed on the "planning list" based upon enterococci counts.

227. The closures, advisories, and warnings referenced in Subsections (1)(b), (1)(c), and (1)(d) of proposed Rule 62-303.360, Florida Administrative Code, are issued, not by the Department, but by local health departments or county governments, and may be based upon enterococci sampling done by those governmental entities.

228. Subsection (1)(b) of proposed Rule 62-303.360, Florida Administrative Code, provides for listing based exclusively upon bathing area closures. It was included in the proposed rule upon the recommendation of the EPA "to track their 305(b) guidance."

229. Both freshwater and marine bathing areas in Florida may be closed if circumstances warrant.

230. The Department of Health (which operates the various county health departments) does not close marine beaches, but county governments may.

231. Subsection (1)(c) of proposed Rule 62-303.360, Florida Administrative Code, provides for listing based upon any combination of closures, advisories, or warnings "totaling 21 days or more during a calendar year," provided the closures, advisories, and warnings were based upon up-to-date "bacteriological data." Department staff included this

provision in the proposed rule in lieu of a provision recommended by the TAC (about which Petitioner Young had expressed concerns) that would have made it more difficult for a water to be placed on the "planning list" as a result of bacteriological data-based closures, advisories, or warnings. In doing so, Department staff exercised sound professional judgment.

232. The 21 days or more of closures, advisories, or warnings needed for listing under the proposed rule do not have to be consecutive, although they all must occur in the same calendar year.

233. Subsection (1)(d) of proposed Rule 62-303.360, Florida Administrative Code, like Subsection (1)(c) of the proposed rule, provides for listing based upon a combination of closures, advisories, or warnings, but it does not require that it be shown that the closures, advisories, or warnings were based upon up-to-date "bacteriological data." Under Subsection (1)(d) of the proposed rule, the closures, advisories, or warnings need only have been based upon "previous [or, in other words, historical] bacteriological data" or "derived relationships between bacteria levels and rainfall or flow." Because assessments of current bacteriological quality based upon "previous bacteriological data" or on "derived relationships between bacteria levels and rainfall or flow" are

less reliable than those based upon up-to-date "bacteriological data," Department staff were reasonably justified in requiring a greater total number of days of closures, advisories, or warnings in this subsection of the proposed rule (more than 84) than they did in Subsection (1)(c) of the proposed rule (more than 21). (Like under Subsection (1)(c) of the proposed rule, the days of closures, advisories, or warnings required for listing under Subsection (1)(d) of the proposed rule do not have to be consecutive days.) Subsection (1)(d) was included in the proposed rule in response to comments made at a TAC meeting by Mike Flannery of the Pinellas County Health Department concerning Pinellas County beaches that were "left closed for long periods of time" without follow-up bacteriological testing.

234. Subsection (3) of proposed Rule 62-303.360, Florida Administrative Code, reasonably limits the closures, advisories, and warnings upon which the Department will be able to rely in determining whether a water should be placed on the "planning list" pursuant to Subsections (1)(b), (1)(c), or (1)(d) of the proposed rule to those closures, advisories, and warnings based upon "factors . . . related to chronic discharges of pollutants."

235. The TMDL program is designed to deal neither with short-term water quality problems caused by extraordinary events that result in atypical conditions,[52] nor with water quality

problems unrelated to pollutant discharges in this state. It is therefore sensible to not count, for purposes of determining "planning list" eligibility pursuant to Subsections (1)(b), (1)(c), or (1)(d) of proposed Rule 62-303.360, Florida Administrative Code, closures, advisories, and warnings that were issued because of the occurrence of such problems.

236. A "spill," by definition (set out in Subsection (16) of proposed Rule 62-303.200, Florida Administrative Code, which is recited above), is a "short term" event that does not include "sanitary sewer overflows or chronic discharges from leaking wastewater collection systems."

237. While a one-time, unpermitted discharge of sewage (not attributable to "sanitary sewer overflow") is a "short-term" event constituting a "sewage spill," as that term is used in Subsection (3) of proposed Rule 62-303.360, Florida Administrative Code, repeated unpermitted discharges occurring over an extended period of time (with or without interruption) do not qualify as "sewage spills" and therefore Subsection (3) of the proposed rule will not prevent the Department from considering closures, advisories, and warnings based upon such discharges in deciding whether the requirements for listing set forth in Subsections (1)(b), (1)(c), or (1)(d) of the proposed rule have been met.

238. Like "sewage spills," "red tides" are among the events specifically mentioned in Subsection (3) of proposed Rule 62-303.360, Florida Administrative Code.

239. "Red tide" is a "very loose term" that can describe a variety of occurrences.

240. It is apparent from a reading of the language in Subsection (3) of proposed Rule 62-303.360, Florida Administrative Code, in its entirety, that "red tide," as used therein, was intended to describe an event "not related to chronic discharges of pollutants."

241. Department staff's understanding of "red tides" was shaped by comments made at a TAC meeting by one of the TAC members, George Henderson of the Florida Marine Research Institute. Mr. Henderson told those present at the meeting that "red tides are an offshore phenomenon that move on shore" and are fueled by nutrients from "unknown sources" likely located, for the most part, outside of Florida, in and around the Mississippi River. No "contrary scientific information" was offered during the rule development process.[53] Lacking "scientific information" clearly establishing that "red tides," as they understood the term, were the product of "pollutant sources in Florida," Department staff reasonably concluded that closures, advisories, and warnings based upon such "red tides" should not be taken into consideration in deciding whether a

water should be placed on the "planning list" pursuant to Subsections (1)(b), (1)(c), or (1)(d) of proposed Rule 62-303.360, Florida Administrative Code, and they included language in Subsection (3) of the proposed rule to so provide.

242. The "red tides" to which Mr. Henderson referred are harmful algae blooms that form off-shore in the Gulf of Mexico and are brought into Florida coastal waters by the wind and currents. There appears to be an association between these blooms of toxin-producing algae and nutrient enrichment, but the precise cause of these bloom events is "not completely understood." Scientists have not eliminated the possibility that, at least in some instances, these "red tides" are natural phenomena not the result of any pollutant loading either in or outside of Florida. The uncertainty surrounding the exact role, if any, that Florida-discharged pollutants play in the occurrence of the "red tides" referenced in Subsection (3) of proposed Rule 62-303.360, Florida Administrative Code, reasonably justifies the Department's declining, for purposes of determining whether the listing requirements of Subsections (1)(b), (1)(c), or (1)(d) of the proposed rule have been met, to take into consideration closures, advisories, and warnings based upon such "red tides."

243. The exclusions contained in Subsection (3) of proposed Rule 62-303.360, Florida Administrative Code, will have

no effect on the "information" or "data" that the Department will be able to consider under any provision in Part II of the proposed rule chapter other than Subsections (1)(b), (1)(c), and (1)(d) of proposed Rule 62-303.360. This includes the provisions of proposed Rule 62-303.350, Florida Administrative Code, which, as noted above, provides, among other things, that "planning list" eligibility may be based upon "information indicating an imbalance in flora or fauna due to nutrient enrichment, including . . . algal blooms." Accordingly, notwithstanding the "red tides" exclusion in Subsection (3) of proposed Rule 62-303.360, Florida Administrative Code, the presence of algal blooms <u>of any type</u> "indicating an imbalance in flora or fauna due to nutrient enrichment" will result in the affected water making the "planning list" pursuant to proposed Rule 62-303.350, Florida Administrative Code, to be "assessed further for nutrient impairment."

<u>Part II: Proposed Rule 62-303.370, Florida Administrative Code</u>

244. Proposed Rule 62-303.370, Florida Administrative Code, provides three separate ways for a water to "be placed on the planning list for fish and shellfish consumption." It reads as follows:

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) the water segment does not meet the applicable Class II water quality criteria for bacteriological quality based on the methodology described in section 62-303.320, 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) for Class II waters, the water segment includes an area that has been approved for shellfish harvesting by the Shellfish Evaluation and Assessment Program, but which has been downgraded from its initial harvesting classification to a more restrictive classification. Changes in harvesting classification from prohibited to unclassified do not constitute a downgrade in classification.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

245. Subsection (1) of proposed Rule 62-303.370, Florida Administrative Code, which effectively duplicates the provisions of Subsection (1)(a) of proposed Rule 62-303.360, Florida Administrative Code, to the extent that those provisions apply to Class II waters, establishes an appropriate means of determining whether a water should "be placed on the planning list for fish and shellfish consumption."

246. Waters that do not qualify for listing pursuant to Subsection (1) of proposed Rule 62-303.370, Florida Administrative Code, may make the "planning list" based upon "fish consumption advisories" under Subsection (2) of the proposed rule.

247. The Department of Health, which issues these advisories, does so after conducting a statistical evaluation of fish tissue data collected from at least 12 fish.

248. A large number of fish consumption advisories have been issued to date for a number of parameters, including, most significantly, mercury.

249. The first fish consumption advisory was issued in 1989 after "high levels of mercury" were found in the sampled fish tissue.

250. Many fish consumption advisories were issued ten or more years ago and are still in effect.

251. Fish consumption advisories are continued until it is shown that they are not needed.

252. Most of the fish tissue data for the fish consumption advisories now in effect were collected between 1989 and 1992. There is no reason to reject this data as not "being representative of the conditions under which those samples were collected."

253. There has been data collected since 1992, but 1992 was "the last peak year" of sampling.

254. Over the last ten years, the "focus has been on the Everglades" with respect to sampling for mercury, although sampling has occurred in "a broadly representative suite of water bodies statewide."

255. The TAC recommended against using fish consumption advisories for listing coastal and marine waters because of the possibility that these advisories might be based upon tissue samples taken from fish who ingested mercury, or other substances being sampled, outside of the state. Department staff, however, rejected this recommendation and did not include a "coastal and marine waters" exclusion in Subsection (2) of proposed Rule 62-303.370, Florida Administrative Code.

256. The Shellfish Evaluation and Assessment Program, which is referenced in Subsection (3) of proposed Rule 62-303.370, Florida Administrative Code, is administered by the Florida Department of Agriculture and Consumer Services' Division of Aquaculture's Shellfish Environmental Assessment Section. The Shellfish Environmental Assessment Section (SEAS) is responsible for classifying and managing Florida shellfish harvesting areas in a manner that maximizes utilization of the state's shellfish resources and reduces the risk of shellfish-borne illness. In carrying out its responsibilities, the SEAS

applies the "[s]hellfish [h]arvesting [a]rea [s]tandards" set forth in Rule 5L-1.003, Florida Administrative Code, which provides as follows:

> (1) The Department shall describe and/or illustrate harvesting areas and provide harvesting area classifications as approved, conditionally approved, restricted, conditionally restricted, prohibited, or unclassified as defined herein, including criteria for opening and closing shellfish harvesting areas in accordance with Chapters II and IV of the National Shellfish Sanitation Program Model Ordinance. Copies of the document Shellfish Harvesting Area Classification Maps, revised October 14, 2001, and the document Shellfish Harvesting Area Classification Boundaries and Management Plans, revised October 14, 2001, containing shellfish harvesting area descriptions, references to shellfish harvesting area map numbers, and operating criteria herein incorporated by reference may be obtained by writing to the Department at 1203 Governors Square Boulevard, 5th Floor, Tallahassee, Florida 32301.
>
> (2) Approved areas -- Growing areas shall be classified as approved when a sanitary survey, conducted in accordance with Chapter IV of the National Shellfish Sanitation Program Model Ordinance, indicates that pathogenic microorganisms, radionuclides, and/or harmful industrial wastes do not reach the area in dangerous concentrations and this is verified by laboratory findings whenever the sanitary survey indicates the need. Shellfish may be harvested from such areas for direct marketing. This classification is based on the following criteria:
>
> (a) The area is not so contaminated with fecal material or poisonous or deleterious

substances that consumption of the shellfish might be hazardous; and

(b) The bacteriological quality of every sampling station in those portions of the area most probably exposed to fecal contamination shall meet one of the following standards during the most unfavorable meteorological, hydrographic, seasonal, and point source pollution conditions: 1) The median or geometric mean fecal coliform Most Probable Number (MPN) of water shall not exceed 14 per 100 ml., and not more than 10 percent of the samples shall exceed a fecal coliform MPN of 43 per 100 ml. (per 5-tube, 3-dilution test) or 2) The median or geometric mean fecal coliform Most Probable Number (MPN) of water shall not exceed 14 per 100 ml., and not more than 10 percent of the samples shall exceed a fecal coliform MPN of 33 per 100 ml. (per 12-tube, single-dilution test). Harvest from temporarily closed approved areas shall be unlawful.

(3) Conditionally approved areas -- A growing area shall be classified as conditionally approved when a sanitary survey, conducted in accordance with Chapter IV of the National Shellfish Sanitation Program Model Ordinance, indicates that the area is subjected to intermittent microbiological pollution. The suitability of such an area for harvesting shellfish for direct marketing may be dependent upon attainment of established performance standards by wastewater treatment facilities discharging effluent directly or indirectly into the area. In other instances, the sanitary quality of the area may be affected by seasonal populations, climatic and/or hydrographic conditions, non-point source pollution, or sporadic use of a dock, marina, or harbor facility. Such areas shall be managed by an operating procedure that will assure that shellfish from the area are not harvested from waters not

meeting approved area criteria. In order to develop effective operating procedures, these intermittent pollution events shall be predictable. Harvest from temporarily closed conditionally approved areas shall be unlawful.

(4) Restricted areas -- A growing area shall be classified as restricted when a sanitary survey, conducted in accordance with Chapter IV of the National Shellfish Sanitation Program Model Ordinance, indicates that fecal material, pathogenic microorganisms, radionuclides, harmful chemicals, and marine biotoxins are not present in dangerous concentrations after shellfish from such an area are subjected to a suitable and effective purification process. The bacteriological quality of every sampling station in those portions of the area most probably exposed to fecal contamination shall meet the following standard: The median or geometric mean fecal coliform Most Probable Number (MPN) of water shall not exceed 88 per 100 ml. and not more than 10 percent of the samples shall exceed a fecal coliform MPN of 260 per 100 ml. (per 5-tube, 3-dilution test) in those portions of the area most probably exposed to fecal contamination during the most unfavorable meteorological, hydrographic, seasonal, and point source pollution conditions. Harvest is permitted according to permit conditions specified in Rule 5L-1.009, F.A.C. Harvest from temporarily closed restricted areas shall be unlawful.

(5) Conditionally restricted area -- A growing area shall be classified as conditionally restricted when a sanitary survey or other monitoring program data, conducted in accordance with Chapter IV of the National Shellfish Sanitation Program Model Ordinance, indicates that the area is subjected to intermittent microbiological pollution. The suitability of such an area

for harvest of shellfish for relaying or depuration activities is dependent upon the attainment of established performance standards by wastewater treatment facilities discharging effluent, directly or indirectly, into the area. In other instances, the sanitary quality of such an area may be affected by seasonal population, non-point sources of pollution, or sporadic use of a dock, marina, or harbor facility, and these intermittent pollution events are predictable. Such areas shall be managed by an operating procedure that will assure that shellfish from the area are not harvested from waters not meeting restricted area criteria. Harvest is permitted according to permit conditions specified in Rule 5L-1.009, F.A.C. Harvest from temporarily closed conditionally restricted areas shall be unlawful.

(6) Prohibited area -- A growing area shall be classified as prohibited if a sanitary survey indicates that the area does not meet the approved, conditionally approved, restricted, or conditionally restricted classifications. Harvest of shellfish from such areas shall be unlawful. The waters of all man-made canals and marinas are classified prohibited regardless of their location.

(7) Unclassified area -- A growing area for which no recent sanitary survey exists, and it has not been classified as any area described in subsections (2), (3), (4), (5), or (6) above. Harvest of shellfish from such areas shall be unlawful.

(8) Approved or conditionally approved, restricted, or conditionally restricted waters shall be temporarily closed to the harvesting of shellfish when counts of the red tide organism Gymnodinium breve[54] exceed 5000 cells per liter in bays, estuaries, passes or inlets adjacent to shellfish harvesting areas. Areas closed to

harvesting because of presence of the red tide organism shall not be reopened until counts are less than or equal to 5000 cells per liter inshore and offshore of the affected shellfish harvesting area, and shellfish meats have been shown to be free of toxin by laboratory analysis.

(9) The Department is authorized to open and temporarily close approved, conditionally approved, restricted, or conditionally restricted waters for harvesting of shellfish in emergencies as defined herein, in accordance with specific criteria established in operating procedures for predictively closing individual growing areas, or when growing areas do not meet the standards and guidelines established by the National Shellfish Sanitation Program
.

(10) Operating procedures for predictively closing each growing area shall be developed by the Department; local agencies, including those responsible for operation of sewerage systems, and the local shellfish industry may be consulted for technical information during operating procedure development. The predictive procedure shall be based on evaluation of potential sources of pollution which may affect the area and should establish performance standards, specify necessary safety devices and measures, and define inspection and check procedures.

257. Under Subsection (3) of proposed Rule 62-303.370, Florida Administrative Code, only the "downgrading" of an area initially approved for shellfish harvesting to a more restrictive classification will cause a Class II water to be "placed on the planning list for fish and shellfish consumption."

258. The temporary closure of an approved harvesting area will not have the same result.

259. Temporary closures of harvesting areas are not uncommon. These closures typically occur when there is heavy local rainfall or flooding events upstream, which result in high fecal coliform counts in the harvesting areas.

260. While these areas are not being harvested during these temporary closures, "[p]ropagation is probably maximized in closure conditions." This is because, during these periods, there are "more nutrients for [the shellfish] to consume" inasmuch as the same natural events that cause fecal coliform counts to increase also bring the nutrients (in the form detritus) into the area.

261. The Department of Agriculture and Consumer Services (DACS) does not reclassify an area simply because there have been short-term events, like sewage spills or extraordinary rain events, that have resulted in the area's temporary closure.

262. Where there are frequent, extended periods of closures due to high fecal coliform counts in an area that exceed Class II water quality criteria for bacteriological quality, however, one would reasonably expect that reclassification action would be taken.

263. Even if the DACS does not take such action, the water may nonetheless qualify for placement on the "planning list"

pursuant to Subsection (1) of proposed Rule 62-303.370, Florida Administrative Code, based upon the fecal coliform data relied upon by the DACS in closing the area, provided the data meets the requirements set forth in proposed Rule 62-303.320, Florida Administrative Code.

264. The DACS has never reclassified an area from "prohibited" to "unclassified."

265. David Heil, the head of the SEAS, made a presentation at the April 20, 2000, TAC meeting, during which he enumerated various ways that the Department could determine "impairment as it relates to shellfish harvesting waters" and recommended, over the others, one of those options: combination of the average number and duration of closures over time.

266. None of the options listed by Mr. Heil, including his top recommendation, were incorporated in proposed Rule 62-303.370, Florida Administrative Code. The TAC and Department staff looked into the possibility of using the option touted by Mr. Heil, but determined that it would not be practical to do so. Relying on the DACS' reclassification of harvesting areas was deemed to be a more practical approach that was "consistent with the way the Department classifies waters as Class II and therefore it was included in the proposed rule."[55]

Part II: Proposed Rule 62-303.380, Florida Administrative Code

267. Proposed Rule 62-303.380, Florida Administrative Code, provides three separate ways for a water to "be placed on the planning list for drinking water use support" and, in addition, addresses "human-health based criteria" not covered elsewhere in Part II of the proposed rule chapter. It reads as follows:

> Drinking Water Use Support and Protection of Human Health.
>
> (1) A Class I water shall be placed on the planning list for drinking water use support if:
>
> (a) the water segment does not meet the applicable Class I water quality criteria based on the methodology described in section 62-303.320, or
>
> (b) a public water system demonstrates to the Department that either:
>
> 1. Treatment costs to meet applicable drinking water criteria have increased by at least 25% to treat contaminants that exceed Class I criteria or to treat blue-green algae or other nuisance algae in the source water, or
>
> 2. the system has changed to an alternative supply because of additional costs that would be required to treat their surface water source.
>
> (c) When determining increased treatment costs described in paragraph (b), costs due solely to new, more stringent drinking water requirements, inflation, or increases in costs of materials shall not be included.

(2) A water shall be placed on the planning list for assessment of the threat to human health if:

(a) for human health-based criteria expressed as maximums, the water segment does not meet the applicable criteria based on the methodology described in section 62-303.320, or

(b) for human health-based criteria expressed as annual averages, the annual average concentration for any year of the assessment period exceeds the criteria. To be used to determine whether a water should be assessed further for human-health impacts, data must meet the requirements of paragraphs (2), (3), (6), and (7) in rule 62-303.320.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

268. Use of the statistical "methodology described in [proposed Rule] 62-303.320," Florida Administrative Code, is not only appropriate (as discussed above) for making "planning list" determinations based upon "[e]xceedances of [a]quatic [l]ife-[b]ased [c]riteria" and "water quality criteria for bacteriological quality," it is also a reasonable way to determine whether a water should "be placed on the planning list for drinking water use support" based upon exceedances of "applicable Class I water quality criteria" (as Subsection (1)(a) of proposed Rule 62-303.380, Florida Administrative Code, provides) and to determine whether a water should "be placed on the planning list for assessment of the threat to human health"

based upon exceedances of other "human-health based criteria expressed as maximums" (as Subsection (2)(a) of the proposed Rule 62-303.380, Florida Administrative Code, provides).

269. Subsection (1)(b) was included in proposed Rule 62-303.380, Florida Administrative Code, because the TAC and Department staff wanted "some other way," besides having the minimum number of exceedances of "applicable Class I water quality criteria" required by Subsection (1)(a) of the proposed rule, for a Class I water to qualify for "place[ment] on the planning list for drinking water use support."

270. Looking at the costs necessary for public water systems to treat surface water,[56] as Subsection (1)(b) of proposed Rule 62-303.380, Florida Administrative Code, allows, is a reasonable alternative means of determining whether a Class I water should be "placed on the planning list for drinking water use support."

271. Under Subsection (1)(b) of proposed Rule 62-303.380, Florida Administrative Code, the cost analysis showing that the requirements for listing have been met must be provided by the public water system. This burden was placed on the public water system because the Department "does not have the resources to do that assessment on [its] own."

272. The Department cannot be fairly criticized for not including in Subsection (1)(b)1. of proposed Rule 62-303.380,

Florida Administrative Code, references to the other contaminants (in addition to blue-green algae) that have "been put on a list by the EPA to be . . . evaluated for future regulations" inasmuch as there are no existing criteria in Chapter 62-302, Florida Administrative Code, specifically relating to these contaminants.

273. Particularly when read together with the third sentence of Subsection (1) of proposed Rule 62-303.300 (which provides that "[i]t should be noted water quality criteria are designed to protect either aquatic life use support, which is addressed in sections 62-303.310-353, or to protect human health, which is addressed in sections 62-303.360-380"), it is clear that the "human health-based criteria" referenced in Subsection (2) of proposed Rule 62-303.380, Florida Administrative Code, are those numerical criteria in Rule Chapter 62-302, Florida Administrative Code, designed to protect human health.

274. While laypersons not familiar with how water quality criteria are established may not be able to determine (by themselves) which of the numerical water quality criteria in Rule Chapter 62-302, Florida Administrative Code, are "human health-based," as that term is used Subsection (2) of proposed Rule 62-303.380, Florida Administrative Code, Department staff

charged with the responsibility of making listing decisions will be able to so.

275. "[H]uman health-based criteria" for non-carcinogens are "expressed as maximums" in Rule Chapter 62-302, Florida Administrative Code.

276. "[H]uman health-based criteria" for carcinogens are "expressed as annual averages" in Rule Chapter 62-302, Florida Administrative Code.

277. "Annual average," as that term is used in Rule Chapter 62-302, Florida Administrative Code, is defined therein as "the maximum concentration at average annual flow conditions. (see Section 62-4.020(1), F.A.C.)." Subsection (1) of Rule 62-4.020, Florida Administrative Code, provides that "[a]verage [a]nnual [f]low "is the long-term harmonic mean flow of the receiving water, or an equivalent flow based on generally accepted scientific procedures in waters for which such a mean cannot be calculated."

278. The "annual mean concentration" is not exactly the same as, but it does "generally approximate" and is "roughly equivalent to," the "maximum concentration at average annual flow conditions."

279. Using "annual mean concentrations" to determine whether there have been exceedances of a "human health-based criteria expressed as annual averages" is a practical approach

that makes Subsection (2)(b) of proposed Rule 62-303.380, Florida Administrative Code, more easily "implementable" inasmuch as it obviates the need to calculate the "average annual flow," which is a "fairly complicated" exercise requiring "site-specific flow data" not needed to determine the "annual mean concentration."[57]

280. Subsection (2)(b) of proposed Rule 62-303.380, Florida Administrative Code, does not impose any minimum sample size requirements, and it requires only one exceedance of any "human health-based criteri[on] expressed as [an] annual average[]" for a water to be listed. The limitations it places on the data that can be considered (by incorporating by reference the provisions of Subsections (2), (3), (6), and (7) of proposed Rule 62-303.320, Florida Administrative Code, which have been discussed above) are reasonable.

Part III: Overview

281. Part III of proposed Rule Chapter 62-303, Florida Administrative Code, contains the following provisions, which describe the "verified list" of impaired waters for which TMDLs will be calculated, how the list will be compiled, and the manner in which waters on the list will be "prioritized" for TMDL development: Proposed Rules 62-303.400, 62-303.420, 62-303.430, 62-303.440, 62-303.450, 62-303.460, 62-303.470, 62-

303.480, 62-303.500, 62-303.600, 62-303.700, and 62-303.710, Florida Administrative Code.

Part III: Proposed Rule 62-303.400, Florida Administrative Code

282. Proposed Rule 62-303.400, Florida Administrative Code, is entitled, "Methodology to Develop the Verified List," and reads as follows:

> (1) Waters shall be verified as being impaired if they meet the requirements for the planning list in Part II and the additional requirements of sections 62-303.420-.480. A water body that fails to meet the minimum criteria for surface waters established in Rule 62-302.500, F.A.C.; any of its designated uses, as described in this part; or applicable water quality criteria, as described in this part, shall be determined to be impaired.
>
> (2) Additional data and information collected after the development of the planning list will be considered when assessing waters on the planning list, provided it meets the requirements of this chapter. In cases where additional data are needed for waters on the planning list to meet the data sufficiency requirements for the verified list, it is the Department's goal to collect this additional data[58] as part of its watershed management approach, with the data collected during either the same cycle that the water is initially listed on the planning list (within 1 year) or during the subsequent cycle (six years). Except for data used to evaluate historical trends in chlorophyll a or TSIs, the Department shall not use data that are more than 7.5 years old at the time the water segment is proposed for listing on the verified list.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

283. Pursuant to the first sentence of proposed Rule 62-303.400, Florida Administrative Code, if a water qualifies for placement on the "planning list" under a provision in Part II of the proposed rule chapter that does not have a counterpart in proposed Rules 62-303.420 through 62-303.480, Florida Administrative Code, that water will automatically be "verified as being impaired." Examples of provisions in Part II of the proposed rule chapter that do not have counterparts in proposed Rules 62-303.420 through 62-303.480, Florida Administrative Code, are: the provision in Subsection (3) of proposed Rule 62-303.330, Florida Administrative Code, that "water segments with at least . . . one failure of the biological integrity standard, Rule 62-302.530(11), shall be included on the planning list for assessment of aquatic life use support"; Subsection (1) of proposed Rule 62-303.370, Florida Administrative Code, which provides that a water will be placed on the "planning list" if it "does not meet applicable Class II water quality criteria for bacteriological quality based upon the methodology described in section 62-303.320," Florida Administrative Code; Subsection (3) of proposed Rule 62-303.370, Florida Administrative Code, which provides that a Class II water will be placed on the "planning list" if it "includes an area that has been approved for

shellfish harvesting by the Shellfish Evaluation and Assessment Program, but which has been downgraded from its initial harvesting classification to a more restrictive classification"; and Subsection (1)(b) of proposed Rule 62-303.380, Florida Administrative Code, pursuant to which a water may qualify for "planning list" placement based upon water treatment costs under the circumstances described therein. Waters that are "verified as being impaired," it should be noted, will not automatically qualify for placement on the "verified list." They will still have to be evaluated in light of the provisions (which will be discussed later in greater detail) of proposed Rule 62-303.600, Florida Administrative Code (relating to "pollution control mechanisms") and those of proposed Rules 62-303.700 and 62-303.710, Florida Administrative Code (which require that the Department identify the "pollutant(s)" and "concentration(s)" that are "causing the impairment" before placing a water on the "verified list").

284. Of the "minimum criteria for surface waters established in Rule 62-302.500, F.A.C.," the only ones addressed anywhere in proposed Rules 62-303.310 through 62-303.380 and 62-303.410 through 62-303.480, Florida Administrative Code, are the requirement that surface water not be "acutely toxic" and the requirement that predominantly marine waters not have silver in concentrations above 2.3 micrograms per liter. In determining

whether there has been a failure to meet the remaining "minimum criteria," the Department will exercise its "best professional judgment."

285. Like the second sentence of Proposed Rule 62-303.300, Florida Administrative Code, the second sentence of proposed Rule 62-303.400, Florida Administrative Code, incorporates the concept of "independent applicability" by providing that only one of the listed requirements need be met for a water to be deemed "impaired."

286. Neither Subsection (1) of proposed Rule 62-303.400, Florida Administrative Code, nor any other provision in the proposed rule chapter, requires that a water be on the "planning list" as a prerequisite for inclusion on the "verified list." Indeed, a reading of Subsection (3)(c) of proposed Rule 62-303.500, Florida Administration, the "prioritization" rule, which will be discussed later, leaves no reasonable doubt that, under the proposed rule chapter, a water can be placed on the "verified list" without having first been on the "planning list."

287. The second sentence of Subsection (2) of proposed Rule 62-303.400, Florida Administrative Code, indicates <u>when</u> the Department hopes to be able to collect the "additional data needed for waters on the planning list to meet the [more rigorous] data sufficiency requirements for the verified list,"

which data the Department pledges, in subsequent provisions of Part III of the proposed rule chapter, will be collected (at some, unspecified time).

288. The Department did not want to create a mandatory timetable for its collection of the "additional data" because it, understandably, wanted to avoid making a commitment that, due to funding shortfalls that might occur in the future, it would not be able to keep.[59]

289. If it has the funds to do so, the Department intends to collect the "additional data" within the time frame indicated in the second sentence of proposed Rule 62-303.400, Florida Administrative Code.

290. The Department will not need to collect this "additional data" if the data is collected and presented to the Department by an "interested party" outside the Department. (The proposed rule chapter allows data collected by outside parties to be considered by the Department in making listing decisions, provided the data meets the prescribed quality requirements.)

291. Requiring (as the third and final sentence of Subsection (2) of proposed Rule 62-303.400, Florida Administrative Code, does) that all data relied upon by the Department for placing waters on the "verified list," except for data establishing "historical trends in chlorophyll a or TSIs,"

under no circumstances be older than "7.5 years old at the time the water segment is proposed for listing on the verified list" is a reasonable requirement designed to avoid final listing decisions based upon outdated data not representative of the water's current conditions.

292. As noted above, the TAC recommended that listing decisions be based upon data no older than five years old. Wanting to "capture as much data for the assessment process" as reasonably possible, Department staff determined that the appropriate maximum age of data should be two and half years older than that recommended by the TAC (the two and a half years representing the amount of time it could take to "do additional data collection" following the creation of the "planning list").

Part III: Proposed Rule 62-303.410, Florida Administrative Code

293. Proposed Rule 62-303.410, Florida Administrative Code, is entitled, "Determination of Aquatic Life Use Support," and provides as follows:

> Failure to meet any of the metrics used to determine aquatic life use support listed in sections 62-303.420-.450 shall constitute verification that there is an impairment of the designated use for propagation and maintenance of a healthy, well-balanced population of fish and wildlife.
>
> Specific Authority 403.061, 403.067, FS.
> Law Implemented 403.062, 403.067, FS.
> History -- New

294. Like proposed Rule 62-303.310, Florida Administrative Code, its analogue in Part II of the proposed rule chapter, proposed Rule 62-303.410, Florida Administrative Code, incorporates the concept of "independent applicability." A failure of any of the "metrics" referenced in the proposed rule will result in "verification" of impairment.

Part III: Proposed Rule 62-303.420, Florida Administrative Code

295. Proposed Rule 62-303.420, Florida Administrative Code, the counterpart of proposed Rule 62-303.320, Florida Administrative Code, establishes a reasonable statistical method, involving binomial distribution analysis, to verify impairment based upon "[e]xceedances of [a]quatic [l]ife-[b]ased [w]ater [q]uality [c]riteria" due to pollutant discharges. It reads as follows:

> Exceedances of Aquatic Life-Based Water Quality Criteria
>
> (1) The Department shall reexamine the data used in rule 62-303.320 to determine exceedances of water quality criteria.
>
> (a) If the exceedances are not due to pollutant discharges and reflect either physical alterations of the water body that cannot be abated or natural background conditions, 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 cannot clearly establish that the exceedances are due to natural background or physical alterations of the water body but the Department believes the exceedances are not due to pollutant discharges, it is the Department's intent to determine whether aquatic life use support is impaired through the use of bioassessment procedures referenced in section 62-303.330. The water body or segment shall not be included on the verified list for the parameter of concern if two or more independent bioassessments are conducted and no failures are reported. To be treated as independent bioassessments, they must be conducted at least two months apart.

(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 section 303.320(4) 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 rule 62-303.320(1), but using Table 2, which provides the number of exceedances that indicate a minimum of a 10% exceedance frequency 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.

Table 2: Verified List

Minimum number of measured exceedances needed to put a water on the Planning list with at least 90% confidence that the actual

exceedance rate is greater than or equal to ten percent.

Sample Sizes		Are listed if they have at least this # of exceedances
From	To	
20	25	5
26	32	6
33	40	7
41	47	8
48	55	9
56	63	10
64	71	11
72	79	12
80	88	13
89	96	14
97	104	15
105	113	16
114	121	17
122	130	18
131	138	19
139	147	20
148	156	21
157	164	22
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
254	262	33
263	270	34
271	279	35
280	288	36
289	297	37
298	306	38
307	315	39
316	324	40
325	333	41
334	343	42

344	352	43
353	361	44
362	370	45
371	379	46
380	388	47
389	397	48
398	406	49
407	415	50
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 water was placed on the planning list based on worst case values used to represent multiple samples taken during a seven 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 rule 62-303.420(2), using the more representative worst case value or, if all valid values are below acutely toxic levels, the median value.

(4) If the water was listed on the planning list based on exceedances of water quality criteria for metals, the metals data shall be validated to determine whether the quality assurance requirements of rule 62-303.320(7) are met and whether the sample was both collected and analyzed using clean techniques, if the use of clean techniques is appropriate. If any data cannot be validated, the Department shall re-evaluate the remaining valid data using the methodology in rule 62-303.420(2), 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. 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 rules 62-303.420(2) or 62-303.320(5)(b).

Specific Authority: 403.061, 403.067, FS.
Law Implemented: 403.021(11), 403.062, 403.067, FS.
History -- New

296. The TMDL program is intended to address only water quality impairment resulting from pollutant discharges (from point or non-point sources), as is made clear by a reading of Section 403.067, Florida Statutes, particularly Subsection 6(a)2. thereof (which, as noted above, provides that, "[f]or waters determined to be impaired due solely to factors other than point and nonpoint sources of pollution, no maximum daily

load will be required"). Subsection (1)(a) of proposed Rule 62-303.420(1)(a), Florida Administrative Code, is in keeping with this intent.

297. Subsection (1)(b) of proposed Rule 62-303.420, Florida Administrative Code, should be read together with Subsection (1)(a) of the proposed rule. The "physical alterations of the water body" referred to in Subsection (1)(b) are the same type of "physical alterations" referred to in Subsection (1)(a), to wit: "physical alterations of the water body <u>that cannot be abated</u>."

298. "Best professional judgment" will be used by the Department in determining, as it must under Subsection (1) of proposed Rule 62-303.420, Florida Administrative Code, whether or not exceedances are due to pollutant discharges.

299. If the Department, exercising its "best professional judgment," finds that there is not proof "<u>clearly</u> establish[ing] that the exceedances are due to natural background or physical alterations of the water body but the Department believes the exceedances are not due to pollutant discharges," the Department, pursuant to Subsection (1)(b) of proposed Rule 62-303.420, Florida Administrative Code, will determine whether the water in question should be "verified as impaired" for aquatic life use support by relying on "[b]iological [a]ssessment[s]" conducted in accordance with the procedures set forth in

proposed Rule 62-303.330, Florida Administrative Code (which, among other things, prohibit reliance on "[b]iological [a]ssessment[s]" based on "data older than ten years"). The results of these "[b]iological [a]ssessment[s]" will not make the Department any better able to "answer the question of whether natural background or physical alterations were responsible for [the] exceedances," but, as noted above, it will enable the Department to make a more informed decision about the overall ability of the water to sustain aquatic life. Subsection (1)(b) of proposed Rule 62-303.420, Florida Administrative Code, reasonably provides that the water will not be "verified as impaired" for aquatic life use support if there have been two or more "[b]iological [a]ssessment[s]" conducted at least two months apart over the last ten years and "no failures [have been] reported." That a water has "passe[d]" these "[b]iological [a]ssessment[s]" establishes "that aquatic life use support is being maintained" and, under such circumstances, it would be inappropriate to include that water on the "verified list."

300. Looking at just the data "from the last five years preceding the planning list assessment," as the first sentence of Subsection (2) of proposed Rule 62-303.420, Florida Administrative Code, requires the Department to do, rather than all of the data supporting the placement of the water in

question on the "planning list," regardless of when the data was collected, makes sense because, to properly discharge its responsibilities under Section 403.067, Florida Statutes, the Department must ascertain what the current overall condition of the water in question is.

301. As noted above, Subsection (2) of proposed Rule 62-303.420, Florida Administrative Code, requires a "minimum sample size for verification [of impairment based upon "[e]xceedances of [a]quatic [l]ife-[b]ased [w]ater [q]uality [c]riteria]" of twenty samples," with no exceptions. While this is more than the number of samples required for "planning list" compilation purposes under proposed Rule 62-303.320, Florida Administrative Code, it "is a very small number of samples relative to the [number of] samples that [the Department] would need to take to do a TMDL." Furthermore, unlike any provision in proposed Rule 62-303.320, Florida Administrative Code, Subsection (2) of proposed Rule 62-303.420, Florida Administrative Code, provides that, if a water (on the "planning list") lacks the required minimum number of samples, the "additional data" needed to meet the minimum sample requirement "will be collected" (at some unspecified time in the future). Because these additional samples "will be collected," the requirement of proposed Rule 62-303.420, Florida Administrative Code, that there be a minimum of 20 samples should not prevent deserving waters from

ultimately being "verified as impaired" under the proposed rule (although it may serve to delay such "verification"). Such delay would occur if a water on the "planning list" had five or more exceedances within the "last five years preceding the planning list assessment" (five being the minimum number of exceedances required for "verification" under proposed Rule 62-303.420, Florida Administrative Code), but these exceedances were based on fewer than 20 samples. The additional samples that would need to be collected to meet the minimum sample size requirement of Subsection (2) of proposed Rule 62-303.420, Florida Administrative Code, would have no effect on the Department's "verification" determination, even if these samples yielded no exceedances, given that proposed Rule 62-303.420, Florida Administrative Code, does not contain any provision comparable to Subsection (3) of Rule 62-303.320, Florida Administrative Code, providing that, under certain circumstances, "more recent data" may render "older data" unusable.[60] The water would qualify for "verification" regardless of what the additional samples revealed. That is not to say, however, that taking these additional samples would serve no useful purpose. Data derived from these additional collection efforts (shedding light on the severity of the water quality problem) could be used by the Department to help it "establish priority rankings and schedules by which water bodies

or segments will be subjected to total maximum daily load calculations," as the Department is required to do pursuant to Subsection (4) of Section 403.067, Florida Statutes.

302. The "calculations [reflected in the table, Table 2, which is a part of Subsection (2) of proposed Rule 62-303.420, Florida Administrative Code] are correct." They are based on "a minimum of a 10% exceedance frequency with a minimum of a 90% confidence level using a binomial distribution." As noted above, the Department did not act unreasonably in selecting this "exceedance frequency" and "confidence level" for use in determining which waters should be "verified as impaired" based upon "[e]xceedances of [a]quatic [l]ife-[b]ased [w]ater [q]uality [c]riteria."

303. Subsection (4) of proposed Rule 62-303.420, Florida Administrative Code, imposes reasonable quality assurance requirements that must be met in order for "metals data" to be considered "valid" for purposes of determining whether a water has the minimum number of exceedances needed to be "verified as impaired" under the proposed rule.

304. It requires that "Method 1669"-permitted procedures be used <u>only</u> where these procedures are "appropriate." Determining the appropriateness of these procedures in a particular case will require the Department to exercise its "best professional judgment," taking into consideration the

amount of the metal in question needed to violate the applicable water quality criterion, in relation to the amount of contamination that could be expected to occur during sample collection and analysis if conventional techniques were used. Doing so should result in "Method 1669"-permitted procedures being deemed "appropriate" in only a few circumstances: when a water is being tested to determine if it exceeds the applicable criterion for mercury, and when testing low hardness waters[61] for exceedances of the applicable criterion for cadmium and lead. It is necessary to use "Method 1669"-permitted procedures in these instances to prevent test results that are tainted by contamination occurring during sample collection and analysis.

305. Subsection (5) of proposed Rule 62-303.420, Florida Administrative Code, reasonably excludes other data from the "verification" process. It contains the same exclusions that pursuant to Subsection (6) of proposed Rule 62-303.320, Florida Administrative Code, apply in determining whether a water should be placed on the "planning list" based upon "[e]xceedances of [a]quatic [l]ife-[b]ased [w]ater [q]uality [c]riteria" ("[v]alues that exceed possible physical or chemical measurement constraints (pH greater than 14, for example) or that represent data transcription errors, [and] outliers the Department determines are not valid measures of water quality"), plus additional exclusions.

306. Among the additional types of data that will be excluded from consideration under Subsection (5) of proposed Rule 62-303.420, Florida Administrative Code, are "exceedances due solely to violations of specific effluent limitations contained in state permits authorizing discharges to surface waters."

307. Permit violations, by themselves, can cause water quality impairment; however, as the Department has reasonably determined, the quickest and most efficient way to deal with such impairment is to take enforcement action against the offending permittee. To take the time and to expend the funds to develop and implement a TMDL[62] to address the problem, instead of taking enforcement action, would not only be unwise and an imprudent use of the not unlimited resources available to combat poor surface water quality in this state, but would also be inconsistent with the expression of legislative intent in Subsection (4) of Section 403.067, Florida Statutes, that the TMDL program not be utilized to bring a water into compliance with water quality standards where "technology-based effluent limitations [or] other pollution control programs under local, state, or federal authority" are sufficient to achieve this result.

308. It is true that the Department has not stopped, through enforcement, all permit violations and that, as Mr.

Joyner acknowledged during his testimony at the final hearing, "there are certain cases out there where there are chronic violations of permits." The appropriate response to this situation, however, is for the Department to step up its enforcement efforts, not for it to develop and implement TMDLs for those waters that, but for these violations, would not be impaired. (Citizens dissatisfied with the Department's enforcement efforts can themselves take action, pursuant to Section 403.412(2), Florida Statutes, to seek to enjoin permit violations.)

309. It will be "extremely difficult" to know whether exceedances are due solely to permit violations. Because of this, it does not appear likely that the Department "will be using [the permit violation exclusion contained in] proposed [R]ule [62-303.420(5), Florida Administrative Code] very often."

310. Subsection (5) of proposed Rule 62-303.420, Florida Administrative Code, will not exclude from consideration all water quality criteria exceedances in mixing zones . Only those exceedances relating to the parameters "for which the mixing zones are in effect" will be excluded. The exclusion of these exceedances is appropriate inasmuch as, pursuant to the Department's existing rules establishing the state's water quality standards (which the Legislature made clear, in Subsections (9) and (10) of Section 403.067, Florida Statutes,

it did not, by enacting Section 403.067, intend to alter or limit), these exceedances are permitted and not considered to be violations of water quality standards.

311. To the extent that there may exist "administratively-continued" permits (that is, permits that remain in effect while a renewal application is pending, regardless of their expiration date) which provide for outdated "mixing zones," this problem should be addressed through the permitting process, not the TMDL program.

312. A "contaminant spill," as that term is used in Subsection (5) of proposed Rule 62-303.420, Florida Administrative Code, is a short-term, unpermitted discharge [of contaminants[63]] to surface waters." (See Subsection (16) of proposed Rule 62-303.200, Florida Administrative Code, recited above, which defines "spill," as it is used in the proposed rule chapter). It is well within the bounds of reason to exclude from consideration (as Subsection (5) of proposed Rule 62-303.420, Florida Statutes, indicates the Department will do in deciding whether a water should be "verified as being impaired" under the proposed rule) data collected in such proximity in time to a "contaminant spill" that it reflects only the temporary effects of that "short-term" event (which are best addressed by the Department taking immediate action), rather than reflecting a chronic water quality problem of the type the

TMDL program is designed to help remedy. In deciding whether this exclusion applies in a particular case, the Department will need to exercise its "best professional judgment" to determine whether the post-"contaminant spill" data reflects a "short-term" water quality problem attributable to the "spill" (in which case the exclusion will apply) or whether, instead, it reflects a chronic problem (in which case the exclusion will not apply).

313. "Bypass" is defined in Subsection (4) of Rule 62-620.200, Florida Administrative Code, as "the intentional diversion of waste streams from any portion of a treatment works." "Upset" is defined in Subsection (50) of Rule 62-620.200, Florida Administrative Code, as follows:

> "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee.
>
> (a) An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation.
>
> (b) An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of upset provisions of Rule 62-620.610, F.A.C., are met.

The "upset provisions of Rule 62-620.610, F.A.C." are as follows:

> (23) Upset Provisions.
>
> (a) A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
>
> 1. An upset occurred and that the permittee can identify the cause(s) of the upset;
>
> 2. The permitted facility was at the time being properly operated;
>
> 3. The permittee submitted notice of the upset as required in condition (20) of this permit; and
>
> 4. The permittee complied with any remedial measures required under condition (5) of this permit.
>
> (b) In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
>
> (c) Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

Rule 62-620.610, Florida Administrative Code, also contains "[b]ypass [p]rovisions," which provide as follows:

> (22) Bypass Provisions.
>
> (a) Bypass is prohibited, and the Department may take enforcement action

against a permittee for bypass, unless the permittee affirmatively demonstrates that:

1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

3. The permittee submitted notices as required under condition (22)(b) of this permit.

(b) If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in condition (20) of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

(c) The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in condition (22)(a)1. through 3. of this permit.

> (d) A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of condition (22)(a) through (c) of this permit.

314. The "bypasses" to which the Department refers in Subsection (5) of proposed Rule 62-303.420, Florida Administrative Code, are those that are not prohibited (as Mr. Joyner testified and is evidenced by the grouping of "bypasses" in the same provision with "upsets" and by the fact that there is another provision in Subsection (5) of the proposed rule that deals with permit violations).

315. Since these types of bypasses, as well as upsets, are exceptional events that, under the Department's existing rules, are allowed to occur without the permittee being guilty of a permit violation, it is reasonable, in verifying impairment under proposed Rule 62-303.420, Florida Administrative Code, to discount data tainted by their occurrence, which reflect atypical conditions resulting from legally permissible discharges.

316. The "25-year, 24-hour storm" exclusion was included in Subsection (5) of proposed Rule 62-303.420, Florida Administrative Code, in response to the TAC's recommendation that the proposed rule "exclude data from extreme storm events."

317. The "25-year, 24-hour storm" is "commonly used in the regulatory context as a dividing line between extremely large rainfall events and less extreme events."

318. It is a rainfall event (or as one witness, the chief of the Department's Bureau of Watershed Management, Eric Livingston, put it, a "gully washer") that produces an amount of rainfall within 24 hours that is likely to be exceeded on the average only once in 25 years.

319. In Florida, that amount is anywhere from about eight to 11 inches, depending on location.

320. Because a "25-year, 24-hour storm" is an extraordinary rainfall event that creates abnormal conditions in affected waters, there is reasonable justification for the Department's not considering, in the "verification" process under proposed Rule 62-303.420, Florida Administrative Code, "25-year, 24-hour storm"-impacted data.

321. This should result in the exclusion of very little data. Data collected following less severe rainfall events (of which there are many in Florida)[64] will be unaffected by the "25-year, 24-hour storm" exclusion in Subsection (5) of proposed Rule 62-303.420, Florida Administrative Code.

Part III: Proposed Rule 62-303.430, Florida Administrative Code

322. Proposed Rule 62-303.430, Florida Administrative Code, the counterpart of proposed Rule 62-303.330, Florida Administrative Code, establishes a reasonable non-statistical approach, involving "[b]iological [a]ssessment," to be used as an alternative to the statistical method described in proposed Rule 62-303.420, Florida Administrative Code, in verifying aquatic life use support impairment. Proposed Rule 62-303.430, Florida Administrative Code, reads as follows:

> Biological Impairment
>
> (1) All bioassessments used to list a water 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 bioassessments conducted before the adoption of applicable SOPs for such bioassessments as part of Chapter 62-160 shall substantially comply with the subsequent SOPs.
>
> (2) If the water was listed on the planning list based on bioassessment results, the water shall be determined to be biologically impaired if 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 rule 62-303.330(4) indicating biological impairment, the Department will conduct a bioassessment in the water segment, conducted in accordance with the methodology in rule 62-303.330, to verify whether the water is impaired. For streams, the bioassessment shall be an SCI. Failure of this bioassessment shall constitute verification that the water is biologically impaired.

(4) Following verification that a water 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 pollutants are associated with the observed biological effect.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

323. Subsection (1) of proposed Rule 62-303.430, Florida Administrative Code, was written in anticipation of the "adoption of applicable SOPs" for BioRecons, SCIs, and LCIs "as part of [Rule] Chapter 62-160," Florida Administrative Code, subsequent to the adoption of the proposed rule chapter. As noted above, at the time of the final hearing in these cases, the Department was in the process of engaging in rulemaking to incorporate in Rule Chapter 62-160, Florida Administrative Code, the SOPs for BioRecons, SCIs, and LCIs that Department personnel currently use to conduct these "[b]iological [a]ssessment[s]." Until the rulemaking process is completed and any amendments to Rule Chapter 62-160, Florida Administrative Code, become effective,[65] to be "used to list a water on the verified list" pursuant to Subsection (1) of proposed Rule 62-303.430, Florida Administrative Code, "[b]iological [a]assessment[s]" need meet only the quality assurance requirements of the pre-amendment version of Rule Chapter 62-160 (which does not include SOPs for BioRecons, SCIs and LCIs). Once the amendments become effective, however, "[b]iological [a]assessment[s]," both pre- and post-amendment, will have to have been conducted in substantial compliance with the applicable SOPs included in the new version of Rule Chapter 62-160. No "[b]iological

[a]assessment" will be rejected under Subsection (1) of proposed Rule 62-303.430, Florida Administrative Code, because it fails to comply with an SOP that, at the time of the "verification" determination, has not been made a part of the Department's rules.

324. The TAC-approved requirement of Subsection (2) of proposed Rule 62-303.430, Florida Administrative Code, that there be at least "two failed bioassessments during the last five years preceding the planning list assessment" (as opposed to a longer period of time) in order for a water to be "verified as being [biologically] impaired," without the need to conduct another "[b]iological [a]assessment," is reasonably designed to avoid listing decisions that are based upon test results not representative of the existing overall biological condition of the water in question. Two such failed "[b]iological [a]assessment[s]" will provide the Department with a greater degree of assurance that the water truly suffers from "biological impairment" than it would have if only one failed "[b]iological [a]assessment" was required.

325. If there are fewer than "two failed bioassessments during the last five years preceding the planning list assessment," Subsection (2) of proposed Rule 62-303.430, Florida Administrative Code, provides that the Department will conduct another "[b]iological [a]ssessment" to determine whether the

water should be "verified as being [biologically] impaired," and failure of this additional "[b]iological [a]assessment" will constitute "verification that the water is biologically impaired." The requirement that there be another failed "[b]iological [a]assessment" to confirm "biological impairment" before a water is "verified as being [biologically] impaired" under Subsection (2) of proposed Rule 62-303.430, Florida Administrative Code, is scientifically prudent, particularly in those cases where the water was placed on the "planning list" based upon a "[b]iological [a]ssessment" conducted more than five years earlier. The failure of this additional "[b]iological [a]ssessment" is enough to get the water "verified as being [biologically] impaired" even if there were no failed "[b]iological [a]ssessment[s]" in the "last five years preceding the planning list assessment."

326. Inasmuch as the SCI, compared to the BioRecon, is a more comprehensive and rigorous test, it is reasonable to require (as Subsection (2) of proposed Rule 62-303.430, Florida Administrative Code, does) that, in the case of a stream placed on the "planning list" as a result of a failed BioRecon, the additional "[b]iological [a]ssessment" be an SCI, not a BioRecon, and to also require (as Subsection (3) of proposed Rule 62-303.430, Florida Administrative Code, does) that an SCI, rather than a BioRecon, be conducted where a stream has been

placed on the "planning list" based upon "other information specified in rule 62-303.330(4) indicating biological impairment."

327. Until such time as the Department develops a rapid bioassessment protocol for estuaries, where the Department is required in Part II of the proposed rule chapter to conduct an additional "[b]iological [a]ssessment, the Department intends to meet this obligation by engaging in "biological integrity standard" testing.

328. TMDLs are pollutant-specific. If a water is "verified as [biologically] impaired," but the Department is not able to identify a particular pollutant as the cause of the impairment, a TMDL cannot be developed. See Section 403.031(21), Florida Statutes (to establish TMDL it is necessary to calculate the "maximum amount of a pollutant that a water body or water segment can assimilate from all sources without exceeding water quality standards"); and Section 403.067(6)(a)2., Florida Statutes ("The total maximum daily load calculation shall establish the amount of a pollutant that a water body or water body segment may receive from all sources without exceeding water quality standards"). Accordingly, as noted above, in Subsection (3)(c) of Section 403.067, Florida Statutes, the Legislature has imposed the following perquisites to the Department listing, on its "updated list" of waters for

which TMDLs will be calculated, those waters deemed to be impaired based upon "non-attainment [of] biological criteria":

> If the department has adopted a rule establishing a numerical criterion for a particular pollutant, a narrative or biological criterion may not be the basis for determining an impairment in connection with that pollutant unless the department identifies specific factors as to why the numerical criterion is not adequate to protect water quality. If water quality non-attainment is based on narrative or biological criteria, the specific factors concerning particular pollutants shall be identified prior to a total maximum daily load being developed for those criteria for that surface water or surface water segment.

Furthermore, Subsection (4) of Section 403.067, Florida Statutes, provides that, if a water is to placed on the "updated list" on any grounds, the Department "must specify the particular pollutants causing the impairment and the concentration of those pollutants causing the impairment relative to the water quality standard." The requirements of Subsection (4) of proposed Rule 62-303.430, Florida Administrative Code, are consistent with these statutory mandates.

329. Proposed Rule 62-303.430, Florida Statutes, does not address waters placed on the "planning list" based upon a failure of the "biological integrity standard" set forth in Subsection (11) of Rule 62-302.530, Florida Administrative Code. Therefore, by operation of proposed Rule 62-303.400, Florida

Administrative Code, waters meeting the minimum requirements for "planning list" placement based upon failure of the "biological integrity standard" (a single failure within the ten-year period preceding the "planning list" assessment) will automatically be "verified as being impaired."

330. This is a less stringent "verification" requirement than the Department adopted in proposed Rule 62-303.430, Florida Administrative Code, for "verification" of waters placed on the "planning list" based upon a failed BioRecon, SCI, or LCI.

331. While the results of BioRecons, SCIs, and LCIs are more accurate indicators of "biological impairment" than are the results of "biological integrity standard" testing, the Department's decision to make it more difficult for a water to be "verified as being impaired" if it was placed on the "planning list" based upon a failed BioRecon, SCI, or LCI (as opposed to a failure of the "biological integrity standard") is reasonably justified inasmuch as the "biological integrity standard" is one of the water quality criteria that have been established by the Department in Rule 62-302.530, Florida Administrative Code, whereas, in contrast, neither the BioRecon, SCI, nor LCI are a part of the state's water quality standards.

Part III: Proposed Rule 62-303.440, Florida Administrative Code

332. Proposed Rule 62-303.440, Florida Administrative Code, the counterpart of proposed Rule 62-303.340, Florida Administrative Code, prescribes another reasonable method, that is not statistically-based, to verify aquatic life use support impairment. It reads as follows: :

> Toxicity
>
> (1) A water segment shall be verified as impaired due to surface water toxicity in the receiving water body if:
>
> (a) the water segment was listed on the planning list based on acute toxicity data, or
>
> (b) the water segment was listed on the planning list based on chronic toxicity data and the impairment is confirmed with a failed bioassessment that was conducted within six months of a failed chronic toxicity test. For streams, the bioassessment shall be an SCI.
>
> (2) Following verification that a water is impaired due to toxicity, a water shall be included on the verified list if the requirements of paragraph 62-303 430(4) are met.
>
> (3) Toxicity 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. However, the Department shall note for the record that the data were excluded and explain why they were excluded.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403. 062, 403.067, FS.
History -- New

333. Pursuant to Subsections (1)(a) and (3) of proposed Rule 62-303.440, Florida Administrative Code, a water will automatically be "verified as impaired" for aquatic life use support if it was placed on the "planning list" on the basis of being "acutely toxic," provided that the data supporting such placement was "not collected following contaminant spills, discharges due to upsets or bypasses from permitted facilities, or rainfall in excess of the 25-year, 24-hour storm." The TAC and Department staff determined that additional testing was not necessary for "verification" under such circumstances because the end point that characterizes "acute toxicity" is so "dramatic" in terms of demonstrating impairment that it would be best to "just go ahead and put [the water] on the list with the two acute [toxicity] failures and start figuring out any potential sources of that impairment."

334. The TAC and Department staff, however, reasonably believed that, because "chronic toxicity tests, in contrast, are measuring fairly subtle changes in a lab test organism" and there is "a very long history within the NPDES program of people questioning the results of the chronic toxicity test," before a water is "verified as being impaired" due to "chronic toxicity," the impairment should be "confirmed with a bioassessment that

was conducted within six months of a failed chronic toxicity test"[66] (as Subsection (1)(b) of proposed Rule 62-303.440, Florida Administrative Code, provides). It is reasonable to require that the bioassessment, in the case of a stream, be an SCI, rather than a BioRecon, because, as noted above, of the two, the former is the more comprehensive and rigorous test.

335. The requirements of Subsection (2) of proposed Rule 62-303.440, Florida Administrative Code, are consistent with the provisions of the Subsections (3)(c) and (4) of Section 403.067, Florida Statutes.

336. It may be difficult to identify the pollutant causing the impairment inasmuch as toxicity tests are not designed to yield such information.

337. The rationale for excluding, in the assessment process described in proposed Rule 62-303.440, Florida Administrative Code, "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" (as Subsection (3) of the proposed rule does) is the same, justifiable rationale (discussed above) supporting the exclusion of such data in the assessment of impairment under proposed Rule 62-303.420, Florida Administrative Code.

Part III: Proposed Rule 62-303.450, Florida Administrative Code

338. Proposed Rule 62-303.450, Florida Administrative Code, the counterpart of proposed Rules 62-303.350 through 62-303.353, Florida Administrative Code, provides other reasonable ways, not based upon statistics, for waters to be "verified as [being] impaired" for aquatic life use support. It reads as follows:

> Interpretation of Narrative Nutrient Criteria.
>
> (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). 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 re-evaluate the data using the thresholds provided in rule 62-303.351-.353, for streams, lakes, and estuaries, respectively, or alternative, site-specific thresholds that more accurately reflect conditions beyond which an imbalance in flora or fauna occurs in the water segment. 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), 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.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

339. The requirement of the first sentence of Subsection (1) of proposed Rule 62-303.450, Florida Administrative Code, that there be sufficient (non-historical) data (as measured against the requirements of Subsection (2) of proposed Rule 62-303.350, Florida Administrative Code[67]) "from [just] the last five years preceding the planning list assessment" in order for a "nutrient impair[ed]" water to go directly from the "planning list" to the "verified list" (subject to the provisions of proposed Rules 62-303.600, 62-303.700, and 62-303.710, Florida Administrative Code) is reasonably designed to avoid listing decisions based upon outdated data not representative of the water's current conditions.

340. According to the second and third sentences of Subsection (1) of proposed Rule 62-303.450, Florida Administrative Code, if there is not enough data from this five-

year time period, the additional data needed to meet the data sufficiency requirements "will be collected" by the Department, and such additional data, along with the data "from the last five years preceding the planning list assessment," will be evaluated to determine whether one of the applicable thresholds set out in proposed Rules 62-303.351 through 62-303.353, Florida Administrative Code, or an "alternative" threshold established specifically for that water, has been met or exceeded.

341. Deciding whether "alternative, site-specific thresholds" should be used and, if so, what they should be, will involve the exercise of the Department's "best professional judgment," as will the determination as to how, in each case the Department is presented with a water placed on the "planning list for nutrient enrichment based on other information indicating an imbalance in flora or fauna," it should go about "verify[ing] the imbalance," as the Department will be required to do by Subsection (2) of proposed Rule 62-303.450, Florida Administrative Code. In some instances, the Department will only need to thoroughly review the "other information" to "verify the imbalance." In other cases, where the "other information" is not sufficiently detailed, new "information" will need to be obtained. How the Department will proceed in a particular case will depend upon the specific circumstances of that case.

Part III: Proposed Rule 62-303.460, Florida Administrative Code

342. Proposed Rule 62-303.460, Florida Administrative Code, the counterpart of proposed Rule 62-303.360, Florida Administrative Code, establishes a reasonable means to determine whether waters should be "verified as [being] impaired" for primary contact and recreation use support. It reads as follows:

> Primary Contact and Recreation Use Support
>
> (1) The Department shall review the data used by the DoH as the basis for bathing area closures, advisories or warnings and verify that the values exceeded the applicable DoH thresholds and the data meet the requirements of Chapter 62-160. If the segment is listed on the planning list based on bathing area closures, advisories, or warnings issued by a local health department or county government, closures, advisories, or warnings based on red tides, rip tides, sewer line breaks, sharks, medical wastes, hurricanes, or other factors not related to chronic discharges of pollutants shall not be included when verifying primary contact and recreation use support. The Department shall then re-evaluate the remaining data using the methodology in rule 62-303.360(1)(c). Water segments that meet the criteria in rule 62-303.360(1)(c) shall be included on the verified list.
>
> (2) If the water segment was listed on the planning list due to exceedances of water quality criteria for bacteriological quality, the Department shall, to the extent practical, evaluate the source of bacteriological contamination and shall verify that the impairment is due to chronic discharges of human-induced bacteriological

> pollutants before listing the water segment on the verified list. The Department shall take into account the proximity of municipal stormwater outfalls, septic tanks, and domestic wastewater facilities when evaluating potential sources of bacteriological pollutants. For water segments that contain municipal stormwater outfalls, the impairment documented for the segment shall be presumed to be due, at least in part, to chronic discharges of bacteriological pollutants. The Department shall then re-evaluate the data using the methodology in rule 62-303.320(1), excluding any values that are elevated solely due to wildlife. Water segments shall be included on the verified list if they meet the requirements in rule 62-303.420(6).
>
> Specific Authority 403.061, 403.067, FS.
> Law Implemented 403.062, 403.067, FS.
> History -- New

343. The first sentence of Subsection (1) of proposed Rule 62-303.460, Florida Administrative Code, was included in the proposed rule in response to comments made by stakeholders during the rule development process that the Department would be "abdicating [its] authority" if, in determining whether a water was impaired for purposes of TMDL development, it relied solely on action taken by other governmental entities. Department staff agreed that the Department, "as the agency responsible for preparing this list," should at least "review the data used by the DoH as the basis for bathing area closures, advisories or warnings and verify that the values exceeded the applicable DoH

thresholds and the data meet the requirements of Chapter 62-160," Florida Administrative Code.

344. The rationale for the Department not considering bathing area "closures, advisories, or warnings based on red tides, rip tides, sewer line breaks, sharks, medical wastes, hurricanes, or other factors not related to chronic discharges of pollutants . . . when verifying [impairment of] primary contact and recreation use support" (per the second sentence of Subsection (1) of proposed Rule 62-303.460, Florida Administrative Code) is the same, justifiable rationale (discussed above) supporting the exclusions of these closures, advisories, and warnings from consideration in the determination of whether a water should be placed on the "planning list" pursuant to Subsections (1)(b), (1)(c), or (1)(d) of the proposed Rule 62-303.360, Florida Administrative Code.

345. The exclusions set forth in the second sentence of Subsection (1) of proposed Rule 62-303.460, Florida Administrative Code, will have no effect on the "information" or "data" that the Department will be able to consider under any provision in Part III of the proposed rule chapter other than Subsection (1) of proposed Rule 62-303.460.

346. Pursuant to the third and fourth sentences of Subsection (1) of proposed Rule 62-303.460, Florida Administrative Code, after the Department determines, in

accordance with the first and second sentences of this subsection of the proposed rule, what bacteriological data-based bathing area closures, advisories, and warnings should be counted, it will determine whether there were a total of at least 21 days of such closures, advisories, and warnings during a calendar year (the number required by Subsection (1)(c) of proposed Rule 62-303.360, Florida Administrative Code, for placement on the "planning list") and, if there were, it will verify the water in question as being impaired for primary contact and recreation use support.

347. This is the only way for a water to be "verified as being impaired" based upon bathing area closures, advisories, or warnings under the proposed rule chapter.

348. The "criteria" set forth in Subsections (1)(b) and (1)(d) of proposed Rule 62-303.360, Florida Administrative Code (unlike the criteria set forth in Subsection (1)(c) of proposed Rule 62-303.360) are not carried forward in proposed Rule 62-303.460, Florida Administrative Code.

349. Subsection (2) of proposed Rule 62-303.460, Florida Administrative Code, provides another way, based upon a statistical analysis of "exceedances of water quality criteria for bacteriological quality," for a water to be "verified as being impaired" for primary contact and recreation use support. It reasonably requires the Department, in determining whether

such impairment exists, to use the same valid statistical methodology (discussed above) that it will use, pursuant to proposed Rule 62-303.420, Florida Administrative Code, to determine whether a water should be "verified as being impaired" based upon "[e]xceedances of [a]quatic [l]ife-[b]ased [c]riteria."

350. Under Subsection (2) of proposed Rule 62-303.460, Florida Administrative Code, the Department, to the extent practical, will evaluate the source of an exceedance to make sure that it is "due to chronic discharges of human-induced bacteriological pollutants," and, if such evaluation reveals that the exceedance was "solely due to wildlife," the exceedance will be excluded from the calculation. While it is true that "microbial pollutants from [wildlife] do constitute a public health risk in recreational waters," the purpose of the TMDL program is to control human-induced impairment and, consequently, the Department is not required to develop TMDLs "[f]or waters determined to be impaired due solely to factors other than point and nonpoint sources of pollution." See Section 403.067(6)(a)2., Florida Statutes.

Part III: Proposed Rule 62-303.470, Florida Administrative Code

351. Rule 62-303.470, Florida Administrative Code, the counterpart of proposed Rule 62-303.370, Florida Administrative

Code, establishes a reasonable means to determine whether waters should be "verified as being impaired" for fish and shellfish consumption use support. It provides as follows:

> 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) starting one year from the effective date of this rule 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. Data collected before one year from the effective date of this rule shall substantially comply with the listed SOPs and any subsequently developed DQOs.
>
> (c) there are sufficient data from within the last 7.5 years to support the continuation of the advisory.
>
> (2) If the segment is listed on the planning list based on fish consumption advisories, waters with fish consumption advisories for pollutants that are no longer legally allowed to be used or discharged shall not be placed on the verified list because the TMDL will be zero for the pollutant.

(3) Waters determined to meet the requirements of this section shall be listed on the verified list.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

352. Proposed Rule 62-303.470, Florida Administrative Code, imposes additional requirements only for those waters placed on the "planning list" based upon fish consumption advisories pursuant to Subsection (2) of proposed Rule 62-303.370, Florida Administrative Code. Waters placed on the "planning list" pursuant to Subsections (1) and (3) of proposed Rule 62-303.370, Florida Administrative Code, are not addressed in the proposed rule (or anywhere else in Part III of the proposed rule chapter). Accordingly, as noted above, these waters will go directly from the "planning list" to the "verified list" (subject to the provisions of proposed Rules 62-303.600, 62-303.700, and 62-303.710, Florida Administrative Code).

353. The mere fact that a fish consumption advisory is in effect for a water will be enough for that water to qualify for placement on the "planning list" under Subsection (2) of proposed Rule 62-303.370, Florida Administrative Code. The Department will not look beyond the four corners of the advisory at this stage of the "identification of impaired surface waters" process. Proposed Rule 62-303.470, Florida Administrative Code,

however, will require the Department, before including the water on the "verified list" based upon the advisory, to conduct such an inquiry and determine the adequacy of the fish tissue data supporting the initial issuance of the advisory and its continuation. Mandating that the Department engage in such an exercise as a prerequisite to verifying impairment based upon a fish consumption advisory is a provident measure in keeping with the Legislature's directive that the TMDL program be "scientifically based."

354. Department staff's intent, in requiring (in Subsection (1)(a) of proposed Rule 62-303.470, Florida Administrative Code) that there be fish tissue data from at least 12 fish, "was to maintain the status quo" and not require any more fish tissue samples than the Department of Health presently uses to determine whether an advisory should be issued.

355. The SOPs incorporated by reference in Subsection (1)(b) of proposed Rule 62-303.470, Florida Administrative Code, contain quality assurance requirements that are essentially the same as those that have been used "for many years" to collect the fish tissue samples upon which fish consumption advisories are based. These SOPs have yet to be incorporated in Rule Chapter 62-160, Florida Administrative Code.

356. Data Quality Objectives are needed for sampling to be scientifically valid. There are presently no Data Quality Objectives in place for the sampling that is done in connection with the Department of Health's fish consumption advisory program. Pursuant to Subsection (1)(b) of proposed Rule 62-303.470, Florida Administrative Code, after one year from the effective date of the proposed rule, in order for data to be considered in determining data sufficiency questions under the proposed rule, the sampling entity will have to have established Data Quality Objectives for the collection of such data and the data will have to meet, or (in the case of "data collected before one year from the effective date of this rule") substantially comply with, these Data Quality Objectives.

357. As noted above, the majority of fish consumption advisories now in effect were issued based upon fish tissue data collected more than 7.5 years ago that has not been supplemented with updated data. It "will be a huge effort to collect additional data that's less than seven-and-a-half years old" for the waters under these advisories (and on the "planning list" as a result thereof) to determine, in accordance with Subsection (1)(c) of proposed Rule 62-303.470, Florida Administrative Code, whether the continuation of these advisories is warranted. Undertaking this "huge effort," instead of relying on data more than 7.5 years old to make these determinations, is reasonably

justified because this 7.5-plus-year-old data that has already been collected may no longer be representative of the current conditions of the waters in question and it therefore is prudent to rely on more recent data.

358. Subsection (1)(c) of proposed Rule 62-303.470, Florida Administrative Code, does not specify the amount of fish tissue data that will be needed in order for the Department to determine that there is sufficient data to "support the continuation of the advisory." The Department will need to exercise its "best professional judgment" on a case-by-case basis in making such sufficiency determinations.

Part III: Proposed Rule 62-303.480, Florida Administrative Code

359. Proposed Rule 62-303.480, Florida Administrative Code, the counterpart of proposed Rule 62-303.380, Florida Administrative Code, establishes a reasonable means to determine whether waters should be "verified as being impaired" for the protection of human health. It provides as follows:

> Drinking Water Use Support and Protection of Human Health
>
> If the water segment was listed on the planning list due to exceedances of a human health-based water quality criterion and there were insufficient data from the last five years preceding the planning list assessment to meet the data sufficiency requirements of section 303.320(4), additional data will be collected as needed to meet the requirements. Once these

additional data are collected, the Department shall re-evaluate the data using the methodology in rule 62-303.380(2) and limit the analysis to data collected during the five years preceding the planning list assessment and the additional data collected pursuant to this paragraph (not to include data older than 7.5 years). For this analysis, the Department shall exclude any data meeting the requirements of paragraph 303.420(5). The following water segments shall be listed on the verified list:

(1) for human health-based criteria expressed as maximums, water segments that meet the requirements in rule 62-303.420(6), or

(2) for human health-based criteria expressed as annual averages, water segments that have an annual average that exceeds the applicable criterion.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

360. Proposed Rule 62-303.480, Florida Administrative Code, imposes additional requirements only for those waters placed on the "planning list" for "assessment of the threat to human health" pursuant to Subsection (2) of proposed Rule 62-303.380, Florida Administrative Code. Notwithstanding that proposed Rule 62-303.480, Florida Administrative Code, is entitled, "Drinking Water Use Support and Protection of Human Health," waters placed on the "planning list" for drinking water use support pursuant to Subsection (1) of proposed Rule 62-303.380, Florida Administrative Code, are not addressed in the

proposed rule (or anywhere else in Part III of the proposed rule chapter). Accordingly, as noted above, these waters will go directly from the "planning list" to the "verified list" (subject to the provisions of proposed Rules 62-303.600, 62-303.700, and 62-303.710, Florida Administrative Code).

361. Proposed Rule 62-303.480, Florida Administrative Code, reasonably requires the Department, in determining whether a water should be "verified as being impaired" for the protection of human health based upon exceedances of "human health-based criteria expressed as maximums," to use the same valid statistical methodology (discussed above) that it will use, pursuant to proposed Rule 62-303.420, Florida Administrative Code, to determine whether a water should be "verified as being impaired" based upon "[e]xceedances of [a]quatic [l]ife-[b]ased [c]riteria."

362. Proposed Rule 62-303.480, Florida Administrative Code, also sets forth an appropriate method for use in determining whether a water should be "verified as being impaired" based upon exceedances of "human health-based criteria expressed as annual averages." Only one exceedance of any "human health-based criteria expressed as an annual average" will be needed for a water to be listed under the proposed rule, the same number needed under Subsection (2)(b) of proposed Rule 62-303.380, Florida Administrative Code, for a water to make the

"planning list." Under proposed Rule 62-303.480, Florida Administrative Code, however, unlike under Subsection (2)(b) of proposed Rule 62-303.380, Florida Administrative Code, the data relied upon by the Department will have to meet the "data sufficiency requirements of section [62]-303.320(4)," Florida Administrative Code, and, in addition, data of the type described in Subsection (5) of proposed Rule 62-303.420, Florida Administrative Code, as well as data collected more than "five years preceding the planning list assessment," will be excluded from the Department's consideration.

Part III: Proposed Rule 62-303.500, Florida Administrative Code

363. As noted above, Subsection (4) of Section 403.067, Florida Statutes, directs the Department, "[i]n association with [its preparation of an] updated list [of waters for which TMDLs will be calculated, to] establish priority rankings and schedules by which water bodies or segments will be subjected to total maximum daily load calculations." Proposed Rule 62-303.500, Florida Administrative Code, explains how the Department will go about carrying out this statutory directive. It reads as follows:

> (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) [W]ater 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 that exceed an applicable water quality criterion or alternative threshold with a greater than twenty-five percent exceedance frequency 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) 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

364. It is anticipated that most waters on the Department's "updated list" will fall within the "medium priority" category.

365. Subsections (4)(a) through (4)(e) of proposed Rule 62-303.500, Florida Administrative Code, describe those factors (including, among others, the "presence of Outstanding Florida Waters" and "the number of administratively continued permits in the basin," the latter being added "based on input from the

Petitioners") that will be taken into account by the Department in prioritizing waters within this "medium priority" category; but nowhere in the proposed rule does the Department specify how much weight each factor will be given relative to the other factors. This is a matter that, in accordance with the TAC's recommendation, will be left to the "best professional judgment" of the Department.

366. "[T]here is a lot known about mercury" and its harmful effects; however, as the Department correctly suggests in Subsection (3)(a) of proposed Rule 62-303.500, Florida Administrative Code, there is not yet a complete understanding of "mercury cycling in the environment" and how mercury works its way up the food chain. "[T]here are a series of projects that are either on the drawing board or in progress now" that, hopefully, upon their conclusion, will give the Department a better and more complete understanding of what the sources of mercury in Florida surface waters are and how mercury "cycles" in the environment and ends up in fish tissue. Until the Department has such an understanding, though, it is reasonable for waters "verified as being impaired" due to fish consumption advisories for mercury to be given a "low priority" designation for purposes of TMDL development (as the Department, in Subsection (3)(a) of proposed Rule 62-303.500, Florida Administrative Code, indicates it will).

Part III: Proposed Rule 62-303.600, Florida Administrative Code

367. As noted above, proposed Rule 62-303.600, Florida Administrative Code, like Subsection (5) of proposed Rule 62-303.100, Florida Administrative Code, is designed to give effect to and make more specific the language in Subsection (4) of Section 403.067, Florida Statutes, that an impaired water may be listed on the Department's "updated list" of waters for which TMDLs will be calculated only "if technology-based effluent limitations and other pollution control programs under local, state, or federal authority, including Everglades restoration activities pursuant to s. 373.4592 and the National Estuary Program, which are designed to restore such waters for the pollutant of concern are not sufficient to result in attainment of applicable surface water quality standards." It reads as follows:

> Evaluation of Pollution Control Mechanisms
>
> (1) Upon determining that a water body is impaired, the Department shall evaluate whether existing or proposed technology-based effluent limitations and other pollution control programs under local, state, or federal authority are sufficient to result in the attainment of applicable water quality standards.
>
> (2) If, as a result of the factors set forth in (1), the water segment is expected to attain water quality standards in the future and is expected to make reasonable progress towards attainment of water quality

> standards by the time the next 303(d) list is scheduled to be submitted to EPA,[68] the segment shall not be listed on the verified list. The Department shall document the basis for its decision, noting any proposed pollution control mechanisms and expected improvements in water quality that provide reasonable assurance that the water segment will attain applicable water quality standards.
>
> Specific Authority 403.061, 403.067, FS.
> Law Implemented 403.062, 403.067, FS.
> History -- New

368. It is beyond reasonable debate that, pursuant to Subsection (4) of Section 403.067, Florida Statutes, before the Department may include impaired waters on the "updated list" of waters for TMDLs will be calculated, it must evaluate whether "technology-based effluent limitations and other pollution control programs" are sufficient for water quality standards in these waters to be attained <u>in the future</u>. (To construe the statute as requiring the Department to simply look back, and not forward into the future, in conducting its mandated evaluation of "pollution control programs" would render meaningless the language in the statute directing the Department to conduct such an evaluation after having determined that these waters are impaired.[69] As Mr. Joyner testified at the final hearing in explaining what led Department staff "to conclude that [the Department] should be considering future achievement of water

quality standards or future implementation of such [pollution control] programs":

> [I]t [Subsection (4) of Section 403.067, Florida Statutes] basically requires two findings. It's impaired and these things won't fix the problem. If the "won't fix the problem" required it to be fixed right now in the present tense [to avoid listing], then it couldn't be impaired. So it would just be an illogical construction of having two requirements in the statute.)

369. Proposed Rule 62-303.600, Florida Administrative Code, does not specify when "in the future" water quality attainment resulting from an existing or proposed "pollution control program" must be expected to occur in order for a presently impaired water to not be listed; but neither does Subsection (4) of Section 403.067, Florida Statutes, provide such specificity. Indeed, the statute's silence on the matter was the very reason that Department staff did "not set a time frame for [expected] compliance with water quality standards."

370. Rather than "set[ting] such a time frame," Department staff took other measures "to address the open nature of the statute" and limit the discretion the Legislature granted the Department to exclude presently impaired waters from the "updated list" based upon there being pollution control programs sufficient to result in these waters attaining water quality standards in the future "for the pollutant of concern."

371. They included language in Subsection (5) of proposed Rule 62-303.100, Florida Administrative Code, and in proposed Rule 62-303.600, Florida Administrative Code, requiring that the Department, before exercising such discretion to exclude a presently impaired water from the "updated list," have "reasonable assurance" that water quality standards will be attained and that "reasonable progress" will be made in attaining these standards within a specified time frame, to wit: "by the time the next 303(d) list is scheduled to be submitted to EPA."

372. "Reasonable assurance" is a term that has a "long history" of use by the Department in various programs,[70] including its wastewater permitting program.[71]

373. Neither sheer speculation that a pollution control program will result in future water quality attainment, nor mere promises to that effect, will be sufficient, under Subsection (5) of proposed Rule 62-303.100, Florida Administrative Code, and proposed Rule 62-303.600, Florida Administrative Code, to exclude an impaired water from the "updated list."

374. The Department will need to examine and analyze the specific characteristics of each impaired water, as well as the particular pollution control program in question, including its record of success and/or failure, if any, before determining (through the use of its "best professional judgment") whether

there is the "reasonable assurance" required by these proposed rule provisions.

375. How much time it will take for an impaired water to attain water quality standards will depend on various water-specific factors, including the size of the water body, the size of the watershed, and whether there are pollutants stored in the sediment. The particular circumstances of each case, therefore, will dictate what constitutes "reasonable progress[72] towards attainment of water quality standards by the time the next 303(d) list is scheduled to be submitted to EPA," within the meaning of Subsection (5) of proposed Rule 62-303.100, Florida Administrative Code, and proposed Rule 62-303.600, Florida Administrative Code.

376. Because of the case-specific factors involved in determining "reasonable assurance" and "reasonable progress," it was not practicable for Department staff to specify in Subsection (5) of proposed Rule 62-303.100, Florida Administrative Code, and in proposed Rule 62-303.600, Florida Administrative Code, exactly what would be needed to be shown in each case to establish "reasonable assurance" and "reasonable progress."

377. At the April 26, 2001, rule adoption hearing, Department staff proposed an amendment to proposed Rule 62-303.600, Florida Administrative, to make the proposed rule more

specific by adding "a list of elements that needed to be addressed to provide reasonable assurance" and defining "reasonable progress." The amendment, which was opposed by the DACS and regulated interests, was withdrawn before being considered by the ERC because Department staff felt that is was not "quite well thought out enough," particularly insofar as it addressed the concept of "reasonable progress."

Part III: Proposed Rule 62-303.700, Florida Administrative Code

378. As noted above, proposed Rule 62-303.700, Florida Administrative Code, describes the first two phases of the "basin management cycle" and the TMDL-related events that will occur during these phases. It reads as follows:

> Listing Cycle
>
> (1) The Department shall, to the extent practical, develop basin-specific verified lists of impaired waters as part of its watershed management approach, which rotates through the State's surface water basins on a five year cycle. At the end of the first phase of the cycle, which is designed to develop a preliminary assessment of the basin, the Department shall update the planning list for the basin and shall include the planning list in the status report for the basin, which will be noticed to interested parties in the basin. If the specific pollutant causing the impairment in a particular water segment is not known at the time the planning list is prepared, the list shall provide the basis for including the water segment on the planning list. In these cases, the pollutant and concentration causing the impairment shall be identified

before the water segment is included on the verified list to be adopted by Secretarial Order. During the second phase of the cycle, which is designed to collect additional data on waters in the basin, interested parties shall be provided the opportunity to work with the Department to collect additional water quality data. Alternatively, interested parties may develop proposed water pollution control mechanisms that may affect the final verified list adopted by the Secretary at the end of the second phase. To ensure that data or information will be considered in the preliminary basin assessment, it must be submitted to the Department or entered into STORET or, if applicable, the DoH database no later than September 30 during the year of the assessment.

(2) Within a year of the effective date *of* this rule, the Department shall also prepare a planning list for the entire state.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

379. The preference expressed in proposed Rule 62-300.700, Florida Administrative Code, for verified lists to be developed on a "basin-specific" basis "as part of the Department's watershed management approach" is consistent with the directive in the first sentence of Subsection (3)(a) of Section 403.067, Florida Statutes, that the Department conduct its TMDL assessment for the "basin in which the water body . . . is located."

380. Proposed Rule 62-300.700, Florida Administrative Code, carries out the mandate in the second sentence of

Subsection (3)(a) of Section 403.067, Florida Statutes, that, in conducting its TMDL assessment, the Department "coordinate" with "interested parties." Furthermore, the proposed rule makes clear that parties outside the Department will have the opportunity "work with the Department to collect additional water quality data" needed to meet data sufficiency requirements.

381. Identifying the "pollutant and concentration causing the impairment" before including a water on the "verified list," as proposed Rule 62-303.700, Florida Administrative Code, requires be done, is something the Department will need to do to comply with the directive contained in the third sentence of Subsection (4) of Section 403.067, Florida Statutes.

Part III: Proposed Rule 62-303.710, Florida Administrative Code

382. Proposed Rule 62-303.710, Florida Administrative Code, addresses the "[f]ormat of [v]erified [l]ist and [v]erified [l]ist [a]pproval." It reads as follows:

> (1) The Department shall follow the methodology established in this chapter to develop basin-specific verified lists of impaired water segments. The verified list shall specify the pollutant or pollutants causing the impairment and the concentration of the pollutant(s) causing the impairment. If the water segment is listed based on water quality criteria exceedances, then the verified list shall provide the applicable criteria. However, if the listing is based on narrative or biological criteria, or

impairment of other designated uses, and the water quality criteria are met, the list shall specify the concentration of the pollutant relative to the water quality criteria and explain why the numerical criterion is not adequate.

(2) For waters with exceedances of the dissolved oxygen criteria, the Department shall identify the pollutants causing or contributing to the exceedances and list both the pollutant and dissolved oxygen on the verified list.

(3) For waters impaired by nutrients, the Department shall identify whether nitrogen or phosphorus, or both, are the limiting nutrients, and specify the limiting nutrient(s) in the verified list.

(4) The verified list shall also include the priority and the schedule for TMDL development established for the water segment, as required by federal regulations.

(5) The verified list shall also note any waters that are being removed from the current planning list and any previous verified list for the basin.

(6) The verified basin-specific 303(d) list shall be approved by order of the Secretary.

Specific Authority 403.061, 403.067, FS.
Law Implemented 403.062, 403.067, FS.
History -- New

383. The second and fourth sentences of Subsection (1) of proposed Rule 62-303.710, Florida Administrative Code, track the requirements of the third sentence of Subsection (4) and the first and second sentences of Subsection (3)(c), respectively, of Section 403.067, Florida Statutes.

384. Furthermore, as a practical matter, a TMDL cannot be developed if the culprit pollutant is not able to be identified.

385. Subsection (2) of proposed Rule 62-303.710, Florida Administrative Code, was included in the proposed rule because, in most instances, the Department does not consider dissolved oxygen to be a pollutant. The pollutants most frequently associated with exceedances of the dissolved oxygen criteria are nutrients (nitrogen and/or phosphorous).

386. It is essential to identify the "limiting nutrient," as Subsection (3) of proposed Rule 62-303.710, Florida Administrative Code, requires the Department to do, inasmuch as the "limiting nutrient" is the particular pollutant for which a TMDL will be developed.

Part IV: Overview

387. Part IV of proposed Rule Chapter 62-303, Florida Administrative Code, is entitled, "Miscellaneous Provisions." It includes two proposed rules, proposed Rule 62-303.720, Florida Administrative Code, and proposed Rule 62-303.810, Florida Administrative Code.

Part IV: Proposed Rule 62-303.720, Florida Administrative Code

388. Proposed Rule 62-303.720, Florida Administrative Code, describes how waters may be removed from the "planning list" and the "verified list." The proposed rule, which is

entitled, "Delisting Procedures," cites Sections 403.061 and 403.067, Florida Statutes, as its "[s]pecific [a]uthority" and Sections 403.062 and 403.067, Florida Statutes, as the "[l]aw [i]mplemented" by the proposed rule.

389. Subsection (1) of proposed Rule 62-303.720, Florida Administrative Code, addresses the removal of waters from the "planning list." It reads as follows:

> 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.

390. The "removal" provisions of Subsection (1) of proposed Rule 62-303.720, Florida Administrative Code, will apply to all waters on the planning list "that are verified to not be impaired during development of the verified list," including those waters that had been placed on the "planning list" pursuant to Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code, by virtue of their having been on the state's 1998 303(d) list.

391. Waters removed from the "planning list" pursuant to Subsection (1) of proposed Rule 62-303.720, Florida Administrative Code, will be eligible to reappear on "future

planning lists," but not based exclusively on "the data used to [initially] place the water on the planning list." Additional data will be needed.

392. Subsections (2) and (3) of proposed Rule 62-303.720, Florida Administrative Code, address the removal of waters from the "verified list." They read as follows:

> (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 exceedances or due to threats to human health based on exceedances of single sample water quality criteria, the water shall be delisted when:
>
> 1. the number of exceedances of an applicable water quality criterion due to pollutant discharges is less than or equal to the number listed in Table 3 for the given sample size, with a minimum sample size of 30. This table provides the number of exceedances that indicate a maximum of a 10% exceedance frequency 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 section 62-303.420, 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 section 62-303.420.

New data evaluated under rule 62-303.720(2)(a)1. 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 paragraphs 62-303.320(4), (6) and (7).

(b) For waters listed due to failure to meet aquatic life use support based on biology data, the water shall be delisted when the segment passes two independent follow-up bioassessments and there have been no failed 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 bioassessments must be conducted during similar conditions (same seasons and general flow conditions) under which the previous bioassessments used to determine impairment were collected.

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

(c) For waters listed due to failure to meet aquatic life use support based on toxicity data, the water shall be delisted when the segment passes two independent follow-up toxicity tests and there have been no failed toxicity tests for at least one year. The follow-up tests must meet the following requirements:

1. The tests must be conducted using the same test protocols and during similar conditions (same seasons and general flow conditions) under which the previous test used to determine impairment were collected.

2. The data must meet the requirements of rules 62-303.340(1), and the time requirements of rules 62-303.340(2) or (3).

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

(e) For waters listed due to changes in shellfish bed management classification, the water shall be delisted upon reclassification of the shellfish harvesting area to its original or higher harvesting classification. Reclassification of a water from prohibited to unclassified does not constitute a higher classification.

(f) 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 rule 62-303.360(1) for five consecutive years.

(g) 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 rule 62-303.380(1)(a) and when the causes resulting

in higher treatment costs have been ameliorated.

(h) For waters listed based on exceedance of 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.

(i) 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 for three consecutive years.

(j) 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.

Table 2: Delisting

Maximum number of measured exceedances allowable to DELIST with at least 90% confidence that the actual exceedance rate is less than or equal to ten percent.

Sample Sizes		Maximum # of exceedances allowable for delisting
From	To	
30	37	0
38	51	1
52	64	2
65	77	3
78	90	4
91	103	5
104	115	6
116	127	7
128	139	8
140	151	9
152	163	10
164	174	11

175	186	12
187	198	13
199	209	14
210	221	15
222	232	16
233	244	17
245	255	18
256	266	19
267	278	20
279	289	21
290	300	22
301	311	23
312	323	24
324	334	25
335	345	26
346	356	27
357	367	28
368	378	29
379	389	30
390	401	31
402	412	32
413	423	33
424	434	34
435	445	35
446	456	36
457	467	37
468	478	38
479	489	39
490	500	40

(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.

393. Subsection (2)(a)1. of proposed rule 62-303.720, Florida Administrative Code, establishes a statistical methodology appropriate for "delisting" waters that have been listed as impaired based upon {e]xceedances of [a]quatic [l]ife-[b]ased [w]ater [q]uality [c]riteria." This "delisting" methodology" is the "equivalent" (as that term is used in

Subsection (5) of Section 403.067, Florida Statutes) of the statistical methodology that will be used, pursuant to proposed Rule 62-303.420, Florida Administrative Code, to verify impairment based upon such exceedances. Both methodologies are based on the binomial model and use an "exceedance frequency" threshold of ten percent with a minimum confidence level of 90 percent. A greater minimum sample size is required under Subsection (2)(a)1. of proposed Rule 62-303.720, Florida Administrative Code, because the Department will need, thereunder, "to have at least 90 percent confidence that the actual exceedance rate is less than ten percent" "as opposed to greater than ten percent, which is a bigger range."

394. The "calculations [reflected in the table, Table 3, which is a part of Subsection (2)(a)1. of proposed Rule 62-303.720, Florida Administrative Code] are correct."

395. There is nothing unreasonable about the "delisting" criteria set forth in Subsections (2)(c) and (2)(j) of proposed Rule 62-303.720, Florida Administrative Code.

396. Subsection (2)(c) of proposed Rule 62-303.720, Florida Administrative Code, reasonably requires the Department, where waters have been "listed due to failure to meet aquatic life use support based on toxicity data" (in the form of two failed toxicity tests conducted "two weeks apart over a twelve month period"), to "delist" these waters if the Department has

more recent "equivalent [toxicity] data" (in the form of two passed "follow-up toxicity tests," with no failed tests for at least twelve months) showing that the waters are not toxic.

397. Subsection (2)(j) of proposed Rule 62-303.720, Florida Administrative Code, reasonably requires the Department to "delist" a water "following a change in approved analytical procedures" only where the change calls into question the validity and accuracy of the data that was relied upon to make the original listing determination and there is other data demonstrating that the water meets water quality standards.

Part IV: Proposed Rule 62-303.810, Florida Administrative Code

398. Proposed Rule 62-303.810, Florida Administrative Code, is entitled, "Impairment of Interstate and Tribal Waters." It reads as follows:

> The Department shall work with Alabama, Georgia, and federally recognized Indian Tribes in Florida to share information about their assessment methodology and share water quality data for waters that form state boundaries or flow into Florida. In cases where assessments are different for the same water body, the Department shall, to the extent practical, work with the appropriate state, Indian Tribe and EPA to determine why the assessments were different.
>
> Specific Authority 403.061, 403.067, FS.
> Law Implemented 403.062, 403.067, FS.
> History -- New

CONCLUSIONS OF LAW

399. In the instant case, Petitioner Lane and Joint Petitioners are challenging proposed Rule Chapter 62-303, Florida Administrative Code, pursuant to Section 120.56, Florida Statutes, which allows substantially affected persons to challenge the facial validity of proposed rules. See Fairfield Communities v. Florida Land and Water Adjudicatory Commission, 522 So. 2d 1012, 1014 (Fla. 1st DCA 1988)("At the outset, we note that we are being asked [in this appeal of a final order of a Division hearing officer in a rule challenge proceeding] to determine the facial validity of these two rules [being challenged], not to determine their validity as applied to specific facts, or whether the agency has placed an erroneous construction on them."); and Advantage Therapy and Nursing Center (Beverly Health and Rehabilitative Services, Inc.) v. Agency for Health Care Administration, DOAH Case No. 97-1625RX, 1997 WL 1053289 (Fla. DOAH July 29, 1997)(Final Order)("Additionally, in a rule challenge, the issue to be determined is whether the rule, either proposed or adopted, is valid on its face."). In determining whether their challenge has merit, it must be presumed that the Department will carry out the provisions of the proposed rule chapter in good faith. Cf. Sullivan v. Everhart, 110 S. Ct. 960, 967 (1990)

("Respondents' fear of intentional manipulation of the netting period can be entirely dismissed if this provision is observed in good faith--as we must presume, in this facial challenge, it will be. . . . The Secretary might conceivably ensure that delay works to the Government's financial advantage by deliberately underpaying while keeping the netting period open, but since that is an obvious violation of the Act it is again not the stuff of which a facial challenge can be constructed."); and Commonwealth of Massachusetts v. United States, 856 F.2d 378, 384 (1st Cir. 1988)("We have considered and rejected petitioners' other arguments about the rule's statutory invalidity. These arguments are unpersuasive . . . because they attack an imagined unlawful application of the rule. The latter arguments are inappropriate here, where the rule is being challenged on its face. Our holding is, of course, limited to the question of whether the rule is invalid on its face; petitioners remain free to challenge the NRC's application of the rule in an individual case.").

400. Section 120.56, Florida Statutes, provides, in pertinent part, as follows:

> 120.56 Challenges to rules.-
>
> (1) General procedures for challenging the validity of a rule or a proposed rule.--
>
> (a) Any person substantially affected by a rule or a proposed rule may seek an

administrative determination of the invalidity of the rule on the ground that the rule is an invalid exercise of delegated legislative authority.

(b) The petition seeking an administrative determination must state with particularity the provisions alleged to be invalid with sufficient explanation of the facts or grounds for the alleged invalidity and facts sufficient to show that the person challenging a rule is substantially affected by it, or that the person challenging a proposed rule would be substantially affected by it.

(c) The petition shall be filed with the division which shall, immediately upon filing, forward copies to the agency whose rule is challenged, the Department of State, and the committee. Within 10 days after receiving the petition, the division director shall, if the petition complies with the requirements of paragraph (b), assign an administrative law judge who shall conduct a hearing within 30 days thereafter, unless the petition is withdrawn or a continuance is granted by agreement of the parties or for good cause shown. Evidence of good cause includes, but is not limited to, written notice of an agency's decision to modify or withdraw the proposed rule or a written notice from the chair of the committee stating that the committee will consider an objection to the rule at its next scheduled meeting. The failure of an agency to follow the applicable rulemaking procedures or requirements set forth in this chapter shall be presumed to be material; however, the agency may rebut this presumption by showing that the substantial interests of the petitioner and the fairness of the proceedings have not been impaired.

(d) Within 30 days after the hearing, the administrative law judge shall render a decision and state the reasons therefor in

writing. The division shall forthwith transmit copies of the administrative law judge's decision to the agency, the Department of State, and the committee.

(e) Hearings held under this section shall be conducted in the same manner as provided by ss. 120.569 and 120.57, except that the administrative law judge's order shall be final agency action. The petitioner and the agency whose rule is challenged shall be adverse parties. Other substantially affected persons may join the proceedings as intervenors on appropriate terms which shall not unduly delay the proceedings. Failure to proceed under this section shall not constitute failure to exhaust administrative remedies.

(2) Challenging proposed rules; special provisions.--

(a) Any substantially affected person may seek an administrative determination of the invalidity of any proposed rule by filing a petition seeking such a determination with the division within 21 days after the date of publication of the notice required by s. 120.54(3)(a), within 10 days after the final public hearing is held on the proposed rule as provided by s. 120.54(3)(c), within 20 days after the preparation of a statement of estimated regulatory costs required pursuant to s. 120.541, if applicable, or within 20 days after the date of publication of the notice required by s. 120.54(3)(d). The petition shall state with particularity the objections to the proposed rule and the reasons that the proposed rule is an invalid exercise of delegated legislative authority. The petitioner has the burden of going forward. The agency then has the burden 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. Any person who is substantially affected by a change in the

proposed rule may seek a determination of the validity of such change. Any person not substantially affected by the proposed rule as initially noticed, but who is substantially affected by the rule as a result of a change, may challenge any provision of the rule and is not limited to challenging the change to the proposed rule.

(b) The administrative law judge may declare the proposed rule wholly or partly invalid. The proposed rule or provision of a proposed rule declared invalid shall be withdrawn by the adopting agency and shall not be adopted. No rule shall be filed for adoption until 28 days after the notice required by s. 120.54(3)(a), until 21 days after the notice required by s. 120.54(3)(d), until 14 days after the public hearing, until 21 days after preparation of a statement of estimated regulatory costs required pursuant to s. 120.541, or until the administrative law judge has rendered a decision, whichever applies. However, the agency may proceed with all other steps in the rulemaking process, including the holding of a factfinding hearing. In the event part of a proposed rule is declared invalid, the adopting agency may, in its sole discretion, withdraw the proposed rule in its entirety. The agency whose proposed rule has been declared invalid in whole or part shall give notice of the decision in the first available issue of the Florida Administrative Weekly.

(c) When any substantially affected person seeks determination of the invalidity of a proposed rule pursuant to this section, the proposed rule is not presumed to be valid or invalid.

401. "A party challenging a proposed rule [pursuant to Section 120.56, Florida Statutes] has the burden of establishing a factual basis for the objections to the rule, and then the

agency has the ultimate burden of persuasion to show that the proposed rule is a valid exercise of delegated legislative authority." Southwest Florida Water Management District v. Charlotte County, 774 So. 2d 903, 908 (Fla. 2d DCA 2001); Agency for Health Care Administration, Board of Clinical Laboratory Personnel v. Florida Coalition of Professional Laboratory Organizations, Inc., 718 So. 2d 869, 871 (Fla. 1st DCA 1998); and St. Johns River Water Management District v. Consolidated Tomoka Land Co., 717 So. 2d 72, 76 (Fla. 1st DCA 1998); see also Board of Medicine v. Florida Academy of Cosmetic Surgery, Inc., 808 So. 2d 243, 251 (Fla. 1st DCA 2002)("The petitioner has the burden of going forward in a rule challenge proceeding. § 120.56(2)(a), Fla. Stat. (1999). However, once the petitioner has carried that burden, the agency must demonstrate by the greater weight of the evidence that the rule is not 'an invalid exercise of delegated legislative authority.'").

402. A proposed rule may be challenged pursuant to Section 120.56, Florida Statutes, only on the ground that it is an "invalid exercise of delegated legislative authority." An Administrative Law Judge is without authority to declare a proposed rule invalid on any other ground. To do so would be an impermissible extension of the Administrative Law Judge's authority beyond the boundaries established by the Legislature. See Schiffman v. Department of Professional Regulation, Board of

Pharmacy, 581 So. 2d 1375, 1379 (Fla. 1st DCA 1991) ("An administrative agency has only the authority that the legislature has conferred it by statute."); Lewis Oil Co., Inc. v. Alachua County, 496 So. 2d 184, 189 (Fla. 1st DCA 1986)("Administrative agencies have only the powers delegated by statute."); and Fiat Motors of North America, Inc. v. Calvin, 356 So. 2d 908, 909 (Fla. 1st DCA 1978)("Administrative agencies are creatures of statute and have only such powers as statutes confer."). For example, an Administrative Law Judge may not invalidate a proposed rule simply because, in the Judge's opinion, it does not represent the wisest or best policy choice. See Board of Trustees of Internal Improvement Trust Fund v. Levy, 656 So. 2d 1359, 1364 (Fla. 1st DCA 1995)("The issue before the hearing officer in this [rule challenge] case was not whether the Trustees made the best choice in limiting the lengths of docks within the preserve, or whether their choice is one that the appellee finds desirable for his particular location."); and Dravo Basic Materials Co., Inc. v. State, Department of Transportation, 602 So. 2d 632, 634 (Fla. 2d DCA 1992)("Dravo's frustration is understandable. It may well be that it could provide a quality product to the point of use under some other adequate and economical test procedures. It may well be that this additional competition would help reduce the cost of highways in Florida. It is not our task, however,

to write the best rule for DOT. That was not the task of the hearing officer."); cf. Rollins v. Pizzarelli, 761 So. 2d 294, 298 (Fla. 2000)("An interpretation of a statutory term cannot be based on this Court's own view of the best policy.").

403. As the First District Court of Appeal observed in Southwest Florida Water Management District v. Save the Manatee Club, Inc., 773 So. 2d 594, 597-98 (Fla. 1st DCA 2000):

> This phrase ["invalid exercise of delegated legislative authority," as used in Section 120.56, Florida Statutes] is defined in section 120.52(8), Florida Statutes, as an "action that goes beyond the powers, functions, and duties delegated by the Legislature." Section 120.52(8) then lists seven circumstances in which a rule is an invalid exercise of delegated legislative authority: . . .
>
> In addition to the seven enumerated grounds for challenging a rule, section 120.52(8) provides a set of general standards to be used in determining the validity of a rule in all cases. These standards are contained in the closing paragraph of the statute. . . .

Subsection (8) of Section 120.52, Florida Statutes, provides, in its entirety, as follows:

> Invalid exercise of delegated legislative authority" means action which goes beyond the powers, functions, and duties delegated by the Legislature. A proposed or existing rule is an invalid exercise of delegated legislative authority if any one of the following applies:

(a) The agency has materially failed to follow the applicable rulemaking procedures or requirements set forth in this chapter;

(b) The agency has exceeded its grant of rulemaking authority, citation to which is required by s. 120.54(3)(a)1.;

(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.;

(d) The rule is vague, fails to establish adequate standards for agency decisions, or vests unbridled discretion in the agency;

(e) The rule is arbitrary or capricious;

(f) The rule is not supported by competent substantial evidence; or

(g) The rule imposes regulatory costs on the regulated person, county, or city which could be reduced by the adoption of less costly alternatives that substantially accomplish the statutory objectives.

A grant of rulemaking authority is necessary but not sufficient to allow an agency to adopt a rule; a specific law to be implemented is also required. An agency may adopt only rules that implement or interpret the specific powers and duties granted by the enabling statute. No agency shall have authority to adopt a rule only because it is reasonably related to the purpose of the enabling legislation and is not arbitrary and capricious or is within the agency's class of powers and duties, nor shall an agency have the authority to implement statutory provisions setting forth general legislative intent or policy. Statutory language granting rulemaking authority or generally describing the powers and functions of an agency shall be construed to extend no further than implementing or

interpreting the specific powers and duties conferred by the same statute.

404. Among the procedural rulemaking requirements set forth in Chapter 120, Florida Statutes, which, if not followed, may result in a finding of an "invalid exercise of delegated legislative authority," as contemplated by Subsection (8)(a) of Section 120.52, Florida Statutes, are: the requirement of Subsection (1)(i) of Section 120.54, Florida Statutes, that "[a] rule may incorporate material by reference . . . only as the material exists on the date the rule is adopted;" and the requirement of Subsection (3)(c)2. of Section 120.54, Florida Statutes, that the agency "suspend the rulemaking proceeding and convene a separate proceeding under the provisions of ss. 120.569 and 120.57" if "a person timely asserts that the person's substantial interests will be affected in the [rulemaking] proceeding and affirmatively demonstrates to the agency that the proceeding does not provide adequate opportunity to protect those interests." Subsection (2)(b) of Section 120.54, Florida Statutes, on the other hand, which provides that "[a]ll rules should be drafted in readable language"[73] and does not contain "mandatory language" such as "shall" or "must" found elsewhere in the statute, merely establishes an aspirational goal for agencies engaged in rulemaking, not a requirement that, if not followed, can result in the invalidation of a rule. See

State v. Thomas, 528 So. 2d 1274, 1275 (Fla. 3d DCA 1988)("As we perceive it, the State's argument is that 'should' is the equivalent of 'shall' and that 'shall' is mandatory. While we acknowledge that 'should' retains its arcane, schoolmarm meaning as a past tense of 'shall,' its modern usage is as the weaker companion to the obligatory 'ought.' Thus, it is said that '[o]ught should be reserved for expressions of necessity, duty, or obligation; should, the weaker word, expresses mere appropriateness, suitability or fittingness.'"); Massey Builders Supply Corporation v. Colgan, 553 S.E. 2d 146, 150 (Va. App. 2001)("The word 'shall' is primarily mandatory, whereas the word 'should' ordinarily implies no more than expediency and is directory only."); and Magnuson v. Grand Forks County, 97 N.W.2d 622, 624 (N.D. 1959)("It does not seem that the word 'should' was used inadvertently. Other instructions on the back of the order contain the more compulsive word 'must,' as for example 'the original of this order must be signed by the recipient or person acting in his behalf and by the vendor.' We construe the word 'should' as used here to be persuasive rather than mandatory.").

405. Subsections (8)(b) and (c) of Section 120.52, Florida Statutes, although they are "interrelated," "address two different problems" or "issues." Board of Trustees of Internal Improvement Trust Fund v. Day Cruise Association, Inc., 794 So.

2d 696, 701 (Fla. 1st DCA 2001); and St. Johns River Water Management District v. Consolidated Tomoka Land Co., 717 So. 2d at 81. Subsection (8)(b) "pertains to the adequacy of the grant of rulemaking authority," including any statutory qualifications upon the exercise of such authority. Board of Trustees of Internal Improvement Trust Fund v. Day Cruise Association, Inc., 794 So. 2d at 701; Department of Business and Professional Regulation v. Calder Race Course, Inc., 724 So. 2d 100, 104 (Fla. 1st DCA 1998); and St. Johns River Water Management District v. Consolidated Tomoka Land Co., 717 So. 2d at 81. "Under section 120.52(8)(c), the test is whether a (proposed) rule gives effect to a 'specific law to be implemented,' and whether the (proposed) rule implements or interprets 'specific powers and duties.'" Board of Trustees of Internal Improvement Trust Fund v. Day Cruise Association, Inc., 794 So. 2d at 704. "Logic dictates that the closer the rule tracks the statute, the less likely it modifies or contravenes the statute [within the meaning of Subsection (8)(c) of Section 120.52, Florida Statutes]. The language need not be identical, however, as there would be no need for the rule." The Sierra Club v. St. Johns River Water Management District, Case No. 5D01-2127, 2002 WL 537041 (Fla. 5th DCA April 12, 2002). Both Subsections (8)(b) and (8)(c) must be read in pari materia with the "closing paragraph of the statute."

406. A proposed rule is invalid under Subsection (8)(d) of Section 120.52, Florida Statutes, if its terms are so vague that persons to be governed by the rule who are of common intelligence and understanding must guess at its meaning. See Southwest Florida Water Management District v. Charlotte County, 774 So. 2d at 915; and Florida Public Service Commission v. Florida Waterworks Association, 731 So. 2d 836, 843 (Fla. 1st DCA 1999).

407. A proposed rule that is not penal in nature (like the proposed rules in proposed Rule Chapter 62-303, Florida Administrative Code) must meet a less demanding standard, in terms of the amount of detail and specificity required to withstand an "invalid for vagueness" challenge, than must a penal rule proposed by an agency. This is because "the fundamental concern of the vagueness doctrine is not threatened" in the case of non-penal rule.[74] See Florida East Coast Industries, Inc. v. State, Department of Community Affairs, 677 So. 2d 357, 362 (Fla. 1st DCA 1996); and Scudder v. Greenbrier C. Condominium Association, Inc., 663 So. 2d 1362, 1367 (Fla. 4th DCA 1995); see also Zerweck v. State Commission on Ethics, 409 So. 2d 57, 60 (Fla. 4th DCA 1982)("[A] less stringent standard as to vagueness is used in examining non-criminal statutes, though minimal constitutional standards for definiteness must still be met."); and Tenney v. State

Commission on Ethics, 395 So. 2d 1244, 1246 (Fla. 2d DCA 1981)("When there is a vagueness challenge to a statute, a court must impose a higher standard of definiteness where a violation of the statute would bring about a criminal penalty as contrasted to a civil one.").

408. Even in the case of a proposed rule that is penal in nature, not every word in the rule needs to be defined. See State v. Brake, 796 So. 2d 522, 528 (Fla. 2001)("[T]he legislature's failure to define a statutory term does not in an of itself render a penal provision unconstitutionally vague"); State v. Buckner, 472 So. 2d 1228, 1229 (Fla. 2d DCA 1985)("[I]f we demanded precise definition of every statutory word to shield against the void for vagueness doctrine our codified laws would fill endless shelves and the result would be obfuscation rather than clarification of our organic law.") In the absence of a definition of a term in a rule, "resort may be had to case law or related [rule or] statutory provisions which define the term, and where a [rule or] statute does not specifically define words of common usage, such words are construed in their plain and ordinary sense." State v. Mitro, 700 So. 2d 643, 645 (Fla. 1997); and Jones v. Williams Pawn & Gun, Inc., 800 So. 2d 267, 270 (Fla. 4th DCA 2001).

409. "The fact that [an agency] might, without difficulty, have chosen 'clearer and more precise language' equally capable

of achieving the end which it sought does not mean that the [proposed rule] which it in fact drafted is impermissibly vague." L.B. v. State, 700 So. 2d 370, 372 (Fla. 1997); and Westerheide v. State, 767 So. 2d 637, 653 (Fla. 5th DCA 2000).

410. A proposed rule is not impermissibly vague simply because it may be subject to differing interpretations. See Department of Insurance v. Southeast Volusia Hospital District, 438 So. 2d 815, 820 (Fla. 1983); State v. Pavon, 792 So. 2d 665, 667 (Fla. 4th DCA 2001); and Scudder v. Greenbrier C. Condominium Association, Inc., 663 So. 2d at 1368.

411. "'That there may be marginal cases in which it is difficult to determine the side of the line on which a particular fact situation falls is no sufficient reason to hold the language [of a rule] too ambiguous'" to survive challenge. State v. Manfredonia, 649 So. 2d 1388, 1390 (Fla. 1995)(quoting Roth v. United States, 77 S. Ct. 1304, 1312-13 (1957)); see also Travis v. State, 700 So. 2d 104, 106 (Fla. 1st DCA 1997)(quoting United States v. National Dairy Products Corporation, 83 S. Ct. 594, 597 (1963))(("[S]tatutes should not be declared facially invalid 'simply because difficulty is found in determining whether certain marginal offenses fall within their language.'").

412. "The sufficiency of a rule's standards and guidelines may depend on the subject matter dealt with and the degree of

difficulty involved in articulating finite standards." Cole Vision Corp. v. Department of Business and Professional Regulation, Board of Optometry, 688 So. 2d 404, 410 (Fla. 1st DCA 1997).

413. The use of subjective terms in a proposed rule dealing with complex matters "does not automatically render the rule[] invalid. . . . It is appropriate and acceptable for the rule[] to allow for the exercise of professional judgment." Southwest Florida Water Management District v. Charlotte County, 774 So. 2d at 911.

414. A rule may be drafted in such a manner as to give the agency "the flexibility needed to deal with complex and fluid conditions." It is not inappropriate for an agency, in drafting a rule, to take a more general approach, where adding greater detail and specificity would be impractical or undesirable. See Ameriquatic, Inc. v. Department of Natural Resources, 651 So. 2d 114, 119-20 (Fla. 1st DCA 1995).

415. "A rule which 'fails to establish adequate standards for agency decisions, or vests unbridled discretion in the agency,' . . . is invalid. But no rule is properly invalidated simply because 'governing statutes, not the challenged rule, confer . . . discretion.'" Florida Public Service Commission v. Florida Waterworks Association, 731 So. 2d at 843 (quoting Cortes v. State, Board of Regents, 655 So. 2d 132, 138 (Fla. 1st

DCA 1995)). Stated differently, "[a]n administrative rule . . . which fails to extinguish the discretion a statute confers[] is not invalid on that account." Cortes v. State, Board of Regents, 655 So. 2d at 138. The "unbridled discretion" that Subsection (8)(d) of Section 120.52, Florida Statutes, condemns is, as the First District Court of Appeal in Cortes referred to it as, "[r]ule-[e]ngendered [s]tandardless [d]iscretion."

416. A proposed rule is "arbitrary", within the meaning of Subsection (8)(e) of Section 120.52, Florida Statutes, if is "not supported by facts or logic, or [is] despotic." A proposed rule is "capricious," within the meaning of Subsection (8)(e) of Section 120.52, Florida Statutes, if it is "taken without thought or reason or [is] irrational[ ]." Agrico Chemical Co. v. Department of Environmental Regulation, 365 So. 2d 759, 763 (Fla. 1st DCA 1978); see also Board of Medicine v. Florida Academy of Cosmetic Surgery, Inc., 808 So. 2d at 255 ("[A] rule is 'arbitrary' only if it is 'not supported by facts or logic,' and 'capricious' only if it is irrational.").

417. If a proposed rule is "justifiable under any analysis that a reasonable person would use to reach a decision of similar importance, it would seem that the [rule] is neither arbitrary nor capricious." Dravo Basic Materials Company, Inc., v. State, Department of Transportation, 602 So. 2d at 634 n.3.

418. Action taken by an agency that the Legislature has specifically authorized the agency to take is neither arbitrary nor capricious. See Florida Manufactured Housing Association, Inc., v. Department of Revenue, 642 So. 2d 626, 627 (Fla. 1st DCA 1994)(proposed rules that "add nothing whatsoever to the requirements of the law, but instead fit squarely within [statute implemented]" not arbitrary or capricious).

419. The requirement of Subsection (8)(f) of Section 120.52, Florida Statutes, that a proposed rule be "supported by competent substantial evidence" was recently addressed in Board of Medicine v. Florida Academy of Cosmetic Surgery, Inc., 808 So. 2d at 257-58, wherein the First District Court of Appeal stated the following:

> The parties disagree as to the intended meaning of the term "competent substantial evidence," as used in section 120.52(8)(f). As our supreme court has observed, the term "competent substantial evidence" has two different meanings. Fla. Power & Light Co. v. City of Dania, 761 So. 2d 1089 (Fla. 2000). When applied by an agency at the fact-finding level, "competent substantial evidence" refers to a standard of proof. Id. at 1091-93 (citing Irvine v. Duval County Planning Comm'n, 495 So. 2d 167 (Fla. 1986)). However, at the appellate level, the term refers to a standard of review, and "is tantamount to legally sufficient evidence." Id. at 1092. In this latter sense, competent substantial evidence has been described as evidence that is "sufficiently relevant and material that a reasonable mind would accept it as adequate to support the conclusion reached." DeGroot

v. Sheffield, 95 So. 2d 912, 916 (Fla. 1957). Pursuant to this standard, the reviewing body may not reweigh the evidence, make determinations regarding credibility or substitute its judgment for that of the agency, even if the record contains some evidence supporting a contrary view. See, e.g., Dunham v. Highlands County Sch. Bd., 652 So. 2d 894, 896 (Fla. 2d DCA 1995); Panama City Hous. Auth. v. Sowby, 587 So. 2d 494, 497 (Fla. 1st DCA 1991). Appellants argue that "competent substantial evidence," as used in section 120.52(8)(f), is intended to have this latter meaning (i.e., that it refers to a standard of review), and that, therefore, the ALJ improperly reweighed the evidence and substituted his judgment for that of the Board. Appellees respond that, because a rule challenge is a de novo proceeding, the term is intended to refer to a standard of proof, rather than of review.

The parties have cited no case law or legislative history in support of their respective positions, and our independent research has failed to reveal any. However, upon reflection, we believe that appellants' position regarding the legislature's intent is the correct one. Although technically a de novo proceeding, a rule challenge before an ALJ is in many respects similar to certiorari review in circuit court of quasi-judicial action by local governmental agencies. In such cases, the circuit court must review the record to determine whether the agency action is supported by competent substantial (or "legally sufficient") evidence. See, e.g., Fla. Power & Light Co. v. City of Dania, 761 So. 2d 1089, 1092 (Fla. 2000). The circuit court may not reweigh the evidence or substitute its judgment for that of the agency. Id. at 1093. Moreover, we note that, were ALJ's permitted to reweigh the evidence regarding the need for rules, the rulemaking process would be turned on its head. The Division of Administrative Hearings would have the final say regarding the wisdom of agency

> rules, notwithstanding the special expertise possessed by agencies, and the lack thereof in the Division. Regulation of trades and professions would be taken from the boards created precisely because they possessed special knowledge and expertise, and placed in the hands of ALJ's. We believe that the legislature intended by its use of the term "competent substantial evidence" to limit the scope of review by ALJ's in rule challenge proceedings to whether legally sufficient evidence exists supporting the agency's proposal. Accordingly, in these proceedings, the ALJ should not have independently reweighed the evidence, assessed the credibility thereof, or substituted his judgment regarding the wisdom of the rules for that of the Board.

420. In reviewing scientific determinations made by an agency within the agency's area of special expertise that are "at the frontiers of science," the Administrative Law Judge should be particularly deferential. See Island Harbor Beach Club, Ltd. v. Department of Natural Resources, 495 So. 2d 209, 218 (Fla. 1st DCA 1986)(quoting Carstens v. Nuclear Regulatory Commission, 742 F.2d 1546, 1557 (D.C. Cir. 1984))("[W]e approve the federal standard for admissibility of scientific evidence in administrative proceedings, urged by DNR, as that standard accords great deference to the policy-making discretion and expertise of regulatory agencies. . . . In Carstens, the petitioners challenged, inter alia, the Commission's methodology for predicting the likelihood of seismic activity in an area proposed for a nuclear reactor, arguing that 'the uncertainty of

the science of seismology' required the Commission to adopt a more conservative methodology. Responding to this argument, the court said: 'In advancing this argument, petitioners fundamentally misperceive the judiciary's role in complex regulatory matters. The uncertainty of the science of earthquake prediction only serves to emphasize the limitations of judicial review and the need for greater deference to policymaking entities.'"); Baltimore Gas and Electric Co. v. Natural Resources Defense Council, Inc., 103 S. Ct. 2246, 2255 (1983)("[A] reviewing court must remember that the Commission is making predictions, within its area of special expertise, at the frontiers of science. When examining this kind of scientific determination, as opposed to simple findings of fact, a reviewing court must generally be at its most deferential."); Sierra Club v. U.S. E.P.A., 167 F.3d 658, 662 (D.C. Cir. 1999)("EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem. We generally defer to an agency's decision to proceed on the basis of imperfect scientific information, rather than to 'invest the resources to conduct the perfect study.'"); Appalachian Power Co. v. E.P.A., 135 F.3d 791, 802 (D.C. Cir. 1998)("Statistical analysis is perhaps the prime example of those areas of technical wilderness into which judicial expeditions are best limited to ascertaining the lay of the land. Although computer

models are 'a useful and often essential tool for performing the Herculean labors Congress imposed on EPA in the Clean Air Act,'. . . their scientific nature does not easily lend itself to judicial review. Our consideration of EPA's use of a regression analysis in this case must therefore comport with the deference traditionally given to an agency when reviewing a scientific analysis within its area of expertise without abdicating our duty to ensure that the application of this model was not arbitrary."); BP Exploration & Oil, Inc.(93-3310) v. U.S. E.P.A., 66 F.3d 784, 792 (6th Cir. 1995)("[T]his Court will defer in large part to EPA's scientific findings."); and Natural Resources Defense Council, Inc. v. U.S. E.P.A., 863 F.2d 1420, 1430 (9th Cir. 1988)("Here we deal with issues not of fact or law but of scientific measurement. In assessing difficult issues of scientific method and laboratory procedure, we must defer to a great extent to the expertise of the EPA.").

421. "To invalidate a rule on the ground that it 'imposes regulatory costs on the regulated person . . . which could be reduced by the adoption of less costly alternatives that substantially accomplish the statutory objectives,' the challenger must comply with section 120.54(1)(a), Florida Statutes[, which] requires a 'substantially affected person' to submit to an agency within 21 days of publication of the notice of proposed action 'a good faith written proposal for a lower

cost regulatory alternative to a proposed rule which substantially accomplishes the objectives of the law being implemented.'" Board of Medicine v. Florida Academy of Cosmetic Surgery, Inc., 808 So. 2d at 258. Petitioners have neither filed such a "good faith written proposal for a lower cost regulatory alternative," nor claimed that the proposed rule chapter should be declared invalid because of the regulatory costs it imposes.

422. The closing paragraph of Subsection (8) of Section 120.52, Florida Administrative Code, is "known as the 'flush left' paragraph." See Board of Trustees of Internal Improvement Trust Fund v. Day Cruise Association, Inc., 794 So. 2d at 698. It was last amended in 1999. The First District Court of Appeal, in Board of Trustees of Internal Improvement Trust Fund v. Day Cruise Association, Inc., 794 So. 2d at 698-700, discussed the evolution of the present version of the "flush left paragraph," stating as follows:

> Recent amendments to the APA have tightened and clarified rulemaking restrictions. In 1996, the Legislature enacted the following:[75]
>
> "A grant of rulemaking authority is necessary but not sufficient to allow an agency to adopt a rule; a specific law to be implemented is also required. An agency may adopt only rules that implement, interpret, or make specific the particular powers and duties granted by the enabling statute. No agency shall have authority to adopt a rule

only because it is reasonably related to the purpose of the enabling legislation and is not arbitrary and capricious, nor shall an agency have the authority to implement statutory provisions setting forth general legislative intent or policy. Statutory language granting rulemaking authority or generally describing the powers and functions of an agency shall be construed to extend no further than the particular powers and duties conferred by the same statute."

Ch. 96-159, § 3, at 152, Laws of Fla. (codified at § 120.52(8), Fla. Stat. (Supp. 1996)). The precise effect of this then new statutory language was at least originally a matter of some debate. We considered the import of the 1996 amendments in St. Johns River Water Mgmt. Dist. v. Consolidated-Tomoka Land Co., 717 So. 2d 72, 80 (Fla. 1st DCA 1998)(interpreting "particular" as requiring only that a (proposed) rule be "within the range of powers" statutorily granted to the agency, and deeming (proposed) rules valid if "within the class of powers and duties identified in the statute to be implemented"), rev. denied, 727 So. 2d 904 (Fla. 1999). But see Dep't of Bus. & Prof'l Regulation v. Calder Race Course, Inc., 724 So. 2d 100, 102 (Fla. 1st DCA 1998)(applying the 1996 amendments in invalidating as beyond the scope of the enabling statute an agency rule that would have allowed warrantless searches at a pari-mutuel facility); St. Petersburg Kennel Club v. Dep't of Bus. & Prof'l Regulation, 719 So. 2d 1210, 1211 (Fla. 2d DCA 1998)(applying the 1996 amendments in invalidating rules defining poker because the enabling statute did not specifically authorize them).

In apparent response to the decision in Consolidated-Tomoka, the Legislature again amended section 120.52(8) in 1999, stating its intent "to clarify the limited authority

of agencies to adopt rules in accordance with chapter 96-159, Laws of Florida, and . . . to reject the class of powers and duties analysis." Ch. 99 379, § 1, at 3789, Laws of Fla. The legislative history of the 1999 amendments reflects a legislative intent that the standard for agency rulemaking be more restrictive than the standard explicated in what the Legislature deemed inappropriately broad judicial interpretations of the 1996 amendments to the APA, expressly including Consolidated-Tomoka:

"[The bill] rejects a judicial interpretation of this standard which created a functional test to determine whether a challenged agency rule is directly within the class of powers and duties identified in the statute to be implemented." [specifically citing Consolidated-Tomoka]

Fla. H.R. Comm. on Govtl. Rules & Regs., CS/HB 107 (1999)(ch. 99-379, Laws of Fla.) Final Staff Analysis 5 (June 30, 1999); see also Kent Wetherell, Sour Grapes Make Sweet Wine, Fla. Bar Environ. and Land Use Law Section, Section Reporter, (Dec. 1999) <http://www.eluls.org/dec1999--wetherell.html> ("Consolidated-Tomoka . . . did not survive the legislative session following its rendition as it was effectively overruled[76] by legislation adopted in the 1999 Session. . . . The 1999 legislation explicitly rejects the 'class of powers and duties' test created by the court in Consolidated-Tomoka. . . ."). "[T]he Legislature has rejected the standard we adopted in Consolidated-Tomoka." Southwest Florida Water Mgmt. Dist. v. Save the Manatee Club, Inc., 773 So. 2d 594, 599 (Fla. 1st DCA 2000).

Implementing this legislative intent to cabin agency rulemaking authority, the 1999 Legislature amended the "flush left"

> paragraph of section 120.52(8) and parallel language in section 120.536(1), by replacing the phrase "particular powers and duties" with the phrase "specific powers and duties," and by expressly rejecting the judicial "class of powers and duties" gloss . . . .

The court went on to state that, "[u]nder the 1996 and 1999 amendments to the APA, it is now clear, agencies have rulemaking authority only where the Legislature has enacted a specific statute, and authorized the agency to implement it, and then only if the (proposed) rule implements or interprets specific powers or duties, as opposed to improvising in an area that can be said to fall only generally within some class of powers or duties the Legislature has conferred on the agency." Id. at 700. Finding that "the proposed rule [at issue in Day Cruise] exceed[ed] limitations on the Trustees' rulemaking authority--making it an invalid exercise of delegated legislative authority as defined in section 120.52(8)(b) --and [that the proposed rule] would not implement specific enabling legislation (or any specific constitutional power or duty) as contemplated by section 120.52(8)(c)," the court affirmed the invalidation of the proposed rule. Id. at 704. On Motion for Clarification, Rehearing, Certification, or Rehearing En Banc, the court rejected the Trustees' argument that its decision conflicted with Southwest Florida Water Management District v. Save the

Manatee Club, Inc., 773 So. 2d at 598, and it reiterated the following statement it had made in Save the Manatee Club:

> The question is whether the statute contains a specific grant of legislative authority for the rule, not whether the grant of authority is specific enough. Either the enabling statute authorizes the rule at issue or it does not. . . . [T]his question is one that must be determined on a case-by-case basis.

Board of Trustees of Internal Improvement Trust Fund v. Day Cruise Association, Inc., 798 So. 2d 847 (Fla. 1st DCA 2001). Subsequently, in Board of Medicine v. Florida Academy of Cosmetic Surgery, Inc., 808 So. 2d at 253, the court again quoted language it had used in Save the Manatee Club:

> "[T]he authority to adopt an administrative rule must be based on an explicit power or duty identified in the enabling statute. Otherwise, the rule is not a valid exercise of delegated legislative authority." Southwest Fla. Water Mgmt. Dist. v. Save the Manatee Club, Inc., 773 So. 2d 594, 599 (Fla. 1st DCA 2000). Moreover, "the authority for an administrative rule is not a matter of degree. The question is whether the statute contains a specific grant of legislative authority for the rule, not whether the grant of authority is specific enough." Id. (emphasis in original).

See also Hennessey v. Department of Business and Professional Regulation, Division of Pari-Mutuel Wagering, Case Nos. 1D01-0434, 1D01-2230, and 1D01-2234, 2002 WL 649181 (Fla. 1st DCA April 22, 2002), the most recent First District Court of Appeal opinion concerning the scope of agency rulemaking authority,

wherein the Court once again repeated language it had used in Save the Manatee Club:

> [S]ubsequent to the amendment [in 1999 of Subsection (8) of Section 120.52, Florida Statutes], an agency can only adopt rules which implement or interpret specific powers and duties granted by the enabling statute:
>
> "[I]t is clear that the authority to adopt an administrative rule must be based on an explicit power or duty identified in the enabling statute. Otherwise the rule is not a valid exercise of delegated legislative authority."
>
> Id. at 599. In Save the Manatee, we expressly found that in reviewing for the specific authority for a rule, the issue is not whether the grant of authority is "specific enough," but whether the enabling statute grants legislative authority for the rule at issue . . . .

423. Having "[c]onsider[ed] Section 120.52(8), Florida Statutes, in conjunction with the trilogy of [Save the] Manatee Club, Day Cruise, and Cosmetic Surgery," Administrative Law Judge John G. Van Laningham, in his Final Order in Food Safety Training, Inc. v. Department of Business and Professional Regulation, Division of Hotels and Restaurants, DOAH Case No. 01-3753RP (Fla. DOAH February 14, 2002), "articulate[d] [the appropriate] analytical framework for resolving questions regarding rulemaking authority" in a rule challenge case:

> 36. The threshold question, of course, is whether the agency has been delegated the power to make rules. That issue will rarely be disputed since most agencies have been

granted general rulemaking powers.[77] As both Manatee Club and Day Cruise make clear, however, if the agency has been empowered or directed specifically to make particular rules or kinds of rules, it will be necessary, in defining the specific powers or duties delegated to the agency, to pay close attention to any pertinent restrictions or limitations on the agency's rulemaking authority.

37. After it has been determined that the agency has the necessary grant of rulemaking authority, the next question is: What is the specific power or specific duty that the agency claims to have implemented or interpreted through the challenged rule? Logically, one needs to know what to look for before searching the enabling statute for the requisite grant. Ordinarily, it will be possible to derive the specific power or duty claimed from studying the language of the challenged rule. However, it must be recognized that the framing of the power or duty is potentially outcome-determinative. . . . In defining the power or duty, one must be careful to avoid begging the question.

38. The next analytical step is to examine the enabling statute to determine whether the specific power or duty claimed by the agency is among the specific powers or duties delegated by the legislature. As Cosmetic Surgery demonstrates, this step may involve statutory interpretation. In addition, it is here that any qualifications or limitations on the agency's rulemaking power must be taken into account. If the enabling statute, properly interpreted, either does not contain the specific power or duty claimed, or contains limitations or qualifications that are incompatible with the existing or proposed rule, then the rule is invalid.[78]

> 39. If, on the other hand, the specific power or duty claimed has indeed been granted to the agency, then the last question is whether the rule at issue implements or interprets such power or duty. Where the power or duty claimed was defined by derivation from the rule, the conclusion here will probably be foregone. This step, however, cannot be overlooked, for a rule, to be valid, must implement or interpret the specific powers granted.

424. In applying this "analytical framework," it is necessary for the Administrative Law Judge to construe the statutory provisions relied upon by the agency (as "rulemaking authority" and the "law implemented"). If these statutory provisions are among those the agency is responsible for administering, the agency's construction of these provisions (as incorporated in the rule) "should be upheld when it is within the range of permissible interpretations." Board of Podiatric Medicine v. Florida Medical Association, 779 So. 2d 658, 660 (Fla. 1st DCA 2001). The agency's construction need not be the sole possible construction, or even the most desirable one, but must only be within the range of possible constructions. See Orange Park Kennel Club, Inc., v. Department of Business and Professional Regulation, 644 So. 2d 574 (Fla. 1st DCA 1994); Florida League of Cities v. Department of Environmental Regulation, 603 So. 2d 1363, 1369 (Fla. 1st DCA 1992); Escambia County v. Trans Pac, 584 So. 2d 603, 605 (Fla. 1st DCA 1991);

and Department of Professional Regulation v. Durrani, 455 So. 2d 515, 517 (Fla. 1st DCA 1984).[79]

425. While it is true that "[t]he provisions of statutes enacted in the public interest should be given a liberal construction in favor of the public," the Administrative Law Judge must recognize that it is for the agency, in implementing the statute, to determine how, within the parameters set by the Legislature, the public interest is best served and that the agency's determination in this regard "is entitled to great weight and should not be overturned unless clearly erroneous." Department of Environmental Regulation v. Goldring, 477 So. 2d 532, 534 (Fla. 1985); and Pan American World Airways, Inc. v. Florida Public Service Commission, 427 So. 2d 716, 719 (Fla. 1983); see also Orange County Industrial Development Authority v. State, 427 So. 2d 174, 181 (Fla. 1983)("The Federal Communications Commission's judgment regarding how the public interest is best served is entitled to substantial judicial deference."); AT&T Corp. v. F.C.C., 220 F.3d 607, 621 (D.C. Cir. 2000)(quoting FDA v. Brown Williamson Tobacco Corp., 120 S. Ct. 1291, 1300 (2000))("In making this determination, we afford substantial deference to the agency's interpretation of the statute because 'the responsibilities for assessing the wisdom of . . . policy choices and resolving the struggle between competing views of the public interest are not judicial ones,

and because of the agency's greater familiarity with the ever-changing facts and circumstances surrounding the subjects regulated.'"); Arkansas AFL-CIO v. F.C.C., 11 F.3d 1430, 1441 (8th Cir. 1993)("As long as the interpretation proposed by the agency is reasonable, a reviewing court cannot replace the agency's judgment with its own. Therefore, we cannot balance policy considerations, or choose among competing interests when evaluating the reasonableness of an agency action."); and Holmes v. Helms, 705 F.2d 343, 347 (9th Cir 1983)("This court cannot reverse the agency decision simply because it might believe that the public interest could best be served by a different decision.").

426. "Legislative intent is the 'polestar' in interpretation of statutory provisions." Blinn v. Florida Department of Transportation, 781 So. 2d 1103, 1107 (Fla. 1st DCA 2000). Accordingly, an agency's construction of a statute that is contrary to the plain legislative intent is not entitled to any deference and must be rejected.

427. "Legislative intent must be derived primarily from the words expressed in the statute. If the language of the statute is clear and unambiguous," these words must be given effect. Florida Department of Revenue v. Florida Municipal Power Agency, 789 So. 2d 320, 323 (Fla. 2001). In attempting to ascertain the meaning of statutory language (and thereby

legislative intent), the entire statute must be examined. See Florida Jai Alai, Inc., v. Lake Howell Water and Reclamation District, 274 So. 2d 522, 524 (Fla. 1973)("Legislative intent should be gathered from consideration of the statute as a whole rather than from any one part thereof."); Barrington v. State, 199 So. 320 (Fla. 1941)("'The statute must be read with reference to its manifest intent and spirit and cannot be limited to the literal meaning of a single word. It must be construed as a whole and interpreted according to the sense in which the words are employed, regard being had to the plain intention of the Legislature.'"); Fleischman v. Department of Professional Regulation, 441 So. 2d 1121, 1123 (Fla. 3d DCA 1983)("Every statute must be read as a whole with meaning ascribed to every portion and due regard given to the semantic and contextual interrelationship between its parts."); and Weitzel v. State, 306 So. 2d 188, 192 (Fla. 1st DCA 1974)("It is fundamental that words, phrases, clauses, sentences and paragraphs of a statute may not be construed in isolation, but that on the contrary a statute must be construed in its entirety."). Furthermore, the Administrative Law Judge should be guided by common sense. See Florida Department of Business and Professional Regulation v. Investment Corp. of Palm Beach, 747 So. 2d 374, 385 n.10 (Fla. 1999)("In recently rejecting a similarly tortured statutory construction, the Fourth District

sagely advised: 'Laws should be enforced with common sense and applied without losing sight of the legislative purpose behind their enactment. To do otherwise is to generate disrespect for the law by creating a morass of technical regulations with no connection to human experience.'"); Perez v. Perez, 769 So. 2d 389, 393, n.7 (Fla. 3d DCA 1999)("Our interpretation is consistent . . . with common sense."); Dorsey v. State, 402 So. 2d 1178, 1183 (Fla. 1981)("The definition of wire communications contained in section 934.02 must be interpreted in a common sense and reasonable manner."); Pensacola Associates v. Biggs Sporting Goods Co., 353 So. 2d 944. 947 (Fla. 1st DCA 1978)("Statutes are interpreted in the light of reason and common sense . . . ."); and Township of Pennsauken v. Schad, 733 A.2d 1159, 1167 (N.J. 1999)("Statutory canons are suggestive tools that should not lead to an interpretation that contradicts a common sense understanding of the statutory language."). "Legislative history may be helpful to ascertain legislative intent when statutory language is susceptible to more than one meaning." Knight v. State, 808 So. 2d 210, 213 n.4 (Fla. 2002).

428. Where the statute is complex and contains technical or scientific terms not susceptible to precise definition (and which, therefore, are not clear and unambiguous), the Administrative Law Judge may not reject the reasonable interpretation of those terms by the agency responsible for

implementing the statute. To not accept such interpretation would defeat the Legislature's intent (reflected by its use of such open-ended language) to leave to the sound discretion of the agency the responsibility of clarifying and fleshing out these terms. See Wallace Corp. v. City of Miami Beach, 793 So. 2d 1134 (Fla. 1st DCA 2001)("[T]he DEP is the state agency charged with the primary responsibility of administering and enforcing the provisions of chapter 161, Florida Statutes. An agency has the principal responsibility of interpreting statutes within its regulatory jurisdiction and expertise. . . . An agency's construction of a statute which it is given the power to administer will not be overturned on appeal unless it is clearly erroneous."); Island Harbor Beach Club, Ltd. v. Department of Natural Resources, 495 So. 2d at 223 ("The complexity of the scientific and technical issues in this case and the consequent deference necessarily given to DNR's expertise vividly illustrate the limited role an appellate court can play in resolving disputes arising out of an administrative agency's exercise of delegated discretion in respect to technical matters requiring substantial expertise and 'making predictions . . . at the frontiers of science.' It has become clear to us, and probably apparent to the reader of this opinion, that the setting of coastal construction control lines for the purpose of adequately protecting the beaches and dunes

of this state is not a matter of scientific certainty. The legislature's use of scientific terms and words of art in the organic statute, without setting forth more precise definitions, has compelled us to accord considerable--if not extraordinary--deference to DNR's interpretation of these terms and its selection of scientific techniques and methodologies to be employed in carrying out its statutory responsibilities."); Natural Resources Defense Council, Inc. v. Fox, 30 F.Supp.2d 369, 376-77 (S.D. N.Y. 1998)("Courts must be wary of infringing upon the deference due to administrative agencies, especially as regards implementation of a labyrinthine statutory scheme such as the Clean Water Act. In this case, at least some deference is due to EPA's superior knowledge of the problem of TMDL compliance and to the agency's need to allocate limited resources."); Cibro Petroleum Products, Inc. v. Sohio Alaska Petroleum Co., 602 F.Supp. 1520, 1532 (N.D. N.Y. 1985)("[A]n agency's interpretations are entitled to particular deference when, as here, Congress has provided DOE with expansive discretion in implementing a complex allocation scheme for the petroleum industry."); Association of Data Processing Service Organizations, Inc. v. Board of Governors of Federal Reserve System, 745 F.2d 677, 697 (D.C. Cir. 1984)("The record of the present proceeding displays a careful and conscientious effort by the Board to cope with these difficulties [resulting from

technological change]. We are not inclined to complicate its task further by attempting to exercise close and necessarily inexpert supervision of its judgments. That would be particularly inappropriate under a governing statute such as this one, which commits it to the Board to apply a standard of such inherent imprecision ('closely related to banking') that a discretion of almost legislative scope was necessarily contemplated. If there is a problem in such broad delegation, it would assuredly not be solved by effectively taking the delegation from the Board and placing it in our own hands. Having assured ourselves that the Board has acted reasonably, consistently and with procedural regularity in giving content to the statutory standard, our task is at an end."); Texas Association of Long Distance Telephone Companies (TEXALTEL) v. Public Utility Commission of Texas, 798 S.W.2d 875, 884 (Tex. App. 1990)("The contemporaneous construction of a statute by the administrative agency charged with its enforcement is said to be entitled to 'great weight,' so long as the construction is reasonable and does not contradict the 'plain language' of the statute; this is particularly true when the statute because of its complexity is ambiguous."); and Western Gas Resources, Inc. v. Heitkamp, 489 N.W.2d 869, 872 (N.D. 1992)("Administrative deference is an important consideration when an agency

interprets and implements a law that is complex and technical.").

429. The Administrative Law Judge must not only construe the statutory provisions relied upon by the agency, (s)he must also ascertain the meaning of the proposed rule as well. In doing so, the Administrative Law Judge is obligated to accept the agency's interpretation of its own rule[80] unless the agency's interpretation is not within the range of possible interpretations given the language used and therefore is clearly erroneous. See Falk v. Beard, 614 So. 2d 1086, 1089 (Fla. 1993); Citizens of State of Florida v. Wilson, 568 So. 2d 1267, 1271 (Fla. 1990); Miles v. Florida A and M University, Case No. 1D00-4961, 2002 WL 529910 (Fla. 1st DCA April 10, 2002); State v. Sun Gardens Citrus, LLP, 780 So. 2d 922, 925 (Fla. 2d DCA 2001); Purvis v. Marion County School Board, 766 So. 2d 492, 498-99 (Fla. 5th DCA 2000); and Kearse v. Department of Health and Rehabilitative Services, 474 So. 2d 819, 820 (Fla. 1st DCA 1985).

430. The Department is a state agency that has experience and special expertise in matters relating to environmental protection. As such, it plays an important role in carrying out the laws enacted by the Legislature to protect the environment. As the Florida Supreme Court stated in Avatar Development Corp. v. State, 723 So. 2d 199, 207 (Fla. 1998):

> As we recognized in Askew and Brown, the sufficiency of adequate standards depends on the complexity of the subject matter and the "degree of difficulty involved in articulating finite standards." Askew, 372 So. 2d at 918; Brown 560 So. 2d at 784. Clearly, environmental protection requires highly technical, scientific regulatory schemes to ensure proper compliance with legislative policy. It would be difficult, if not impossible, to require the Legislature to enact such rules, regulations and procedures capable of addressing the myriad of problems and situations that may arise implicating pollution control and prevention in Florida's varied environment.
>
> Under the complexities of our modern system of government, the Legislature has recognized that DEP, as a specialized administrative body, is in the best position to establish appropriate standards and conditions for permit applicants to follow that reflect the Legislature's interest in protecting Florida's air and water from pollution-causing activities. DEP employs persons equipped with the knowledge and expertise necessary to handle such highly technical and intricate matters in the endless variety of real-life situations that are presented to the agency.

see also Flo-Sun, Inc. v. Kirk, 783 So. 2d 1029, 1040 (Fla. 2001)("This legislative scheme is implemented by numerous volumes of regulations containing extensively detailed, scientific criteria and is enforced by agencies having the required experience and expertise, such as the DEP. These are not simple, routine matters which may be easily understood by trial judges and juries.").

431. Among the laws enacted by the Legislature that the Department has been delegated the responsibility to implement is Section 403.067, Florida Statutes.

432. The Legislature enacted Section 403.067, Florida Statutes in 1999 to provide the Department with the legal authority necessary to develop and administer the state's TMDL program. Through such enactment, the Legislature has vested the Department with broad, but not unlimited, discretion to apply its special knowledge and expertise to make scientific determinations and policy choices, including those policy choices that must be made because it is not possible to determine with absolute certainty the overall condition of a water and it is therefore necessary to strike a balance between the risk of making a Type I error (a false conclusion that an unimpaired water is impaired) and the risk of making a Type II error (a false conclusion that an impaired water is not impaired).

433. Section 403.067, Florida Statutes, requires the Department, among other things, to identify, and prepare an initial list of, "surface waters or segments" that are to be assessed for impairment for purposes of determining whether they should be placed on a "subsequent, updated list of those water bodies or segments for which total maximum daily loads will be calculated"; and, after conducting its assessment of the waters

on the initial list and taking into consideration other factors enumerated in the statute, to prepare and submit to the EPA the aforementioned "subsequent, updated list of those water bodies or segments for which total maximum daily loads will be calculated," which list must contain "priority rankings and schedules by which water bodies or segments [on the list] will be subjected to total maximum daily load calculations."

434. Proposed Rule Chapter 62-303, Florida Administrative Code, describes how the Department will carry out these pre-TMDL calculation responsibilities.

435. Joint Petitioners allege (in that portion of their Proposed Final Order entitled, "Exceeding Grant of Rulemaking Authority") that proposed Rule Chapter 62-303, Florida Administrative Code, "as a whole is invalid based on the flush left language in Section 120.52(8), Florida Statutes," in that Section 403.067, Florida Statutes, "does not give specific authority to the Department to adopt a rule for a preliminary list of impaired waters" or "planning list" and, furthermore, the statute provides for a "three-step process . . . (i.e., informal listing, assessing, and confirming)," rather than the "two-step process (i.e., development of 'planning' and 'verified' lists)" incorporated in the proposed rule chapter.[81] The argument is unpersuasive.

436. Subsection (2) of Section 403.067, Florida Statutes, delegates to the Department the specific power and duty to prepare a preliminary list of waters that will be subjected to "total maximum daily load assessment." The provisions of Part II of the proposed Rule Chapter 62-303, Florida Administrative Code, which explain how the Department will develop a "planning list" of waters, implement this specific power and duty. The "planning list" is a preliminary list of waters that will undergo "total maximum daily load assessment."

437. The question remains whether the Department has been granted the authority to adopt rules to implement the provisions of Subsection (2) of Section 403.067, Florida Statutes.

438. The Department contends that such rulemaking authority is found in Subsection (3)(b) of Section 403.067, Florida Statutes. Joint Petitioners disagree. They take the position "that the statute does not give specific authority to the Department to adopt a rule for a preliminary list of impaired waters." They argue that the development of this preliminary list was "envisioned [by the Legislature] as an informal process," suggesting, ironically, that the Department should not be guided by any standards in carrying out its responsibility to compile the list.[82] According to Joint Petitioners, Subsection (3)(b) of Section 403.067, Florida Statutes, "directs the Department to develop administrative

rules only for purposes of identifying those water bodies that are impaired" and not for purposes of compiling a list of waters for which TMDL assessments will be conducted.

439. As noted above, Subsection (3)(b) of Section 403.067, Florida Statutes, directs the Department to "adopt by rule a methodology for determining those waters which are impaired." It then goes on to set forth various qualifications on the Department's exercise of such rulemaking power:

> The rule shall provide for consideration as to whether water quality standards codified in chapter 62-302, Florida Administrative Code, are being exceeded, based on objective and credible data, studies and reports, including surface water improvement and management plans approved by water management districts under s. 373.456 and pollutant load reduction goals developed according to department rule. Such rule also shall set forth:
>
> 1. Water quality sample collection and analysis requirements, accounting for ambient background conditions, seasonal and other natural variations;
>
> 2. Approved methodologies;
>
> 3. Quality assurance and quality control protocols;
>
> 4. Data modeling; and
>
> 5. Other appropriate water quality assessment measures.

The Department structured not only Part III of proposed Rule Chapter 62-303, Florida Administrative Code (dealing with the

final "verified list" or, using the terminology employed by the Legislature, the "approved list" described in Subsection (4) of Section 403.067, Florida Statutes), but also Part II of the proposed rule chapter (dealing with the preliminary "planning list" or, using the terminology employed by the Legislature, the "list of surface waters or segments" described in Subsection (2) of the statute), to be compatible with these qualifications to its rulemaking authority.

440. While there can be no question, after a reading of Section 403.067, Florida Statutes, that the Legislature intended that the rulemaking mandated by Subsection (3)(b) of Section 403.067, Florida Statutes, would produce a "scientifically based" methodology to be used in developing the "approved list" described in Subsection (4) of the statute, it is not unreasonable to conclude, as the Department has, that the Legislature further intended that this rulemaking would also yield a "scientifically based" methodology to be used in developing the preliminary "list of surface waters or segments" described in Subsection (2) of Section 403.067, Florida Statutes.

441. Section 403.067, Florida Statutes, does not authorize the Department to develop this preliminary "list of surface waters or segments" at its whim. In keeping with the Legislature's intent (expressed in Subsection (1) of the

statute) that the state's TMDL program be "scientifically based," Subsection (2)(a) of the statute indicates that the Department must "establish the [Subsection (2)] list" based upon "data or information." It does not specify the type of "data or information," but it is reasonable to believe, particularly upon a reading of the language in Subsection (5) of the statute (which requires that waters be removed from the "lists described in s. 403.067(2) or s. 403.067(4) upon demonstration that water quality criteria are being attained based on data equivalent to that required by rule under s. 403.067(3)") that this "data or information" must bear on the issue of whether the water in question is impaired. It does not stretch credulity too far to believe that the Legislature intended that the Department, in response to the mandate of Subsection (3)(b) of the statute, would adopt a rule to more precisely describe the impairment-related "data and information" that the Department would rely upon in deciding what waters should be placed on the preliminary "list of surface waters or segments" described in Subsection (2) of the statute.

442. In any event, even if Subsection (3)(b) of Section 403.067, Florida Statutes, did not provide the Department with the authority to adopt rules to implement the provisions of Subsection (2) of Section 403.067, Florida Statutes, the Department would nonetheless have such authority by virtue of

Subsection (7) of Section 403.061, Florida Statutes (wherein the Legislature has granted the Department the authority, in connection with the Department's exercise of its "power and duty to control and prohibit pollution of air and water in accordance with law," to "[a]dopt rules pursuant to ss. 120.536(1)[[83]] and 120.54 to implement the provisions of [chapter 403, Florida Statutes]," of which Section 403.067 is a part). This general rulemaking authority, standing alone, is sufficient to give the Department the authority to implement the provisions of Subsection (2) of Section 403.067, Florida Statutes, through the adoption of rules.[84] See Board of Trustees of Internal Improvement Trust Fund v. Day Cruise Association, Inc., 794 So. 2d at 702-03; Board of Podiatric Medicine v. Florida Medical Association, 779 So. 2d at 659; Food Safety Training, Inc. v. Department of Business and Professional Regulation, Division of Hotels and Restaurants, DOAH Case No. 01-3753RP (Fla. DOAH February 14, 2002)(Final Order); and The Sierra Club v. St. Johns River Water Management District, DOAH Case No. 01-0583RP (Fla. DOAH June 18, 2001), aff'd, The Sierra Club v. St. Johns River Water Management District, Case No. 5D01-2127, 2002 WL 537041 (Fla. 5th DCA April 12, 2002). Indeed, considered together with Subsection (1)(a) of Section 120.54, Florida Statutes (which provides that "[r]ulemaking is not a matter of

agency discretion" and "[e]ach agency statement defined as a rule by s. 120.52 shall be adopted by the rulemaking procedure . . . as soon as feasible and practicable"), it not only authorizes such rulemaking, it requires it (given that such rulemaking is, apparently, "feasible and practicable"). See Florida Department of Business and Professional Regulation v. Investment Corp. of Palm Beach, 747 So. 2d at 380 ("Section 120.54(1)(a). . . places an affirmative duty on the part of all state agencies to codify their policies in rules adopted in the formal rulemaking process.").

443. The terminal point of the pre-TMDL calculation phase of the state's TMDL program, as described in Section 403.067, Florida Statutes, is the submission to EPA of an "approved list" of impaired waters for which TMDLS will be calculated. In proposed Rule Chapter 62-303, Florida Administrative Code, the Department explains how it will compile this "approved list." The process described in the proposed rule chapter for determining those waters for which TMDLs will be calculated is the product of a reasonable interpretation of the statute and is consistent with the statute, as reasonably construed by the Department.

444. Contrary to the arguments made by Joint Petitioners, no pre-TMDL calculation "steps" required by the statute are omitted from the proposed rule chapter; nor does the proposed

rule chapter include any "steps" not authorized by the statute. The statute requires the Department, before submitting to the EPA the state's "approved list" of waters for which TMDLs will be calculated, to identify and list those waters that will be assessed for impairment in order to determine whether they need TMDLs (which list "cannot be used in the administration or implementation of any regulatory program" and "shall be made available for public comment, but shall not be subject to challenge under chapter 120, [Florida Statutes]"); to conduct such TMDL assessments; to identify, based upon such assessments, those waters that are impaired for purposes of TMDL development; to ascertain which of these waters suffer from an impairment that other local, state, or federal pollution control programs will not be able to remedy; to establish priority rankings and TMDL calculation schedules for these waters; to include these waters on an "updated list" of waters for which TMDLs will be calculated, with the culprit pollutant(s) and pollutant concentration(s) specified; and to "approve" this "updated list" by administrative order (which will be subject to challenge pursuant to Sections 120.569 and 120.57, Florida Statutes). It is this "approved," "updated list" that the statute directs the Department to submit to the EPA pursuant to Section 303(d)(2) of the CWA (for the EPA's approval or disapproval)[85] as the state's new official list of impaired waters for which TMDLs will be

calculated.[86] Proposed Rule Chapter 62-303, Florida Administrative Code, does not purport to relieve the Department of any of these responsibilities. It is entirely faithful to the Legislature's directives.

445. Joint Petitioners allege (in that portion of their Proposed Final Order entitled, "Exceeding Grant of Rulemaking Authority") that the Department further "exceed[ed] [its] grant of rulemaking authority" by including in proposed Rule Chapter 62-303, Florida Administrative Code, those provisions in Part III of the proposed rule chapter (the fourth sentence of Subsection (1) of proposed Rule 62-303.700, Florida Administrative Code, and proposed Rule 62-303.710, Florida Administrative Code) that require the Department to specify "the pollutant and concentration causing the impairment" as a condition to placing a water on the "verified list" of impaired waters for which TMDLs will be calculated; Subsection (5) of proposed Rule 62-303.100, Florida Administrative Code, and proposed Rule 62-303.600, Florida Administrative Code, which require the Department, before placing a water on the "verified list," to evaluate the potential effectiveness of other local, state, or federal pollution control programs to remedy the impairment; those provisions of the proposed rule chapter that provide that the Department will not list waters "failing to meet water quality criteria due to moderating provisions (such

as mixing zones), natural conditions and/or physical alterations" that cannot be abated; Subsection (2) of proposed Rule 62-303.200, Florida Administrative Code, which provides that waters on the 1998 303(d) list "that do not meet the data sufficiency requirements for the planning list shall nevertheless be included in the state's initial planning list developed pursuant to this rule," a provision that, according to Joint Petitioners, has the "de facto impact" of "delisting all of these water bodies and . . . then subject[ing] them to a heightened set of requirements if their impairment designation and resulting protection is to be maintained"; and Subsection (3) of proposed Rule 62-303.360, Florida Administrative Code, and the second sentence of proposed Rule 62-303.460, Florida Administrative Code, which exclude from consideration, when the Department is determining whether to list waters for failing to provide "primary contact and recreation use support," those bathing area "closures, advisories, or warnings" based upon "red tides, rip tides, sewage spills [or line breaks], sharks, medical wastes, hurricanes, or other factors not related to chronic discharges of pollutants." Joint Petitioners further allege (elsewhere in their Proposed Final Order) that the "enabling statute does not authorize DEP's proposed prioritization rule, 62-303.500." These allegations are without merit.

446. As noted above, Subsection (4) of Section 403.067, Florida Statutes, delegates to the Department the specific power and duty to prepare an "updated list" of impaired waters for which TMDLs will be calculated. It further provides that, as a prerequisite to placing a water on the "updated list," the Department "must specify the particular pollutants causing the impairment and the concentration of those pollutants" (which requirement is found in the third sentence of Subsection (4)) and that, as an additional prerequisite to such listing, the Department must also determine that "technology-based effluent limitations and other pollution control programs under local, state, or federal authority . . . are not sufficient to result in attainment of applicable water quality standards" (which requirement is found in the first sentence of Subsection (4)). In addition, Subsection (4) of the statute (specifically the second sentence thereof) requires the Department, "[i]n association with this updated list," to "establish priority rankings and schedules by which water bodies or segments will be subjected to total maximum daily load calculations."

447. The fourth sentence of Subsection (1) of proposed Rule 62-303.700, Florida Administrative Code, as well as proposed Rule 62-303.710, Florida Administrative Code, implement the "specification" requirement of the third sentence of Subsection (4) of Section 403.067, Florida Statutes. Subsection

(1) of proposed Rule 62-303.100(5), Florida Administrative Code, as well as proposed Rule 62-303.600, Florida Administrative Code, implement the "insufficiency of other pollution control programs" requirement of the first sentence of Subsection (4) of the statute. Proposed Rule 62-303.500, Florida Administrative Code, implements the "prioritization" requirement of the second sentence of Subsection (4) of the statute.

448. Joint Petitioners contend that "no rulemaking is authorized under the statute associated with this step," referring to those activities outlined in Subsection (4) of Section 403.067, Florida Statutes. While the Legislature may not have specifically granted to the Department in Section 403.067, Florida Statutes, the authority to adopt rules to explain how it was going to implement the above-referenced provisions of Subsection (4) of the statute, because the Department, by operation of Subsection (7) of Section 403.061, Florida Statutes, has general rulemaking authority allowing it to adopt rules implementing the provisions of Chapter 403, Florida Statutes, in connection with the exercise of its "power and duty to control and prohibit pollution of air and water in accordance with law," it was not necessary for the Legislature to include in Section 403.067 such a specific grant of rulemaking authority (unless it wanted to place qualifications on the exercise of the Department's rulemaking authority with

respect to these particular matters). Subsection (7) of Section 403.061, Florida Statutes, provides sufficient authority for the Department to engage in rulemaking to implement the specific powers and duties (described above) delegated to it pursuant to Subsection (4) of Section 403.067, Florida Statutes. See Board of Trustees of Internal Improvement Trust Fund v. Day Cruise Association, Inc., 794 So. 2d at 702-03; Board of Podiatric Medicine v. Florida Medical Association, 779 So. 2d at 659; Food Safety Training, Inc. v. Department of Business and Professional Regulation, Division of Hotels and Restaurants, DOAH Case No. 01-3753RP (Fla. DOAH February 14, 2002)(Final Order); and The Sierra Club v. St. Johns River Water Management District, DOAH Case No. 01-0583RP (Fla. DOAH June 18, 2001), aff'd, The Sierra Club v. St. Johns River Water Management District, 2002 WL 537041 (Fla. 5th DCA April 12, 2002). Particularly given the Legislature's pronouncement in Subsection (1)(a) of Section 120.54, Florida Statutes, that "[r]ulemaking is not a matter of agency discretion" and "[e]ach agency statement defined as a rule by s. 120.52 shall be adopted by the rulemaking procedure . . . as soon as feasible and practicable," it is not unreasonable to construe Section 403.067, Florida Statutes, as the Department, in effect, has done, as not prohibiting the Department from exercising its general rulemaking authority under Subsection (7) of Section 403.061, Florida Statutes, to

implement these specific powers and duties described in Subsection (4) of Section 403.067.

449. As noted above, Section 403.067, Florida Statutes, delegates to the Department the specific power and duty to assess waters for impairment to determine whether they require TMDLs and, in addition, not only grants the Department authority to "adopt by rule a methodology for determining those waters which are impaired," but mandates that the Department adopt such a rule and follow it in making impairment determinations. This directive specifically authorizing the Department to engage in rulemaking is found in Subsection (3)(b) of Section 403.067, Florida Statutes, which provides, in pertinent part, that the rule adopted by the Department "shall provide for consideration as to whether water quality standards codified in chapter 62-302, Florida Administrative Code, are being exceeded, based on objective and credible data, studies and reports . . . ." Joint Petitioners contend that those provisions of the proposed rule chapter that provide that the Department will not list waters "failing to meet water quality criteria due to moderating provisions (such as mixing zones), natural conditions and/or physical alterations" that cannot be abated "create unauthorized exceptions to the objective and credible data requirement" of Subsection (3)(b) of Section 403.067, Florida Statutes, and therefore are beyond the scope of the Department's rulemaking

authority. Joint Petitioners further allege that Subsection (3) of proposed Rule 62-303.360, Florida Administrative Code, and the second sentence of Subsection (1) of proposed Rule 62-303.460, Florida Administrative Code, suffer from the same infirmity. A careful examination of Subsection (3)(b) of Section 403.067, Florida Statutes, and other provisions of the statute reveals that the Department has not exceeded its grant of rulemaking authority as claimed by Joint Petitioners.

450. The "water quality standards codified in chapter 62-302, Florida Administrative Code" that Subsection (3)(b) of Section 403.067, Florida Statutes, directs the Department to consider in evaluating water quality conditions and determining impairment include "moderating provisions." See Rule 62-302.200(28), Florida Administrative Code ("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 contained in this Rule and in F.A.C. Rule 62-4, adopted pursuant to Chapter 403, F.S."). Exceedances of water quality criteria that are permitted by these moderating provisions do not constitute violations of the "water quality standards codified in chapter 62-302, Florida Administrative Code" (which the Legislature made clear, in Subsections (9) and

(10) of Section 403.067, Florida Statutes, it did not, by enacting this statute, intend to alter or limit). Accordingly, "adopt[ing] by rule a methodology for determining those waters which are impaired" that excludes such exceedances from consideration does not run afoul of any qualifications placed upon the rulemaking authority granted the Department pursuant to Subsection (3)(b) of the statute, and, indeed, is necessary in order for the Department to stay within the bounds of such rulemaking authority.

451. It is apparent from a review of Section 403.067, Florida Statutes, that the type of water quality impairment that the Legislature intended to target through the TMDL program described in the statute was impairment resulting from man-induced pollution involving the discharge (from either a point or nonpoint source) of identifiable pollutants. See, e.g., Section 403.067(1), Florida Statutes ("[T]he development of a total maximum daily load program for state waters as required by s. 303(d) of the Clean Water Act, Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq. will promote improvements in water quality throughout the state through the coordinated control of point and nonpoint sources of pollution"); Section 403.067(4), Florida Statutes ("If a surface water or water segment is to be listed under this subsection, the department must specify the particular pollutants causing the impairment and the

concentration of those pollutants causing the impairment relative to the water quality standard."); and Section 403.067(6)(a)2., Florida Statutes ("For waters determined to be impaired due solely to factors other than point and nonpoint sources of pollution, no total maximum daily load will be required."); see also Rule 62-302.300(15) ("[T]he Department shall not strive to abate natural conditions."). Such being the case, "adopt[ing] by rule a methodology for determining those waters which are impaired" that excludes from consideration exceedances of water quality criteria due, not to pollutant discharges, but to natural background conditions or physical alterations of a water body that cannot be abated, is within the range of the rulemaking authority granted to the Department pursuant to Subsection (3)(b) of the statute.

452. Subsection (3)(b) of Section 403.067, Florida Statutes, does not require that the "methodology" it directs the Department to "adopt by rule" provide that impairment determinations be based upon bathing area "closures, advisories, or warnings" issued as a result of "red tides, rip tides, sewage spills [or line breaks], sharks, medical wastes, hurricanes, or other factors not related to chronic discharges of pollutants." "[A]dopt[ing] by rule a methodology for determining those waters which are impaired" that excludes from consideration these "closures, advisories, or warnings" is consistent with the

evident purpose of the TMDL program envisioned by the Legislature and does not constitute a departure from the proper scope of the rulemaking authority granted the Department by the Legislature. While the reports of these "closures, advisories, or warnings" may be "objective and credible," they do not constitute evidence of the type of impairment that the state's TMDL program, as described in Section 403.067, Florida Statutes, is designed to remedy, and it therefore is appropriate not to consider them in making the listing decisions required by the statute.

453. Joint Petitioners' argument that Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code, lacks "specific, or even implied, statutory authority" is premised upon its view that this proposed rule provision will operate to "delist" the waters in question from the state's 1998 303(d) list and subject them to a "heightened set of requirements."[87] In fact, the placement of these waters on the "planning list" will not, in and of itself, result in such a "delisting." Only if these waters do not meet the requirements of Part III of the proposed rule chapter and they therefore are not included on the first "updated list" of waters for which TMDLs will be calculated (which will replace the 1998 303(d) list) will such "delisting" occur. See Proposed Rule 62-303.720(1), Florida Administrative Code ("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.").

454. Joint Petitioners, however, are correct that these waters will be reevaluated pursuant to a "heightened set of requirements"; but this is not in any way contrary to what the Legislature intended. Read together with the remaining provisions of Section 403.067, Florida Statutes, Subsection (2) of the statute, which delegates to the Department the power and duty to prepare "a list of surface waters or segments for which total maximum daily load assessments will be conducted" and which further provides (in Subsection (2)(c)) that "[t]he provisions of this subsection are applicable to all lists prepared by the department and submitted to the United States Environmental Protection Agency pursuant to s. 303(d) of the Clean Water Act, Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq., including those submitted prior to the effective date of this act, except as provided in subsection (4)," evidences the Legislature's intent that the waters on the state's 1998 303(d) list be reassessed for impairment by the Department, using a "scientifically based" methodology,[88] in order to determine whether these waters should remain on the state's 303(d) list. Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code, carries out this legislative intent and is

within the Department's legislatively delegated rulemaking authority.

455. Joint Petitioners allege (in that portion of their Proposed Final Order entitled, "Enlarging, Modifying, or Contravening Specific Provisions of Law") that the following provisions of proposed Rule Chapter 62-303, Florida Administrative Code, enlarge, modify, or contravene "the specific provisions of law allegedly implemented," in violation of Subsection (8)(c) of Section 120.52, Florida Statutes: Subsection (4)(a) of proposed Rule 62-303.500, Florida Administrative Code; that portion of Subsection (2) of proposed Rule 62-303.100, Florida Administrative Code, that "allows the Department to avoid listing waters as impaired if the impairment is associated with moderating provision(s), natural conditions, [or] physical alterations"; Subsection (5) of proposed Rule 62-303.100, Florida Administrative Code; Subsection (1) of proposed Rule 62-303.150, Florida Administrative Code; and Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code.

456. Proposed Rule 62-303.500, Florida Administrative Code, explains how the Department will implement the legislative directive of the second sentence of Subsection (4) of Section 403.067, Florida Statutes, that, "[i]n association with this updated list," it "establish priority rankings and schedules by which water bodies or segments will be subjected to total

maximum daily load calculations." The proposed rule indicates that "[i]mpaired waters [will] be prioritized as high, medium, and low," and it then goes on to describe the type of waters that will fall within each category. According to Subsection (2) of the proposed rule, the following waters will 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.

"Medium priority" waters are described in Subsection (4) of the proposed rule, which provides, in pertinent part, as follows:

> (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. . . .

Joint Petitioners claim that "[t]he designation of Outstanding Florida Waters as medium priority directly conflicts with § 403.061(27), Fla. Stat., and rule 62-302.700(1)," Florida Administrative Code, in violation of Subsection (8)(c) of Section 120.52, Florida Statutes.

457. Subsection (8)(c) of Section 120.52, Florida Statutes, declares invalid those agency rules that conflict with "the specific provisions of law implemented, citation to which is required by s. 120.54(3)(a)1.," Florida Statutes. Sections 403.062 and 403.067, Florida Statutes, are cited as the "[l]aw[s] [i]mplemented" by proposed Rule 62-303.500, Florida Administrative Code. Section 403.067, Florida Statutes, requires the Department to adopt a TMDL assessment methodology which "provide[s] for consideration as to whether water quality standards codified in chapter 62-302, Florida Administrative Code, are being exceeded." Among the provisions in Rule Chapter 62-302, Florida Administrative Code, is Subsection (1) of Rule 62-302.700, Florida Administrative Code, which provides as follows:

> It shall be the Department policy to afford the highest protection to Outstanding Florida Waters and Outstanding National Resource Waters. No degradation of water quality, other than that allowed in Rule 62-4.242(2) and(3), F.A.C., is to be permitted in Outstanding Florida Waters and Outstanding National Resource Waters, respectively, notwithstanding any other Department rules that allow water quality lowering.

Section 403.061, Florida Statutes, is cited as one of the "[l]aw[s] [i]mplemented" by Rule 62-302.700, Florida Administrative Code. Subsection (27) of Section 403.061, Florida Statutes, provides as follows:

> The department shall have the power and the duty to control and prohibit pollution of air and water in accordance with the law and rules adopted and promulgated by it and, for this purpose, to:
>
> Establish rules which provide for a special category of water bodies within the state, to be referred to as "Outstanding Florida Waters," which water bodies shall be worthy of special protection because of their natural attributes. Nothing in this subsection shall affect any existing rule of the department.

458. There is nothing in proposed Rule 62-303.500, Florida Administrative Code, that "conflicts," directly or otherwise, with either Subsection (1) of Rule 62-302.700, Florida Administrative Code, or Subsection (27) of Section 403.061, Florida Statutes. It is true that, while the proposed rule does give "special" treatment to Outstanding Florida Waters, there are other waters that will, under the "[p]rioritization" policy described in the proposed rule, receive greater preferential treatment. This, however, is not in conflict with the policy statement made by the Department in Subsection (1) of Rule 62-302.700. Subsection (7) of Rule 62-302.700 makes clear that this policy statement (made in Subsection (1) of the rule) is to be "implemented through the permitting process pursuant to Section 62-4.242, F.A.C." It therefore does not require the Department, in "establish[ing] priority rankings and schedules by which water bodies or segments will be subjected to total

maximum daily load calculations," to rank Outstanding Florida Waters above all other impaired waters requiring TMDLs, including those "where the impairment poses a threat to potable water supplies or to human health" and those "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."

459. Joint Petitioners also contend (in that portion of their Proposed Final Order entitled, "Enlarging, Modifying, or Contravening Specific Provisions of Law") that, "[i]nasmuch as [proposed Rule] 62-303.150(1), Florida Administrative Code, improperly defines the statutory basis for Part [II of the proposed rule chapter] and its relationship to part [III] of the proposed rule [chapter], it . . . improperly enlarges, modifies and/or contravenes the specific provisions of § 403.067, Fla. Stat." Subsection (1) of proposed Rule 62-303.150, Florida Administrative Code, reflects the Department's view that it has the authority to "develop a planning list [in accordance with the procedures described in Part II of the proposed rule chapter] pursuant to subsection 403.067(2), F.S." and to assess the waters on this list "pursuant to subsection 403.067(3), Florida Statutes," "using the methodology in Part III" of the proposed rule chapter, in order to obtain a "verified list of

impaired waters, which is the list of waters for which TMDLs will be developed by the Department pursuant to subsection 403.067(4)," Florida Statutes. The Department's interpretation of Section 403.067, Florida Statutes, as set forth in proposed Rule 62-303.150, Florida Administrative Code, is within the range of permissible interpretations of the statute. Accordingly, Joint Petitioners' contention that the proposed rule "improperly enlarges, modifies and/or contravenes the specific provisions of § 403.067, Fla. Stat." must be rejected. See Board of Podiatric Medicine v. Florida Medical Association, 779 So. 2d at 660.

460. In urging that the other rule provisions (that portion of Subsection (2) of proposed Rule 62-303.100, Florida Administrative Code, that "allows the Department to avoid listing waters as impaired if the impairment is associated with moderating provision(s), natural conditions, [or] physical alterations"; Subsection (5) of proposed Rule 62-303.100, Florida Administrative Code; and Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code) specified in the "Enlarging, Modifying, or Contravening Specific Provisions of Law" portion of their Proposed Final Order are an "invalid exercise of delegated legislative authority," as defined in Subsection (8)(c) of Section 120.52, Florida Administrative Code, Joint Petitioners rely on the same arguments they made (in

their Proposed Final Order) in support of their claim that these provisions are also in excess of the Department's rulemaking authority and therefore in violation of Subsection (8)(b) of Section 120.52, Florida Statutes. As noted above, these arguments are without merit. Accordingly, Joint Petitioners' contention that, in adopting these provisions, the Department "enlarged, modified, and contravened the specific provisions of law allegedly implemented" is rejected.

461. Joint Petitioners (in that portion of their Proposed Final Order entitled, "Vagueness and Standards for Agency Discretion") allege that proposed Rule Chapter 62-303, Florida Administrative Code, is "vague and fails to establish adequate standards for agency decisions," in violation of Subsection (8)(d) of Section 120.52, Florida Statutes, for the following reasons:

> 214.a. 62-303.100(5)[Scope and Intent—Pollution Control Programs] Proposed rule 62-303.100(5) provides that water bodies that are impaired will not be listed on the verified list if reasonable assurance is provided that pollution control programs will result in attainment of water quality standards in the future and that reasonable progress will be attained by the time the next 303(d) list is filed with EPA. The portion of the proposed rule providing that future attainment of water quality standards is sufficient to justify a decision not to list a water body as impaired is wholly devoid of any time limitation and is therefore vague.

b. 62-303.330(4)[Biological Assessments—Other Information] provides no standards to be used by the Department in determining whether aquatic life use support has been maintained.

c. 62-303.400(1)[Methodology to Develop the Verified List - Waters that are not on the Planning List] This rule provision is unclear with respect to the treatment that will be afforded for those water segments which, for whatever reason, are improperly left off of the planning list. Simply stated, the proposed rule provides no mechanism to include these waters on the verified list, although the Department's representative testified that the Department's intent was that they be included.

d. 62-303.400(2)[Methodology to Develop the Verified List - Additional Data] states that additional data will be considered and that if more data is needed it is the Department's "goal" to collect the same. This statement gives no indication as to how the Department defines a "goal." For example, there is no indication as to the extent to which budgetary issues will impact such "goals" and whether members of the public will be allowed to provide this data in the event the Department, for whatever reason, decides not to collect the additional data.

e. 62-303.410[Determination of Aquatic Life-Based Water Quality Criteria] is vague inasmuch as the term "metric" is undefined and, in fact, is interpreted by the Department in a manner which is not the same manner as would be normally interpreted by the public.

f. 62-303.420(1)(a)[Exceedances of Aquatic Life-Based Water Quality Criteria: Physical Alterations] The proposed rule does not provide any guidance on how to determine the

existence of a physical alteration of the water body that cannot be abated.

g. 62-303.420(4)[Exceedances of Aquatic Life-Based Water Quality Criteria: Metals Criteria and Clean Techniques] The proposed rule does not define those situations in which clean techniques would be appropriate. Undefined scientific principles will determine the necessity of using clean techniques. (T. Joyner 2101-02)

h. 62-[303.]460(2) requires that the Department "shall to the extent practical, evaluate the source of bacteriological contaminations and shall verify that the impairment is due to chronic discharges of human-induced bacteriological pollutants before listing the water segment on the verified list." This requirement could be read as requiring the Department to verify the source of the impairment, but that it [is] only obligated to evaluate the data, to the extent practical. (T. Joyner 1891) The requirement could also be read to mean that the Department is obligated to verify the source of the impairment and evaluate the data, to the extent practical. (T. Joyner 1891) How it is interpreted could have an [e]ffect on the number of waters listed. (T. Joyner 1891)

i. 62-303.480[Drinking Water Use Support and Protection of Human Health] is vague. During Mr. Joyner's testimony he was asked to explain the process of moving a water segment from the planning list to the verified list and after attempting to do so admitted that this proposed rule section is "very complicated." (T. Joyner 1673)

j. 62-303.500(4)(e)[Administrative Needs of Department vis-à-vis Prioritization] states that medium priority waters will be prioritized, in part, based upon administrative needs of the Department. Once again, the Department has not defined what it

considers to be administrative needs and the extent to which priority will be given to this program over other programs within the Department.

k. 62-303.600[Evaluation of Pollution Control Mechanisms] Proposed rule 62-303.600(2) is the counterpart to proposed rule 62-303.100(5). The former provision also provides for excluding water segments from the verified list if the water segment is expected to attain water quality standards in the future. This provision, like proposed rule 62-303.100(5), is vague.

215. § 120.52(8)(d), Fla. Stat., defines an invalid exercise of delegated legislative authority as, inter alia, those situations in which "[t]he rule is vague, fails to establish adequate standards for agency decisions, or vests unbridled discretion in the agency." The Witmer court stated that:

"'[A] government restriction is vague if it 'either forbids or requires the doing of an act in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to its application.' Bouters v. Florida, 659 So. 2d 235, 238 (Fla. 1995), cert. denied, --- U.S. ---, 116 S. Ct. 245, 133 L.Ed.2d 171 (1995)(citation omitted). The rule in question punishes corrupt or fraudulent practices without ever defining them or referring to a standard by which a practice may be judged to be corrupt or fraudulent. See State v. Deleo, 356 So. 2d 306 (Fla. 1978). We hold that, because of its vagueness, the rule is an invalid exercise of delegated legislative authority. § 120.52(8)(d), Fla. Stat. (1991). Both the emergency rule and the permanent rule suffer from the same impediment and are invalid."

662 So. 2d at 1302. For the reasons stated in Section V, above, the proposed rule is vague, and fails to establish adequate

> standards for agency decisions and is therefore invalid.

Joint Petitioners then go on to contend that proposed Rule Chapter 62-303, Florida Administrative Code, also "vests unbridled discretion in the agency," explaining its position as follows:

> 216. The proposed rule also vests unbridled discretion in the agency, § 120.52(8)(d). As stated in Part E., V., above, 62-303.100(5), fails to provide any definition of "reasonable assurance" and likewise fails to set any outer time limitations on when in the future a water body must attain water quality standards to avoid being placed on the 303(d) list. While the term "reasonable assurance" is generally understood to mean "substantial likelihood"[89] the problem is that in failing to set any outer time limitations on future attainment the proposed rule vests unbridled discretion, without any standards, in the Department to make that determination. Cortez v. Board of Regents, 655 So. 2d 132, 138 (Fla. 1st DCA 1995)("But the rule 'fails to establish adequate standards for agency decisions,' § 120.52(d), Fla. Stat. (1993), for or against employing the 'negative checkoff,' i.e., collecting 'donations' from registering students unless they expressly decline to contribute.") In like manner, 62-303.100(5) fails to establish any standards for the Department's decisions. This constitutes the vesting of unbridled discretion in the agency and is therefore invalid.
>
> 217. The following proposed rule provisions also vest unbridled discretion in the Department:
>
> a. 62-303.100(5) allows the Department to exclude waters from the impaired waters list if reasonable assurance is provided . . .

that technology-based effluent limitations and/or other pollution control programs will result in future attainment. By not limiting or defining "future" in this provision, and by failing to establish criteria and guidelines for determining whether reasonable assurance has been given, the Department would be free to adopt any standards it wishes without any meaningful ability for administrative review.

b. 62-303.320(3)(b)[Exclusion of older data] allows the Department to discard data if the Department determines that the data are no longer representative of the water quality of the segment. No standards are provided for making these decisions.

c. 62-303.400(2)[Methodology to Develop the Verified List - Additional data] requires that the Department "consider" additional data, but does not require minimum standard in the consideration process. In addition, the statement that it will be the Department's "goal" to collect additional data places no limits whatsoever on the Department's decisions in the collection process. It became clear during the course of the hearing that the effort to collect additional samples would be considered a low priority. (T. Joyner 1860)[90]

d. 62-303.420(1)[Exceedances of Aquatic Life-Based Water Quality Criteria - Reexamination of data] contains two flaws. First, 62-303.420(1)(a) gives no standards for determining whether a physical alteration can or cannot be abated. Second, 62-303.420(2) allows the Department to heighten the requirement for determining impairment of aquatic life-based water quality criteria if the Department "believes" that the exceedances are not due to pollutant discharges. Once again there are no standards guiding the Department's decision-making process under this section. Hence, the public would have no ability to know how

the Department will make the decisions it will be called upon to make.

e. 62-303.420(3)[Exceedances of Aquatic Life-Based Water Quality Criteria - Reexamination of data] requires the Department to reexamine data if worst case values were used to represent multiple samples taken during a seven day period. The Department must, under this section, decide whether the worst case value should be excluded from the assessment. However, no standards are provided in making this decision.

f. 62-303.420(4)[Exceedances of Aquatic Life-Based Water Quality Criteria - Reexamination of metals data] provides that the Department, in examining metals data, will determine whether the use of clean techniques is appropriate. No standards are put in place to make this decision.

g. 62-303.450[Interpretation of Narrative Nutrient Criteria] places no requirement on the Department to conduct confirmation testing during the same seasons in which the original impairment was found. Thus, the proposed rule would allow the Department to conduct its review . . during non-representative seasons and avoid listing a water segment as impaired.

h. 62-303.500(4)(e)[Administrative needs of Department vis-à-vis prioritization], as stated above, gives the Department unbridled discretion in determining how to prioritize water segments simply by making an unsubstantiated claim that the prioritization is based upon its administrative needs. This, in turn, places its decisions effectively beyond administrative review and is therefore improper.

i. 62-303.600[Evaluation of Pollution Control Mechanisms], as previously stated, gives the Department what is essentially an

> unreviewable ability to refrain from listing water segments as impaired, based solely on its assertion that future programs will result in attainment. Thus, a water segment could escape listing simply by an assertion that it will meet water quality standards in 20 years. This placing of unbridled discretion in the Department is clearly inappropriate and was capable of further clarification, as is evidenced by Amendment 7 that was initially proposed by the Department, but subsequently withdrawn.

462. While proposed Rule Chapter 62-303, Florida Administrative Code, may not be an easy read, particularly for the ordinary citizen who has little or no familiarity with the subject matter covered by the proposed rule chapter; may not define each and every term used therein; and may not address in detail all possible situations that the Department may encounter in attempting to identify impaired waters requiring TMDLs, when the proposed rule chapter is read in its entirety, as it must be,[91] it is neither "vague, fails to establish adequate standards for agency decisions, [n]or vests unbridled agency in the agency."

463. Unlike the "emergency rule and permanent rule" at issue in the Witmer case cited by Joint Petitioners in paragraph 215 of their Proposed Final Order, which, as stated in the First District Court of Appeal's opinion in that case, "punish[ed] corrupt or fraudulent practices," proposed Rule Chapter 62-303, Administrative Code, is not penal in nature. This is

significant, given that the First District Court of Appeal, in a more recent case, Florida East Coast Industries, Inc. v. State, Department of Community Affairs, 677 So. 2d at 363, in response to the argument made that the proposed rules challenged in that case (which were adopted by the Department of Community Affairs to "enunciate and clarify certain minimum criteria [to] be used to determine whether or not a comprehensive plan or plan amendment [submitted to the Department of Community Affairs by local governments] is in compliance") were impermissibly vague, stated the following:

> Lastly, Appellants argue the proposed rules should be invalidated because laymen working for the local governments for whom the rules were promulgated are unable to understand them. In support of their argument, Appellants cite State v. Cumming, 365 So. 2d 153, 155-56 (Fla. 1978), where the court held invalid rules promulgated for the issuance of permits because they were based on vague and overbroad standards, and stated: "It is the failure of the Commission to implement through its rules the statute's guidelines that has left the statute to require 'the doing of an act in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to its application. . . .'" Id. at 156 (quoting State v. Wershow, 343 So. 2d 605 (Fla. 1977)). Appellants' argument must fail. Cumming does not mandate that the proposed rules be declared invalid as vague simply because they cannot be understood by "men of common intelligence." Cumming dealt with a penal statute and, while this test may be appropriate in some administrative contexts, it is inappropriate here. Although it is

> true that "[t]he requirements of due process are not fulfilled unless the language of a penal statute is sufficiently definite to apprise those to whom it applies of the conduct it prohibits," Bertens v. Stewart, 453 So. 2d 92, 93 (Fla. 2d DCA 1984), the rule involved here is not penal. A local government will not be subject to punishment, defined as "[a]ny fine, penalty, or confinement inflicted upon a person by the authority of the law . . . ," if its plan is found not in compliance with the urban sprawl rules. Black's Law Dictionary 1234 (6th ed. 1990). In other words, the fundamental concern of the vagueness doctrine is not threatened here because the consequences of being found out of compliance with the challenged rules is not penal. State v. Rawlins, 623 So. 2d 598, 600 (Fla. 5th DCA 1993)("The fundamental concern of the vagueness doctrine is that people be placed on notice of what conduct is illegal.").

464. The other case cited by Joint Petitioners in the "Vagueness and Standards for Agency Discretion" portion of their Proposed Final Order, Cortes v. State, Board of Regents, while it does not compel the conclusion urged by Joint Petitioners that proposed Rule Chapter 62-303, Florida Administrative Code, constitutes an "invalid exercise of delegated legislative authority," within the meaning of Subsection (8)(d) of Section 120.52, Florida Statutes, does articulate principles applicable to the instant consolidated cases. The Cortes case teaches that "[a]n administrative rule . . . which fails to extinguish the discretion a statute confers[] is not invalid on that account" and that it therefore is necessary to examine the statute

purportedly implemented by the challenged rule in order to determine whether the "[s]tatute [a]uthorizes [the] [e]xercise of [the] [d]iscretion" about which the challenger to the rule is complaining. Id. at 137.

465. An examination of Section 403.067, Florida Statutes, which proposed Rule Chapter 62-303, Florida Administrative Code, implements, reveals that it confers upon the Department considerable, albeit not unfettered, discretion in determining which waters require TMDLs and in establishing "priority rankings and schedules" for TMDL calculations, undoubtedly in deference to the Department's experience and special expertise in water quality-related matters. The proposed rule chapter fills in gaps left by the statute. It establishes standards, written in understandable language, to guide and direct Department personnel in the exercise of the wide discretion the Legislature has delegated to the Department. While some of these standards may be broadly drawn in order to give the Department needed flexibility, they nonetheless restrict the exercise of the Department's legislatively delegated discretion and are not so indefinite as to effectively render final agency action resulting from the Department's application of these standards immune from meaningful review.

466. Examples of the broad standards found in proposed Rule Chapter 62-303, Florida Administrative Code, are those set

forth in proposed Subsection (5) of Rule 62-303.100, Florida Administrative Code, and in Rule 62-303.600, Florida Administrative Code, which Joint Petitioners complain about in paragraphs 214.a., 214.k., 216, 217.a., and 217.i. of the "Vagueness and Standards for Agency Discretion" portion of their Proposed Final Order. These provisions of the proposed rule chapter, although they may not be as specific as Joint Petitioners would like, impose limits on the exercise of the Department's discretion, under Subsection (4) of Section 403.067, Florida Statutes, to exclude presently impaired waters from the "updated list" (described in the statute) where other pollution control programs are sufficient to result in the attainment of water quality standards in the future. That these provisions allow Department personnel to exercise their "best professional judgment" to determine, based upon the particular circumstances of each case, whether there is "reasonable assurance" that water quality standards will be attained and that "reasonable progress" will be made in attaining these standards "by the time the next 303(d) list is scheduled to be submitted to EPA" does not render the provisions in violation of Subsection (8)(d) of Section 120.52, Florida Statutes. See Southwest Florida Water Management District v. Charlotte County, 774 So. 2d at 911. Furthermore, the Department cannot be justly criticized for "fail[ing] to set out any outer time limitations

on when in the future a water body must attain water quality standards to avoid being placed on the [updated] 303(d) list" inasmuch as Subsection (4) of Section 403.067, Florida Statutes, does not impose any such "outer time limitations."

467. Likewise, it is entirely appropriate to allow Department personnel to use their experience and special expertise to determine, on a case-by-case basis, "whether aquatic life use support has been maintained" (see Subsection (4) of proposed Rule 62-303.330, Florida Administrative Code, and paragraph 214.b. of Joint Petitioners' Proposed Final Order); whether "physical alterations of the water body . . . cannot be abated"[92] (see Subsection (1)(a) of proposed Rule 62-303.420, Florida Administrative Code, and paragraphs 214.f. and 217.d. of Joint Petitioners' Proposed Final Order); whether the "use of clean techniques is appropriate" (see Subsection (4) of proposed Rule 62-303.420, Florida Administrative Code, and paragraphs 214.g. and 217.f. of Joint Petitioners' Proposed Final Order); whether "older data . . . are no longer representative of the water quality of the segment" (see Subsection (3)(b) of proposed Rule 62-303.320, Florida Administrative Code, and paragraph 217.b. of Joint Petitioners' Proposed Final Order); whether "exceedances are not due to pollutant discharges" (see Subsection (1)(b) of proposed Rule 62-303.420, Florida Administrative Code, and paragraph 217.d. of

Joint Petitioners' Proposed Final Order); how to verify that there is "an imbalance in flora or fauna" (see Subsection (2) of proposed Rule 62-303.450, Florida Administrative Code, and paragraph 217.g. of Joint Petitioners' Proposed Final Order); whether data points represent outliers (see Subsection (6) of proposed Rule 62-303.320, Florida Administrative Code, and paragraph 34 of Joint Petitioners' Amended Petition); and how to conduct a field audit to verify that a person conducting a bioassessment "follows the applicable SOPs in Chapter 62-160, F.A.C." (see Subsection (2) of proposed Rule 62-303.330, Florida Administrative Code, and paragraph 35 of Joint Petitioners' Amended Petition). See Southwest Florida Water Management District v. Charlotte County, 774 So. 2d at 911.

468. There was no need for the Department to provide, in the proposed rule chapter, a definition of "goal," as that term is used in Subsection (2) of proposed Rule 62-303.400, Florida Administrative Code. "Goal" is a word of common usage and is to be construed in accordance with its plain and ordinary meaning. See State v. Brake, 796 So. 2d at 528; State v. Mitro, 700 So. 2d at 645; Jones v. Williams Pawn & Gun, Inc., 800 So. 2d at 270; and State v. Buckner, 472 So. 2d at 1229. Similarly, the Department was not required to explain, in the proposed rule chapter, "the extent to which budgetary issues will impact" the "goal" described in Subsection (2) of proposed Rule 62-303.400.

See Bell v. State, 289 So. 2d 388, 390 (Fla. 1973)("To make a statute sufficiently certain to comply with constitutional requirements, it is not necessary that it furnish detailed plans and specifications . . . "); and Smith v. State, 237 So. 2d 139, 140 (Fla. 1970)("[L]awmakers cannot anticipate or provide for every eventuality that might arise in the operation of a motor vehicle on the public highways that might endanger life and property. For this reason the statute [permissibly] makes it unlawful to operate such a vehicle on a highway at a speed greater than is reasonable and prudent under the conditions and having regard to the actual and potential hazards there existing. . . 'To make a statute sufficiently certain to comply with constitutional requirements it is not necessary that it furnish detailed plans and specifications . . . .'"). Furthermore, while Subsection (2) of proposed Rule 62-303.400 may not indicate whether "members of the public will be allowed to provide th[e] [additional] data [referenced therein] in the event that the Department, for whatever reason, decides not collect the additional data," proposed Rule 62-300.700, Florida Administrative Code, makes clear that parties outside the Department will have the opportunity "work with the Department to collect [this] additional water quality data." In light of the foregoing, the criticisms of Subsection (2) of proposed Rule 62-303.400, Florida Administrative Code, made in paragraph

214.d. and the second sentence of paragraph 217.c. of Joint Petitioners' Proposed Final Order are unwarranted.

469. While the term "metrics," which is used in proposed Rule 62-303.410, Florida Administrative Code, is not defined anywhere in the proposed rule chapter, it is apparent from a reading of the proposed rule provisions (proposed Rules 62-303.420-.450, Florida Administrative Code) that are referenced in proposed Rule 62-303.410 what the Department meant when it spoke of, in proposed Rule 62-303.410, "any of the metrics used to determine aquatic life used support listed in sections 62-303.420-.450." Accordingly, this part of the proposed rule chapter, contrary to the claim made by Joint Petitioners in paragraph 214.e. of their Proposed Final Order, is not impermissibly vague. See Rollins v. Pizzarelli, 761 So. 2d at 298 ("This interpretation is thus consistent with the axiom[] of statutory construction that statutes must be read together to ascertain their meaning . . . ."); and Forsythe v. Longboat Key Beach Erosion Control District, 604 So. 2d 452, 455 (Fla. 1992)("It is axiomatic that all parts of a statute must be read together in order to achieve a consistent whole. . . . Where possible, courts must give full effect to all statutory provisions and construe related statutory provisions in harmony with one another.").

470. Subsection (1) of proposed Rule 62-303.400, Florida Administrative Code, plainly states that "[w]aters shall be verified as being impaired if they meet the requirements for the planning list in Part II and the additional requirements of sections 62-303.420.-480." No language in Subsection (1) of proposed Rule 62-303.400, or in any other provision in the proposed rule chapter, suggests that a water must actually be on the "planning list" (as opposed to simply "meet the requirements for the planning list in Part II") in order to be included on the "verified list." Indeed, a reading of Subsection (3)(c) of proposed Rule 62-303.500, Florida Administration, makes absolutely clear that, under the proposed rule chapter, waters that "meet the requirements for the planning list in Part II and the additional requirements of sections 62-303.420.-480" can be placed on the "verified list" even though they were not on the "planning list." In light of the foregoing, the assertion made by Joint Petitioners in paragraph 214.c. of their Proposed Final Order that the proposed rule chapter provides "no mechanism" to include on the "verified list" waters that were left off "planning list" must be rejected.

471. Although the proposed rule chapter does not contain a definition of the "administrative needs of the TMDL program," as that term is used in Subsection (4)(e) of proposed Rule 62-303.500, Florida Administrative Code, spelling out what that

term means, it does (in Subsection (4)(e) of proposed Rule 62-303.500) provide examples of "administrative needs of the TMDL program" and, in doing so, sheds light on what the Department intended by using that term. See Federal Land Bank of St. Paul v. Bismarck Lumber Co., 62 S. Ct. 1, 4 (1941)("[T]he term 'including' is not one of all-embracing definition, but connotes simply an illustrative application of the general principle."). By not listing all possible "administrative needs of the TMDL program" that will trigger the application of Subsection (4)(e) of proposed Rule 62-303.500 or otherwise describing in greater detail than it has what it anticipates these "administrative needs" will be, the Department has not created a rule that is impermissibly "vague and fails to establish adequate standards for agency decisions" (as Joint Petitioners argue in paragraph 214.j. of their Proposed Final Order), nor has it "vested [itself with] unbridled discretion" (as Joint Petitioners argue in paragraph 217.h. of their Proposed Final Order). See Bell v. State, 289 So. 2d at 390; Smith v. State, 237 So. 2d at 140; and Cortes v. State, Board of Regents, 655 So. 2d at 138.

472. That Subsection (2) of proposed Rule 62-303.460, Florida Administrative Code, may be subject to differing interpretations, as Joint Petitioners contend in paragraph 214.j. of their Proposed Final Order, is not a fatal defect that renders it impermissibly "vague" and lacking in "adequate

standards." See Department of Insurance v. Southeast Volusia Hospital District, 438 So. 2d at 820; State v. Pavon, 792 So. 2d at 667; and Scudder v. Greenbrier C. Condominium Association, Inc., 663 So. 2d at 1368. Where a rule is susceptible to differing interpretations, "the law favors a rational, sensible construction." Wakulla County v. Davis, 395 So. 2d 540, 543 (Fla. 1981). When Subsection (2) of proposed Rule 62-303.460 is read in a "rational" and "sensible" manner, it is evident that the Department was intending to convey that, to the extent practical, it will evaluate the source of an exceedance to make sure that it is "due to chronic discharges of human-induced bacteriological pollutants," and, if such evaluation reveals that the exceedance was "solely due to wildlife," the exceedance will be excluded from the calculation.

473. In the first sentence of paragraph 217.c. of their Proposed Final Order, Joint Petitioners erroneously assert that Subsection (2) of proposed Rule 62-303.400, Florida Administrative Code, "requires that the Department 'consider' additional data, but does not require minimum standard[s] in the consideration process." Subsection (2) of proposed Rule 62-303.400 plainly states that the "additional data and information collected after the development of the planning list" must "meet[] the requirements of this chapter."

474. Similarly, in paragraph 217.e. of their Proposed Final Order, Joint Petitioners incorrectly state that "no standards are put in place" to guide the Department in evaluating, pursuant to Subsection (3) of proposed Rule 62-303.420, Florida Administrative Code, whether the "worst case value should be excluded from the assessment." Subsection (3) of proposed Rule 62-303.420 plainly provides that such evaluation shall be made "pursuant to subsections (4) and (5)" of the proposed rule, each of which contain adequate "standards" for the Department to follow in making its evaluation of "worst case values."

475. The fact that proposed Rule 62-303.480, Florida Administrative Code, is "very complicated," as Mr. Joyner testified (at page 1673 of the hearing transcript) does not mean, as Joint Petitioners argue in paragraph 214.i. of their Proposed Final Order, that it is vague.[93] See State v. Romig, 700 P.2d 293, 298 (Ore. App. 1985)("Although RICO is complicated because of its many definitions and cross-references to other crimes, it is not indefinite or vague.").

476. Joint Petitioners allege (in that portion of their Proposed Final Order entitled, "Arbitrary and Capricious Actions by Agency") that proposed Rule Chapter 62-303, Florida Administrative Code, is arbitrary and capricious, arguing as follows:

A. Binomial Method

219. The undersigned finds that the use of the binomial method found in proposed rule sections 62-303.320, 62-303.420, and 62-303.720 constitutes an arbitrary decision on the part of the Department. The evidence demonstrated that other methods for the evaluation of impaired waters existed, and it is likewise evident that these methods were simply not considered. The expert testimony presented at the hearing repeatedly underscored the need for the use of best professional judgment when considering matters of a scientific nature, including the identification of impaired waters. The evidence established that the binomial method is a statistical method, not scientific, and its use in the proposed rule involves restrictions on data that themselves are not founded on scientific principles and are thus arbitrary.

B. Arbitrary Exclusion of Older Data

220. As previously stated, natural conditions and/or physical alterations in the water body that cannot be abated may also serve to prevent waters from being considered on the planning list pursuant to proposed rule section 62-303.320(3)(a) which states, in pertinent part, that ". . . 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 . . ." Therefore, the Department intends to consider more recent data if the changes are a result of man-made pollutants. But in those situations in which conditions have changed due to natural conditions and/or physical alterations in the water body that cannot be abated no distinction will be drawn between the two types of data. This distinction in the

handling of data is without a factual or logical basis. Accordingly, proposed rule section 62-303.320(3)(a) is arbitrary and invalid.

221. As in Adam Smith Enterprises, Inc., supra, proposed rule section 62-303.320(3) was the product of "compromise" on the part of the Department.[94] Evidence produced by the Department at the hearing indicated that the decision not to use data older than 10 years in developing the "Planning List" was based, not on data, reports or other research, but rather, was based solely on an effort to establish a cut-off point for accepting data to be considered. However, the weight of the scientific evidence established that the preferable means of determining impairment would be to allow for the analysis of all available credible data, since older data would be beneficial in establishing trends in the water segment. In fact, the Department's decision to disregard data over 10 years of age was in conflict with its own TAC, which wanted an open-ended time frame.[95] Accordingly, the Court finds that proposed rule section 62-303.320(3) is invalid. Proposed rule sections 62-303.320(4) and (5) suffer from the same problem, inasmuch as they set arbitrary requirements with respect to the number of samples required for each segment in order to gain placement on the "Planning List."

222. The same holds true for the increased restrictions on the age of data for inclusion on the "Verified List". Proposed rule section 62-303.420(2) requires that the data used to qualify a water segment as impaired be no older than five years.[96] This five-year cutoff is an arbitrary time frame that is not scientifically justifiable. Therefore, this proposed rule provision is invalid.

223. Proposed rule section 62-303.470(1)(c) places a 7.5 year age restriction on the use of data to support the continuation of fish consumption advisories. There is no evidence that the 7.5 year cutoff is based on anything other than an arbitrary decision. In the absence of a scientific basis for eliminating this data this provision is arbitrary and invalid.

224. Proposed rule section 62-303.480 states, in pertinent part, that ". . . the Department shall re-evaluate the data using the methodology in rule 62-303.380(2) and limit the analysis to data collected during the five years preceding the planning list assessment and the additional data collected pursuant to this paragraph (not to include data older than 7.5 years)." Here again, there is no evidence that the 5 and 7.5 year cutoffs are based on anything other than an arbitrary decision. In the absence of a scientific basis for eliminating this data this provision is arbitrary and invalid.

C. Minimum Sample Requirement

225. The Department also acted in an arbitrary fashion with respect to proposed rule section 62-303.320(1), wherein the evidence shows that the Department's TAC recommended that the Department require a minimum of 10 samples in order to place a water segment on the "Verified List." Despite its TAC's recommendation, proposed rule section 62-303.320(1), Table 1., requires a minimum of 10 samples in order to place a water segment on the "Planning List" and then uses a more restrictive requirement of 20 samples to place a water segment on the "Verified List." See also proposed rule section 62-303.420(2). There was no scientific basis provided for the Department's action. Accordingly, proposed rule section 62-303.320(1), Table 1., and 62-303.420(2) are arbitrary and invalid.

226. Other proposed rule provisions are likewise found to be arbitrary and/or capricious:

a. 62-303.200(5)[Definition of Estuaries] as currently structured would exclude some high salinity areas that are found in the State, including some major bay and lagoon areas, because some high salinity areas simply do not have riverine input. St. Joseph's Bay. It would also exclude some areas of Florida Bay, and waters surrounding the Florida Keys. The Department provided no evidence to justify excluding these areas from consideration. The section is therefore invalid.[97]

b. 62-303.300(2)[Methodology to Develop the Planning List - Waters on 1998 303(d) list], simply stated, is not based on the Statute.[98] It appears to be the result of negotiations with industry groups and EPA. The Department's position on this matter amounts to an assertion that it placed waters on the 1998 303(d) list without appropriate scientific measures being used. To now remove said waters from that list based on a heightened set of requirements not in place in 1998 and without legislative authority constitutes an arbitrary and capricious action on the part of the Department.

c. 62-303.320(2)[Exceedances of Aquatic Life-Based Water Quality Criteria—STORET Requirements] requires that parties who wish to have their data considered ensure that the data is input into STORET. However, numerous Department witnesses testified that even the Department's biological data is not included in STORET. Further, there is no mechanism provided in the rule for the public to use to "ensure" that their data is included. And while the section requires the Department to consider other data it does not require the Department to give said

data equal weight with data found in STORET.[99]

d. 62-303.320(4)[Seasonal Requirements] requires that data come from at least 3 of the 4 seasons in order for a water segment to be considered for impairment. The overwhelming weight of testimony established that in attempting to decide impairment it is critical to focus on those times of the year when impairment is to be expected. For example, algae content, dissolved oxygen levels. Most often impairment is found in the summer[] months (particularly in the panhandle) and the use of these restrictions would lessen the impact during this time of year. This position is illogical and, the undersigned concludes arbitrary. As such this provision is invalid.

e. 62-303.320(8)[Exceedances of Aquatic Life-Based Water Quality Criteria—Metals collection criteria] the evidence submitted at trial amply established that the requirement of use of clean techniques would not only invalidate much of the data already accumulated, but would also significantly hinder the future ability to submit sample data to the Department. The undersigned finds that to effect such a wholesale elimination of data (data which in the past has been relied upon by the Department) from the assessment process would result in an inaccurate representation of impaired waters in Florida. It is wholly illogical and unreasonable and consequently invalid.

f. 62-303.330[Biological Assessment] The Department concedes that the requirement under proposed rule section 62-303.330 that there be two bioassessments within five years, but only one biological integrity exceedance requirement within 10 years in order to make it onto the verified list, is not scientifically rational. (T. Joyner 2103-04)[100] Therefore, this rule provision is invalid.

g. 62-303.360(1)(a)-(d)[Primary Contact and Recreation Use Support] In order to find impairment this section requires closures of bathing areas for more than one week in a calendar year for bacteriological data;[101] however, the unrebutted testimony demonstrated that counties and municipalities currently do not close bathing areas in marine areas.[102] Therefore, there is no ability to satisfy the rule requirements. Further there was no testimony that the time frames found in 62-303.360(1)(b-d) were scientifically based. Accordingly, the undersigned finds that these provisions are arbitrary and capricious.

h. 62-303.360(3)[Primary Contact and Recreation Use Support-Exclusions of Data] allows the exclusion of data for a wide variety of events and discharges. There was no testimony that these events do not cause impairment. Further, it was convincingly established that red tide is a form of algae bloom and that algae blooms are considered for impairment when nutrients are the focus of attention. Yet, red tides are excluded from consideration in this provision. Simply stated, there is no scientific basis and no statutory basis for these exclusions in this rule provision which is meant to protect human health. This provision is arbitrary and capricious.

i. 62-303.370[Fish and Shellfish Consumption Use Support] The application of this rule provision will lead to wholly illogical results. As was testified to at trial, under the manner in which 62-303.470 (and therefore this proposed rule provision as well) is written a decision by the Department of Agriculture and Consumer Services to reclassify a one meter section of Apalachicola Bay would serve to place the Bay on the verified list. However, if the Bay were regularly and periodically closed

in such a manner as [to] put oystermen out of work the Bay would not be considered impaired. (T. Joyner 1740). Given the lack of scientific support for such a requirement the undersigned finds the same to be arbitrary and capricious.

j. 62-303.400 (2)[Methodology to Develop the Verified List] places a 7.5 year limitation on the consideration of data for the verified list. Simply stated, there is no scientific basis for limiting data to the past 7.5 years. As Dr. Isphording indicated at the hearing, there is no reason to exclude data from consideration because, for example, it may be a month older than the cut-off. The cut-off date is purely arbitrary and hence, invalid.

k. 62-303.420(2)[Exceedances of Aquatic Life-Based Use Support—Binomial Method, Table 2] For the reasons previously stated, the undersigned finds that use of the binomial method, as expressed in Table 2 is not based on scientific evidence. The evidence is uncontroverted that the use of a set exceedance factor, confidence level and minimum number of samples as parameters was not scientifically based. Likewise, the decision on the levels to be used was not even statistically based. In the absence of a logical reason being presented for using the numerical criteria as found in this rule provision the undersigned finds that the same were arbitrary and capricious.

l. 62-303.420(5)[Exceedances of Aquatic Life-Based Use Support—Outliers and exclusions of data] For the reasons stated above, the undersigned finds that the exclusions found in this rule provision are arbitrary and capricious. There is no statutory support for the exclusions found in this section. Likewise, the Department failed to present credible evidence that the presence of these conditions would <u>not</u> cause impairment. Instead, this provision

summarily disregards significant contributors to impairment and would, if adopted, result in an inaccurate picture of the State's water segments. Accordingly, the section is invalid.

m. 62-303.440[Toxicity] As stated in the findings of fact, under proposed rule section 62-303.440, if there were 2 failures of chronic toxicity nine years previous there would have to be a failed bioassessment conducted within 6 months of the last failed bioassessment. (T. Frydenborg 2644) This would place the water segment on the verified list. (T. Frydenborg 2645) However, under proposed rule section 62-303.430(2) there would have to be yet another bioassessment conducted within five years prior to the assessment in order to make it onto the verified list. (T. Frydenborg 2645) The Department's own witness could not explain how this would be considered rational. (T. Frydenborg 2645)[103] Accordingly, the undersigned finds that this rule provision is arbitrary and capricious.

n. 62-303.460(1)[Primary Contact and Recreation Use Support—Exclusions of data] for the reasons stated above regarding this provision's counterpart, 62-303.360(3), the undersigned finds that this rule section is arbitrary and capricious.

o. 62-303.720(2)(a)[Delisting Procedures, Binomial method, Table 3] for the reasons stated under sections 62-303.320(1-4) and 62-303.420(2) the undersigned finds that the binomial methodology employed in this section, as well as the exceedance rate, confidence level and minimum number of samples required are all arbitrary and capricious and therefore invalid..

477. The provisions of proposed Rule Chapter 62-303, Florida Administrative Code, that Joint Petitioners challenge in

the "Arbitrary and Capricious Actions by Agency" portion of their Proposed Final Order have been discussed at length above. These provisions are neither arbitrary nor capricious; rather, they are the product of thoughtful deliberation and reasoned decisionmaking, and represent rational policy choices made with due deference to scientific principles and statutory constraints. While there may have been other choices available to the Department, those made by the Department and incorporated in the challenged rule provisions fall within the range of permissible choices.[104]

478. The Legislature gave the Department the daunting task of establishing a framework to identify those surface waters in the state that are impaired for purposes of TMDL development. Identifying impaired surface waters is an inexact science. Complete accuracy and precision cannot be guaranteed. As pointed out in the NRC Publication, there is always "the possibility of both Type I error (a false conclusion that an unimpaired water is impaired) and Type II error (a false conclusion that an impaired water is not impaired)." Consequently, there is no one correct methodology for identifying impaired surface waters. There are a variety of reasonable alternatives from which to choose. Compare Jones v. Department of Revenue, 523 So. 2d 1211, 1213 (Fla. 1st DCA 1988)("Appellant asserts that Section 195.096(3)(b) requires DOR

to employ a quantitative or objective methodology in projecting levels of assessment for non-in-depth study years. In projecting the 1984 level of assessment in the instant case, DOR relied upon Mrs. Simmons' estimated growth rates. In arriving at her growth rate estimates, Mrs. Simmons employed a qualitative methodology by which she exercised her professional judgment as to what data to consider and what weight to ascribe to such data. According to appellant, the use of this subjective methodology was unlawful. We disagree. . . . [A]ppellant's mere disagreement with DOR's methodology does not render the use of that methodology unlawful. Although other professionally accepted methodologies were available to DOR in arriving at the estimated level of assessment in 1984 for Escambia County, the availability of other methodologies does not mean that the methodology used by DOR was less than a 'professionally accepted methodology' as required by Section 195.096(3)(b)."); Cellular Phone Taskforce v. F.C.C., 205 F.3d 82, 91 (2d Cir. 2000)("As a policy matter, an agency confronted with scientific uncertainty has some leeway to resolve that uncertainty by means of more regulation or less."); State ex rel. Arkansas Power & Light Co. v. Missouri Public Service Commission, 736 S.W.2d 457, 462 (Mo. App. 1987)("No methodology being statutorily prescribed, and ratemaking being an inexact science, requiring use of different formulas, the Commission may

use different approaches in different cases."); Central Maine Power Co. v. Public Utilities Commission, 455 A.2d 34, 39 (Me. 1983)(quoting Central Maine Power Co. v. Public Utilities Commission, 382 A.2d 302, 327-28 (Me. 1978))("We have previously recognized, however, that ratemaking is an 'inexact science' and, accordingly: 'The concept of a just and reasonable rate does not signify a particular single rate as the only lawful rate but rather encompasses a range [of reasonableness] within which rates may be deemed just and reasonable both in terms of revenue level and rate design. It is within the sound discretion of the Commission to fix the exact level and design within that range.'"); and Central Maine Power Co. v. Public Utilities Commission, 405 A.2d 153, 182 (Me. 1979)("Ratemaking is an inexact science, fraught with the dangers which accompany all processes of prediction, economic or otherwise. Accordingly, there must be said to be theoretically a range of reasonableness in such matters, rather than an exclusive choice."). Choosing among these available alternatives requires the weighing and balancing of policy considerations, including the respective costs involved in making Type I and Type II errors. Cf. Dravo Basic Materials Co., Inc. v. State, Department of Transportation, 602 So. 2d at 634 ("The three mine classifications were created primarily to control the cost of state inspection. DOT has logically concluded that it is easier

and more economical to conduct on-site inspections of limestone at mines that are in or near Florida."[105]); Cellular Phone Taskforce v. F.C.C., 205 F.3d at 92 ("An agency is permitted to consider costs and benefits as well as enforcement issues when establishing rules and regulations."); and Brennan v. Stewart, 834 F.2d 1248, 1259 (5th Cir. 1988)("Like all rational actors with limited resources, the Board must reach its abstract goal--licensing only those who can provide good care--by a series of practical requirements and easily-administered rules judged to be reasonable surrogates for it. That 'fit' between ends and means is what we review when judging the rationality of the Board's rule; in this case, the Board's generalization about the relation between visual ability and providing good care is true enough, and the requirement based on the generalization is therefore rational."). That, in making its choice among the reasonable options available to it, the Department may have, in the opinion of Joint Petitioners, placed too much emphasis on attempting to avoid Type I error, at the expense of not sufficiently reducing the possibility of Type II error, is not a basis upon which to strike down the methodology chosen by the Department. See Parkview Medical Associates, L.P. d/b/a Parkview Regional Medical Center, L.P. v. Shalala, 1997 WL 470107 (D. D.C. August 13, 1997)("The fact that the applicable rules resulted in an unfavorable result for Plaintiff, does not

make these rules arbitrary and capricious."); and State ex rel. Arkansas Power & Light Co. v. Missouri Public Service Commission, 736 S.W.2d at 461 ("Other than AP & L's assessment that this method is arbitrary, it has shown nothing on this appeal which could support its criticism of this part of the order. The mere fact AP & L's methodology would be more favorable to it than that chosen by the Commission will not, alone, amount to reversible error.").

479. In designing certain parts of its methodology for identifying impaired surface waters needing TMDLs, the Department, in the interest of certainty, engaged in numerical line drawing. Examples of such line drawing include the Department's establishment of age limits for data, minimum sample sizes, confidence levels, and an exceedance frequency. That there are other places, in addition to those ultimately chosen, where the Department could have reasonably drawn these lines, does make the Department's choices (which were within the range of reasonable options) "invalid exercise[s] of delegated legislative authority," within the meaning of Subsection (8)(e) of Section 120.52, Florida Statutes. Cf. Commonwealth of Massachusetts, Department of Public Welfare v. Secretary of Agriculture, 984 F.2d 514, 522 (1st Cir. 1993)("[T]he art of regulation involves line-drawing. When Congress entrusts an agency with the responsibility for drawing lines, and the agency

exercises that authority in a reasonable way, neither the fact that there are other possible places at which the line could be drawn nor the fact that the administrative scheme might occasionally operate unfairly from a particular participant's perspective is sufficient, standing alone, to undermine the scheme's legality. . . . In other words, so long as the administrative scheme is a valid exercise of the agency's authority, whether or not a perfect exercise of that authority, the courts must honor it.); Sprandel v. Secretary of Health and Human Services, 838 F.2d 23, 27 (1st Cir. 1988)("[T]he agency's authority to fashion suitable regulations is wide. Moreover, such regulations almost by their nature entail line-drawing, and the human mind is not yet so fertile as to devise ways of blocking out general categories--drawing lines--which do not chafe at the outer edges.); Welch v. Sandoval County Valuation Protests Board, 945 P.2d 452, 455 (N.M. App. 1997)("A rational basis exists for the classification created by Section 7-36-4. The purpose of the statute is to tax leases that are so long as to be the practical equivalent of a fee interest. Logic alone cannot determine what that length of time is. A broad range of choices was available to the legislature. One might describe as arbitrary the selection of a specific time within that range to mark the dividing line, but any such choice is nevertheless rational. . . . Certainly, 75 years is within the range of

reasonable choices."); and Henderson v. State, 962 S.W.2d 544, 562-63 (Tex. Crim. App. 1997)("Appellant argues that drawing the line between five-year-olds and six-year-olds is arbitrary. But, for a child-murderer provision to retain clarity, a numerical line must be drawn somewhere. The age of a child is a natural, biological difference, and determining exactly where to draw the line of demarcation--how young is young enough--is an inherently difficult task. . . . Hence, the Legislature is justified in drawing a line between younger and older children, and age six seems to us to be as good a place as any to draw such a line. . . . That the line might have been legitimately drawn at three, four, or five, or at seven, eight, or perhaps higher does not invalidate the Legislature's choice here. To find otherwise, we would either have to hold that the Legislature cannot draw an age line--which would effectively eviscerate any attempt to include child-murders within the ambit of the capital murder statute--or we would have to hold that the line should be drawn elsewhere--in which case, we would merely be legislating from the bench. We decline to pursue either of those options, and we uphold the Legislature's decision to draw the line at age six.").

480. Joint Petitioners allege (in that portion of their Proposed Final Order entitled, "Lack of Competent Substantial Evidence") that proposed Rule Chapter 62-303, Florida

Administrative Code, is not supported by competent substantial evidence, arguing as follows:

> 228. The following proposed rule provisions are found to be substantially based on actors which are not supported by competent substantial evidence:
>
> a. 62-303.200(2)[Definition of Clean Techniques] The Department failed to present credible testimony that Clean Techniques should be required in order to consider data towards impairment. Rather, the weight of the evidence convincingly established that this restriction would result in the unnecessary elimination of valuable data in making impairment decisions.
>
> b. 62-303.200(5)[Definition of Estuaries] The Department failed to present credible testimony that estuaries should be defined so as to eliminate many of the high salinity estuaries around the State. This definition, if accepted would exclude many of these estuaries from consideration.[106]
>
> c. 62-303.310[Evaluation of Aquatic Life Use Support] The Department failed to present credible, scientific, testimony that the use of rigid criteria . . . to assess aquatic life use support is preferable to the use of best professional judgment.[107]
>
> d. 62-303.320(1)[Exceedances of Aquatic Life-Based Water Quality Criteria-Binomial Method, Table 1] The binomial method is unquestionably a valid statistical method to be used in some cases; however, the undersigned finds that it is inappropriate for purposes of identifying impaired waters. Most troubling, is the fact that virtually all of the credible testimony indicated that this method does not consider the magnitude of individual exceedances. As a result, samples that demonstrate a catastrophic

situation, e.g. contaminate levels that would cause death in humans, carry no higher weight than samples that show an exceedance barely over the threshold. The Department failed to present any credible evidence to demonstrate why such considerations should not be allowed. In like manner, crucial parameters such as the number of samples required, the confidence levels, and the exceedance rate all appear to be randomly selected. Accordingly, the undersigned finds that there is no competent, substantial evidence to support this rule provision.

e. 62-303.320(3)[Exceedances of Aquatic Life-Based Water Quality Criteria—Exclusion of older data] The Department failed to present any credible evidence that older data should be excluded from consideration. While it is true that such data may not be representative of current situations, it is likewise true that best professional judgment could be used to determine its significance. The exclusion of this data will result in the failure and/or inability to consider trend data, which the experts agreed would be important.

f. 62-303.320(4)[Exceedances of Aquatic Life-Based Water Quality Criteria—Seasonality] The undersigned finds that there is a lack of substantial competent evidence to support the requirement that ". . . there shall be at least five independent sampling events during the ten year assessment period, with at least one sampling event conducted in three of the four seasons of the calendar year." Proposed rule section 62-303.320(4).

g. 62-303.320(8)[Exceedances of Aquatic Life-Based Water Quality Criteria—Metals collection criteria] The Department failed to present any credible evidence that metals collection criteria should be limited to samples collected using clean

techniques.[108] Rather, this section would result in the elimination of a vast amount of data and likewise significantly hinder the replacement of that data due to the unavailability of laboratories in the State that can perform these tests.

h. 62-303.330[Biological Assessment] The Department concedes that the requirement under proposed rule section 62-303.330 that there be two bioassessments within five years, but only one biological integrity exceedance requirement within 10 years in order to make it onto the verified list, is not scientifically rational. (T. Joyner 2103-04)[109] Therefore, this rule provision is invalid.

i. 62-303.340[Toxicity] 62-303.340(3) requires two samples indicating chronic toxicity and these samples must have been taken within a 12 month period in order to place a water segment on the planning list. Department witness Frydenborg asserts that this requirement was made based on the best professional judgment of the TAC. (T. Frydenborg 2623) However, there is no ability to use best professional judgment to determine whether one result is more representative of chronic toxicity than the other. (T. Frydenborg 2630-31) Simply stated, the Department presented no credible evidence to support this section.

j. 62-303.350[Interpretation of Narrative Nutrient Criteria] This proposed rule provision would not allow consideration for observations made without the benefit of actual testing.[110] For example, the proposed rule would not take into consideration observations made by individuals that a water segment is completely covered with algae to the point that a fisherman can't get a lure through the water surface. (T. Sulkin 98) Mr. McFadden agreed. (T. McFadden 536-37) Additionally, chlorophyll a may not be

indicative of water quality, because it is the measure of biomass of photosynthetic plants or algae. Therefore, it may die back in the winter, just as other crops do. (T. Sulkin 98) The undersigned finds that this provision is unsupported by credible evidence inasmuch as it excludes valuable data and relies upon an indicator (chlorophyll a) which is inappropriate.

k. 62-303.351[Nutrients in Streams] The use of annual mean chlorophyll concentrations is not supported by credible evidence. It is particularly noteworthy that Robert Mattson, an employee of the Suwannee River Water Management District testified that many sections of the Suwannee River do not exceed the 20 ug/l threshold, but are nevertheless at risk. The Department's principle witness on this subject, Mr. Frydenborg, was not credible[111] and the undersigned finds that parameters used in this section are not based on competent substantial evidence.

l. 62-303.352[Nutrients in Lakes] The Department failed to present credible evidence that the requirement that annual mean chlorophyll a concentrations be used as an indicator was justified. The undersigned credits the testimony of Robert Mattson that single event chlorophyll a levels is more appropriate.

m. 62-303.353[Nutrients in Estuaries] The Department failed to present credible evidence in support of this section. The requirement that annual mean chlorophyll a values have increased by more than 50% over historical values for at least two consecutive years is not a valid measure to ensure the health of estuarine plants and animals. (T. Heck 2812) There is no biological justification for this requirement. (T. Heck 2813) The use of annual mean chlorophyll as an indicator averages the values over the space of a year

and thus minimizes the impact of the summer months, which are the most stressful time for seagrasses, particularly in the northern estuarine waters of the state. (T. Heck 2805-06, 2812, 2848)

n. 62-303.360(1)(a)-(d)[Primary Contact and Recreation Use Support] As stated above, in order to find impairment this section requires closures of bathing areas for more than one week in a calendar year for bacteriological data;[112] however, the unrebutted testimony demonstrated that counties and municipalities currently do not close bathing areas in marine areas.[113] Therefore, there is no ability to satisfy the rule requirements. Further there was no testimony that the time frames found in 62-303.360(1)(b-d) were scientifically based. Accordingly, the undersigned finds that the Department failed to present credible evidence in support of this section.

o. 62-303.360(3)[Primary Contact and Recreation Use Support—Exclusions of Data] As stated above, this section allows the exclusion of data for a wide variety of events and discharges. There was no testimony that these events do not cause impairment. Further, it was convincingly established that red tide is a form of algae bloom and that algae blooms are considered for impairment when nutrients are the focus of attention. Yet, red tides are excluded from consideration in this provision. Simply stated, there is no scientific basis and no statutory basis for these exclusions in this rule provision which is meant to protect human health.

p. 62-303.370[Fish and Shellfish Consumption Use Support] As stated above, the application of this rule provision will lead to wholly illogical results. As was testified to at trial, under the manner in which 62-303.470 (and therefore this proposed rule provision as well) is written

a decision by the Department of Agriculture and Consumer Services to reclassify a one meter section of Apalachicola Bay would serve to place the Bay on the verified list. However, if the Bay were regularly and periodically closed in such a manner as put oystermen out of work the Bay would not be considered impaired. (T. Joyner 1740). Given the lack of scientific support for such a requirement the undersigned finds the same to be arbitrary and capricious.

q. 62-303.380[Drinking Water Use Support and Protection of Human Health] The Department failed to present credible testimony on this section. The use of an annual average for human health criteria is inconsistent with the State's standards, which require the evaluation of concentration at annual mean flows, not an annual average concentration. The Department admits that one cannot look at the water quality criteria table and tell from the four walls of that table what the human health-based water quality criteria are. (T. Joyner 2116) It would be hard if not impossible for a lay citizen to determine which are aquatic life-based and which were human health-based. One would have to look at the non-rule table in conjunction with EPA guidance documents. (T. Joyner 2116)

r. 62-303.400[Methodology to Develop the Verified List] The 7.5 year limitation on the consideration of data is not supported by competent substantial evidence. The limitation is simply an arbitrary limit that has no scientific support.

s. 62-303.420(2)[Exceedances of Aquatic Life-Based Use Support—Binomial Method, Table 2] For the reasons previously stated, the undersigned finds that use of the binomial method, as expressed in Table 2 is not based on scientific evidence. The evidence is uncontroverted that the use of a

set exceedance factor, confidence level and minimum number of samples as parameters was not scientifically based. Likewise, the decision on the levels to be used was not even statistically based.

t. 62-303.420(5) [Exceedances of Aquatic Life-Based Use Support—Outliers and exclusions of data] For the reasons stated above, the undersigned finds that the exclusions found in this rule provision is not supported by competent, substantial evidence. There is no statutory support for the exclusions found in this section. Likewise, the Department failed to present credible evidence that the presence of these conditions would not cause impairment. Instead, this provision summarily disregards significant contributors to impairment and would, if adopted, result in an inaccurate picture of the State's water segments. Accordingly, the section is invalid.

u. 62-303.430[Biological Impairment] The Department failed to present credible evidence that two failed bioassessments should be required to establish impairment. There was no evidence presented that the Department, in the normal conduct of business, routinely requires a confirmatory bioassessment to demonstrate biological failures. Accordingly, this proposed rule section is invalid.

v. 62-303.440[Toxicity] As stated in the findings of fact, under proposed rule section 62-303.440, if there were 2 failures of chronic toxicity nine years previous there would have to be a failed bioassessment conducted within 6 months of the last failed bioassessment. (T. Frydenborg 2644) This would place the water segment on the verified list. (T. Frydenborg 2645) However, under proposed rule section 62-303.430(2) there would have to be yet another bioassessment conducted within five years prior to the assessment in

order to make it onto the verified list. (T. Frydenborg 2645) The Department's own witness could not explain how this would be considered rational. (T. Frydenborg 2645)[114] Accordingly, this proposed rule section is invalid.

w. 62-303.460(1)[Primary Contact and Recreation Use Support—Exclusions of data] The Department failed to present credible evidence on this point. As stated previously, this provision allows the exclusion of data for a wide variety of events and discharges. There was no testimony that these events do not cause impairment. Further, it was convincingly established that red tide is a form of algae bloom and that algae blooms are considered for impairment when nutrients are the focus of attention. Yet, red tides are excluded from consideration in this provision. Simply stated, there is no scientific basis and no statutory basis for these exclusions in this rule provision which is meant to protect human health.

x. 62-303.470[Fish and Shellfish Consumption Use Support] The Petitioners, through the credible evidence submitted by Mr. Heil, contend that this section should include an acknowledgement that shellfish areas that are closed for harvesting are considered to be impaired.[115] The Department failed to establish through competent, credible evidence that it is appropriate to not consider closures of shellfish areas for harvesting. The undersigned finds that there is no competent, substantial evidence to support this rule provision.

y. 62-303.500(3)(a)[Prioritization—advisories for mercury] The Department failed to present competent, credible evidence supporting the low priority designation for water segments that are listed before 2010 due to fish consumption advisories for mercury.

> z. 62-303.720(2)(a)[Delisting Procedures, Binomial method, Table 3] for the reasons stated under sections 62-303.320(1-4) and 62-303.420(2) the undersigned finds that the binomial methodology employed in this section, as well as the exceedance rate, confidence level and minimum number of samples required are not supported by competent substantial evidence.

481. Through the evidentiary presentation made at the final hearing in these cases, the Department explained, and adequately defended, its rationale for including in proposed Rule Chapter 62-303, Florida Administrative Code, the provisions challenged by Joint Petitioners in the "Lack of Competent Substantial Evidence" portion of their Proposed Final Order. It established by credible, legally sufficient evidence those scientific principles and other matters of a factual nature that it relied upon in fashioning the challenged provisions. Accordingly, Joint Petitioners' argument that proposed Rule Chapter 62-303, Florida Administrative Code, is not supported by competent substantial evidence is rejected.

482. Joint Petitioners allege (in that portion of their Proposed Final Order entitled, "Failure to Follow Applicable Rulemaking Procedures") that proposed Rule Chapter 62-303, Florida Administrative Code, constitutes an "invalid exercise of delegated legislative authority," as defined in Subsection (8)(a) of Section 120.52, Florida Statutes, because the

Department, through the ERC, violated Subsection (3)(c)2. of Section 120.54, Florida Statutes, by denying the request made by all Joint Petitioners except for Save Our Suwannee, Inc., (hereinafter referred to collectively as "Original Petitioners") that they be provided "with an opportunity to present evidence and argument at a public hearing regarding [their] timely filed [original] petitions [challenging the version of the proposed rule chapter published in the March 23, 2001, edition of the Florida Administrative Weekly]" before the ERC conducted a "public hearing" on the adoption of the proposed rule chapter. While Original Petitioners may have asserted in their "original petitions that the public [ERC rule adoption] hearing would not provide an adequate opportunity to protect their interests" (as Joint Petitioners point out in the "Failure to Follow Applicable Rulemaking Procedures" portion of their Proposed Final Order), the record evidence does not support this assertion. See Florida East Coast Railway Co. v. Eno, 128 So. 622, 625 (Fla. 1930)("[P]roof does not lie in mere assertion."); and Webber v. State, 662 So. 2d 1287, 1288 (Fla. 5th DCA 1995)("[T]he record is extremely cold, and there is no way to tell if there was any improper jury selection process. Defendant's mere assertion that there was is insufficient."). Moreover, the mere filing of these "original petitions" did not operate to stay the ERC adoption hearing. See Section 120.56(2)(b), Florida

Statutes (" . . . . No rule shall be filed for adoption[116] . . . until the administrative law judge has rendered a decision . . . . However, the agency may proceed with all other steps in the rulemaking process, including the holding of a factfinding hearing. . . ."). In view of the foregoing, Joint Petitioners' argument that the rulemaking process was tainted by the failure to suspend the ERC adoption hearing as requested by Original Petitioners must fail.

483. Joint Petitioners allege (in that portion of their Proposed Final Order entitled, "Improper Incorporation by Reference") that the Department violated the requirement of Subsection (1)(i) of Section 120.54, Florida Statutes, that "[a] rule may incorporate material by reference . . . only as the material exists on the date the rule is adopted" by providing, in Subsection (7)(a) of proposed Rule 62-303.320, Florida Administrative Code, that, "to be used to determine water quality exceedances, data shall be collected and analyzed in accordance with Chapter 62-160, F.A.C." According to Joint Petitioners, "[t]his proposed rule provision is based on an administrative rule, 62-160, F.A.C., that had not been adopted at the time of the adoption of 62-303.320(7)(a)." Joint Petitioners are incorrect in stating that Rule Chapter 62-160, Florida Administrative Code, "had not been adopted" at the time of the ERC rule adoption hearing. The rule chapter was then,

and it remains, in existence. Subsection (7)(a) of proposed Rule 62-303.320, Florida Administrative Code, on its face, does no more than incorporate by reference a previously adopted Department rule chapter that is published in the Florida Administrative Code. It does not purport to make part of the proposed rule chapter any material not subjected to the scrutiny of the rulemaking process, the evil that Subsection (1)(i) of Section 120.54, Florida Statutes, is designed to prevent. See Florida Electric Power Coordinating Group, Inc. v. Suwannee River Water Management District, DOAH Case No. 94-2722RU, 1995 WL 1052582 (Fla. DOAH July 24, 1995)(Final Order)("Essentially Section 120.54(8) [renumbered Section 120.54(1)(i), Florida Statutes], means that an agency cannot change material which has been incorporated by reference without going through the rulemaking process."). Subsection (1)(i) of Section 120.54, Florida Statutes, does not forbid an agency engaged in rulemaking, in the interest of the economy of space, to make reference to, rather than repeat verbatim, those provisions of its own existing rules[117] that it desires make a part of a proposed rule, as the Department has done in Subsection (7)(a) of proposed Rule 62-303.320, Florida Administrative Code.[118]

484. Joint Petitioners (in paragraph 42 of their Amended Petition, where they discuss Subsection (1)(i) of Section 120.54, Florida Statutes) complain about the proposed rule

chapter's providing that STORET will be the "primary source of data used for determining water quality criteria exceedances," alleging that the STORET data that will be used by the Department are not now, nor were they during the rulemaking process, "meaningfully available to members of the public." To the extent Joint Petitioners allege (in paragraph 42 of their Amended Petition) that the proposed rule chapter's reference to STORET is in violation of the requirement of Subsection (1)(i) of Section 120.54, Florida Statutes, that "[a] rule may incorporate material by reference . . . only as the material exists on the date the rule is adopted," the argument is unpersuasive. Through its reference to STORET, the Department is not incorporating in the proposed rule chapter any standard-setting "material," as that term is used in Subsection (1)(i) of Section 120.54, Florida Statutes. The Department is simply explaining where the data it will consider in determining "water quality criteria exceedances" will come from. Even though some of the data may not now exist, there is nothing in Subsection (1)(i) of Section 120.54, Florida Statutes, prohibiting the Department from giving such an explanation in the proposed rule chapter. Cf. Gallagher v. Motors Ins. Corporation, 605 So. 2d 62, 71 (Fla. 1992)("Next, the Taxpayers contend that by tying the retaliatory tax to the laws of other jurisdictions, which may change from year to year, the legislature has

unconstitutionally delegated to other legislatures its authority to determine the amount of tax due the State of Florida. We do not agree. . . . It is true that we have consistently held that it is an unconstitutional delegation of legislative power for the legislature to adopt future legislative or administrative actions of jurisdictions outside Florida. . . . However, in this case, incorporation of future enactments of foreign jurisdictions into the formula for measuring Florida's retaliatory tax is entirely consistent with the recognized objective of such taxes--affecting the taxing policies of other jurisdictions. It is only logical that if the tax is to achieve its intended purpose, it must operate in relation to both current and future enactments and policies of other jurisdictions that burden Florida insurers. It follows that incorporation of future enactments of a foreign insurer's state of domicile as a reference point for determining the retaliatory tax due from that insurer in no way substantively changes the law. The legislature has merely set forth the manner, consistent with the underlying legislative objective, by which the Department of Revenue is to determine the tax due under section 624.429."); and Eastern Air Lines, Inc. v. Department of Revenue, 455 So. 2d 311, 316 (Fla. 1984)("In Welch this Court looked to the rule of law announced in Freimuth v. State, 272 So. 2d 473 (Fla. 1972). There, the Court said that the

legislature may adopt provisions of federal statutes and administrative rules made by a federal administrative body that are in existence and in effect at the time the legislature acts, but it would be an unconstitutional delegation of legislative power for the legislature to adopt in advance any federal act or the ruling of any federal administrative body that Congress or an administrative body might see fit to adopt in the future. 272 So. 2d at 476. Accordingly, this Court held the statute unconstitutional for attempting to incorporate by reference future legislative and/or administrative actions of jurisdictions outside Florida. Id. We believe that Eastern's reliance on the aforementioned language is misplaced. The statute under attack merely provides that an adjustment be made to the fuel price which is based on the percentage change in the average monthly gasoline price component of the Consumer Price Index. Here, the legislature is merely setting forth the manner in which the department is to determine the appropriate total motor fuel and special fuel retail price. The department is directed with precision how to make such a determination. We think the language of Welch and Freimuth should be interpreted to apply to statutes which incorporate federal statutes or administrative rules which substantively change the law, and not to a statute which incorporates a federal index to provide aid in making a ministerial determination. Furthermore, we do not

agree with Eastern's contention that the statute is also constitutionally infirm because the Department of Revenue will utilize a consumer price index which is to be determined after the effective date of the act. In Gindl we upheld a statutory provision which required a computation based on the most recent publication of the Florida Price Level Index prepared by the Department of Administration. The statute was to take effect July 1, 1976. The Department of Education intended to base the distribution on a survey which would be started in October or November of 1976 and completed during the early part of 1977. In other words, the effect of the statute was to reach forward and allow distribution to be calculated on the most recent publication of the Florida Price Level Index, an index which was not in existence when the law became effective. We agree with the circuit court's determination that the method of appropriation in chapter 83-3 is equivalent to the method approved in Gindl.").

485. Joint Petitioners (in that portion of their Proposed Final Order entitled, "Failure to Avoid Unnecessary Technical Language") allege that proposed Rule Chapter 62-303, Florida Administrative Code, "when considered in its entirety, is in violation of § 120.54(2)(b), Fla. Stat." While the proposed rule chapter does contain "technical language," it does not appear, given the complex nature of the subject matter addressed

in the proposed rule chapter, that the Department's use of such language was "unnecessary." In any event, even if there existed alternative, non-technical language that the Department could have used to adequately express its intent (and Joint Petitioners have not offered any such alternative language), the Department's failure to have used such language would not be in violation of any rulemaking requirement that, if not followed, can cause a proposed rule to be an "invalid exercise of delegated legislative authority," as defined in Subsection (8)(a) of Section 120.52, Florida Statutes. See State v. Thomas, 528 So. 2d at 1275; Massey Builders Supply Corp. v. Colgan, 553 S.E. 2d at 150; and Magnuson v. Grand Forks County, 97 N.W.2d at 624.

486. Also without merit is the argument made by Joint Petitioners in paragraph 5 of their Amended Petition and repeated in their Motion for Summary Final Order that, assuming arguendo Judge Stampelos (in his May 22, 2001, Order) was correct in granting FCG's Motion to Strike from Original Petitioners' "original petitions" their allegations "concerning [the proposed rule chapter's] consistency with federal laws," the Department lacks the authority "to characterize what the CWA or the implementing regulations describe or allow." Judge Stampelos, in his May 22, 2001, Order, merely held that the validity of the proposed rule chapter must be judged based upon

its consistency with "Section 403.067 and other Florida Statutes being implemented" and that "it would be inappropriate for an administrative law judge in this rule challenge proceeding to consider the validity of the [p]roposed [r]ule[] [chapter] in light of the CWA and EPA regulations [cited in Original Petitioners' original petitions], and in a manner inconsistent with Section 403.067 and other Florida Statutes being implemented." It does not follow that, because (as Judge Stampelos correctly held) a finding of invalidity of the proposed rule chapter must be based upon how it measures up against the Florida law (most significantly, Section 403.067, Florida Statutes) claimed by the Department to be the source of the legislatively delegated powers and duties implemented through the proposed rule chapter, it is impermissible for the Department, in the proposed rule chapter, to provide the reader with background information about the federal law, Section 303(d) of the Clean Water Act, that the Florida Legislature, in Section 403.067, Florida Statutes, has announced can be implemented by the state only "in accordance with the . . . provisions of this section" and in no other manner. See Section 403.067(9), Florida Statutes ("The exclusive means of state implementation of s. 303(d) of the Clean Water Act, Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq. shall be in accordance with

the identification, assessment, calculation and allocation, and implementation provisions of section.").[119]

487. Petitioner Lane echoes some of the arguments made by Joint Petitioners (which the undersigned has addressed above and which require no further discussion) and adds some of her own, none of which are persuasive.

488. In paragraph 3 of her Second Amended Petition, Petitioner Lane alleges that Subsection (3) of proposed Rule 62-303.440, Florida Administrative Code, is invalid to the extent that it excludes "toxicity data collected following . . . upsets and bypasses" inasmuch as "this data may be very necessary to identify impairment." Since these upsets and bypasses are exceptional events that, under the Department's existing rules, are allowed to occur without the permittee being guilty of a permit violation, it is reasonable for the Department, in verifying impairment under proposed Rule 62-303.440, Florida Administrative Code, to not take into consideration data tainted by their occurrence, which reflect atypical conditions resulting from legally permissible discharges. Accordingly, the argument made by Petitioner Lane in paragraph 3 of her Second Amended Petition is without merit.

489. In paragraph 5 of her Second Amended Petition, Petitioner Lane complains that proposed Rule 62-303.720, Florida Administrative Code, "has too many provisions which allow a

water body to be taken off the verified list or planning list for reasons other than water quality standards are . . . being met"; however, she specifies,[120] in her Second Amended Petition, only one provision of proposed Rule 62-303.720, Florida Administrative Code, that she claims is objectionable: Subsection (2)(j) of the proposed rule. Petitioner Lane contends (in paragraph 6 of her Second Amended Petition) that Subsection (2)(j) is "especially bad because allowing a water body to be delisted for some, as of now, unspecified change to an analytical procedure, is very vague and does not establish adequate standards for the Department." Contrary to the suggestion made by Petitioner Lane, a mere change in "approved analytical procedures" will not automatically result in "delisting" pursuant to Subsection (2)(j). Only if, following such a change, the "evaluation of available data indicates the water no longer meets the applicable criteria for listing" will the water be "delisted." This is in keeping with the requirement of Subsection (5) of Section 403.067, Florida Statutes, that waters "shall be removed from the lists described in subsection (2) or subsection (4) [of the statute] upon demonstration that water quality criteria are being attained, based on data equivalent to that required by rule under subsection (3) [of the statute]." Moreover, Subsection (2)(j) uses understandable language and provides adequate guidance and

direction to those Department employees who will be making "delisting" determinations.

490. A review of proposed Rule 62-303.720, Florida Administrative Code, reveals that there is one provision in the proposed rule that does "allow a water body to be taken off the verified list . . . for reasons other than water quality standards are . . . being met." This provision is found in Subsection (2) of the proposed rule and it reads as follows: "Water segments shall be removed from the State's verified list . . . after completion of a TMDL, for all pollutants causing impairment of the segment . . . ." While the Legislature, in Section 403.067, Florida Statutes, did not specifically direct the Department to remove a water segment from the "approved list" of waters for which TMDLs will be calculated "after completion of a TMDL, for all pollutants causing impairment of the segment," there was no need for the Legislature to have done so. It is obvious that a water for which a TMDL has been calculated no longer belongs on a list of waters for which TMDLs will be calculated.[121] Accordingly, it is unreasonable to infer from the Legislature's silence on the subject that it intended for these waters to remain on the "approved list" of waters for which TMDLs will be calculated. Cf. Wilkinson v. United States, 242 F.2d 735,736 (2d Cir. 1957)(court rejected interpretation of statute "rest[ing] on

inferences as to congressional intent drawn from the ambiguous legislative history [of the statute] and from [the statute's] failure expressly to state the obvious"); and N.W.I. International, Inc. v. Edgewood Bank, 684 N.E.2d 401, 407 n.1 (Ill. App. 1997)(quoting Seattle- First National Bank v. Schriber, 580 P.2d 1012, 1013 (Ore. 1978))("As Edgewood observes, while the statute in effect in 1983 does not explicitly state that a note payable 'on demand' is a demand note, such is clearly implicit. As the Oregon Supreme Court found in referring to the identical language in its statute '[t]he drafters obviously felt no need to state the obvious, that demand instruments also include instruments made expressly payable on demand.'").

491. In paragraph 10 of her Second Amended Petition, Petitioner Lane alleges the following regarding Subsection (1) of proposed Rule 62-303.400, Florida Administrative Code:

> [Rule] 62-303.400(1) requires the Department to place a water body on the verified list if it does not meet the "minimum criteria for surface waters" as established in Rule 62-302.500. Yet, the Department has not utilized this Rule 62-302.500 in its permitting processes. Nor does this section (62-303.400) have any guidance as to how the "Minimum Criteria" rule will be applied.

That portion of Subsection (1) of proposed Rule 62-303.400, Florida Administrative Code, of which Petitioner Lane is critical provides that "[a] water body that fails to meet the

minimum criteria for surface waters established in Rule 62-302.500, F.A.C. . . . shall be determined to be impaired."[122] It is true that this portion of proposed Rule 62-303.400, Florida Administrative Code, does not add anything to what is already included in Subsection (1) of Rule 62-302.500, Florida Administrative Code,[123] to indicate "how the 'Minimum Criteria' rule will be applied" by the Department,[124] but this is not a fatal defect. The "minimum criteria" set forth in Subsection (1) of Rule 62-302.500, Florida Administrative Code, are among the "water quality standards codified in chapter 62-302" that Section 403.067, Florida Statutes, directs the Department to apply in determining which waters to place on the "approved list" of waters for which TMDLs will be calculated. The Legislature, apparently, was content with the adequacy of these "minimum criteria" and the ability of Department personnel to apply them, notwithstanding that they leave room for the exercise of agency discretion. See, e.g., Section 403.067(9), Florida Statutes ("[N]othing in this section shall be construed as altering any applicable state water quality standards. . . ."). While Subsection (1) of proposed Rule 62-303.400, Florida Administrative Code, "fails to extinguish" this legislatively sanctioned discretion concerning "how the 'Minimum Criteria' rule will be applied" in particular cases, this

proposed rule provision "is not invalid on that account." Cortes v. State, Board of Regents, 655 So. 2d at 138.

492. In paragraph 12 of her Second Amended Petition, Petitioner Lane points out the Subsection (2) of proposed Rule 62-303.320, Florida Administrative Code, "does not specify a bioassessment for estuaries because there is none at this time." While it is true that Subsection (2) of proposed Rule 62-303.320, Florida Administrative Code, makes no mention of any rapid type of bioassessment for estuaries for the reason that the Department has yet to develop such a bioassessment, this does not render this proposed rule provision invalid. Certainly, the Department cannot be faulted for failing to make reference to a scientific technique that does not yet exist.

493. In paragraph 15 of her Second Amended Petition, Petitioner Lane alleges that Subsection (3) of proposed Rule 62-303.420, Florida Administrative Code (which provides that, under certain circumstances, "worst case values," as they are described in Subsection (4) of proposed Rule 62-303.320, Florida Administrative Code, will not be considered when verifying impairment pursuant proposed Rule 62-303.420) "goes beyond the enabling statute."[125] The "enabling statute," Section 403.067, Florida Statutes, requires the Department to "adopt by rule a methodology for determining those waters which are impaired." Subsection (3) of proposed Rule 62-303.420, Florida

Administrative Code, is part of the methodology that the Department has adopted in response to this legislative mandate, and, contrary to Petitioner Lane's argument, it falls within the scope of the "enabling statute."

494. In paragraph 16 of her Second Amended Complaint, Petitioner Lane takes issue with the requirement of Subsection (4) of proposed Rule 62-303.430, Florida Administrative Code, that the "particular pollutant(s) causing the [biological] impairment" be known before a water can "be included on the verified list for biological impairment." She claims that this requirement "does not agree with the statute [Section 403.067, Florida Statutes]," which she contends "says the pollutant must be known before a TMDL is done, not that a water body will not be put on the verified list if the pollutant is not known." Petitioner Lane has misread the statute. The "verified list" (or "approved list," as it is called in Subsection (4) of Section 403.067, Florida Statutes) is a list of impaired waters "for which TMDLs <u>will</u> [not may] be calculated." A reading of Subsection (4) of Section 403.067, Florida Statutes, leaves no doubt that, if a water is to placed on this list on any grounds, the Department "must specify the particular pollutants causing the impairment and the concentration of those pollutants causing the impairment relative to the water quality standard." The Department cannot do this if the culprit pollutants are not

known. Including a water on the "verified list" before the impairment-causing pollutants are identified would be premature in light of the "specification" requirement of Subsection (4) of Section 403.067, Florida Statutes. Inasmuch as Petitioner Lane's challenge to Subsection (4) of proposed Rule 62-303.430, Florida Administrative Code, is premised upon an erroneous reading of Section 403.067, Florida Statutes, her challenge to this proposed rule provision is rejected.

495. In paragraph 17 of her Second Amended Complaint, Petitioner Lane contends that Subsection (2) of proposed Rule 62-303.460, Florida Administrative Code, inappropriately excludes "data due to wildlife." In her view, because "[f]ecal contamination from wildlife will cause impairment," there is no reason to exclude such data from consideration when verifying impairment pursuant to proposed Rule 62-303.460, Florida Administrative Code. Although Petitioner Lane is correct to the extent that she observes that the waste products of wildlife may lead to the bacteriological impairment of recreational waters, it is apparent from an examination of Section 403.067, Florida Statutes, that the purpose of the state's TMDL program is to control <u>human-induced</u> impairment, not impairment that is due solely to the activities of wildlife, and that the Department is not required to develop TMDLs for waters suffering from the latter type of impairment. Contrary to the argument made by

Petitioner Lane in paragraph 17 of her Second Amended Petition, it is therefore entirely appropriate for the Department, when verifying bacteriological impairment, to exclude from consideration "any values that are elevated solely due to wildlife," as Subsection (2) of proposed Rule 62-303.460, Florida Administrative Code, indicates the Department will do.

496. In paragraph 18 of her Second Amended Complaint, Petitioner Lane addresses Subsection (2) of proposed Rule 62-303.470, Florida Administrative Code, which provides that,"[i]f the segment is listed on the planning list based on fish consumption advisories, waters with fish consumption advisories for pollutants that are no longer legally allowed to be used or discharged shall not be placed on the verified list because the TMDL will be zero for the pollutant." Petitioner Lane, in support of her position that this proposed rule provision is invalid, argues that "[t]he water body can be listed and a TMDL will be very easily done for this [prohibited] pollutant." Petitioner Lane's observation that a TMDL could "very easily be done" under the circumstances described in the proposed rule provision is accurate. Engaging in such exercise, however, would serve no useful purpose. As the Department observed in the proposed rule provision, in each and every case, the TMDL would be zero, and, as a result, there would be no load for the Department to allocate. Simply put, if a particular pollutant

may not legally be used or discharged in the surface waters of this state, there is no need to utilize the TMDL program to control the discharge of this banned pollutant. Declining to place waters on the "verified list" based upon fish consumption advisories where the advisories are "for pollutants that are no longer legally allowed to be used or discharged" is a reasonable course of action that is within the Department's legislatively delegated discretion to take.

497. In the final paragraph of her Second Amended Complaint, paragraph 19, Petitioner Lane complains that the proposed rule chapter "has so many exemptions that many waters which would have been classified as 'impaired' would be removed from the 'impaired' waters list due to these exemptions." The "approved list" that the Department is required to issue pursuant to Section 403.067, Florida Statutes, is a list of impaired waters; but the Legislature did not intend that <u>all</u> waters in the state with water quality problems would be placed on this list. The "exemptions" about which Petitioner Lane complains are reasonably designed to ensure that only those waters with water quality problems of the type the TMDL program is intended to remedy make the "approved list." In incorporating these "exemptions" in the proposed rule chapter, the Department has not acted in any way inconsistent with the provisions of Section 403.067, Florida Statutes.

498. The Department has established, contrary to the allegations made by Joint Petitioners and Petitioner Lane, that proposed Rule Chapter 62-303, Florida Administrative Code, is not an "invalid exercise of delegated legislative authority," within the meaning of Section 120.52(8), Florida Statutes.

Accordingly, it is hereby ORDERED that Joint Petitioners' Amended Petition and Petitioner Lane's Second Amended Petition are dismissed in their entirety.

DONE AND ORDERED this 13th day of May, 2002, in Tallahassee, Leon County, Florida.

STUART M. LERNER
Administrative Law Judge
Division of Administrative Hearings
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Filed with the Clerk of the
Division of Administrative Hearings
this 13th day of May, 2002.

ENDNOTES

1/ 40 C.F.R. Section 130.7(b) provides as follows:

> Identification and priority setting for water quality-limited segments still requiring TMDLs.
>
> (1) Each State shall identify those water quality-limited segments still requiring TMDLs within its boundaries for which:

(i) Technology-based effluent limitations required by sections 301(b), 306, 307, or other sections of the Act;

(ii) More stringent effluent limitations (including prohibitions) required by either State or local authority preserved by section 510 of the Act, or Federal authority (law, regulation, or treaty); and

(iii) Other pollution control requirements (e.g., best management practices) required by local, State, or Federal authority are not stringent enough to implement any water quality standards (WQS) applicable to such waters.

(2) Each State shall also identify on the same list developed under paragraph (b)(1) of this section those water quality-limited segments still requiring TMDLs or parts thereof within its boundaries for which controls on thermal discharges under section 301 or State or local requirements are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish and wildlife.

(3) For the purposes of listing waters under § 130.7(b), the term "water quality standard applicable to such waters" and "applicable water quality standards" refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements.

(4) The list required under §§ 130.7(b)(1) and 130.7(b)(2) of this section shall include a priority ranking for all listed water quality-limited segments still requiring TMDLs, taking into account the severity of the pollution and the uses to be made of such waters and shall identify the

pollutants causing or expected to cause violations of the applicable water quality standards. The priority ranking shall specifically include the identification of waters targeted for TMDL development in the next two years.

(5) Each State shall assemble and evaluate all existing and readily available water quality-related data and information to develop the list required by §§ 130.7(b)(1) and 130.7(b)(2). At a minimum "all existing and readily available water quality-related data and information" includes but is not limited to all of the existing and readily available data and information about the following categories of waters:

(i) Waters identified by the State in its most recent section 305(b) report as "partially meeting" or "not meeting" designated uses or as "threatened";

(ii) Waters for which dilution calculations or predictive models indicate nonattainment of applicable water quality standards;

(iii) Waters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions. These organizations and groups should be actively solicited for research they may be conducting or reporting. For example, university researchers, the United States Department of Agriculture, the National Oceanic and Atmospheric Administration, the United States Geological Survey, and the United States Fish and Wildlife Service are good sources of field data; and

(iv) Waters identified by the State as impaired or threatened in a nonpoint assessment submitted to EPA under section 319 of the CWA or in any updates of the assessment.

(6) Each State shall provide documentation to the Regional Administrator to support the State's determination to list or not to list its waters as required by §§ 130.7(b)(1) and 130.7(b)(2). This documentation shall be submitted to the Regional Administrator together with the list required by §§ 130.7(b)(1) and 130.7(b)(2) and shall include at a minimum:

(i) A description of the methodology used to develop the list; and

(ii) A description of the data and information used to identify waters, including a description of the data and information used by the State as required by § 130.7(b)(5); and

(iii) A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in § 130.7(b)(5); and

(iv) Any other reasonable information requested by the Regional Administrator.

Upon request by the Regional Administrator, each State must demonstrate good cause for not including a water or waters on the list. Good cause includes, but is not limited to, more recent or accurate data; more sophisticated water quality modeling; flaws in the original analysis that led to the water being listed in the categories in § 130.7(b)(5); or changes in conditions, e.g., new control equipment, or elimination of discharges.

2/ In an endnote, Judge Stampelos added the following:

It appears that the Legislature, in 1999, was aware of the nature of pending lawsuits challenging various actions or inactions of the EPA regarding implementation and

application of the CWA. See, e.g., Staff Analyses, supra. Also, the federal courts have intervened from time to time to resolve challenges to federal and state action or inaction with respect to the implementation of the CWA. See, e.g., Sierra Club v. Hankinson, 939 F. Supp. 865 (N.D. Ga. 1996).

3/ See American Canoe Association, Inc. v. United States Environmental Protection Agency, 54 F.Supp.2d 621, 626 (E.D. Va. 1999)("The CWA places primary responsibility for TMDL development on the states.").

4/ In paragraph 5 of their Amended Petition, Joint Petitioners stated that "[b]y submitting this [A]mended [P]etition," they were not "waiv[ing] their continuing respectful position that DOAH was incorrect" in granting FCG's Motions to Strike. In addition, they contended that, "assuming arguendo the correctness of DOAH's ruling, . . it is inappropriate for the proposed rule [chapter] to characterize what the CWA or the implementing regulations describe or allow."

5/ The Environmental Regulation Commission, at its April 26, 2001, meeting, "changed" Subsection (6) of proposed Rule 62-303.320, Florida Administrative Code, to read as follows:

> 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 the were excluded.

6/ The Environmental Regulation Commission, at its April 26, 2001, meeting, "changed" proposed Rule 62-303.420(5), Florida Administrative Code, to read as follows:

> 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. However, the Department shall note for the record that the data were excluded and explain why they were excluded.

7/ The undersigned, in an endnote, added: "Of course, if the 'corporate Petitioners'' challenge is found not to be meritorious, then their 'standing . . . ceases to be relevant.' American Civil Liberties Union v. F.C.C., 523 F.2d 1344 (9th Cir. 1975)."

8/ In the Order, the undersigned also announced that "[n]o proceedings w[ould] be held in these consolidated cases on September 18, 2001."

9/ Mr. Joyner testified, without refutation, that he was "authorized to represent the Department's position with regard to its intentions and its interpretations of terms" in proposed Rule Chapter 62-303, Florida Administrative Code.

10/ In any event, the undersigned has not relied on either "Clean Water Act Section 301(b)(2)(A)" or "40 CFR 122.41" in resolving any of the issues raised in this case.

11/ While "source" is defined in Subsection (10) of Section 403.031, Florida Statutes, "as any and all points of origin of [a contaminant] whether privately or publicly owned or operated," there is no definition of "point source" in Section 403.031, Florida Statutes, or elsewhere in Chapter 403, Florida Statutes. "Point source," however, is defined in the federal Clean Water Act (in 33 U.S.C. Section 1362(14)) as follows:

> The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

A similar definition of "point source" is found in Rule Chapter 62-620, Florida Administrative Code, which contains the Department's "wastewater facility and activities permitting" rules. See Rule 62-620.200(35), Florida Administrative Code, which provides as follows:

> "Point source" means any discernible, confined, and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

("The concept of point source was developed to distinguish pollution resulting from simple erosion over the surface of the ground from pollution that has been collected or comes from a confined system." Friends of Sakonnet v. Dutra, 738 F.Supp. 623, 630 (D. R.I. 1990).)

12/ "Pollution," as used in Chapter 403, Florida Statutes, is defined in Subsection (7) of Section 403.031, Florida Statutes, as follows:

> "Pollution" is the presence in the outdoor atmosphere or waters of the state of any substances, contaminants, noise, or manmade or human-induced impairment of air or waters or alteration of the chemical, physical, biological, or radiological integrity of air or water in quantities or at levels which are or may be potentially harmful or

> injurious to human health or welfare, animal or plant life, or property or which unreasonably interfere with the enjoyment of life or property, including outdoor recreation unless authorized by applicable law.

13/ "Effluent limitations," as used in Chapter 403, Florida Statutes, is defined in Subsection (3) of Section 403.031, Florida Statutes, as follows:

> "Effluent limitations" means any restriction established by the department on quantities, rates, or concentrations of chemical, physical, biological, or other constituents which are discharged from sources into waters of the state.

14/ The Federal Water Pollution Control Act, as amended, is also known as the Clean Water Act.

15/ "Propagation" is defined in Subsection (22) of Rule 62-302.200, Florida Administrative Code, as "reproduction sufficient to maintain the species' role in its respective ecological community."

16/ Subsection (10) of Section 403.061, Florida Statutes, authorizes the Department to:

> Develop a comprehensive program for the prevention, abatement, and control of the pollution of the waters of the state. In order to effect this purpose, a grouping of the waters into classes may be made in accordance with the present and future most beneficial uses. Such classifications may from time to time be altered or modified. However, before any such classification is made, or any modification made thereto, public hearings shall be held by the department.

17/ The term "water quality standards" is defined in Subsection (28) of Rule 62-302.200, Florida Administrative Code, as "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 contained in this Rule and in F.A.C. Rule 62-4, adopted pursuant to Chapter 403, F.S."

18/ "Designated use" is defined in Subsection (8) of Rule 62-302.200, Florida Administrative Code, as "the present and future most beneficial use of a body of water as designated by the Environmental Regulation Commission by means of the Classification system contained in this Chapter."

19/ "Pollution" is defined in Subsection (19) of Rule 62-302.200, Florida Administrative Code, as "the presence in the outdoor atmosphere or waters of the state of any substances, contaminants, noise, or man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of air or water in quantities or levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, including outdoor recreation."

20/ A "mixing zone" is defined in Subsection (30) of Rule 62-302.200, Florida Administrative Code, as "a volume of surface water containing the point or area of discharge and within which an opportunity for the mixture of wastes with receiving surface waters has been afforded."

21/ "Background" is defined in Subsection (3) of Rule 62-302.200, Florida Administrative Code, as "the condition of waters in the absence of the activity or discharge under consideration, based on the best scientific information available to the Department." Subsection (14) of Rule 62-302.200, Florida Administrative Code" defines "natural background," as used in Chapter 403, Florida Statutes, as "the condition of waters in the absence of man-induced alterations based on the best scientific information available to the Department" and further provides that "[t]he establishment of natural background for an altered waterbody may be based upon a similar unaltered waterbody or on historical pre-alteration data."

22/ There are currently no surface waters in the state with a Class V classification. The Fenholloway River was classified as a Class V surface water, but this classification was repealed effective December 31, 1997.

23/ "Water quality criteria" are defined in Subsection (27) of Rule 62-302.200, Florida Administrative Code, as "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."

24/ Subsection (27) of Section 403.031, Florida Statutes, authorizes the Department to "[e]stablish rules which provide a special category of water bodies within the state to be referred to as 'Outstanding Florida Waters,' which water bodies shall be worthy of special protection because of their natural attributes."

25/ "Nuisance species," as used in Rule Chapter 62-302, Florida Administrative Code, is defined in Subsection (15) of Rule 62-302.200, Florida Administrative Code, as "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."

26/ The criteria for the parameter of "nutrients" are set forth in Subsections 48(a) and (b) of Rule 62-302.530, Florida Administrative Code. They are (for all classifications) as follows:

> 48(a) The discharge of nutrients shall continue to be limited as needed to prevent violations of other standards contained in this chapter. Man induced nutrient enrichment (total nitrogen or total phosphorous) shall be considered degradation in relation to the provisions of Sections 62-302.300, 62-302.700, and 62-4.242.
>
> (48)(b) In no case shall nutrient concentrations of a body of water be so as to cause an imbalance in natural populations of aquatic flora or fauna.

27/ "Man-induced conditions which cannot be controlled or abated" are defined in Subsection (13) of Rule 62-302.200, Florida Administrative Code, as "conditions that have been influenced by human activities, and (a) would remain after removal of all point sources; (b) would remain after imposition of best management practices for non-point sources; and (c) cannot be restored or abated by physical alteration of the water body, or there is no reasonable relationship between the

economic, social and environmental costs and the benefits of restoration or physical alteration."

28/ While the Department was required, by Subsection (6)(c) of Section 403.067, Florida Statutes, to act "in cooperation with a technical advisory committee" in making recommendations to the Governor, President of the Senate, and Speaker of the House (on or before February 1, 2001) regarding "modifications to the process for allocating maximum daily loads," the Department was under no statutory obligation to have a technical advisory committee assist it in developing an "identification of impaired surface waters" rule.

29/ See Section 403.804(1), Florida Statutes, which provides as follows:

> Except as provided in subsection (2) and s. 120.54(4), the commission, pursuant to s. 403.805(1), shall exercise the standard-setting authority of the department under this chapter; part II of chapter 376; and ss. 373.309(1)(e), 373.414(4) and (10), 373.4145(1)(a), 373.421(1), and 373.4592(4)(d)4. and (e). The commission, in exercising its authority, shall consider scientific and technical validity, economic impacts, and relative risks and benefits to the public and the environment. The commission shall not establish department policies, priorities, plans, or directives. The commission may adopt procedural rules governing the conduct of its meetings and hearings.

30/ In a footnote, the ERC added:

> It is the agency that determines whether the rulemaking proceeding is adequate or whether to suspend the rulemaking proceeding and convene a separate proceeding under Sections 120.569 and 120.57, F.S., i.e., whether to grant the "draw out." While the failure of an agency to make such a determination is subject to immediate judicial review, the denial of a "draw out" is not final agency action subject to Section 120.68(1), F.S. Adam Smith Enterprises v. Department of

Environmental Regulation, 553 So. 2d 1260 (Fla. 1st DCA 1989) at 1266, citing Bert Rogers Schools of Real Estate v. Florida Real Estate Commission, 339 So. 2d 226 (Fla. 4th DCA 1976); and Corn v. Department of Legal Affairs, 368 SO. 2d 591 (Fla. 1979).

31/ In a footnote, the ERC again cited the Adam Smith Enterprises case.

32/ See Section 403.021(11), Florida Statutes ("The department shall also recognize that some deviations from water quality standards occur as the result of natural background conditions."); and Rule 62-302.500(15)("T]he Department shall not strive to abate natural conditions.).

33/ The NRC is the research arm of the National Academy of Sciences, a body of distinguished scholars operating under a charter granted by Congress and charged with advising the federal government on scientific and technical matters. Various courts in this state and elsewhere have recognized NRC reports as authoritative. See Hayes v. State, 660 So. 2d 257, 264 (Fla. 1995)("When a major voice in the scientific community, such as the National Research Council, recommends that corrections made due to band-shifting be declared 'inconclusive,' we must conclude that the test on the tank top is unreliable. Our holding in this regard is not without precedent. In People v. Keen, 156 Misc.2d 108, 591 N.Y.S. 2d 733, 740 (N.Y. Sup. Ct. 1992), that court relied in part on the National Research Council report to exclude DNA test results that were tainted by band shifting."); Lemour v. Florida, 802 So. 2d 402, 405 (Fla. 3d DCA 2001); Wynn v. State, 791 So. 2d 1258, 1259 (Fla. 5th DCA 2001); Clark v. State, 679 So. 2d 321 (Fla. 3d DCA 1996); and State v. Garcia, 3 P.3d 999, 1003 (Ariz. App. 1999)("Most importantly, however, our review of NRC II persuades us that, contrary to defendant's contention, the NRC has recognized the reliability of Dr. Weir's formulas. The NRC is comprised of 'a distinguished cross section of the scientific community.' State v. Johnson, 186 Ariz. 329, 334, 922 P.2d 294, 299 (1996), (quoting United States v. Porter, 618 A.2d 629, 643 n.26 (D.C. 1992)). The NRC's recognition of the reliability of given methods for calculating probability estimates 'can easily be equated with general acceptance of those methodologies in the relevant scientific community.' Porter, 618 A.2d at 643 n. 26. Thus, as the court concluded in Johnson, endorsement by the NRC

is 'strong evidence' that a methodology or formula satisfies Frye, 186 Ariz. at 334, 922 P.2d at 299.").

34/ Among those serving on this NRC committee was Jan Mandrup-Poulsen, a Department employee who participated in the drafting of the proposed rule chapter.

35/ There are 52 HUCs in the state.

36/ As noted in the NRC Publication, the binomial model "require[s] the analyst to 'throw away' some of the information in collected data. For example, if the criterion is 1.0, measurements of 1.1 and 10 are given equal importance, and both are treated simply as exceeding the standard."

37/ At the time the TAC made its recommendation, the proposed rule chapter (as then drafted) did not provide for a "planning list."

38/ This recommendation was also made before the proposed rule chapter was redrafted to include a "planning list," in addition to a "verified list."

39/ Dr. Reckhow explained that he did not "endorse it [as a scientist] because it has value judgment aspects to it." According to Dr. Reckhow, these "value judgments," which involve the "consequences of making wrong decisions," should be made by policymakers.

40/ This recommendation, like the TAC's confidence level and "exceedance frequency" recommendations, were made before the concept of a "planning list" was added to the proposed rule chapter.

41/ There are generally accepted statistical methods available to identify outliers (both "mild" and "extreme").

42/ As Russell Frydenborg, the administrator of the Department's Environmental Assessment Section, explained in his testimony at the final hearing:

> The deeper part of the lake is not sampled because earlier on it was determined that these parts are not productive and therefore would not have a very good signal for looking at adverse changes caused by human activities. The deeper part of the lake

> does not give you any useful information regarding impacts. The sublittoral zone gives the most useful signal so it is sampled.

43/ Mr. Frydenborg testified at the final hearing that he anticipated that these SOPs, as well as an "SOP on how to conduct a field audit . . . to make sure that other people are successfully following these SOPs," will be adopted as part of Rule Chapter 62-160, Florida Administrative Code, "within the next two months, hopefully."

44/ According to Mr. Frydenborg, it will take another "year or two" for the Department to develop such a bioassessment. ("The Biorecon and SCI do not apply to salinity affected streams[;] [they apply] only [to] fresh flowing streams.")

45/ Joint Petitioners argue in their Proposed Final Order that "[t]he placement of waters on the planning list under proposed rule section 62-303.330(3) if there is a failed . . . biological integrity standard as required under rule 62-302.530(11), F.A.C., fails to consider that the Shannon-Weaver Index, which is relied upon in rule 62-302.530(11), F.A.C., is known to return low level readings in estuaries . . . [and] [t]herefore, even impacted estuaries do not show tremendous changes in the Shannon-Weaver Index." Even if it is true, as Joint Petitioners' expert in estuarine and marine biology, Dr. Kenneth Heck, testified at the final hearing, that the Shannon-Weaver Diversity Index "does not work well in . . . estuaries," nonetheless the state's "water quality standards codified in [Rule][C]hapter 62-302," Florida Administrative Code (which are referenced, with apparent approval, in Section 403.067, Florida Statutes) require that, with respect to both fresh <u>and</u> marine water environments, "biological integrity" be determined through use of the Shannon-Weaver Diversity Index.

46/ The single most important factor determining seagrass growth and survival is the amount of light that reaches the seagrass. Suspended algae and attached algae (periphyton) are among the things that can block light and prevent it from reaching the seagrass. Estuarine waters containing seagrasses that are not getting enough light to grow and survive (at least "around 20 percent of the light that hits the surface") can qualify for placement on the "planning list" based not only upon "nutrient impairment" (established by "information" of a "decrease in the distribution (either in density or areal coverage) of [these] seagrasses" or by "data" reflecting

excessive annual mean chlorophyll a values), but also, pursuant to proposed Rule 62-303.320, Florida Administrative Code, based upon exceedances of the criterion (set forth in Subsection (68) of Rule 62-302.530, Florida Administrative Code) for "transparency" ("[d]epth of the compensation point for photosynthetic activity [s]hall not be reduced by more than 10% as compared to the natural background value").

47/ Rule Chapter 62-302, Florida Administrative Code, does not contain any "numerical" water quality criterion for chlorophyll a.

48/ The precise levels at which these thresholds should be established is subject to reasonable debate.

49/ Algal mats are free-floating accumulations of filamentous algae. They may be the result of algal blooms.

50/ In Florida, there is considerable development in and around coastal areas.

51/ The Department has designed a set of experiments (it has yet to conduct) to help it decide whether such a change should be made to the state's water quality criteria.

52/ The calculation, allocation, and implementation of a TMDL is an involved and time-consuming process that may take several years to complete and is therefore an inappropriate means to address short term, critical conditions requiring immediate attention.

53/ During the rule development process, Petitioners expressed the view that there should not be a "red tides" exclusion in proposed Rule 62-303.360, Florida Administrative Code, but they did not offer any "scientific information" to support their position.

54/ This organism has been reclassified and is now know as "Karenia brevis."

55/ Although this approach was not among the options he mentioned in his presentation during the April 20, 2000, TAC meeting, during his testimony at the final hearing in these consolidated cases, Mr. Heil spoke approvingly of it.

56/ In Florida, the vast majority of drinking water comes from groundwater, not surface water.

57/ The Department does "not have the flow data associated with all of [the] data points" it has relating to "human health-based criteria expressed as annual averages."

58/ Subsection (12) of Section 403.061, Florida Statutes, authorizes the Department to:

> (a) Cause field studies to be made and samples to be taken out of the air and from the waters of the state periodically and in a logical geographic manner so as to determine the levels of air quality of the air and water quality of the waters of the state.
>
> (b) Determine the source of the pollution whenever a study is made or a sample collected which proves to be below the air or water quality standard set for air or water.

59/ It is the Florida Legislature that has the "final say in appropriation of State monies." United Faculty of Florida, FEA/United, AFT, AFL-CIO, Local 1880 v. Board of Regents, 365 So. 2d 1073, 1079 (Fla. 1st DCA 1979); see also Florida Police Benevolent Association v. State of Florida, Case No. 1D01-0532, 2002 WL 553399 (Fla. 1st DCA April 16, 2002)("[U]nder the Florida Constitution, exclusive control over public funds rests solely with the legislature."). A state agency is prohibited from agreeing "to spend, any moneys in excess of the amount appropriated to such agency . . . unless specifically authorized by law." Any such agreement is "null and void." Section 216.311(1), Florida Statutes.

60/ Department staff thought that it was unnecessary to include a comparable provision in proposed Rule 62-303.420, Florida Administrative Code, because of proposed Rule 62-303.420's stricter "age limit" on data (limiting the "analysis of data to data collected [no less recently than] the five years preceding the planning list assessment").

61/ These waters are mostly located in the northern part of the state.

62/ According to the testimony of Mr. Joyner at the final hearing, "TMDLs [will] be implemented for wastewater facilities . . . through their permit[s]."

63/ Subsection (1) of Section 403.031, Florida Statutes, directs that, "[i]n construing [Chapter 403, Florida Statutes], or rules and regulations adopted pursuant [t]hereto, the term "contaminant" shall have the following meaning: "any substance which is harmful to plant, animal, or human life."

64/ On average, in Florida, there are about 125 rainfall events per location each year.

65/ Under Chapter 120, Florida Statutes, as part of the rulemaking process, those who are "substantially affected . . . may seek an administrative determination of the invalidity of the [proposed] rule on the ground that the rule is an invalid exercise of delegated legislative authority." NAACP, Inc. ex rel. Florida Conference of Branches of NAACP v. Florida Board of Regents, Case No. 1D00-3138, 2002 WL 265851 (Fla. 1st DCA February 26, 2002).

66/ While the Department does not anticipate that it will be conducting any toxicity tests in receiving waters, it is the Department's intention to conduct the confirmatory bioassessment required by Subsection (2) of proposed Rule 62-303.440, Florida Administrative, if timely provided with data reflecting that the water in question failed a chronic toxicity test and further provided that it has the funding to conduct such bioassessment.

67/ Under Subsection (2) of proposed Rule 62-303.350, Florida Administrative Code, to establish an annual mean chlorophyll a concentration, ten samples (with at least one taken each season of the year in question) are needed.

68/ 40 C.F.R. part 130 was recently amended (on October 18, 2001) by the EPA to extend the deadline for the submission of the states' 303(d) lists from April 1, 2002, to October 1, 2002. See 66 FR 53044-01 (2001 WL 1240491 (F.R.)).

69/ Statutes should be construed "to give effect to all provisions, and not to render any part meaningless." Palm Beach County Canvassing Board v. Harris, 772 So. 2d 1273, 1286 (Fla. 2000).

70/ In Metropolitan Dade County v. Coscan Florida, Inc., 609 So. 2d 644, 648 (Fla. 3d DCA 1992), in reversing the Department's issuance of a dredge and fill permit pursuant to

former Section 403.918, Florida Statutes, which required, as a condition precedent to the issuance of such a permit, that "there be reasonable assurance that water quality standards will not be violated," the Third District Court of Appeal stated the following about that "reasonable assurance" requirement:

> We disagree with so much of the order as indicates that it is not necessary for the hearing officer to analyze at this time the anticipated effects of the proposed project. In principle there is nothing wrong with the provisions in the Settlement Agreement which call for removal of the most recent phase of the marina project if water quality standards are violated. We do not think that such an agreement can, however, substitute for analyzing the project prior to implementation to determine whether the applicant's proposed system provides reasonable assurance that it will meet the requisite water quality standards. Here, the hearing officer and agency simply bypassed making a determination on whether the applicant had made the necessary showing of reasonable assurance, reasoning instead that any future water quality violation could be cured by dismantling portions of the project. We do not think that the statute allows the agency to proceed without an analysis, in advance, of (1) the likely effects of the project and (2) the question whether the applicant has provided reasonable assurance that water quality standards will be met.
>
> In our view, the statute is intended to prevent the degradation of existing water quality, and to ameliorate existing violations. If a full scale project proceeds where there is only a mere possibility of successful implementation, that exposes the water body to the risk that water quality violations will most likely result and persist for some period of time before the last phase of the project is removed. Such a scenario falls short of the reasonable assurance contemplated by the

> statute. "Reasonable assurance" contemplates, in our view, a substantial likelihood that the project will be successfully implemented.

71/ A wastewater permit will not be granted if the Department does not have "reasonable assurance" that water quality standards will not be violated.

72/ The term "reasonable further progress" is utilized in the Department's "air program." See Rule 62-210.200(212), Florida Administrative Code ("'Reasonable Further Progress' -- A level of annual incremental reductions in emissions of affected air pollutants such as may be required for ensuring attainment of the applicable national ambient air quality standards by the applicable date.").

73/ Pursuant to Subsection (2)(b) of Section 120.54, Florida Statutes:

> The language is readable if:
>
> 1. It avoids the use of obscure words and unnecessarily long or complicated constructions; and
>
> 2. It avoids the use of unnecessary technical or specialized language that is understood only by members of particular trades or professions.

74/ As the First District Court of Appeal pointed out in Florida East Coast Industries, Inc. v. State, Department of Community Affairs, 677 So. 2d 357, 363 (Fla. 1st DCA 1996), "[t]he fundamental concern of the vagueness doctrine is that people be placed on notice of what conduct is illegal."

75/ In a footnote, the Court noted that this language "appears . . . also at section 120.536(1), Florida Statutes (Supp. 1996)."

76/ In a footnote, the Court noted that, "[w]hile the Legislature disavowed any intention 'to reverse the result of any specific judicial decision,' Ch. 99-379, § 1, Laws of Fla., it explicitly rejected the rule of decision that had yielded the result in St. Johns River Water Mgmt. Dist. v. Consolidated-Tomoka Land Co., 717 So. 2d 72, 80 (Fla. 1st DCA 1998)."

77/ As the First District Court of Appeal observed in Board of Trustees of Internal Improvement Trust Fund v. Day Cruise Association, Inc., 794 So. 2d at 702-03, quoting from a law review article:

> "Under the statutory scheme, a grant of power to adopt rules is certainly required, but normally should be of little interest. Almost all agencies have a general grant--usually found in the first part of their enabling statute--which basically states that the agency 'may adopt rules necessary to carry out the provisions of this chapter.' The first sentence [of section 120.536] emphasizes that such a general grant is sufficient to allow an agency to adopt a rule only when relied upon in conjunction with a specific provision of law to be implemented. . . ."

78/ In an endnote, Judge Van Laningham stated the following:

> In carrying out the legislative intent to restrict rulemaking to the implementation and interpretation of "specific powers and duties," administrative law judges need to be on guard against thwarting the legislature's will by construing an enabling statute too liberally; doing so may effectively resurrect the rejected "class of powers" test under the guise of interpretation. Conversely, construing an enabling law too narrowly risks hamstringing an agency in the performance of its proper role as administrator of broadly stated legislative policies, a result that should also be avoided.

79/ "Florida law is consistent with the general law on the subject of deference to an agency's interpretation of the statute it is charged with enforcing." Bolam v. Mobil Oil Corporation, 893 F.2d 311, 313 n.3 (11th Cir. 1990).

80/ This interpretation is "binding on the agency." See Kearse v. Department of Health and Rehabilitative Services, 474 So. 2d 819, 820 (Fla. 1st DCA 1985); see also American Iron and Steel

Institute v. E.P.A., 115 F.3d 979, 989 (D.C. Cir. 1997)("This is a permissible reading of the regulation, and we will hold the agency to it. So long as the agency adheres to this reading, the petitioners' challenge to these procedures is not ripe. Should the agency ever adopt the interpretation the petitioners describe, this court will of course have jurisdiction to revisit the issue.").

81/ Intervenors FCG, FMCC, and FWEA, in their Response to Joint Petitioners' Proposed Final Order, contend that, because Joint Petitioners unsuccessfully advanced this argument in their Motion for Summary Final Order, which Judge Stampelos denied by Order issued July 12, 2001, Joint Petitioners are foreclosed from raising this issue again in their Proposed Final Order. The undersigned disagrees. The mere denial of a motion for summary final order does not establish the law of the case. See Steinhardt v. Steinhardt, 445 So. 2d 352, 356-57 (Fla. 3d DCA 1984)(quoting City of Coral Gables v. Baljet, 250 So. 2d 653, 654 (Fla. 3d DCA 1971))("[I]t is settled that '[t]he failure to grant a summary judgment does not establish the law of the case [but] merely defers the matter until final hearing.'").

82/ Joint Petitioners further claim, erroneously, that this preliminary list of waters, although it "cannot be used in the administration or implementation of any regulatory program," "does go to the EPA, which then has a mandatory duty under the Clean Water Act (CWA) [specifically, § 303(d)(2) thereof] to approve or disapprove the list." In fact, it is the state's "updated list of those water bodies or segments for which total maximum daily loads will be calculated" (that is, the "approved list" described in Subsection (4) of Section 403.067, Florida Statutes), not the preliminary "list of surface waters or segments for which total maximum daily load assessments will be conducted" (that is, the "list of surface waters or segments" described in Subsection (2) of Section 403.067, Florida Statutes), that the EPA has the authority to approve or disapprove pursuant to § 303(d)(2) of the CWA.

83/ Subsection (1) of Section 120.536, Florida Statutes, provides as follows:

> (1) A grant of rulemaking authority is necessary but not sufficient to allow an agency to adopt a rule; a specific law to be implemented is also required. An agency may adopt only rules that implement or interpret the specific powers and duties granted by

> the enabling statute. No agency shall have authority to adopt a rule only because it is reasonably related to the purpose of the enabling legislation and is not arbitrary and capricious or is within the agency's class of powers and duties, nor shall an agency have the authority to implement statutory provisions setting forth general legislative intent or policy. Statutory language granting rulemaking authority or generally describing the powers and functions of an agency shall be construed to extend no further than implementing or interpreting the specific powers and duties conferred by the same statute.

84/ What Subsection (3)(b) of Section 403.067, Florida Statutes, does (insofar as it applies to the preliminary listing phase of the TMDL process) is to place qualifications on the Department's rulemaking authority that otherwise would not be there.

85/ The statute does not require that the Department prepare a post-assessment list of all waters that are impaired. It simply requires the Department to list those impaired waters for which TMDLs will be calculated.

86/ The first of these "updated lists" will replace the state's 1998 303(d) list.

87/ At the final hearing, in response to Petitioner Young's testimony criticizing Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code, Intervenor FPPAEA moved to strike such testimony on the ground that the Amended Petition did not make "specific mention of the issue [raised by the testimony] [n]or [did] it make specific mention of that subsection." After hearing argument, the undersigned indicated that he would take the matter under advisement. Inasmuch as it does not appear that Intervenor FPPAEA (or any of the other parties) would be prejudiced by the undersigned's consideration of the issue raised by Petitioner Young's testimony concerning Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code, Intervenor FPPAEA's motion to strike is hereby DENIED. See Board of Medicine v. Florida Academy of Cosmetic Surgery, Inc., 808 So. 2d at 256 (ALJ did not abuse discretion in granting motion to amend rule

challenge petition made during hearing where no showing made that allowing amendment would prejudice opposing party.).

88/ Department personnel who pushed for the enactment of Section 403.067, Florida Statutes, were concerned that the 1998 303(d) list "was developed based upon data . . . inappropriate for driving a regulatory program." The Legislature, in apparent response to this concern, provided, in Subsection (2)(a) of the statute, that the "list of surface waters or segments for which total maximum daily load assessments will be conducted" (described in that subsection) "cannot be used in the administration or implementation of any regulatory program," and it further provided elsewhere in the statute that these assessments be conducted using a "scientifically based" methodology.

89/ In a footnote, Joint Petitioners acknowledge that, in Metropolitan Dade County v. Coscan Florida, Inc., 609 So. 2d at 648, the Third District Court of Appeal stated that the term "reasonable assurance", in the environmental permitting context, "contemplates . . . a substantial likelihood that the project will be successfully implemented." That the Third District Court of Appeal has defined the term "reasonable assurance" in this manner is significant inasmuch as, in attempting to ascertain the meaning of undefined terms in statutes and rules, Administrative Law Judges "can resort to definitions of the same term found in case law." Rollins v. Pizzarelli, 761 So. 2d at 298.

90/ Subsection (2) of proposed Rule 62-303.400, Florida Administrative Code, provides, in pertinent part, that ,"[i]n cases where additional data are needed for waters on the planning list to meet the data sufficiency requirements for the verified list, it is the Department's goal to collect this additional data as part of its watershed management approach, with the data collected during either the same cycle that the water is initially listed on the planning list (within 1 year) or during the subsequent cycle (six years)." Mr. Joyner testified (at page 1860 of the hearing transcript) that collecting additional samples for waters not on the planning list would be a "lower priority" for the Department. He was not referring in this testimony to the Department's collection of additional samples for "for waters on the planning list."

91/ See State v. Hayes, 240 So. 2d 1, 3 (Fla. 1970)("[I]n construing a statute to ascertain the intention of the Legislature, the statute should be construed as a whole or in

its entirety, and the legislative intent gathered from the entire statute rather than from any one part thereof."); Moody v. Department of Natural Resources, DOAH Case No. 92-5778, 1993 WL 943593 (Fla. DOAH March 12, 1993)(Recommended Order)("Rule 16C-20.002(4), which provides that under various conditions, different persons shall grant, grant with conditions or deny permit applications, must be read in its entirety to determine the correct interpretation."); and Good Samaritan Hospital, Inc. v. Department of Health and Rehabilitative Services, DOAH Case No. 84-2635, 1985 WL 305639 (Fla. DOAH February 13, 1985)(Recommended Order)("Rules of construction which apply to statutes also apply to administrative rules.").

92/ The Department has experience making these determinations. See Rules 62-302.200(13), 62-302.500(2)(f), and 62-302.800, Florida Administrative Code.

93/ Neither does it mean that it vests the Department with unbridled discretion. See Askew v. Cross Key Waterways, 372 So. 2d 913, 921 (Fla. 1978)(quoting CREED v. California Coastal Zone Conservation Commission, 118 Cal. Rptr. 315, 329-30 (Cal. App. 1974))("'The fact that the Commission is required to weigh complex factors in determining whether a development will have a substantial adverse environmental or ecological effect does not, as plaintiffs charge, mean that unbridled discretion has been conferred on it. A statute empowering an administrative agency to exercise a judgment of a high order in implementing legislative policy does not confer unrestricted powers.'").

94/ Earlier in their Proposed Final Order (in paragraph 218), Joint Petitioners had said the following about Adam Smith Enterprises, Inc. v. Department of Environmental Regulation, 553 So. 2d 1260 (Fla. 1st DCA 1989):

> Illustrative of rulemaking based upon arbitrary and capricious actions by an agency is Adam Smith Enterprises, Inc. v. Department of Environmental Regulation, 553 So. 2d 1260 (Fla. 1st DCA 1989). The hearing officer in Adam Smith found that two factors used by DER in its radius formula for establishing zones of protection for aquifers were generated by arbitrary and capricious actions on DER's part.
>
> " In his final order, the hearing officer found that the five years proposed

by the rule was arbitrary and capricious. As stated by the hearing officer:

> 77. During the workshop that underscored the proposed rule, the time factor was the subject of considerable discussion and ranged from less than two years to greater than ten years. Based on its own in-house search, the Department initially proposed a 10-year standard. That search revealed that it took 10 to 15 years between the time a contaminant was discovered and cleanup could commence, between the time a contaminant was introduced into groundwater and its discovery.
>
> 78. Notwithstanding the results of its own in-house search, the Department, in the face of debate, elected to "compromise" and propose a five-year standard. Such standard was not the result of any study to a[ss]ess its validity, and no data, reports or other research were utilized to derive it. In sum, the five-year standard was simply a 'compromise' and was not supported by fact or reason."

Id. at 1264. (emphasis added) The First District Court of Appeal held that the hearing officer's findings were properly supported by competent substantial evidence and his findings were therefore affirmed. Id. at 1275.

95/ In fact, the TAC recommended that listing decisions be based on data no older than five years. It did not recommend an "open-ended time frame."

96/ Subsection (2) of proposed Rule 62-303.420, Florida Administrative Code, actually provides that 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." Pursuant to Subsection (2) of proposed Rule 62-303.400, Florida Administrative Code, in no event shall the data be "more than 7.5 years old at the time the water segment is proposed for listing on the verified list."

97/ These high salinity waters, even though they do not have riverine input, in fact do meet the definition of "estuary" found in Subsection (5) of proposed Rule 62-303.200, Florida Administrative Code, because they are "bays" or "lagoons," as those terms are used in the second sentence of Subsection (5).

98/ This is essentially the same argument that Joint Petitioners make in paragraph 206 of the "Exceeding Grant of Rulemaking Authority" portion of their Proposed Final Order (which argument the undersigned has already rejected).

99/ There is no indication whatsoever from a reading of Subsection (2) of proposed Rule 62-303.320, Florida Administrative Code, that the Department intends to give anything but equal weight to STORET and non-STORET data (that is, "data submitted to the Department from other sources and databases").

100/ Mr. Joyner's testimony on the matter was as follows:

> Q. (By Mr. Medina) Let me ask you this: Do you consider the bioassessment procedures to be more robust than biological integrity?
>
> A. Yes, I would.
>
> Q. Robust, I have seen that reference, but that basically means that's an even more accurate test. Is that what that's intended to connote?
>
> A. I would agree.
>
> Q. So if bioassessments are more robust, how is it rational to require two bioassessments within five years when there's only one biological integrity exceedance requirement within 10 years to make it to the verified list?

> A. I'm not sure it is scientifically [rational], but unfortunately, the fact of the matter is, the bioassessment procedures, as much as we agree they're improvements, they are not adopted as water quality criteria, whereas biological integrity standard . . [is] a[n] [adopted water quality] criterion.

101/ It appears that Joint Petitioners are referring in this sentence only to Subsection (1)(b) of proposed Rule 62-303.360, Florida Administrative Code, which reads as follows:

> A Class I, II, or III water shall be placed on the planning list for primary contact and recreation use support if:
>
> (b) the water segment includes a bathing area that was closed by a local health Department or county government for more than one week or more than once during a calendar year based on bacteriological data.

102/ To the contrary, there <u>was</u> testimony (which the undersigned has credited) from Barton Bibler, chief of the Florida Department of Health's Bureau of Water Programs, that, although his agency does not have the authority to close "coastal beaches, . . . sometimes the local government, a county typically, will utilize its home-rule authority to go beyond the advisory or warning issued by the county health department administrator and subsequently close the beach . . . ." (see page 403 of the hearing transcript).

103/ Mr. Frydenborg, when asked about this provision at the final hearing, testified that "he did not write this specific rule language"; that it "was discussed at the TAC meeting"; that "the TAC came up with these ideas"; and that he "believ[ed] [Mr. Joyner] wrote the language."

104/ The instant consolidated cases are therefore distinguishable from the <u>Adam Smith Enterprises</u> case cited by Joint Petitioners in their Proposed Final Order. In <u>Adam Smith Enterprises</u>, the "five year standard" incorporated in the proposed rule invalidated by the Hearing Officer was <u>not</u> supported by any factual or policy rationale.

105/ Subsection (3)(b)1. of Section 120.54, Florida Statutes, provides that, "[p]rior to the adoption, amendment, or repeal of any rule other than an emergency rule, an agency is encouraged to prepare a statement of estimated regulatory costs of the proposed rule, as provided by s. 120.541." Pursuant to Subsection (2)(b) of Section 120.541, Florida Statutes, a "statement of estimated regulatory costs" must include, among other things, a "good faith estimate of the cost to the agency . . . of implementing and enforcing the proposed rule."

106/ As noted above, these high salinity "bays" and "lagoons" in fact are not excluded from the definition of "estuary" found in Subsection (5) of proposed Rule 62-303.200, Florida Administrative Code.

107/ Joint Petitioners have apparently misinterpreted proposed Rule 62-303.310, Florida Administrative Code. The proposed rule does allow for the "use of best professional judgment" in determining whether a water should "be placed on the planning list for assessment of aquatic life use support."

108/ Pursuant to Subsection (8) of proposed Rule 62-303.320, Florida Administrative Code, only "surface water data for mercury" must be "collected and analyzed using clean sampling and analytical techniques."

109/ See endnote 100 above.

110/ Pursuant to proposed Rule 62-303.350, Florida Administrative Code (specifically, the second sentence of Subsection (1) of the proposed rule), the Department in fact will be able to take into consideration visual "observations made without the benefit of actual testing."

111/ Mr. Frydenborg, the administrator of the Department's Environmental Assessment Section, in fact made a very credible witness.

112/ See endnote 101 above.

113/ See endnote 102 above.

114/ See endnote 103 above.

115/ See endnote 55 above.

116/ Where, as in these cases, the adopting agency is required to publish its rules in the Florida Administrative Code, a proposed rule is considered to be finally adopted "on being filed with the Department of State." Section 120.54(3)(e)1. and 6., Florida Statutes.

117/ No amendment to any existing agency rule incorporated by reference in a proposed agency rule will be effective unless the amendment is accomplished through the rulemaking process set forth in Chapter 120, Florida Statutes. See University Community Hospital v. Department of Health and Rehabilitative Services, 610 So. 2d 1342, 1345 (Fla. 1st DCA 1992)("If a rule is found to be impractical, the agency's recourse is to amend the rule pursuant to rulemaking procedures."); and Boca Raton Artificial Kidney Center, Inc. v. Department of Health and Rehabilitative Services, 493 So. 2d 1055,1057 (Fla. 1st DCA 1986)("If, as HRS contends, the rule as it reads has proved impractical in operation, it can be amended pursuant to established rulemaking procedures. Absent such amendment, expedience cannot be permitted to dictate its terms.").

118/ Even if the Department had not specifically incorporated the data collection and analysis requirements of Rule Chapter 62-160, Florida Administrative Code, by reference in Subsection (7)(a) of proposed Rule 62-303, Florida Administrative Code, these requirements would nonetheless apply by operation of Rule 62-160.110, Florida Administrative Code, which provides that the "[q]uality assurance requirements" of Rule Chapter 62-160, Florida Administrative Code, with certain limited exceptions not pertinent here, "apply to all programs, projects, studies, or other activities which are required by the Department, and which involve the measurement, use, or submission of environmental data or reports to the Department."

119/ In light of this pronouncement by the Florida Legislature in Subsection (9) of Section 403.067, Florida Statutes, while the proposed rule chapter may be deemed an "invalid exercise of delegated legislative authority" on the ground that is not "in accordance with" Section 403.067, Florida Statutes, it is not susceptible to challenge in a Section 120.56 proceeding on the additional ground that, although "in accordance with" Section 403.067, Florida Statutes, it is in conflict with Section 303(d) of the Clean Water Act. To hold otherwise would effectively render meaningless and without force and effect the "exclusive means of implementation" language in Subsection (9) of Section 403.067. This an Administrative Law Judge cannot do. See Palm Harbor Special Fire Control District v. Kelly, 516 So. 2d 249

(Fla. 1987)("[I]t is axiomatic that an administrative agency has no power to declare a statute void or otherwise unenforceable."); Secretary of State v. Milligan, 704 So. 2d 152, 157 (Fla. 1st DCA 1997)("[A]n administrative agency has no power to declare a statute void or otherwise unenforceable and there is no obligation to defer to an agency interpretation that results in a statute being voided by administrative fiat."); and Holmes v. City of West Palm Beach, 627 So. 2d 52, 53 (Fla. 4th DCA 1993)("[A]ppellee correctly contends that because it is an administrative agency, rather than a court, it cannot circumvent unambiguous statutory provisions in the interest of fairness and due process considerations. . . . It lacks the power to declare a statute void or otherwise unenforceable.").

120/ Subsection (1)(b) of Section 120.56, Florida Statutes, provides that a rule challenge petition "must state with particularity the provisions alleged to be invalid with sufficient explanation of the facts or grounds for the alleged invalidity."

121/ Explaining why the Department provided for removal of waters from the "verified list" after TMDL completion, Mr. Joyner testified at the final hearing (at pages 1700-01 of the hearing transcript) as follows:

> So the extra element here is completion of the TMDL. And it's important to note that for the purposes of this statute, it is a list of waters that need[] a TMDL. We're not saying that water is magically no longer impaired just because we did a TMDL, but it doesn't need to be on the list of waters that need TMDLs. We would still list that water as being impaired in our 305B report.

Mr. Joyner added that the Department would continue to monitor the water after TMDL completion to determine if the TMDL had been implemented and if it was effective.

122/ Waters "determined to be impaired" because they "fail to meet[] the minimum criteria for surface waters established in Rule 62-302.500, F.A.C." will not automatically be placed on the "verified list" pursuant to the proposed rule chapter. These waters will be evaluated in light of the provisions of proposed Rule 62-303.600, Florida Administrative Code, and those of proposed Rules 62-303.700 and 62-303.710, Florida Administrative Code, and only after such an evaluation is conducted will a

determination be made as to whether they qualify for placement on the "verified list."

123/ Subsections (1)(a) and (1)(b)1. of Rule 62-302.500, Florida Administrative Code, contain narrative criteria. Subsection (1)(c) of the rule contains a numerical criterion. Subsection (1)(b)2. of the rule contains both narrative and numerical criteria. See American Iron and Steel Institute v. E.P.A., 115 F.3d at 990 ("For it seems that all of the Great Lakes states have at least some of what are called 'narrative criteria' in their water quality standards. 'No toxic pollutants in toxic amounts' is only the example either party offers us. Here are a few others: waters shall be free of 'substances that will cause the formation of putrescent or otherwise objectionable bottom deposits'; waters shall be free of 'materials that cause odor, color or other conditions in such a degree as to cause a nuisance'; and waters shall be free from 'substances in concentrations or combinations harmful or toxic to humans or aquatic life.' . . . . There is another type of 'criterion' in water quality standards--one containing a numerical limitation on the concentration of a particular pollutant in the water. For example, waters shall not contain more than 200 fecal coliform per 100 milliliters.").

124/ Nor does any other provision in Part III of the proposed rule chapter provide such guidance (except for proposed Rule 62-303.440, Florida Administrative Code, to the extent that it addresses the requirement of Subsection (1)(a)4. of Rule 62-302.500, Florida Administrative Code, that surface waters not be "acutely toxic").

125/ Petitioner Lane further contends in this paragraph of her Second Amended Petition that Subsection (3) of proposed Rule 62-303.420, Florida Administrative Code, in addition, "vests unbridled discretion in the Department," an argument also made by Joint Petitioners, which has already been addressed (and rejected) in this Final Order.

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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 appeal with the Clerk of the Division of Administrative Hearings and a copy, accompanied by filing fees prescribed by law, with the District Court of Appeal, First District, or with the District Court of Appeal in the Appellate District where the party resides. The notice of appeal must be filed within 30 days of rendition of the order to be reviewed.

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[1] 40 C.F.R. Section 130.7(b) provides as follows:

> Identification and priority setting for water quality-limited segments still requiring TMDLs.
>
> (1) Each State shall identify those water quality-limited segments still requiring TMDLs within its boundaries for which:
>
> (i) Technology-based effluent limitations required by sections 301(b), 306, 307, or other sections of the Act;
>
> (ii) More stringent effluent limitations (including prohibitions) required by either State or local authority preserved by section 510 of the Act, or Federal authority (law, regulation, or treaty);

and

(iii) Other pollution control requirements (e.g., best management practices) required by local, State, or Federal authority are not stringent enough to implement any water quality standards (WQS) applicable to such waters.

(2) Each State shall also identify on the same list developed under paragraph (b)(1) of this section those water quality-limited segments still requiring TMDLs or parts thereof within its boundaries for which controls on thermal discharges under section 301 or State or local requirements are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish and wildlife.

(3) For the purposes of listing waters under § 130.7(b), the term "water quality standard applicable to such waters" and "applicable water quality standards" refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements.

(4) The list required under §§ 130.7(b)(1) and 130.7(b)(2) of this section shall include a priority ranking for all listed water quality-limited segments still requiring TMDLs, taking into account the severity of the pollution and the uses to be made of such waters and shall identify the pollutants causing or expected to cause violations of the applicable water quality standards. The priority ranking shall specifically include the identification of waters targeted for TMDL development in the next two years.

(5) Each State shall assemble and evaluate all existing and readily available water

quality-related data and information to develop the list required by §§ 130.7(b)(1) and 130.7(b)(2). At a minimum "all existing and readily available water quality-related data and information" includes but is not limited to all of the existing and readily available data and information about the following categories of waters:

(i) Waters identified by the State in its most recent section 305(b) report as "partially meeting" or "not meeting" designated uses or as "threatened";

(ii) Waters for which dilution calculations or predictive models indicate nonattainment of applicable water quality standards;

(iii) Waters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions. These organizations and groups should be actively solicited for research they may be conducting or reporting. For example, university researchers, the United States Department of Agriculture, the National Oceanic and Atmospheric Administration, the United States Geological Survey, and the United States Fish and Wildlife Service are good sources of field data; and

(iv) Waters identified by the State as impaired or threatened in a nonpoint assessment submitted to EPA under section 319 of the CWA or in any updates of the assessment.

(6) Each State shall provide documentation to the Regional Administrator to support the State's determination to list or not to list its waters as required by §§ 130.7(b)(1) and 130.7(b)(2). This documentation shall be submitted to the Regional Administrator together with the list required by §§

130.7(b)(1) and 130.7(b)(2) and shall include at a minimum:

(i) A description of the methodology used to develop the list; and

(ii) A description of the data and information used to identify waters, including a description of the data and information used by the State as required by § 130.7(b)(5); and

(iii) A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in § 130.7(b)(5); and

(iv) Any other reasonable information requested by the Regional Administrator.

Upon request by the Regional Administrator, each State must demonstrate good cause for not including a water or waters on the list. Good cause includes, but is not limited to, more recent or accurate data; more sophisticated water quality modeling; flaws in the original analysis that led to the water being listed in the categories in § 130.7(b)(5); or changes in conditions, e.g., new control equipment, or elimination of discharges.

[2] In an endnote, Judge Stampelos added the following:

It appears that the Legislature, in 1999, was aware of the nature of pending lawsuits challenging various actions or inactions of the EPA regarding implementation and application of the CWA. See, e.g., Staff Analyses, supra. Also, the federal courts have intervened from time to time to resolve challenges to federal and state action or inaction with respect to the implementation of the CWA. See, e.g., Sierra Club v. Hankinson, 939 F. Supp. 865 (N.D. Ga. 1996).

[3] See American Canoe Association, Inc. v. United States Environmental Protection Agency, 54 F.Supp.2d 621, 626 (E.D. Va. 1999)("The CWA places primary responsibility for TMDL development on the states.").

[4] In paragraph 5 of their Amended Petition, Joint Petitioners stated that "[b]y submitting this [A]mended [P]etition," they were not "waiv[ing] their continuing respectful position that DOAH was incorrect" in granting FCG's Motions to Strike. In addition, they contended that, "assuming arguendo the correctness of DOAH's ruling, . . it is inappropriate for the proposed rule [chapter] to characterize what the CWA or the implementing regulations describe or allow."

[5] The Environmental Regulation Commission, at its April 26, 2001, meeting, "changed" Subsection (6) of proposed Rule 62-303.320, Florida Administrative Code, to read as follows:

> 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 the were excluded.

[6] The Environmental Regulation Commission, at its April 26, 2001, meeting, "changed" proposed Rule 62-303.420(5), Florida Administrative Code, to read as follows:

> 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. However, the Department shall note for the record that the data were excluded and explain why they were excluded.

[7] The undersigned, in an endnote, added: "Of course, if the 'corporate Petitioners'' challenge is found not to be meritorious, then their 'standing . . . ceases to be relevant.' American Civil Liberties Union v. F.C.C., 523 F.2d 1344 (9th Cir. 1975)."

[8] In the Order, the undersigned also announced that "[n]o proceedings w[ould] be held in these consolidated cases on September 18, 2001."

[9] Mr. Joyner testified, without refutation, that he was "authorized to represent the Department's position with regard to its intentions and its interpretations of terms" in proposed Rule Chapter 62-303, Florida Administrative Code.

[10] In any event, the undersigned has not relied on either "Clean Water Act Section 301(b)(2)(A)" or "40 CFR 122.41" in resolving any of the issues raised in this case.

[11] While "source" is defined in Subsection (10) of Section 403.031, Florida Statutes, "as any and all points of origin of [a contaminant] whether privately or publicly owned or operated," there is no definition of "point source" in Section 403.031, Florida Statutes, or elsewhere in Chapter 403, Florida Statutes. "Point source," however, is defined in the federal Clean Water Act (in 33 U.S.C. Section 1362(14)) as follows:

> The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or

> vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

A similar definition of "point source" is found in Rule Chapter 62-620, Florida Administrative Code, which contains the Department's "wastewater facility and activities permitting" rules. See Rule 62-620.200(35), Florida Administrative Code, which provides as follows:

> "Point source" means any discernible, confined, and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

("The concept of point source was developed to distinguish pollution resulting from simple erosion over the surface of the ground from pollution that has been collected or comes from a confined system." Friends of Sakonnet v. Dutra, 738 F.Supp. 623, 630 (D. R.I. 1990).)

[12] "Pollution," as used in Chapter 403, Florida Statutes, is defined in Subsection (7) of Section 403.031, Florida Statutes, as follows:

> "Pollution" is the presence in the outdoor atmosphere or waters of the state of any substances, contaminants, noise, or manmade or human-induced impairment of air or waters or alteration of the chemical, physical, biological, or radiological integrity of air or water in quantities or at levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property or which unreasonably interfere with the enjoyment of life or property, including outdoor

recreation unless authorized by applicable law.

[13] "Effluent limitations," as used in Chapter 403, Florida Statutes, is defined in Subsection (3) of Section 403.031, Florida Statutes, as follows:

> "Effluent limitations" means any restriction established by the department on quantities, rates, or concentrations of chemical, physical, biological, or other constituents which are discharged from sources into waters of the state.

[14] The Federal Water Pollution Control Act, as amended, is also known as the Clean Water Act.

[15] "Propagation" is defined in Subsection (22) of Rule 62-302.200, Florida Administrative Code, as "reproduction sufficient to maintain the species' role in its respective ecological community."

[16] Subsection (10) of Section 403.061, Florida Statutes, authorizes the Department to:

> Develop a comprehensive program for the prevention, abatement, and control of the pollution of the waters of the state. In order to effect this purpose, a grouping of the waters into classes may be made in accordance with the present and future most beneficial uses. Such classifications may from time to time be altered or modified. However, before any such classification is made, or any modification made thereto, public hearings shall be held by the department.

[17] The term "water quality standards" is defined in Subsection (28) of Rule 62-302.200, Florida Administrative Code, as "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 contained in this Rule and in F.A.C. Rule

62-4, adopted pursuant to Chapter 403, F.S."

[18] "Designated use" is defined in Subsection (8) of Rule 62-302.200, Florida Administrative Code, as "the present and future most beneficial use of a body of water as designated by the Environmental Regulation Commission by means of the Classification system contained in this Chapter."

[19] "Pollution" is defined in Subsection (19) of Rule 62-302.200, Florida Administrative Code, as "the presence in the outdoor atmosphere or waters of the state of any substances, contaminants, noise, or man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of air or water in quantities or levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, including outdoor recreation."

[20] A "mixing zone" is defined in Subsection (30) of Rule 62-302.200, Florida Administrative Code, as "a volume of surface water containing the point or area of discharge and within which an opportunity for the mixture of wastes with receiving surface waters has been afforded."

[21] "Background" is defined in Subsection (3) of Rule 62-302.200, Florida Administrative Code, as "the condition of waters in the absence of the activity or discharge under consideration, based on the best scientific information available to the Department." Subsection (14) of Rule 62-302.200, Florida Administrative Code" defines "natural background," as used in Chapter 403, Florida Statutes, as "the condition of waters in the absence of man-induced alterations based on the best scientific information available to the Department" and further provides that "[t]he establishment of natural background for an altered waterbody may be based upon a similar unaltered waterbody or on historical pre-alteration data."

[22] There are currently no surface waters in the state with a Class V classification. The Fenholloway River was classified as a Class V surface water, but this classification was repealed effective December 31, 1997.

[23] "Water quality criteria" are defined in Subsection (27) of Rule 62-302.200, Florida Administrative Code, as "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."

[24] Subsection (27) of Section 403.031, Florida Statutes, authorizes the Department to "[e]stablish rules which provide a special category of water bodies within the state to be referred to as 'Outstanding Florida Waters,' which water bodies shall be worthy of special protection because of their natural attributes."

[25] "Nuisance species," as used in Rule Chapter 62-302, Florida Administrative Code, is defined in Subsection (15) of Rule 62-302.200, Florida Administrative Code, as "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."

[26] The criteria for the parameter of "nutrients" are set forth in Subsections 48(a) and (b) of Rule 62-302.530, Florida Administrative Code. They are (for all classifications) as follows:

> 48(a) The discharge of nutrients shall continue to be limited as needed to prevent violations of other standards contained in this chapter. Man induced nutrient enrichment (total nitrogen or total phosphorous) shall be considered degradation in relation to the provisions of Sections 62-302.300, 62-302.700, and 62-4.242.
>
> (48)(b) In no case shall nutrient concentrations of a body of water be so as to cause an imbalance in natural populations of aquatic flora or fauna.

[27] "Man-induced conditions which cannot be controlled or abated" are defined in Subsection (13) of Rule 62-302.200, Florida Administrative Code, as "conditions that have been influenced by human activities, and (a) would remain after removal of all point sources; (b) would remain after imposition of best management practices for non-point sources; and (c) cannot be restored or abated by physical alteration of the water body, or there is no reasonable relationship between the economic, social

and environmental costs and the benefits of restoration or physical alteration."

[28] While the Department was required, by Subsection (6)(c) of Section 403.067, Florida Statutes, to act "in cooperation with a technical advisory committee" in making recommendations to the Governor, President of the Senate, and Speaker of the House (on or before February 1, 2001) regarding "modifications to the process for allocating maximum daily loads," the Department was under no statutory obligation to have a technical advisory committee assist it in developing an "identification of impaired surface waters" rule.

[29] See Section 403.804(1), Florida Statutes, which provides as follows:

> Except as provided in subsection (2) and s. 120.54(4), the commission, pursuant to s. 403.805(1), shall exercise the standard-setting authority of the department under this chapter; part II of chapter 376; and ss. 373.309(1)(e), 373.414(4) and (10), 373.4145(1)(a), 373.421(1), and 373.4592(4)(d)4. and (e). The commission, in exercising its authority, shall consider scientific and technical validity, economic impacts, and relative risks and benefits to the public and the environment. The commission shall not establish department policies, priorities, plans, or directives. The commission may adopt procedural rules governing the conduct of its meetings and hearings.

[30] In a footnote, the ERC added:

> It is the agency that determines whether the rulemaking proceeding is adequate or whether to suspend the rulemaking proceeding and convene a separate proceeding under Sections 120.569 and 120.57, F.S., i.e., whether to grant the "draw out." While the failure of an agency to make such a determination is subject to immediate judicial review, the denial of a "draw out" is not final agency action subject to Section 120.68(1), F.S.

Adam Smith Enterprises v. Department of Environmental Regulation, 553 So. 2d 1260 (Fla. 1st DCA 1989) at 1266, citing Bert Rogers Schools of Real Estate v. Florida Real Estate Commission, 339 So. 2d 226 (Fla. 4th DCA 1976); and Corn v. Department of Legal Affairs, 368 SO. 2d 591 (Fla. 1979).

[31] In a footnote, the ERC again cited the Adam Smith Enterprises case.

[32] See Section 403.021(11), Florida Statutes ("The department shall also recognize that some deviations from water quality standards occur as the result of natural background conditions."); and Rule 62-302.500(15)("T]he Department shall not strive to abate natural conditions.).

[33] The NRC is the research arm of the National Academy of Sciences, a body of distinguished scholars operating under a charter granted by Congress and charged with advising the federal government on scientific and technical matters. Various courts in this state and elsewhere have recognized NRC reports as authoritative. See Hayes v. State, 660 So. 2d 257, 264 (Fla. 1995)("When a major voice in the scientific community, such as the National Research Council, recommends that corrections made due to band-shifting be declared 'inconclusive,' we must conclude that the test on the tank top is unreliable. Our holding in this regard is not without precedent. In People v. Keen, 156 Misc.2d 108, 591 N.Y.S. 2d 733, 740 (N.Y. Sup. Ct. 1992), that court relied in part on the National Research Council report to exclude DNA test results that were tainted by band shifting."); Lemour v. Florida, 802 So. 2d 402, 405 (Fla. 3d DCA 2001); Wynn v. State, 791 So. 2d 1258, 1259 (Fla. 5th DCA 2001); Clark v. State, 679 So. 2d 321 (Fla. 3d DCA 1996); and State v. Garcia, 3 P.3d 999, 1003 (Ariz. App. 1999)("Most importantly, however, our review of NRC II persuades us that, contrary to defendant's contention, the NRC has recognized the reliability of Dr. Weir's formulas. The NRC is comprised of 'a distinguished cross section of the scientific community.' State v. Johnson, 186 Ariz. 329, 334, 922 P.2d 294, 299 (1996), (quoting United States v. Porter, 618 A.2d 629, 643 n.26 (D.C. 1992)). The NRC's recognition of the reliability of given methods for calculating probability estimates 'can easily be equated with general acceptance of those methodologies in the relevant scientific community.' Porter, 618 A.2d at 643 n. 26.

Thus, as the court concluded in Johnson, endorsement by the NRC is 'strong evidence' that a methodology or formula satisfies Frye, 186 Ariz. at 334, 922 P.2d at 299.").

[34] Among those serving on this NRC committee was Jan Mandrup-Poulsen, a Department employee who participated in the drafting of the proposed rule chapter.

[35] There are 52 HUCs in the state.

[36] As noted in the NRC Publication, the binomial model "require[s] the analyst to 'throw away' some of the information in collected data. For example, if the criterion is 1.0, measurements of 1.1 and 10 are given equal importance, and both are treated simply as exceeding the standard."

[37] At the time the TAC made its recommendation, the proposed rule chapter (as then drafted) did not provide for a "planning list."

[38] This recommendation was also made before the proposed rule chapter was redrafted to include a "planning list," in addition to a "verified list."

[39] Dr. Reckhow explained that he did not "endorse it [as a scientist] because it has value judgment aspects to it." According to Dr. Reckhow, these "value judgments," which involve the "consequences of making wrong decisions," should be made by policymakers.

[40] This recommendation, like the TAC's confidence level and "exceedance frequency" recommendations, were made before the concept of a "planning list" was added to the proposed rule chapter.

[41] There are generally accepted statistical methods available to identify outliers (both "mild" and "extreme").

[42] As Russell Frydenborg, the administrator of the Department's Environmental Assessment Section, explained in his testimony at the final hearing:

> The deeper part of the lake is not sampled because earlier on it was determined that these parts are not productive and therefore would not have a very good signal for

> looking at adverse changes caused by human activities. The deeper part of the lake does not give you any useful information regarding impacts. The sublittoral zone gives the most useful signal so it is sampled.

[43] Mr. Frydenborg testified at the final hearing that he anticipated that these SOPs, as well as an "SOP on how to conduct a field audit . . . to make sure that other people are successfully following these SOPs," will be adopted as part of Rule Chapter 62-160, Florida Administrative Code, "within the next two months, hopefully."

[44] According to Mr. Frydenborg, it will take another "year or two" for the Department to develop such a bioassessment. ("The Biorecon and SCI do not apply to salinity affected streams[;] [they apply] only [to] fresh flowing streams.")

[45] Joint Petitioners argue in their Proposed Final Order that "[t]he placement of waters on the planning list under proposed rule section 62-303.330(3) if there is a failed . . . biological integrity standard as required under rule 62-302.530(11), F.A.C., fails to consider that the Shannon-Weaver Index, which is relied upon in rule 62-302.530(11), F.A.C., is known to return low level readings in estuaries . . . [and] [t]herefore, even impacted estuaries do not show tremendous changes in the Shannon-Weaver Index." Even if it is true, as Joint Petitioners' expert in estuarine and marine biology, Dr. Kenneth Heck, testified at the final hearing, that the Shannon-Weaver Diversity Index "does not work well in . . . estuaries," nonetheless the state's "water quality standards codified in [Rule][C]hapter 62-302," Florida Administrative Code (which are referenced, with apparent approval, in Section 403.067, Florida Statutes) require that, with respect to both fresh <u>and</u> marine water environments, "biological integrity" be determined through use of the Shannon-Weaver Diversity Index.

[46] The single most important factor determining seagrass growth and survival is the amount of light that reaches the seagrass. Suspended algae and attached algae (periphyton) are among the things that can block light and prevent it from reaching the seagrass. Estuarine waters containing seagrasses that are not getting enough light to grow and survive (at least "around 20 percent of the light that hits the surface") can qualify for

placement on the "planning list" based not only upon "nutrient impairment" (established by "information" of a "decrease in the distribution (either in density or areal coverage) of [these] seagrasses" or by "data" reflecting excessive annual mean chlorophyll a values), but also, pursuant to proposed Rule 62-303.320, Florida Administrative Code, based upon exceedances of the criterion (set forth in Subsection (68) of Rule 62-302.530, Florida Administrative Code) for "transparency" ("[d]epth of the compensation point for photosynthetic activity [s]hall not be reduced by more than 10% as compared to the natural background value").

[47] Rule Chapter 62-302, Florida Administrative Code, does not contain any "numerical" water quality criterion for chlorophyll a.

[48] The precise levels at which these thresholds should be established is subject to reasonable debate.

[49] Algal mats are free-floating accumulations of filamentous algae. They may be the result of algal blooms.

[50] In Florida, there is considerable development in and around coastal areas.

[51] The Department has designed a set of experiments (it has yet to conduct) to help it decide whether such a change should be made to the state's water quality criteria.

[52] The calculation, allocation, and implementation of a TMDL is an involved and time-consuming process that may take several years to complete and is therefore an inappropriate means to address short term, critical conditions requiring immediate attention.

[53] During the rule development process, Petitioners expressed the view that there should not be a "red tides" exclusion in proposed Rule 62-303.360, Florida Administrative Code, but they did not offer any "scientific information" to support their position.

[54] This organism has been reclassified and is now know as "Karenia brevis."

[55] Although this approach was not among the options he mentioned in his presentation during the April 20, 2000, TAC meeting,

during his testimony at the final hearing in these consolidated cases, Mr. Heil spoke approvingly of it.

[56] In Florida, the vast majority of drinking water comes from groundwater, not surface water.

[57] The Department does "not have the flow data associated with all of [the] data points" it has relating to "human health-based criteria expressed as annual averages."

[58] Subsection (12) of Section 403.061, Florida Statutes, authorizes the Department to:

> (a) Cause field studies to be made and samples to be taken out of the air and from the waters of the state periodically and in a logical geographic manner so as to determine the levels of air quality of the air and water quality of the waters of the state.
>
> (b) Determine the source of the pollution whenever a study is made or a sample collected which proves to be below the air or water quality standard set for air or water.

[59] It is the Florida Legislature that has the "final say in appropriation of State monies." United Faculty of Florida, FEA/United, AFT, AFL-CIO, Local 1880 v. Board of Regents, 365 So. 2d 1073, 1079 (Fla. 1st DCA 1979); see also Florida Police Benevolent Association v. State of Florida, Case No. 1D01-0532, 2002 WL 553399 (Fla. 1st DCA April 16, 2002)("[U]nder the Florida Constitution, exclusive control over public funds rests solely with the legislature."). A state agency is prohibited from agreeing "to spend, any moneys in excess of the amount appropriated to such agency . . . unless specifically authorized by law." Any such agreement is "null and void." Section 216.311(1), Florida Statutes.

[60] Department staff thought that it was unnecessary to include a comparable provision in proposed Rule 62-303.420, Florida Administrative Code, because of proposed Rule 62-303.420's stricter "age limit" on data (limiting the "analysis of data to data collected [no less recently than] the five years preceding the planning list assessment").

[61] These waters are mostly located in the northern part of the state.

[62] According to the testimony of Mr. Joyner at the final hearing, "TMDLs [will] be implemented for wastewater facilities . . . through their permit[s]."

[63] Subsection (1) of Section 403.031, Florida Statutes, directs that, "[i]n construing [Chapter 403, Florida Statutes], or rules and regulations adopted pursuant [t]hereto, the term "contaminant" shall have the following meaning: "any substance which is harmful to plant, animal, or human life."

[64] On average, in Florida, there are about 125 rainfall events per location each year.

[65] Under Chapter 120, Florida Statutes, as part of the rulemaking process, those who are "substantially affected . . . may seek an administrative determination of the invalidity of the [proposed] rule on the ground that the rule is an invalid exercise of delegated legislative authority." NAACP, Inc. ex rel. Florida Conference of Branches of NAACP v. Florida Board of Regents, Case No. 1D00-3138, 2002 WL 265851 (Fla. 1st DCA February 26, 2002).

[66] While the Department does not anticipate that it will be conducting any toxicity tests in receiving waters, it is the Department's intention to conduct the confirmatory bioassessment required by Subsection (2) of proposed Rule 62-303.440, Florida Administrative, if timely provided with data reflecting that the water in question failed a chronic toxicity test and further provided that it has the funding to conduct such bioassessment.

[67] Under Subsection (2) of proposed Rule 62-303.350, Florida Administrative Code, to establish an annual mean chlorophyll a concentration, ten samples (with at least one taken each season of the year in question) are needed.

[68] 40 C.F.R. part 130 was recently amended (on October 18, 2001) by the EPA to extend the deadline for the submission of the states' 303(d) lists from April 1, 2002, to October 1, 2002. See 66 FR 53044-01 (2001 WL 1240491 (F.R.)).

[69] Statutes should be construed "to give effect to all provisions, and not to render any part meaningless." Palm Beach

County Canvassing Board v. Harris, 772 So. 2d 1273, 1286 (Fla. 2000).

[70] In Metropolitan Dade County v. Coscan Florida, Inc., 609 So. 2d 644, 648 (Fla. 3d DCA 1992), in reversing the Department's issuance of a dredge and fill permit pursuant to former Section 403.918, Florida Statutes, which required, as a condition precedent to the issuance of such a permit, that "there be reasonable assurance that water quality standards will not be violated," the Third District Court of Appeal stated the following about that "reasonable assurance" requirement:

> We disagree with so much of the order as indicates that it is not necessary for the hearing officer to analyze at this time the anticipated effects of the proposed project. In principle there is nothing wrong with the provisions in the Settlement Agreement which call for removal of the most recent phase of the marina project if water quality standards are violated. We do not think that such an agreement can, however, substitute for analyzing the project prior to implementation to determine whether the applicant's proposed system provides reasonable assurance that it will meet the requisite water quality standards. Here, the hearing officer and agency simply bypassed making a determination on whether the applicant had made the necessary showing of reasonable assurance, reasoning instead that any future water quality violation could be cured by dismantling portions of the project. We do not think that the statute allows the agency to proceed without an analysis, in advance, of (1) the likely effects of the project and (2) the question whether the applicant has provided reasonable assurance that water quality standards will be met.
>
> In our view, the statute is intended to prevent the degradation of existing water quality, and to ameliorate existing violations. If a full scale project proceeds where there is only a mere

> possibility of successful implementation, that exposes the water body to the risk that water quality violations will most likely result and persist for some period of time before the last phase of the project is removed. Such a scenario falls short of the reasonable assurance contemplated by the statute. "Reasonable assurance" contemplates, in our view, a substantial likelihood that the project will be successfully implemented.

[71] A wastewater permit will not be granted if the Department does not have "reasonable assurance" that water quality standards will not be violated.

[72] The term "reasonable further progress" is utilized in the Department's "air program." See Rule 62-210.200(212), Florida Administrative Code ("'Reasonable Further Progress' -- A level of annual incremental reductions in emissions of affected air pollutants such as may be required for ensuring attainment of the applicable national ambient air quality standards by the applicable date.").

[73] Pursuant to Subsection (2)(b) of Section 120.54, Florida Statutes:

> The language is readable if:
>
> 1. It avoids the use of obscure words and unnecessarily long or complicated constructions; and
>
> 2. It avoids the use of unnecessary technical or specialized language that is understood only by members of particular trades or professions.

[74] As the First District Court of Appeal pointed out in Florida East Coast Industries, Inc. v. State, Department of Community Affairs, 677 So. 2d 357, 363 (Fla. 1st DCA 1996), "[t]he fundamental concern of the vagueness doctrine is that people be placed on notice of what conduct is illegal."

[75] In a footnote, the Court noted that this language

"appears . . . also at section 120.536(1), Florida Statutes (Supp. 1996)."

[76] In a footnote, the Court noted that, "[w]hile the Legislature disavowed any intention 'to reverse the result of any specific judicial decision,' Ch. 99-379, § 1, Laws of Fla., it explicitly rejected the rule of decision that had yielded the result in St. Johns River Water Mgmt. Dist. v. Consolidated-Tomoka Land Co., 717 So. 2d 72, 80 (Fla. 1st DCA 1998)."

[77] As the First District Court of Appeal observed in Board of Trustees of Internal Improvement Trust Fund v. Day Cruise Association, Inc., 794 So. 2d at 702-03, quoting from a law review article:

> "Under the statutory scheme, a grant of power to adopt rules is certainly required, but normally should be of little interest. Almost all agencies have a general grant--usually found in the first part of their enabling statute--which basically states that the agency 'may adopt rules necessary to carry out the provisions of this chapter.' The first sentence [of section 120.536] emphasizes that such a general grant is sufficient to allow an agency to adopt a rule only when relied upon in conjunction with a specific provision of law to be implemented. . . ."

[78] In an endnote, Judge Van Laningham stated the following:

> In carrying out the legislative intent to restrict rulemaking to the implementation and interpretation of "specific powers and duties," administrative law judges need to be on guard against thwarting the legislature's will by construing an enabling statute too liberally; doing so may effectively resurrect the rejected "class of powers" test under the guise of interpretation. Conversely, construing an enabling law too narrowly risks hamstringing an agency in the performance of its proper role as administrator of broadly stated

legislative policies, a result that should also be avoided.

[79] "Florida law is consistent with the general law on the subject of deference to an agency's interpretation of the statute it is charged with enforcing." Bolam v. Mobil Oil Corporation, 893 F.2d 311, 313 n.3 (11th Cir. 1990).

[80] This interpretation is "binding on the agency." See Kearse v. Department of Health and Rehabilitative Services, 474 So. 2d 819, 820 (Fla. 1st DCA 1985); see also American Iron and Steel Institute v. E.P.A., 115 F.3d 979, 989 (D.C. Cir. 1997)("This is a permissible reading of the regulation, and we will hold the agency to it. So long as the agency adheres to this reading, the petitioners' challenge to these procedures is not ripe. Should the agency ever adopt the interpretation the petitioners describe, this court will of course have jurisdiction to revisit the issue.").

[81] Intervenors FCG, FMCC, and FWEA, in their Response to Joint Petitioners' Proposed Final Order, contend that, because Joint Petitioners unsuccessfully advanced this argument in their Motion for Summary Final Order, which Judge Stampelos denied by Order issued July 12, 2001, Joint Petitioners are foreclosed from raising this issue again in their Proposed Final Order. The undersigned disagrees. The mere denial of a motion for summary final order does not establish the law of the case. See Steinhardt v. Steinhardt, 445 So. 2d 352, 356-57 (Fla. 3d DCA 1984)(quoting City of Coral Gables v. Baljet, 250 So. 2d 653, 654 (Fla. 3d DCA 1971))("[I]t is settled that '[t]he failure to grant a summary judgment does not establish the law of the case [but] merely defers the matter until final hearing.'").

[82] Joint Petitioners further claim, erroneously, that this preliminary list of waters, although it "cannot be used in the administration or implementation of any regulatory program," "does go to the EPA, which then has a mandatory duty under the Clean Water Act (CWA) [specifically, § 303(d)(2) thereof] to approve or disapprove the list." In fact, it is the state's "updated list of those water bodies or segments for which total maximum daily loads will be calculated" (that is, the "approved list" described in Subsection (4) of Section 403.067, Florida Statutes), not the preliminary "list of surface waters or segments for which total maximum daily load assessments will be conducted" (that is, the "list of surface waters or segments" described in Subsection (2) of Section 403.067, Florida

Statutes), that the EPA has the authority to approve or disapprove pursuant to § 303(d)(2) of the CWA.

[83] Subsection (1) of Section 120.536, Florida Statutes, provides as follows:

> (1) A grant of rulemaking authority is necessary but not sufficient to allow an agency to adopt a rule; a specific law to be implemented is also required. An agency may adopt only rules that implement or interpret the specific powers and duties granted by the enabling statute. No agency shall have authority to adopt a rule only because it is reasonably related to the purpose of the enabling legislation and is not arbitrary and capricious or is within the agency's class of powers and duties, nor shall an agency have the authority to implement statutory provisions setting forth general legislative intent or policy. Statutory language granting rulemaking authority or generally describing the powers and functions of an agency shall be construed to extend no further than implementing or interpreting the specific powers and duties conferred by the same statute.

[84] What Subsection (3)(b) of Section 403.067, Florida Statutes, does (insofar as it applies to the preliminary listing phase of the TMDL process) is to place qualifications on the Department's rulemaking authority that otherwise would not be there.

[85] The statute does <u>not</u> require that the Department prepare a post-assessment list of <u>all</u> waters that are impaired. It simply requires the Department to list those impaired waters for which TMDLs will be calculated.

[86] The first of these "updated lists" will replace the state's 1998 303(d) list.

[87] At the final hearing, in response to Petitioner Young's testimony criticizing Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code, Intervenor FPPAEA moved to strike such testimony on the ground that the Amended Petition did not make "specific mention of the issue [raised by the

testimony] [n]or [did] it make specific mention of that subsection." After hearing argument, the undersigned indicated that he would take the matter under advisement. Inasmuch as it does not appear that Intervenor FPPAEA (or any of the other parties) would be prejudiced by the undersigned's consideration of the issue raised by Petitioner Young's testimony concerning Subsection (2) of proposed Rule 62-303.300, Florida Administrative Code, Intervenor FPPAEA's motion to strike is hereby DENIED. See Board of Medicine v. Florida Academy of Cosmetic Surgery, Inc., 808 So. 2d at 256 (ALJ did not abuse discretion in granting motion to amend rule challenge petition made during hearing where no showing made that allowing amendment would prejudice opposing party.).

[88] Department personnel who pushed for the enactment of Section 403.067, Florida Statutes, were concerned that the 1998 303(d) list "was developed based upon data . . . inappropriate for driving a regulatory program." The Legislature, in apparent response to this concern, provided, in Subsection (2)(a) of the statute, that the "list of surface waters or segments for which total maximum daily load assessments will be conducted" (described in that subsection) "cannot be used in the administration or implementation of any regulatory program," and it further provided elsewhere in the statute that these assessments be conducted using a "scientifically based" methodology.

[89] In a footnote, Joint Petitioners acknowledge that, in Metropolitan Dade County v. Coscan Florida, Inc., 609 So. 2d 644, 648 (Fla. 3d DCA 1992), the Third District Court of Appeal stated that the term "reasonable assurance", in the environmental permitting context, "contemplates . . . a substantial likelihood that the project will be successfully implemented." That the Third District Court of Appeal has defined the term "reasonable assurance" in this manner is significant inasmuch as, in attempting to ascertain the meaning of undefined terms in statutes and rules, Administrative Law Judges "can resort to definitions of the same term found in case law." Rollins v. Pizzarelli, 761 So. 2d at 298.

[90] Subsection (2) of proposed Rule 62-303.400, Florida Administrative Code, provides, in pertinent part, that ,"[i]n cases where additional data are needed for waters on the planning list to meet the data sufficiency requirements for the verified list, it is the Department's goal to collect this additional data as part of its watershed management approach,

with the data collected during either the same cycle that the water is initially listed on the planning list (within 1 year) or during the subsequent cycle (six years)." Mr. Joyner testified (at page 1860 of the hearing transcript) that collecting additional samples for waters not on the planning list would be a "lower priority" for the Department. He was not referring in this testimony to the Department's collection of additional samples for "for waters on the planning list."

[91] See State v. Hayes, 240 So. 2d 1, 3 (Fla. 1970)("[I]n construing a statute to ascertain the intention of the Legislature, the statute should be construed as a whole or in its entirety, and the legislative intent gathered from the entire statute rather than from any one part thereof."); Moody v. Department of Natural Resources, DOAH Case No. 92-5778, 1993 WL 943593 (Fla. DOAH March 12, 1993)(Recommended Order)("Rule 16C-20.002(4), which provides that under various conditions, different persons shall grant, grant with conditions or deny permit applications, must be read in its entirety to determine the correct interpretation."); and Good Samaritan Hospital, Inc. v. Department of Health and Rehabilitative Services, DOAH Case No. 84-2635, 1985 WL 305639 (Fla. DOAH February 13, 1985)(Recommended Order)("Rules of construction which apply to statutes also apply to administrative rules.").

[92] The Department has experience making these determinations. See Rules 62-302.200(13), 62-302.500(2)(f), and 62-302.800, Florida Administrative Code.

[93] Neither does it mean that it vests the Department with unbridled discretion. See Askew v. Cross Key Waterways, 372 So. 2d 913, 921 (Fla. 1978)(quoting CREED v. California Coastal Zone Conservation Commission, 118 Cal. Rptr. 315, 329-30 (Cal. App. 1974))("'The fact that the Commission is required to weigh complex factors in determining whether a development will have a substantial adverse environmental or ecological effect does not, as plaintiffs charge, mean that unbridled discretion has been conferred on it. A statute empowering an administrative agency to exercise a judgment of a high order in implementing legislative policy does not confer unrestricted powers.'").

[94] Earlier in their Proposed Final Order (in paragraph 218), Joint Petitioners had said the following about Adam Smith Enterprises, Inc. v. Department of Environmental Regulation, 553 So. 2d 1260 (Fla. 1st DCA 1989):

Illustrative of rulemaking based upon arbitrary and capricious actions by an agency is Adam Smith Enterprises, Inc. v. Department of Environmental Regulation, 553 So. 2d 1260 (Fla. 1st DCA 1989). The hearing officer in Adam Smith found that two factors used by DER in its radius formula for establishing zones of protection for aquifers were generated by arbitrary and capricious actions on DER's part.

" In his final order, the hearing officer found that the five years proposed by the rule was arbitrary and capricious. As stated by the hearing officer:

> 77. During the workshop that underscored the proposed rule, the time factor was the subject of considerable discussion and ranged from less than two years to greater than ten years. Based on its own in-house search, the Department initially proposed a 10-year standard. That search revealed that it took 10 to 15 years between the time a contaminant was discovered and cleanup could commence, between the time a contaminant was introduced into groundwater and its discovery.
>
> 78. Notwithstanding the results of its own in-house search, the Department, in the face of debate, elected to "compromise" and propose a five-year standard. Such standard was not the result of any study to a[ss]ess its validity, and no data, reports or other research were utilized to derive it. In sum, the five-year standard was simply a 'compromise' and was not supported by fact or reason."

> Id. at 1264. (emphasis added) The First District Court of Appeal held that the hearing officer's findings were properly supported by competent substantial evidence and his findings were therefore affirmed. Id. at 1275.

[95] In fact, the TAC recommended that listing decisions be based on data no older than five years. It did not recommend an "open-ended time frame."

[96] Subsection (2) of proposed Rule 62-303.420, Florida Administrative Code, actually provides that 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." Pursuant to Subsection (2) of proposed Rule 62-303.400, Florida Administrative Code, in no event shall the data be "more than 7.5 years old at the time the water segment is proposed for listing on the verified list."

[97] These high salinity waters, even though they do not have riverine input, in fact do meet the definition of "estuary" found in Subsection (5) of proposed Rule 62-303.200, Florida Administrative Code, because they are "bays" or "lagoons," as those terms are used in the second sentence of Subsection (5).

[98] This is essentially the same argument that Joint Petitioners make in paragraph 206 of the "Exceeding Grant of Rulemaking Authority" portion of their Proposed Final Order (which argument the undersigned has already rejected).

[99] There is no indication whatsoever from a reading of Subsection (2) of proposed Rule 62-303.320, Florida Administrative Code, that the Department intends to give anything but equal weight to STORET and non-STORET data (that is, "data submitted to the Department from other sources and databases").

[100] Mr. Joyner's testimony on the matter was as follows:

> Q. (By Mr. Medina) Let me ask you this: Do you consider the bioassessment procedures to be more robust than biological integrity?
>
> A. Yes, I would.

> Q. Robust, I have seen that reference, but that basically means that's an even more accurate test. Is that what that's intended to connote?
>
> A. I would agree.
>
> Q. So if bioassessments are more robust, how is it rational to require two bioassessments within five years when there's only one biological integrity exceedance requirement within 10 years to make it to the verified list?
>
> A. I'm not sure it is scientifically [rational], but unfortunately, the fact of the matter is, the bioassessment procedures, as much as we agree they're improvements, they are not adopted as water quality criteria, whereas biological integrity standard . . [is] a[n] [adopted water quality] criterion.

101 It appears that Joint Petitioners are referring in this sentence only to Subsection (1)(b) of proposed Rule 62-303.360, Florida Administrative Code, which reads as follows:

> A Class I, II, or III water shall be placed on the planning list for primary contact and recreation use support if:
>
> (b) the water segment includes a bathing area that was closed by a local health Department or county government for more than one week or more than once during a calendar year based on bacteriological data.

102 To the contrary, there <u>was</u> testimony (which the undersigned has credited) from Barton Bibler, chief of the Florida Department of Health's Bureau of Water Programs, that, although his agency does not have the authority to close "coastal beaches, . . . sometimes the local government, a county typically, will utilize its home-rule authority to go beyond the advisory or warning issued by the county health department

administrator and subsequently close the beach . . . ." (see page 403 of the hearing transcript).

[103] Mr. Frydenborg, when asked about this provision at the final hearing, testified that "he did not write this specific rule language"; that it "was discussed at the TAC meeting"; that "the TAC came up with these ideas"; and that he "believ[ed] [Mr. Joyner] wrote the language."

[104] The instant consolidated cases are therefore distinguishable from the Adam Smith Enterprises case cited by Joint Petitioners in their Proposed Final Order. In Adam Smith Enterprises, the "five year standard" incorporated in the proposed rule invalidated by the Hearing Officer was not supported by any factual or policy rationale.

[105] Subsection (3)(b)1. of Section 120.54, Florida Statutes, provides that, "[p]rior to the adoption, amendment, or repeal of any rule other than an emergency rule, an agency is encouraged to prepare a statement of estimated regulatory costs of the proposed rule, as provided by s. 120.541." Pursuant to Subsection (2)(b) of Section 120.541, Florida Statutes, a "statement of estimated regulatory costs" must include, among other things, a "good faith estimate of the cost to the agency . . . of implementing and enforcing the proposed rule."

[106] As noted above, these high salinity "bays" and "lagoons" in fact are not excluded from the definition of "estuary" found in Subsection (5) of proposed Rule 62-303.200, Florida Administrative Code.

[107] Joint Petitioners have apparently misinterpreted proposed Rule 62-303.310, Florida Administrative Code. The proposed rule does allow for the "use of best professional judgment" in determining whether a water should "be placed on the planning list for assessment of aquatic life use support."

[108] Pursuant to Subsection (8) of proposed Rule 62-303.320, Florida Administrative Code, only "surface water data for mercury" must be "collected and analyzed using clean sampling and analytical techniques."

[109] See endnote (in Conclusions of Law it is endnote 27, which states as follows: Mr. Joyner's testimony on the matter was as follows:

Q. (By Mr. Medina) Let me ask you this: Do you consider the bioassessment procedures to be more robust than biological integrity?

A. Yes, I would.

Q. Robust, I have seen that reference, but that basically means that's an even more accurate test. Is that what that's intended to connote?

A. I would agree.

Q. So if bioassessments are more robust, how is it rational to require two bioassessments within five years when there's only one biological integrity exceedance requirement within 10 years to make it to the verified list?

A. I'm not sure it is scientifically [rational], but unfortunately, the fact of the matter is, the bioassessment procedures, as much as we agree they're improvements, they are not adopted as water quality criteria, whereas biological integrity standard . . [is] a[n] [adopted water quality] criterion.)

[110] Pursuant to proposed Rule 62-303.350, Florida Administrative Code (specifically, the second sentence of Subsection (1) of the proposed rule), the Department in fact will be able to take into consideration visual "observations made without the benefit of actual testing."

[111] Mr. Frydenborg, the administrator of the Department's Environmental Assessment Section, in fact made a very credible witness.

[112] See endnote 101 above.

[113] See endnote 102 above.

[114] See endnote 103 above.

[115] See endnote 55 above.

[116] Where, as in these cases, the adopting agency is required to publish its rules in the Florida Administrative Code, a proposed rule is considered to be finally adopted "on being filed with the Department of State." Section 120.54(3)(e)1. and 6., Florida Statutes.

[117] No amendment to any existing agency rule incorporated by reference in a proposed agency rule will be effective unless the amendment is accomplished through the rulemaking process set forth in Chapter 120, Florida Statutes. See University Community Hospital v. Department of Health and Rehabilitative Services, 610 So. 2d 1342, 1345 (Fla. 1st DCA 1992)("If a rule is found to be impractical, the agency's recourse is to amend the rule pursuant to rulemaking procedures."); and Boca Raton Artificial Kidney Center, Inc. v. Department of Health and Rehabilitative Services, 493 So. 2d 1055,1057 (Fla. 1st DCA 1986)("If, as HRS contends, the rule as it reads has proved impractical in operation, it can be amended pursuant to established rulemaking procedures. Absent such amendment, expedience cannot be permitted to dictate its terms.").

[118] Even if the Department had not specifically incorporated the data collection and analysis requirements of Rule Chapter 62-160, Florida Administrative Code, by reference in Subsection (7)(a) of proposed Rule 62-303, Florida Administrative Code, these requirements would nonetheless apply by operation of Rule 62-160.110, Florida Administrative Code, which provides that the "[q]uality assurance requirements" of Rule Chapter 62-160, Florida Administrative Code, with certain limited exceptions not pertinent here, "apply to all programs, projects, studies, or other activities which are required by the Department, and which involve the measurement, use, or submission of environmental data or reports to the Department."

[119] In light of this pronouncement by the Florida Legislature in Subsection (9) of Section 403.067, Florida Statutes, while the proposed rule chapter may be deemed an "invalid exercise of delegated legislative authority" on the ground that is not "in accordance with" Section 403.067, Florida Statutes, it is not susceptible to challenge in a Section 120.56 proceeding on the additional ground that, although "in accordance with" Section 403.067, Florida Statutes, it is in conflict with Section 303(d) of the Clean Water Act. To hold otherwise would effectively render meaningless and without force and effect the "exclusive means of implementation" language in Subsection (9) of Section

403.067. This an Administrative Law Judge cannot do. See Palm Harbor Special Fire Control District v. Kelly, 516 So. 2d 249 (Fla. 1987)("[I]t is axiomatic that an administrative agency has no power to declare a statute void or otherwise unenforceable."); Secretary of State v. Milligan, 704 So. 2d 152, 157 (Fla. 1st DCA 1997)("[A]n administrative agency has no power to declare a statute void or otherwise unenforceable and there is no obligation to defer to an agency interpretation that results in a statute being voided by administrative fiat."); and Holmes v. City of West Palm Beach, 627 So. 2d 52, 53 (Fla. 4th DCA 1993)("[A]ppellee correctly contends that because it is an administrative agency, rather than a court, it cannot circumvent unambiguous statutory provisions in the interest of fairness and due process considerations. . . . It lacks the power to declare a statute void or otherwise unenforceable.").

[120] Subsection (1)(b) of Section 120.56, Florida Statutes, provides that a rule challenge petition "must state with particularity the provisions alleged to be invalid with sufficient explanation of the facts or grounds for the alleged invalidity."

[121] Explaining why the Department provided for removal of waters from the "verified list" after TMDL completion, Mr. Joyner testified at the final hearing (at pages 1700-01 of the hearing transcript) as follows:

> So the extra element here is completion of the TMDL. And it's important to note that for the purposes of this statute, it is a list of waters that need[] a TMDL. We're not saying that water is magically no longer impaired just because we did a TMDL, but it doesn't need to be on the list of waters that need TMDLs. We would still list that water as being impaired in our 305B report.

Mr. Joyner added that the Department would continue to monitor the water after TMDL completion to determine if the TMDL had been implemented and if it was effective.

[122] Waters "determined to be impaired" because they "fail to meet[] the minimum criteria for surface waters established in Rule 62-302.500, F.A.C." will not automatically be placed on the "verified list" pursuant to the proposed rule chapter. These waters will be evaluated in light of the provisions of proposed

Rule 62-303.600, Florida Administrative Code, and those of proposed Rules 62-303.700 and 62-303.710, Florida Administrative Code, and only after such an evaluation is conducted will a determination be made as to whether they qualify for placement on the "verified list."

[123] Subsections (1)(a) and (1)(b)1. of Rule 62-302.500, Florida Administrative Code, contain narrative criteria. Subsection (1)(c) of the rule contains a numerical criterion. Subsection (1)(b)2. of the rule contains both narrative and numerical criteria. See American Iron and Steel Institute v. E.P.A., 115 F.3d 979, 990 (D.C. Cir. 1997)("For it seems that all of the Great Lakes states have at least some of what are called 'narrative criteria' in their water quality standards. 'No toxic pollutants in toxic amounts' is only the example either party offers us. Here are a few others: waters shall be free of 'substances that will cause the formation of putrescent or otherwise objectionable bottom deposits'; waters shall be free of 'materials that cause odor, color or other conditions in such a degree as to cause a nuisance'; and waters shall be free from 'substances in concentrations or combinations harmful or toxic to humans or aquatic life.' . . . . There is another type of 'criterion' in water quality standards--one containing a numerical limitation on the concentration of a particular pollutant in the water. For example, waters shall not contain more than 200 fecal coliform per 100 milliliters.").

[124] Nor does any other provision in Part III of the proposed rule chapter provide such guidance (except for proposed Rule 62-303.440, Florida Administrative Code, to the extent that it addresses the requirement of Subsection (1)(a)4. of Rule 62-302.500, Florida Administrative Code, that surface waters not be "acutely toxic").

[125] Petitioner Lane further contends in this paragraph of her Second Amended Petition that Subsection (3) of proposed Rule 62-303.420, Florida Administrative Code, in addition, "vests unbridled discretion in the Department," an argument also made by Joint Petitioners, which has already been addressed (and rejected) in this Final Order.

BEFORE THE STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

JACQUELINE M. LANE,
APALACHICOLA BAY
AND RIVER KEEPER, INC.,
SAVE OUR BAYS, AIR AND
CANALS, INC., FLORIDA
PUBLIC INTEREST RESEARCH
GROUP CITIZEN LOBBY, INC.,
SANTA ROSA SOUND COALITION,
FRIENDS OF SAINT SEBASTIAN
RIVER, LINDA YOUNG, and
SAVE OUR SUWANNEE, INC.

Petitioners,

vs. DOAH Case Nos.: 01-1332RP
01-1462RP
01-1463RP
01-1464RP
01-1465RP
01-1466RP
01-1467RP
01-1797RP

DEPARTMENT OF ENVIRONMENTAL
PROTECTION,

Respondent.

and

FLORIDA ELECTRIC POWER COORDINATING
GROUP, INC., FLORIDA PULP & PAPER
ASSOCIATION ENVIRONMENTAL AFFAIRS, INC.,
And FLORIDA MANUFACTURING &
CHEMICAL COUNCIL, INC.

Intervenors.
_____/

PETITIONERS' APALACHICOLA BAY AND RIVER KEEPER, INC., SAVE OUR BAYS, AIR AND CANALS, INC., FLORIDA PUBLIC INTEREST RESEARCH GROUP CITIZEN LOBBY, INC., SANTA ROSA SOUND COALITION, FRIENDS OF SAINT SEBASTIAN RIVER, LINDA YOUNG, and SAVE OUR SUWANNEE, INC., PROPOSED FINAL ORDER

On September 4-7, September 10-14, September 17, and September 19-21, 2001, a final administrative hearing was held in this case in Tallahassee, Florida, before Stewart Lerner, Administrative Law Judge (ALJ), Division of Administrative Hearings (DOAH).

APPEARANCES

Petitioner, Jacqueline M. Lane, appeared in proper person.

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STATEMENT OF THE ISSUES

This case considers petitioners' challenge to proposed administrative rule 62-303 (hereinafter referred to as the "proposed rule" or "proposed rule 62-303"), entitled "Identification of Impaired Surface Waters, as promulgated by the State of Florida Department of Environmental Protection ("DEP" or the "Department"). In 1999, the Florida Legislature adopted Section 403.067, Florida Statutes, entitled "Establishment and implementation of total maximum daily loads." The Legislature declared "that the waters of the state are among its most basic resources and that the development of a total maximum daily load program for state waters as required by s. 303(d) of the Clean Water Act, Pub.L. No. 92-500, 33 U.S.C. ss. 1251 et seq. will

promote improvements in water quality throughout the state through the coordinated control of point and nonpoint sources of pollution."§ 403.067, Fla. Stat. (1999).

This proceeding ultimately concerns whether DEP has adhered to pertinent legislative mandates under this enabling legislation and associated rulemaking strictures under Chapter 120, Florida Statutes. There are seven overriding legal issues in these consolidated cases: (1) whether DEP has materially failed to follow the applicable rulemaking procedures or requirements set forth in Chapter 120, § 120.52(8), Florida Statutes; (2) whether DEP has exceeded its grant of rulemaking authority, § 120.52(8)(b), Fla.Stat.; (3) whether the proposed rule enlarges, modifies, or contravenes the specific provisions of law implemented, citation to which is required by Section 120.54(3)(a)1, § 120.52(8)(c); (4) whether the proposed rule is vague, fails to establish adequate standards for agency decisions, or vests unbridled discretion in the agency, § 120.52(8)(d); (5) whether the proposed rule is arbitrary or capricious, § 120.52(8)(e); (6) whether the proposed rule is supported by competent substantial evidence, § 120.52(8)(f); and (7) whether DEP has failed to implement and interpret the specific powers and duties granted by the enabling statute, as required by the flush left language of § 120.52(8)(g).

PRELIMINARY STATEMENT

Petitioners Jacqueline M. Lane, Apalachicola Bay and River Keeper, Inc., Save Our Bays, Air and Canals, Inc., Florida Public Interest Research Group Citizen Lobby, Inc., Santa Rosa Sound Coalition, Friends of Saint Sebastian River, Linda Young (hereinafter referred to collectively as "Petitioners" unless otherwise stated) each filed individual petitions administratively challenging proposed rule 62-303. These petitions were filed on August 13, 2001. After being reviewed for legal sufficiency, each case was assigned to Charles A. Stampelos, Administrative Law Judge on April 18, 2001. Judge Stampelos consolidated the cases on April 20, 2001. On April 20, 2001, Florida Electric Power Coordinating Group, Inc. (hereinafter "FEPCG") filed a petition to intervene in this proceeding. This petition was not opposed by Petitioners. Florida Pulp & Paper Association Environmental Affairs, Inc.

(hereinafter FPPAEA") filed a petition to intervene on April 24, 2001. Petitioners initially opposed FPPAEA's petition. Both petitions to intervene were granted on April 24, 2001. A telephone hearing was conducted on April 30, 2001, at which time the parties' ore tenus motion for continuance was granted and the case was rescheduled for final hearing on August 27 through 31, September 4 through 7 and 10 through 14, 2001, in Tallahassee, Florida. The written order granting the continuance and rescheduling the final hearing was issued on May 1, 2001. An order of pre-hearing instructions was also issued on May 1, 2001.

FEPCG filed a "Motion for Partial Summary Final Order and Motion to Strike" on May 2, 2001. This motion was joined in by DEP on May 8, 2001, and by FPPAEA on May 9, 2001. The purpose of FEPCG's motion was to strike all references to federal law, and more specifically the federal Clean Water Act, 33 U.S.C §1313 et seq. from the petitions. Each petition (other than Petitioner Lane's) alleged, inter alia, that proposed rule 62-303 violated various provisions of the federal Clean Water Act. Petitioners filed a written response on May 8, 2001. The Division granted FEPCG's motion on May 22, 2001, and struck references to the federal Clean Water Act and allegations of violations of the same from the petitions.

On May 11, 2001, the Department filed a Notice of Change pertaining to proposed rule 62-303 in the Florida Administrative Weekly. On May 7, 2001, Save Our Suwannee, Inc. filed a petition identical to those filed by the remaining petitioners (excluding Petitioner Lane) with the exception of the allegations pertaining to corporate structure and basis for standing. Judge Stampelos ordered this petition to be consolidated with the remaining petitions on May 16, 2001. On May 17, 2001, Florida Manufacturing and Chemical Council, Inc. (hereinafter referred to as "FMCC"), petitioned to intervene in the case. Petitioners did not oppose the petition. The petition was granted on May 18, 2001. Florida Water Environment Association, Inc. (hereinafter referred

to as "FWEA") filed an unopposed petition to intervene on May 31, 2001. This petition was granted on June 1, 2001.

FEPCG filed a "Motion to Strike Federal References from Save Our Suwannee's Petition" on May 29, 2001. It was based on the same legal grounds as advanced by FEPCG in their prior motion. The Department joined in the motion on May 31, 2001. The motion was granted on June 6, 2001.

On June 25, 2001, all Petitioners (excluding Petitioner Lane) filed a Motion to Amend Petition, as well as a Motion for Final Summary Order on Limited Legal Grounds. The Motion to Amend Petition was premised, in part, upon Petitioners legal argument that § 403.067, Fla.Stat., did not authorize DEP to adopt an administrative rule that created heightened requirements to enable a water body to be included on the state's "verified" list of impaired waters. Intervenors, FEPCG, FMCC and FWEA responded to the motion on July 2, 2001, and were joined by FPPAEA on June 25, 2001. On July 2, 2001, the Department joined in Intervenors' opposition to the motion. Judge Stampelos denied the Motion for Summary Final Order on July 12, 2001, but granted Petitioners' Motion to Amend and accepted Petitioners' Amended Petition.

On July 19, 2001, Petitioners filed an Amended Notice of Taking Depositions Duces Tecum. Department Secretary, David Struhs, and Governor, Jeb Bush were among the deponents. The Department moved for a protective order and moved to quash Secretary Struhs' deposition on July 24, 2001. The Motion was supported by Secretary Struhs' affidavit in which he swore that he had no personal knowledge of the drafting or development of the proposed rule 62-303, but that his knowledge was limited to "operational knowledge." On July 31, 2001, Governor Bush likewise moved to quash his subpoena. Petitioners agreed to withdraw the subpoena of Governor Bush, but continued to assert their right to depose Secretary Struhs. Their

written response was filed on August 2, 2001. Judge Donald R. Alexander granted the Motion for Protective Order/Motion to Quash Subpoena Served Upon DEP Secretary David B. Struhs on August 7, 2001. Upon initiation of the final hearing Petitioners brought another document to the undersigned's attention. This document was produced by the Respondent shortly before the final hearing and, according to Petitioners, demonstrated Secretary Struhs' personal involvement in the development of proposed rule 62-303. Petitioners moved for reconsideration of their request to depose Secretary Struhs. The matter was taken under advisement by the undersigned and subsequently denied.

On August 13, 2001, Intervenor, FPPAEA, filed a Motion to Compel Production of Documents and Answers to Interrogatories, seeking to compel discovery of Petitioners' "membership lists." On August 20, 2001, Petitioners responded to the Motion to Compel and also filed a Motion in Limine seeking preclusion of testimony regarding the Petitioners' standing inasmuch as their standing was challenged solely by one Intervenor, FPPAEA, and not by the Respondent, DEP. FPPAEA withdrew their Motion to Compel on August 21, 2001, and filed a written response to the Motion in Limine on August 22, 2001. Oral argument via telephone conference call was held on August 22, 2001. The Division granted Petitioners' Motion in Limine on August 23, 2001. Petitioners also agreed not to contest the standing of FPPAEA to intervene. Further, in the Pre-hearing Stipulations, all parties agreed not to contest standing of any other party. Thus, the issue of standing of the parties to contest proposed rule 62-303, or to intervene in these cases, was no longer in dispute at final hearing.

On August 21, 2001, the Department filed a Motion to Compel Compliance with Order of Prehearing Instructions. The Division ordered that each party number all exhibits and present the

same for review no later than August 28, 2001, and that Pre-hearing stipulations be filed no later than August 29, 2001.

The Respondent filed its Pre-hearing Stipulations on August 29, 2001. The Petitioners filed their Pre-hearing Stipulations on August 31, 2001.

The remaining prehearing proceedings of lesser significance in these cases have been omitted from this Preliminary Statement. Most of the numerous prehearing motions filed in these cases were the subject of interlocutory orders and rulings. (If reference to omitted prehearing proceedings is required, they are recorded in the official DOAH files.)

As stated above, these cases were consolidated for final hearing in Tallahassee, Florida. By virtue of an order entered August 6, 2001, the cases were rescheduled for final hearing on September 4-7, September 10-14, September 17, and September 19-21, 2001. At the final hearing, the following witnesses were called in the parties' cases-in chief:

On behalf of Petitioner Lane: Jacqueline M. Lane.

On behalf of the Petitioners (excluding Petitioner Lane): Barry Sulkin, Linda L. Young, Joan Rose, Wayne Isphording, Bart Bibler, Robert L. Dubose, Tim Fitzpatrick, John F. McFadden, Robert Mattson, Donald Ray, Lawrence Donnellon, Glen Butts, Tim Glover, Richard Budell, David Heil, Richard Paul Wieckowicz, Henry Lee Edmiston, Sven Lindskolv, Satya M. Mishra, Willard Vinson, Thomas Atkinson, Kenneth L. Heck, Jr., and Joanne Burkhalter.

On behalf of the Respondent: Daryll E. Joyner, Jerry Edward Brooks, Eric Livingston, Russ Frydenborg, Loretta Wolfe, and Tim Fitzpatrick.

On behalf of Intervenors Florida Electric Power Coordinating Group, Inc., Florida Manufacturing & Chemical Council, Inc., and Florida Water Environment Association: No witnesses were called.

On behalf of Intervenor Florida Pulp & Paper Association Environmental Affairs, Inc.: Kenneth Howland Reckhow.

In addition, the following exhibits were admitted into evidence at the final hearing: Petitioners' (excluding Lane) Exhibits: 24, 40, 42, 45, 62, 64, 65, 170, 216, 224, 225, 227, 229, 230, 275, 277, 278, 322, 342, 343, 344, 345, 346, 360, 363, 364, 366, 367, 379, 388, 389, 402-Q, 402-R, 402-CC, 402-EE, 402-JJJ, 423, 424, 427, 429, 435, 441, 442, 443-A, 445, 447-A, 447-B (Rose CV), 447-B (Isphording CV), 447-D, 447-E, 447-F, 455, 465-A, 465-B, 466-A, 468, 469, 470, 471, 472, 473, 474, 475. Respondent's Exhibits: 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 15, 16, 18, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31. Intervenors FEPCG, FMCC, and FWEA's Exhibits: 10, 11. Intervenor, FPPAEA's Exhibits: 1, 4.

After presentation of the evidence, the parties, upon motion, were given fifty days from the filing of the final hearing transcript in which to file proposed final orders. The parties were also given fifteen days to file responses to their opposition's proposed final orders. In addition, upon motion by the parties, the normal page limit of forty pages was waived, and the parties were instructed to use their best professional judgment in presenting their proposed final orders. The final hearing transcript (in 26 volumes) was filed on November 20, 2001. The following proposed final orders were filed on January 15, 2002: Petitioners (excluding Lane) _____. The parties filed responses to opposing parties' proposed final orders on _____: The parties' proposed final orders have been considered by the undersigned in the preparation of this final order.

References to pages in the final hearing transcript are designated as "T." followed by the name of the witness (if applicable) and then the page number.

FINDINGS OF FACT

Based upon all of the evidence, the following findings of fact are determined:

A. Background

a. The parties: As stated above, the standing of the parties is not in issue. However, the following brief descriptions of the parties are provided.

1. Apalachicola Bay and River Keeper, Inc. (ABRK) is a non-profit corporation, headquartered in Eastpoint, Florida, and licensed to conduct business in the State of Florida. ABRK's mission is to educate children, citizens, businesses and government agencies about the environmental and economic importance of the Apalachicola Bay and River. ABRK also conducts routine environmental testing and monitoring of the Apalachicola Bay and River and advocates on behalf of its members, residents and non-residents of the State of Florida to help ensure the environmental integrity of the Apalachicola Bay and River system.

2. Save Our Bays, Air and Canals, Inc. (SOBAC) is a non-profit corporation, headquartered in Apollo Beach, Florida, and licensed to conduct business in the State of Florida. SOBAC's mission and goals are to preserve and protect the bays, canals and waterways and air of the Tampa Bay and surrounding area and ensure safe drinking water for SOBAC members and the Tampa Bay surrounding area. SOBAC is also dedicated to educating the public about environmental concerns related to the bays, canals, waterways, and air of Tampa Bay and the surrounding area as well as representing the membership in matters pertaining to the waterways of Tampa Bay and surrounding area. SOBAC also conducts routine environmental testing and monitoring of the Tampa Bay and surrounding area.

3. Florida Public Interest Research Group Citizen Lobby, Inc. (FPIRG) is a non-profit corporation, headquartered in Tallahassee, Florida, and licensed to conduct business in the State of

Florida. FPIRG uncovers threats to public health and well-being and works to end them, using investigative research, grassroots organizing, and advocacy. It conducts routine environmental testing and monitoring and advocates on behalf of its members, residents and non-residents of the State of Florida to help ensure the environmental integrity of Florida's waters.

4. Santa Rosa Sound Coalition (SRSC) is an association of citizens and residents of the State of Florida, headquartered in Gulf Breeze, Florida. SRSC was formed in 1995 to work for improvement of Santa Rosa Sound. SRSC's mission is to educate children, citizens, businesses and government agencies about the environmental and economic importance of the Santa Rosa Sound. SRSC also advocates on behalf of its members, residents and non-residents of the State of Florida to help ensure the environmental integrity of Santa Rosa Sound.

5. Friends of Saint Sebastian River (FSSR) is an association of citizens and residents of the State of Florida, headquartered in Roseland, Florida. FSSR maintains oversight over those activities, both public and private, that impact eastern Florida's environment, particularly environmental issues concerning the Saint Sebastian River in eastern Florida. FSSR's mission is 1) To promote and protect the environment and recreational opportunities of the Saint Sebastian River and tributaries, including without limitation promoting public education and awareness, protecting wildlife, improving water quality, working for elimination of point and non-point sources of pollution and promoting safe boating practices, 2) To support the restoration and preservation of the Saint Sebastian River and tributaries to their natural state, including without limitation, preservation of islands and controlling density and erosion control, and 3) To protect the integrity of the Saint Sebastian River basin.

6. Linda Young is a United States citizen and life-long resident of Florida. Ms. Young is an avid canoeist, and enjoys sailing, swimming, snorkeling, water skiing, bird watching, rafting and

tubing. Some of the water bodies most often used by her for recreation include the Ichetucknee River, the Santa Fe River, the Suwannee River, Blackwater River, Coldwater Creek, Santa Rosa Sound, Juniper Creek, Wakulla River, St. Marks River, Aucilla River, and numerous lakes and sink-holes in Leon County. Ms. Young has worked for the Clean Water Network for the past seven years. Before that she was affiliated with another environmental non-profit organization that worked to protect clean water.

7. Save Our Suwannee, Inc. (SOS) is a non-profit corporation, headquartered in Bell, Florida, and licensed to conduct business in the State of Florida. SOS's mission is to maintain oversight over those activities, both public and private, that impact northern Florida's environment, particularly environmental issues concerning the Suwannee River in north-central Florida. SOS is dedicated to preserving and protecting the soil, flora, birds, animals, surface water, and the underground aquifer in the Suwannee River Basin.

8. Jacqueline M. Lane is a U.S. Citizen and resident of the State of Florida. She lives on Perdido Bay.

9. The State of Florida Department of Environmental Protection is an executive agency of the State of Florida, subject to the provisions of Chapter 120, Florida Statutes.

10. Florida Electric Power Coordinating Group, Inc. is a nonprofit association of 31 investor-owned, municipally-owned, and cooperatively-owned electric utilities engaged in the business of providing electric power to the public throughout the State of Florida.

11. Florida Manufacturing & Chemical Council, Inc. is a nonprofit association of 69 manufacturing companies and supporting businesses located across the State of Florida.

12. Florida Water Environment Association is a nonprofit educational and technical organization and is the Florida Member Association of the international Water Environment

Federation. Its mission includes the promotion of sound public policy by advocating scientifically-based regulation affecting Florida's water environment.

13. Florida Pulp & Paper Association Environmental Affairs, Inc. is a nonprofit Florida corporation. It is an 8-member association consisting of pulp and paper companies operating mills which discharge to surface waters in the State of Florida. The mills are regulated by Respondent, DEP.

b. Development of the Adoption of Proposed Rule 62-303

14. On March 23, 2001, the *Florida Administrative Weekly* published, at the request of the Department, proposed pule 62-303.

15. The publication of the proposed rule in the *Florida Administrative Weekly* indicated that a public hearing would be held before the Environmental Regulatory Commission ("ERC") on April 26, 2001.

16. On April 26, 2001, a public hearing was held before the ERC. Petitioners (except Petitioner Lane) objected to the ERC conducting the public hearing because the Petitioners had already filed their DOAH petition challenging the proposed rule. Petitioners moved the ERC to continue the public hearing until the DOAH proceedings were continued.

17. The ERC denied Petitioners motion to continue the public hearing, which it held on April 26, 2001. The ERC adopted the proposed rule at the April 26, 2001, hearing; however, some amendments to the proposed rule were accepted.

18. On May 11, 2001, the revised proposed rule was published in the *Florida Administrative Weekly*.

B. Experts Who Testified At The Hearing

19. Barry Wayne Sulkin is a water quality scientist who testified on Petitioners' (other than Lane) behalf He has a bachelor's degree in environmental science from the University of Virginia, received in 1975, and a master's degree in environmental engineering, received in 1987 from Vanderbilt University. (T. Sulkin 40) His masters thesis consisted of a dissolved oxygen assimilative capacity study of a river below a sewage treatment plant in middle Tennessee. (T. Sulkin 40-41) He has worked with the state of Tennessee, Division of Water Quality Control, where he performed inspections and investigations in both the drinking water and water pollution programs. He later became chief of enforcement and compliance with the State of Tennessee, which also covered field studies of water pollution problems. (T. Sulkin 41) He is now in private practice and works on issues ranging from water sampling for private industries, businesses and individuals, drinking water as well as surface water, investigating pollution problems for legal and other reasons, property acquisitions, and lawsuits. (T. Sulkin 41) He has also been involved in permit negotiations and evaluations, rule-making, and the so-called Total Maximum Daily Load or TMDL program around the country (T. Sulkin 42) He has been directly involved in the TMDL program in approximately 15states. ranging from lawsuits that were filed by organizations to force the program to begin, to evaluations of the programs and the TMDL lists and documents that are produced by the states across the country.(T. 43) He has also lectured and given seminars on the TMDL program (T. 43) and has also been on a panel with EPA and state officials with the American Water Resources Association, Tennessee chapter conference, where he spoke on a panel regarding the TMDL program along with the EPA and state officials. He has also written on the subject. (T. Sulkin 44)

20. Dr. Joan Bray Rose is a water pollution microbiologist who was called by the Petitioners (other than Lane) She earned a bachelors degree from the University of Arizona (T.

Rose 247), a masters degree from the University of Wyoming (T. Rose 247) and Ph.D. from the University of Arizona (T. Rose 247) -- all three in microbiology. (T. Rose 245-46). She focused on water and water pollution, in particular an area that is called public health water microbiology, or water pollution microbiology. She is currently a professor at the College of Marine Sciences at the University of South Florida. She conducts research in the areas of: (1) methods for detection of microorganisms in water, that includes all different groups of microorganisms, including the bacteria, the viruses, parasites, and in some cases, the algae and toxins, and evaluating new methods for their detection in water and quantification (T. Rose 246); and (2) water surveys, including wastewater, treated wastewater, reclaimed water, septic tank effluent, stormwater, drinking water, beaches, freshwaters, groundwaters and wetlands(T. Rose 246-47); (3) both wastewater treatment and drinking water treatment, i.e., processes for control of microbial contaminants; and (4) microbial risk assessment(T. Rose 247-48). She also held a summer fellowship with the State of Florida Department of Environmental Protection in the Office of Water where she performed risk assessment on Giardia for the surface water treatment rule under the Safe Drinking Act. (T. Rose 248) She then joined the University of South Florida as an assistant professor in 1989. She is now a full professor at that university. She studies microorganisms in water, specifically the types that are associated with disease in humans. (T. Rose 248) She has extensively studied Cryptosporidium, a single-celled animal that caused a very large and deadly outbreak in Milwaukee, Wisconsin, and severely impacted that city's water supplies. (T. 248-49) She has also studied shellfish contamination. (T. Rose 249) She has published approximately 130 peer-reviewed articles and approximately another 100 reports and articles for more popular journals. She has published approximately eight chapters in books and was the major editor on a book on microbial risk assessment. (T. Rose 249-50) She serves on a

number of advisory committees, including for Orange County, California and the Clean Beaches Council in Washington, D.C. (T. Rose 251) She received the Clark water prize in June, given by the National Water Research Institute, and was the eighth winner of this award, which is given for outstanding career achievements in water science and technology. (T. Rose 252) She is also fellow of the American Academy of Microbiology (T. Rose 253) as well as a member of the American Society of Microbiology, and chair of their committee that addresses water issues for the public scientific affairs board, which deals with public issues and educational issues as they relate to water. (T. Rose 253) She has spoken at numerous seminars and given numerous presentations. (T. Rose 254) She is a member of the National Academy of Sciences and has been appointed to its water, science and technology board. (T. Rose 254) She has testified for EPA (T. Rose 255) Approximately 50 and 60 percent of her research dollars come from state projects in the State of Florida, projects that are funded through DEP, the Department of Health, and local counties and cities. (T. Rose 256)

21. Dr. Wayne Isphording is a geochemist and sedimentologist who was called by the Petitioners (other than Lane) (T. Isphording 322) He earned a bachelor of science degree from the University of Florida with a major in geology; a master's degree from the University of Florida with a major in geology and a minor in physics; and a Ph.D. degree from Rutgers University with concentrations in geochemistry, sedimentology and engineering geology. (T. Isphording 321) He is a professor of geology at the University of South Alabama. (T. Isphording 319) He teaches courses in crystal chemistry, mineralogy, optical mineralogy, X-ray analytical methods, ICP analytical methods, geostatistics, hydrology, and contaminant hydrology. (T. Isphording 320) He has taught for approximately 35 years. (T. Isphording 320) He has published 88 professional articles. (T. Isphording 321) He is extensively familiar with the various methods

that the Department of Environmental Protection uses in chemical analytical processes (T. Isphording 324), as well as sampling in the field in relation to analytical techniques (T. Isphording 324). He also has taught geostatistics for 30 years, which deals in a large part with sampling. (T. Isphording 324) He has carried out studies looking at the heavy metal chemistry, mineralogy, and sedimentology of every major bay and estuary in the northern Gulf of Mexico, including Perdido Bay, Pensacola Bay, Choctahatchee Bay, St. Andrew's Bay, St. Joseph's Bay, and Apalachicola Bay. (T. Isphording 325) He has testified previously in numerous legal proceedings. (T. Isphording 325) He just recently finished a study for the Stourbridge Engineers in Apalachicola Bay, Florida where they are removing the old bridge going over to St. George Island and putting in a new one. (T. Isphording 325-26) That study was conducted on the chemistry of the fauna, the oysters in the area, the sediments, and the water column, including what is known as ion site partitioning, which is a procedure whereby experts determine the way in which the metal is held in the sediment, i.e., not just the total amount of the metal, but also the way in which the metal is compartmentalized in the sediment, which is important in determining how easily that metal can be released back into the water column by activities of man or by natural processes. (T. Isphording 326) Dr. Isphording has given nearly 200 papers, and of those 200 papers, at least half or more deal with the speciation of metals, the mobility of the metals, or the impact of metals on natural environments. (T. Isphording 326)

22. John F. McFadden is a stream biologist whose testimony was presented by the Petitioners (other than Lane)(T. McFadden 574) He has earned a bachelor's degree in secondary education, biology and a master's degree in biology, both from Tennessee Tech University in Cookeville, Tennessee. (T. McFadden 493) His master's work was primarily in aquatic biology or aquatic ecology. His dissertation involved looking at a technique to monitor the effectiveness

of liming a mountain stream to try to counteract acid rain. This was part of the National Acid Precipitation Assessment Program, or NAPAP, from the Fish and Wildlife Service. As part of that project he conducted water quality sampling as well as benthic macro invertebrates' sampling (aquatic insect sampling). (T. McFadden 496-97) He earned his masters degree in 1988. (T. McFadden 497) He is an independent environmental consultant (T. McFadden 490) and also teaches adjunct classes at Middle Tennessee State University and Volunteer State Community College. (T. McFadden 496) He has conducted water quality assessments, which have included looking at physical, chemical and biological properties associated with a nonpoint source as well as point source issues for potential impacts to water quality. (T. McFadden 494) He currently manages and serves as the senior project biologist on the Tennessee Scenic Association's Duck River project, which assesses nonpoint source water quality problems, assessing streams to see if in fact they are impaired, and looking at how they can be fixed. (T. McFadden 495) He also works with volunteers who are doing water quality monitoring on streams. He has presented a lecture at the Citizen's Water Quality Monitoring and Restoration Project regarding the issue of citizens' water quality monitoring and how important that data can be. (T. McFadden 497-98) He has conducted studies around municipal sewage treatment plants and wastewater treatment plants, as well as around airport point source discharges. He has also used data to determine the extent of sewage treatment plant impacts. (T. McFadden 498-499)

23. Dr. Richard Paul Wieckowicz is a DEP water quality modeler whose testimony was presented by the Petitioners (other than Lane). He has a bachelors, master's, and Ph.D. in physics. He has worked for 25 years with DEP in water quality modeling as well as sampling. (T. Wieckowicz 857) At the Department, his responsibilities include water quality-based effluent limitations ("WQBELs) and TMDL development. (T. Wieckowicz 856)

24. Dr. Satya Narayan Mishra testified on Petitioners' behalf as an expert in statistics. He is currently a professor of statistics at the University of South Alabama. (T. Mishra 1040) He earned his doctorate in statistics in 1982 from Ohio State University and a master's in statistics in 1981. Prior to that, he earned a masters of science in pure mathematics from the University of Massachusetts, a masters of science in applied mathematics from Banaras Hindu University in India, and a bachelor's of science in physics, chemistry, and mathematics from a university in India. (T. Mishra 1040) Currently he serves as the president of the International Forum for Interdisciplinary Mathematics, an international body of mathematicians, headquartered in New Delhi, India. He also served as the vice president of that organization 1995 to 1999. (T. Mishra 1040) He was awarded a University of South Alabama alumni associate's outstanding professorship in 1998, presented a Sigma Xi lecture in 1998, and was deemed to be an outstanding professor and outstanding distinguished scholar in 1995. He was nominated for the fellowship of National Academy of Sciences in India. He was also nominated for professor of the year by the Student Government Associates at the University of South Alabama. (T. Mishra 1041) He has attended several international conferences on statistics(T. Mishra 1042) He was promoted to full professor in 1997 at the University of South Alabama. Prior to that he served in an associate professorial capacity from 1988 to 1997 and assistant professorial capacity from 1982 to 1988. He was also a research assistant at Ohio State and a lecturer at the University of Cincinnati. He was also a teaching associate at the University of Massachusetts. In total, he has been teaching statistics for approximately 32 years. (T. Mishra 1042-43) He has written two academic statistics books used at the graduate level. He has also authored statistics software. (T. Mishra 1043-44) He has approximately 20 published peer review articles in America, Germany, Japan and India. (T. Mishra 1043-44) He also has written lecture notes (T. Mishra 1044-45),

academic editorials (T. Mishra 1045-47) and book reviews (T. Mishra 1047-48). He has also chaired statistics-related conferences (T. Mishra 1048)

25. Dr. Kenneth L. Heck, Jr. is an estuarine and marine ecologist who testified on behalf of Petitioners (other than Lane). He works at the State of Alabama's Dauphin Island Institute, or Sea Lab, as a marine environmental scientist, as well as for the University of South Alabama in Mobile, Alabama. (T. Heck 2787) The Dauphin Island Sea Lab is the Marine Environmental Sciences Consortium for the State of Alabama. It is part of the higher education system in the State of Alabama and as such is an academic institution that teaches and conducts research. (T. Heck 2787-88) He is a senior scientist with the institute. He is also a tenured full professor in the Department of Marine Sciences of the University of South Alabama. He was promoted to professor in 1992 and has been with the Dauphin Island Institute for 15 years. (T. Heck 2788) He earned a Bachelor's degree from the University of West Florida. After serving in the Army, he came back to school at Florida State University where he earned a Master's and a Ph.D. His pre-doctorate degrees are all in biology, and his Ph.D. is in the area of marine ecology. (T. Heck 2789-90) A significant portion of his research has focused on seagrass communities and the animals that are associated with these communities, which are a broad group of plants and animals that occur in shallow waters and in estuaries throughout most of the world. These types of estuaries are present in the State of Florida. (T. Heck 2790) He has worked in a number of different areas in the State of Florida, including Perdido Bay, St. Joseph Bay, and Apalachee Bay and in the waters surrounding the Florida Keys. Dr. Heck has performed a significant amount of government-funded research around the country, including research for the National Science Foundation, the Environmental Protection Agency, the National Oceanic and Atmospheric Administration and the National Park Service. (T. Heck 2792) For 10 years he was

curator at the Academy of Natural Sciences, where he worked at a satellite lab on the Chesapeake Bay in Maryland and then later at the main institution in Philadelphia. (T. Heck 2793)

26. Robert Mattson is an aquatic biologist with the Suwannee River Water Management District. (T. Mattson 576-77) He works in the district's water resources department, which deals with monitoring, collection of information, and conducting research projects to investigate particular issues. (T. Mattson 577) His expertise is in both fresh and saltwater habitats including the Suwannee River and the estuary connected to it. (T. Mattson 577) He has experience in wadeable and non-wadeable streams and lakes. (T. Mattson 577-78) He is a graduate of the University of South Florida in Tampa, where he graduated with a Bachelor of Arts degree in biology in 1978. (T. Mattson 578) He then earned a Master of Science in 1984. After that he worked as a private environmental consultant specializing in the management and restoration of Florida wetland and aquatic environments. (T. Mattson 578) He has been employed with the Suwannee River Water Management District since 1988. (T. Mattson 578)

27. Donald Ray is a Department employee, where he has served as a stream ecologist for the past 25 years. (T. Ray 623-24) He concentrates on freshwater stream systems, as well as nonpoint source bioassessment. (T. 624, 626).He has conducted stream monitoring for the Department's Northwest District, including 16 counties of the Panhandle area. This monitoring includes rivers, streams, and small freshwater streams, lakes, bayous and bays. (T. 624) He also serves on the Department's biocriteria committee, which helps to develop rules and new methods for biological monitoring for EPA criteria for biocriteria.. (T. Ray 625) He is a member of the Southeastern Water Pollution Biologist's Association. He also works with the U.S. Fish and

Wildlife Service out of Panama City and other areas, the Game and Fish Commission, Eglin Air Force Base. (T. Ray 626) He conducts training in biological monitoring techniques. (T. Ray 626)

28. Lawrence Donnelon is also a Department employee. (T. Donnelon 683) He has worked for the Department for 23 years. He is an environmental specialist working in the biology section. (T. Donnelon 683-84) His degree is from the University of West Florida in biology with a marine emphasis. He conducts biorecons and SCIs and general water quality sampling for the Department. (T. Donnelon 684) He also conducts peer reviews. He conducts primarily freshwater bioassessments, including ambient streams. (T. Donnelon 685)

29. The Petitioners (other than Lane) also called Dr. JoAnn Burkholder, an aquatic scientist, as a rebuttal witness on issues relating to nutrient pollution. She is the director of the Center for Applied Aquatic Ecology at North Carolina State University. She engages in many studies on water pollution impacts that are designed to try to help the State of North Carolina find solutions to problems in water quality, including problems relating to nutrient pollution and other pollutants that co-associate with nutrients in sewage, poultry waste, and swine waste. (T. Burkholder 2937) Her research for approximately28 years has focused on water quality impacts, beginning as an undergraduate in Iowa with a special honors project looking at Iowa streams that were impacted by agricultural waste from crop runoffs and from swine farms; then in her masters degree program at the University of Rhode Island, where she focused on acid deposition impacts on soft water New England stream, then in earning her doctorate in botanical limnology at Michigan State University, Kellogg Biological Station. In that study she looked at phosphorus cycling in lakes and the control of phosphorus cycling by various components of the aquatic community, especially some of the benthic organisms in the community. (T. Burkholder 2937) She then moved to North Carolina State University, where she has been engaged in many water

pollution studies spanning from fresh water to marine systems for the past 15 years. The most recent of the major awards she has received is an Aldo Leopold Leadership Fellowship from the Ecological Society of America, which was bestowed in the year 2000. She received a Hudner Award from the Society of Protozoologists in 1999. (T. Burkholder 2938) She also received a Scientific Freedom and Responsibility Award from the American Association for the Advancement of Science in 1998; the National Conservation Achievement Award in Science from the National Wildlife Federation; and the Distinguished Service and Environmental Education Award from Environmental Educators of North Carolina at Duke University. Other awards that she's received include the Conservationist of the Year Award from the Governor of North Carolina, the Outstanding Achievement Award in the Society of Business and Professional Women in North Carolina, a Pew Fellowship in conservation and the environment from the Pew Foundation, and an Outstanding Research Award from North Carolina State University. (T. Burkholder 2938) She has also testified before Congress several times, one of which was a congressional hearing in 1998 pertaining to the Estuary and Habitat Restoration Act on the value of estuaries In May of 1998, she was invited to testify in a congressional hearing by the U.S. Senate Committee on Commerce, Science and Transportation, Subcommittee on Oceans and Fisheries, on harmful algal blooms. She also gave invited testimony at a congressional hearing on fisheries conservation, wildlife and oceans in the U.S. House of Representatives Committee on Resources in October of 1997, and gave invited testimony on pfiesteria, a toxic microbe, and human health to the U.S. House of Representatives Committee on Government Reform and Oversight, Subcommittee on Human Resources, in September of 1997. (T. Burkholder 2939-40) In 1988 she also gave an invited briefing to the U.S. Department of the Army at the Pentagon in Washington, D.C. on the toxic pfiesteria complex. She has also had extensive editorial

responsibilities, including, being a member-at-large in the Society of Limnology and Oceanography, and has been on the editorial board of several major science journals: The Journal of Eukaryote Microbiology, The Journal of Phycology, and also the Marine Ecology Progress Series. She is widely published in the peer-reviewed science literature, including several on the toxic pfiesteria complex and their response to nutrient over-enrichment by sewage and agricultural wastes; and a publication on cyanobacteria, which are major noxious and toxic bacteria in fresh waters and rivers. Those were published by the Encyclopedia of Environmental Microbiology. (T. Burkholder 2941) She is a co-author on a paper called, *Harmful Algal Blooms and Eutrophication: Nutrient Sources, Composition and Consequences*, that is in press in the journal Estuaries. She has also done survey work in Florida itself, where she has found toxic pfiesteria, a microbe that causes human health impacts as well as fish health impacts, in various parts of the state (T. Burkholder 2943) She also has given presentations in such places as Australia or Japan, Norway, Scotland, and Canada.(T. Burkholder 2945) She also has given at least 200 scientific presentations. (T. Burkholder 2946)

30. Kenneth Hal Reckhow is an environmental scientist and practitioner of "decision analysis" in environmental matters who was called by Intervenors, FPPAEA. (T. Reckhow 1101) He is a professor in the School of the Environment at Duke University in Durham, North Carolina. He is also a director at the University of North Carolina Water Resources Research Institute, which is located at North Carolina State University in Raleigh, North Carolina. (T. Reckhow 1089) He earned a bachelor's of science degree in engineering physics from Cornell University in 1971, a master's of science in environmental sciences and engineering from Harvard University, and a Ph.D. from Harvard University in environmental sciences and engineering in 1977. (T. Reckhow 1090) He has been a professor at Duke since 1980. He also

has a secondary appointment in the Department of Civil and Environmental Engineering in the School of Engineering at Duke. (T. Reckhow 1090) His position at the University of North Carolina Water Resources Research Institute involves research oversight for a water research program in North Carolina. The institute identifies water research priorities in North Carolina, provides for the funding of university scientists and students to conduct the research, and provides for technology transfer. (T. Reckhow 1090) Since earning his Ph.D. in 1977, he has worked in a variety of areas dealing with water quality assessment, water quality modeling, decision analysis, water quality forecasting and statistical analysis dealing primarily with surface water quality assessment. (T. Reckhow 1091) He has co-authored two books dealing with water quality modeling in lakes, published in 1983 dealing with statistical models and so-called mechanistic models or process models. He has written approximately 80 or 90 referee journal publications since the late 1970s. He also has written a half a dozen technical guidance documents for EPA and other agencies on the use of water quality modeling statistics and monitoring programs. (T. Reckhow 1092) Earlier in 2001 Dr. Reckhow served as chairperson of the panel to assess the scientific basis of the EPA TMDL program with the National Academy of Sciences. (T. Reckhow 1096) In the late 1980s he worked with the Florida Sugar Cane League on issues concerning modeling in assessing phosphorus in Lake Okeechobee (T. Reckhow 1098) He has also worked for them on studies involving lake assessments and also with Everglades assessments. (T. Reckhow 1098) He has also taught a short course through the Florida DEP on testing goodness of fit with water quality models (T. Reckhow 1098-99) He has also taught this course for other states. (T. Reckhow 1099)

31. Russell Frydenborg is a DEP employee who testified on behalf of the Respondent DEP in a variety of areas. He has experience in streams, lakes, wetlands and estuaries throughout

his 22-year tenure at DEP. (T. Frydenborg 2239) He holds a bachelors of biological science degree from Florida State University. He has identified benthic macroinvertebrate and algae samples and aquatic vegetation in terms of how it relates to imbalance of aquatic flora and fauna.. He also has performed acute toxicity tests, chronic toxicity tests, flow-through and toxicity identification evaluations. He also has participated in microbiological studies and has been responsible for fifth year bioassessment programs with the Department. (T. Frydenborg 2239) He has experience designing water quality monitoring programs, including ambient monitoring programs. (T. Frydenborg 2240) He has experience in sampling both water and biota from lakes, streams, wetlands and estuaries. (T. Frydenborg 2240-41) He also has experience in water quality monitoring and environmental sampling which includes quality assurance/quality control measures. (T. Frydenborg 2242) He played a role in the development of the techniques that are currently being proposed in the impaired waters rules, such as the stream condition index, the biological reconnaissance and the lake condition index. (T. Frydenborg 2243)

32. Respondent DEP also called Lorretta Wolfe, a DEP environmental statistician. She has a Bachelors degree in biology (T. Wolfe 2284) and a master's degree in applied statistics at Florida State University. (T. Wolfe 2281) She is an environmental manager employed by DEP. (T. Wolfe 2281) She has worked at Pratt-Whitney Aircraft, Research and Development Division, as a computer systems analyst, as well as for Perry Oceanographics in Riviera Beach, Florida, as a biologist. She has also worked as a research associate at the Center for Aquatic Research and Resource Management at Florida State University. That position involved grants from the Environmental Protection Agency and involved comparing lab and field methods in salt and in fresh waters. Some of them involved bioassays and some of them involved taking weekly samples for five years to look at the spatial and temporal variability of long-term sampling. At

the same time the Department of Environmental Protection was starting a long-term study of the Suwannee River and hired her part-time to do some experimental design work, and she then participated in analyzing the data from that study, as well as some other studies for the Department. She worked at Florida State for about six and a half years, and worked for DEP part-time during the same period. During that time she began writing the statewide biological database which was a way of storing the data that was being collected for the Suwannee study originally. After working at FSU, she went into private consulting for approximately11 years. (T. Wolfe 2281-82) She began working for the DEP in March of 1998 and is responsible for reviewing statistical portions of documents that the Department receives. She is a member of the American Statistical Association, in the Statistics and the Environment subsection. (T. Wolfe 2285)

33. DEP employee Timothy Fitzpatrick was called to testify on chemical sampling and analytical techniques by both Petitioners (other than Lane) and the Respondent. He has been employed by DEP since 1988. (T. Fitzpatrick 2714) Most of his initial duties involved sampling, analytical measurements, including measurements of metals in a variety of matrices, biological tissues, water samples and waste samples. He then moved to the central laboratory when it was created in 1989, and supervised the nutrient group, which was instrumental in bringing so-called clean sampling techniques to the Department. (T. Fitzpatrick 2714) He has also conducted trace metal studies using clean techniques looking at the fate of trace metals, for instance, from wastewater discharges. (T. Fitzpatrick 2715) Currently he runs DEP's laboratory and provides technical support to DEP's clients. (T. Fitzpatrick 2715)

C. Proposed Rule 62-303

34. Pursuant to § 403.067(3)(b), Fla.Stat. (1999), the Department is required to develop a methodology for identifying those waters in the State of Florida (hereinafter referred to as the "State") that are impaired.

I. General Rule Structure

35. According to Daryll Joyner, the Department's non-attorney policy representative at the final hearing, the proposed rule is structured such that it "addresses two methodologies, a methodology for the planning list of waters that will be assessed and then a verified list of waters that will be -- for which TMDLs will be developed and that [the Department] will submit to EPA as [its] 303D list." (T. Joyner 1445) Mr. Joyner was the primary draftsman of the rule (T. Joyner 2122) He is a program administrator with the Department. (T. Joyner 1294) One major part of Petitioners' (other than Lane) challenge is whether this admitted two-pronged approach accords with the specific statutory framework mandated by the Legislature. The Department claims that Section 403.067(2) and(3), Florida Statutes, authorize the creation of the methodologies for both a planning list and a verified list. (T. Joyner 1445-46). A detailed discussion of the evidence presented concerning this and other issues is presented below by specific rule provision.

II. General Rule Provisions

A. 62-303.100 – Scope and Intent

36. Proposed rule 62-303.100 indeed facially recognizes that the proposed rule addresses two methodologies: a detailed methodology for culling a planning list of waters that will be assessed and then a second, and heightened, methodology for determining a verified list of waters for which TMDLs may thereafter be developed, and which may be submitted to EPA

as the Department's so-called "303(d)" list, pursuant to subparagraph 303(d)(1)(C) of the Clean Water Act (CWA). (T. Joyner 1445).

37. The scope and intent section of the proposed rule also reflects various other positions taken by the Department, some of which are challenged by Petitioners. According to the Department, there are several provisions in the proposed rule that arise directly from the legislation, such as quality control requirements and demonstrations where impairment is found based upon biological findings. (T. Brooks 1974) DEP also maintains that § 403.067, Fla.Stat., requires that a water segment not be placed on the verified list unless a pollutant can be identified. (T. Brooks 1974)

38. Although not specifically stated in the proposed rule, another position of the Department is that the TMDL program should primarily be designed to address nonpoint sources of pollution. (T. Joyner 1544)

39. The Department, pursuant to proposed rule 62-303.100(2), does not intend to identify a water segment as impaired if the water segment, according to the Department, is meeting its designated use, but is nevertheless not meeting one or more water quality standards (as set forth in Chapter 62-302, F.A.C.) at all times. (T. Joyner 1453)

40. In addition, the Department perceived the enabling statute as being inconsistent on the issue of whether water segments should be listed as impaired when the impairment is due to natural background conditions. (T. Joyner 2122) Since the Department did not intend to develop TMDLs for these water segments, it decided to simply not list them on the verified list. (T. Joyner 2123)

41. But Petitioners' expert, Joan Bray Rose, testified regarding her concern that the exclusion of natural conditions would not protect public health:

> A Yes, I had that circled. I guess my main issue with natural conditions is the issue of animal fecal waste and whether that needs to be addressed. We know that animals will excrete pathogens that are a risk to human health. And if these are impacting beaches, there certainly is a public health risk there. And the more variety of animals that are in the area, and then if you add to that any human impacts such as septic tanks, so the more sources you add and the more physical bodies that may be excreting this variety of pathogens, the higher the risks. So I think it's still something that needs to be assessed if people are going to be actually using these waters for recreational purposes.
> THE COURT: Can I ask for a clarification, when you speak of animals, are you just talking about wildlife or are you talking about all types of animals?
> THE WITNESS: It is all types. It can be agricultural animals, it can be, you know, cattle, domesticated animals. But it could also be some wildlife. Birds, for example, can carry salmonella and campylobacter. And those are two diseases that can be spread to humans.

(T. Rose 295-296) The addition of pollution sources to these waters would create the potential for additional pathogens to enter the water. (T. Rose 196) Inasmuch as the proposed rule has no clear provision for reviewing waters after they are dropped from either the verified list or the planning list, there is no assurance that these types of waters would be protected if and when pollution sources are added to them.

42. Physical alterations to a water body can also be very damaging. (T. McFadden 509)

43. 62-303.100(5) excludes waters from the verified list:

> . . . if [the Department is provided reasonable assurance] that, as a result of existing or proposed technology-based effluent limitations and other pollution control programs under local, state, or federal authority, they will attain water quality standards in the future and reasonable progress towards attainment of water quality stands will be made by the time the next 303(d) list is scheduled to be submitted to EPA.

Proposed rule 62-303.100(5). The Department intended that this provision would correlate to proposed rule section 62-303.600(1) and (2). (T. Joyner 1682-83) The statutory direction, according to the Department, is found in § 403.067(4), Fla.Stat. (T. Joyner 1683) The Department interpreted that statutory provision to allow waters to be excluded from the impaired waters list if existing or proposed technology-based effluent limitations or other pollution control programs would correct the impairment. (T. Joyner 1683) This alleged directive is carried out in proposed rule section 62-303.600 (T. Joyner 1683)

44. The prediction of future attainment is something that is very difficult to do. (T. Heck 2830) And the wording in proposed rule section 62-303.100(5) is itself at best difficult to interpret, if not plainly vague and confusing. (T. Heck 2829) For instance, there is no limitation on the term "future" in the proposed rule, which leaves it open-ended. And as Mr. McFadden put it: "I would just ask the question of when, when in the future." (T. McFadden 510) For example, DEP employee Lawrence Donelon testified that in DEP's Northwest District plans and proposals to correct discharges by one discharger have not resulted in correcting impairment. (T. Donelon 694) Neither have enforcement actions. (T. Donelon 694) Thus, the failure to limit the term "future" creates a vague proposition that leaves the public with no clear concept of how the Department intends to enforce this proposed rule provision.

45. Some of these questions were no doubt considered by the Department working with a Technical Advisory Committee (TAC) it assembled. Respondent's Exhibit 4 is a summary of the TAC meetings that were held pursuant to this proposed rule. Exhibit 4 was admitted into evidence. (T. 1374) These minutes do not, however, reflect those occasions on which the TAC's recommendation was overruled by a DEP representative, such as Mr. Joyner. (T. Joyner 1371) The TAC minutes also do not reflect all instances in which suggestions were made by the public.

For example, they do not include an instance in which Petitioner Lane suggested using total organic carbon as a parameter of concern. (T. Lane 1376)

B. 62-303.150 – Relationship Between Planning and Verified Lists

1. The TAC Meetings

46. The issue of whether the Statute authorizes a two-list concept of identifying the State's impaired waters is one which is significant and which is highly disputed by the parties. It is clear, however, that initially the Department did not consider the statute as requiring or even allowing multiple lists. Virtually all of the discussions between Mr. Joyner and the TAC centered on a single list approach to the statutory directive. (T. Joyner 2101) Indeed, the topic of a multiple list approach was discussed during the January 20, 2000, TAC meeting, at which time the minutes reflect that Mr. Joyner sought the legal opinion of counsel for FEPCG on the issue of whether or not a multiple list approach would be consistent with the enabling statute. (Respondent's Exhibit 4, January 20, 2000, Page 2) During that meeting the TAC agreed to utilize a 4-part list, with only the impaired waters listing going to EPA. ((Respondent's Exhibit 4, January 20, 2000, Page 3) Later on the issue of a multiple list approach was still being evaluated by the Department. As the TAC minutes reflect, Mr. Joyner "reiterated that the term "potentially impaired" was a concept developed by the TAC and was not contemplated by the legislation. He felt the two lists will remain different until all of the basins have completely gone through the Basin Management Cycle, at which point they should be quite similar. He then asked the TAC for their thoughts on the use of the term potentially impaired." (Respondent's Exhibit 4, May 18, 2000, Page 4) Another motivation for using a multiple list approach appears to be the Department's desire to create a mechanism which would eventually allow the merger of the

303(d) list and the 305(b) list, both of which are submitted to EPA. "**D. Joyner** noted that the Department had considered this type of classification scheme for the 305(b) report. He also surmised that the methodology will drive changes to the 305(b) methodology as well, to maintain consistency." (Respondent's Exhibit 4, January 20, 2000, Page 3) (Emphasis in original)

2. The Development of the Two-List Concept

47. Ms. Linda Young, one of the Petitioners in this case, testified at length about how and when the concept developed. Her testimony on this point was not substantially contradicted by either the Department or the Intervenors. Ms. Young attended many of the rule development meetings, including the TAC meetings. It was her testimony that "... when DEP first came out with their draft rule there was nothing in their rule about a planning list. It seemed to fairly well track, in terms of what the statute required, it seemed to sort of track that." (T. Young 165) Early drafts of the proposed rule did not include a two-list concept, i.e. a planning list and verified list. (T. Young165) These drafts are found in Petitioners' Exhibit 402R. The planning list was not developed until September 5, 2000. (T. Young 165). This was shortly after the Department had been criticized by EPA about the manner in which they intended to identify the State's impaired waters. (T. Young 170) EPA wrote to the Department about these concerns. (The letters are found in Petitioners' Exhibit 342.) But the planning list did not alleviate EPA's concerns. (T. Young 170) Thus, circumstances suggest that the planning list also grew out of the Department's efforts to appease EPA rather than a sudden, belated realization of a statutory mandate or authority. (T. Young 175)

48. Proposed rule section 62-303.300(2) further evidences an extra-statutory motivation for the dual list methodologies. It provides that "[w]aters on the list of water segments submitted to EPA in 1998 that do not meet the data sufficiency requirements for the

planning list shall nevertheless be included in the state's initial planning list developed pursuant to this Rule." The Respondent considers this 1998 303(d) list to be a § 403.067(2), Fla.Stat., list. (T. Joyner 1729-30)

49. Proposed rule section 62-303.300(2) appears to have been borne out of discussions between the Department and EPA and is also interconnected with the development of the two-list concept. It is evident from the testimony and from documents introduced into evidence that there was continued discussion between the Department and EPA on the issue of how the Department intended to handle those waters currently on the State's 1998 303(d) list which was submitted to EPA. Ms. Young testified that it was EPA which pressed the Department to include the 1998 303(d) list on the planning list. Ms. Young explained that EPA's final acceptance of the proposed rule was predicated on the entire 1998 303(d) list being on the planning list and that this agreement was reached during the pendency of the ERC's rule adoption hearing. (T. Young 179-80, 191-98) Ms. Young's assertions regarding the importance of the 1998 303(d) list to EPA are borne out in the transcript of the ERC rule adoption hearing. (Petitioner's Exhibit 337) See also, Petitioner's Exhibit 344, correspondence from EPA to DEP (Jerry Brooks) dated April 26, 2001.

50. Department representative, Daryll Joyner described the manner in which the planning list concept developed:

> Q. Well can you provide us with an overview of the history of how the two-list approach evolved as it's currently set forth in the rule?
> A. Previously you had asked the question about when did we get a complete draft. And we basically did not get a complete draft until August and that's when we had two public meetings. Through the course of those public meetings -- let me back up a second, sorry. That draft only contained one methodology, did not have a planning list and a verified list. It was just one methodology to develop an impaired waters' list. Through those public meetings,

there was lots of input that this methodology was too restrictive, that it would only get a small subset of waters on our 303D list and people wanted us to somehow expand the net or the scope of this list, most of like what Ken Reckhow said yesterday. So what we did, reviewing all the TAC's input, you can look at the TAC, look at third, fourth, fifth TAC meetings, there's lots of input from the TAC that they wanted what they called a potentially impaired subset of the list –

* * *

THE WITNESS: But we thought the best way to implement this TAC recommendation and this input from the public was to break this one methodology into two methodologies. I'd say the methodology we had at that time was closest to the methodology for the verified list. What we did is we kind of used that same methodology but kind of lowered the thresholds, made it easier to get on this other methodology for the planning list. For example, we had a 95 percent confidence level at that time for the methodology. For the planning list, we lowered the confidence level to 80 percent. We also extended the time frame from five years to ten years. And we also reduced –
BY MR. CROWLEY: Q. What time frame is that?
A. I'm sorry, the time frame that we'd allow data to be used under the water quality criteria exceedance's component of the rule. So we were looking at this public input and the TAC input and looking at our statute that talked about, in Section 2 of the statute, about a list of waters to be assessed. We thought developing this planning list was consistent with that Section 2 text that describes a list of waters to be assessed further. And that what we call the verified list was the list that was described in Section 4 of the statute of waters that we've assessed and we know are impaired by a pollutant and need a TMDL. So in late August, right before we had this September workshop, myself and Jan Mandrup-Poulsen and David Crowley, we locked ourselves into a room for about three days and broke that one methodology into two methodologies. So that version of the rule, the TAC hadn't seen that at that point in time, but I believe that was consistent with their input of identifying potentially impaired waters.
Q. All right. Thank you. And did the methodology then for the verified list build on the methodology that was being used for the planning list?
A. We started out with one methodology and we kind of changed some of the thresholds in that methodology to use that text for the planning list. But instead of repeating all that text again for the verified list, what we did is we made it clear in the beginning of

the verified list methodology, that the method for the verified list was the method for the planning list plus these additional requirements. And that way, we didn't have to repeat all that text. If there was any additional requirements that modified the previous list, that was clear. And it is kind of a tricky situation because if you look at the draft prepared -- you know, that the TAC saw, more of the text would be similar to the planning list. But the actual key numbers, like the number of years that we should use data for, the confidence level, those were TAC recommendations that drove the verified list because that's what they were originally recommending is what list we'd submit to EPA as our . . .

* * *

THE WITNESS: Anyway, in response to all that feedback, we looked at the statute again. The statute clearly indicates that both the Section 2 and the Section 4 list should be submitted to EPA. And we thought it was consistent with the statute and consistent with all our input to make the verified list, the 303D list, and that's how we revised the rule.

(T. Joyner 1388-91, 1393)

51. But Mr. Joyner's supervisor, Jerry Brooks, saw it differently. According to Mr. Brooks, Deputy Division Director of Water Resource Management, (T. Brooks 1959) the proposed rule development was an attempt:

to define the mechanism by which we update in one sense that list that EPA has previously had submitted to them and they view in the manner as I described it earlier.

Now as we began the development of this rule and as is contained in the legislation, it recognized the questions that resided with regards to the 1998 list and the previous efforts to develop the list. And it established that list as a planning list, from the State's perspective only, that it was not to be used in the state of Florida as a part of our regulatory programs because of the deficiencies that were believed to exist with that list. But it recognizes, the legislation does, that we are obligated to make submittals to EPA to update that list. So as we began this process of developing the rule as we were required to under the legislation, our initial efforts were to try and be all-inclusive and ensure that we were going to capture all waters that in fact might even potentially be impaired.

And as you start to develop criteria for that, you would develop criteria that are rather broad and far-reaching. And the concern that evolved out of that, and appropriately so, was that even though we call it a planning list and it doesn't have any regulatory meaning in the state of Florida, because we are required to update and submit updates to EPA, EPA would receive that list, they wouldn't give it any additional scrutiny, they would simply amend their earlier list and add, you know, additional waters which may or may not be impaired, and would apply significant regulatory meaning to that as a part of facilities that they have regulatory control over. And they would require the Department to exercise that sort of regulatory control that would be associated then with those waters being listed.

So as a result of that, as we were developing the criteria along those lines, there was great concern on the part of the regulated parties that this process is moving towards a development of criteria that is not sufficiently credible, hasn't been subject to the level of scientific scrutiny and analytical processes that data and criteria should be if it is going to have significant regulatory implications. And we believed that, you know, that was in fact a legitimate concern.

So then as we start talking about tightening the criteria so that we have higher degrees of confidence that the waters that we are going to identify as being impaired, and as a result of that those then being placed on the EPA list, the legitimate concern that we began to hear from the environmental groups was that you are now making this criteria so stringent that waters that might potentially be impaired and impacted and in need of restoration are going to fall off of your radar screen, they are going to get lost, and they will never, you know, get the level of protection that is in fact legitimately warranted for those. And that's a legitimate concern.

So the conclusion that seemed to sort of bridge this gap that existed, because I think there was legitimate interest and concerns on the part of those two different interest groups, was that if we create what we term at the state level a planning list, and that planning list be developed based on criteria that is broad and still more scientifically, significantly more scientifically based than the criteria that was used to develop this list that EPA has that we all develop as the 1998 list, but still broad enough to capture, you know, all waters that we believe to be even potentially impaired based upon the data that is available, we will put those on a planning list. And that will hopefully give everyone the confidence that in fact those waters aren't going to get lost. They are not going to fall off the radar screen. As being on the planning list they are subject to specific focus and analysis to evaluate them against the criteria. And where insufficient data -- well, no, let me leave that at

that. It is simply the planning list appeared to be a concept that would give folks some relief in terms of their concerns for waters being lost. At the same time we felt that it would then be appropriate for us to identify what we called, or establish what we called the verified list which would then be subject to a more rigorous analytical process, and one in which we would have a high degree of confidence that the waters being identified as impaired were impaired, and that it be appropriate that those more stringent regulatory implications associated with truly impaired waters in fact would be appropriate.

So my contribution to the rule-making process was one to suggest as Mr. Joiner and Mr. Mandrup-Poulson were conducting their workshops were that they take a draft back that contained this concept of a planning list and a verified list and focus on what would be the appropriate criteria to accomplish the objectives associated with those.

(T. Brooks 1977-80) From Mr. Brooks' testimony it is apparent that the planning list concept was a concept which grew, not out of a statutory directive, but rather, primarily from an effort to reach a compromise between the various groups that were providing the Department with their concerns about how the Department should go about identifying the State's impaired waters.

3. Lack of Compliance with Statutory Directives

52. Mr. Brooks further candidly indicated that the planning list, as currently set forth in the proposed rule, is not what the Statute envisioned. Rather,

. . . the legislation very clearly speaks to a planning list, but it actually speaks to a planning list in the context of identifying the 1998 list that was submitted to EPA to be a planning list to not have any regulatory meaning as a part of the State's regulatory programs, and it recognized that we are obligated to update that list periodically. And as we update that list it still stays as a planning list. From that planning list that being what's, you know, with EPA we would then develop what is termed in here as a verified list.

So, you know, I can tell you in the context of, you know, how the planning list is structured in this rule that's not how it was anticipated when it was referred to, the planning list was referred to in the legislation. But I don't think that what we have captured here in rule is a part of the process leading up to the TMDL list to include a planning list is inconsistent with that legislation.

(T. Brooks 1981-82)

4. The 1998 303(d) List of Impaired Waters

53. Mr. Brooks also opined upon the connection between the 1998 303(d) list and the planning list envisioned by the proposed rule. He testified that all of the former waters would initially be placed on the planning list; however, if through testing it was determined that there was no impairment, the waters would be delisted. (T. Brooks 1982-83)

54. Mr. Brooks testified regarding a letter that he wrote to EPA on June 4, 2001, in which he indicated to EPA that all waters on the State's 1998 303(d) list would remain on the new planning list under the proposed rule. He testified that the basis for the letter was to document a conversation that he had with Ms. Gail Mitchell, EPA Region IV, in which he agreed to have the Department conduct TMDL assessments on certain waters on the State's 1998 303(d) list . These are waters that EPA is potentially obligated to perform TMDL assessments upon pursuant to a federal consent decree. (T. Brooks 1983-85) This letter, which was introduced as Petitioners' Exhibit 427, appears to give EPA these assurances in order to secure what is known as federal 106 grant monies for purposes of administering the State's water programs. In any event, Mr. Brooks' letter is at odds with his prior testimony that waters would not remain on the planning list if, after applying the planning list methodology, the Department determined the same to not be impaired.

55. There is related concern, supported by Intervenor FPPAEA's own witness, that the proposed rule does not provide a mechanism for re-evaluating waters once they have been dropped from either the planning or verified list. Dr. Reckhow recommended that in those situations, such as in Florida, where a rotating basin approach is utilized, a five year cycle should be used for purposes of evaluating water segments to decide whether to move them from the

planning list to the verified list. (T. Reckhow 2031) Those water segments which were either missed or simply not reached during that cycle would automatically be moved to the verified list. (T. Reckhow 2031) In addition, those water segments that are simply lacking sufficient data should automatically be moved to the verified list, according to Dr. Reckhow. (T. Reckhow 2051) This proposed rule, however, does not utilize that approach. Therefore, a water segment could conceivably remain on the planning list for a considerable period without being given further consideration.

III. Rule Definitions—62-303.200

A. Clean Techniques—62-303.200(2)

56. Certain portions of the definitions section of the proposed rule also give rise to uncertainty. For example, one issue concerns the use of "clean techniques." Clean techniques are defined in proposed rule section 62-303.200(2). According to this provision, 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 Crieria Levels, July 1996, USEPA, . . .'" This document is incorporated into the proposed rule by reference. Petitioners' expert, Wayne Isphording, testified with respect to Method 1669. He stated that "[t]his is something that is extremely critical because if we have to use the EPA method 1669, there is not one laboratory in the State of Florida that can do it. I have checked with STL Labs. There's not one laboratory in the State of Alabama that can meet 1669." (T. Isphording 351) The EPA even notes that this method is not intended for determination of metals at concentrations normally found in treated and untreated discharges from industrial facilities: it is a guidance method only. (T. Isphording 352) And as Dr. Isphording further stated, "If you called for this

method for the metals that are identified by EPA. And I'll mention again a little later on where that is specified here in 62-303, you would throw out every single chemical analysis in the Environmental Protection Agency's database known as STORET." (T. Isphording 352) Under this provision, even if one were merely attempting to take a measurement to determine whether you were above or below a particular concentration, it would be necessary to use the full clean techniques required under Method 1669). The only difference would be the type of instrumentation used. (T. Isphording 363)

B. Estuaries—62-303.200(5)

57. Petitioners also raised the issue of how the proposed rule defines estuaries. Proposed rule section 62-303.200(5) defines estuaries as "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." The strict wording of the definition would exclude some high salinity areas that are found in the State, including some major bay and lagoon areas, because some high salinity areas simply do not have riverine input. St. Joseph's Bay, some areas of Florida Bay, and waters surrounding the Florida Keys are examples. (T. Heck 2793)

IV. The Planning List

A. 62-303.300 – Methodology to Develop the Planning List

58. The general concept of a planning list and verified list appears to follow the structure being proposed by some, including Dr. Reckhow, for use in the federal TMDL program. The explanation given is that development of the planning list would generously result in a more inclusive list in order to capture (albeit without requiring a regulatorily-significant

TMDL) as many waters as possible, whereas development of the verified list would be designed to look more closely at those water segments to confirm that they are, in fact, impaired. (T. Reckhow 1131-32) The Petitioners' position is that the proposed rule would result in an inaccurate list of impaired waters. For example, according to Petitioners' stream expert, John McFadden, "[T]he rule has a tendency to leave out some objective and credible data that could indicate that a stream needs to be on the impaired list." (T. McFadden 504) Mr. McFadden also stated that, in his opinion, ". . . the rule has a tendency to take the best professional judgment away from your scientists that you have hired to go out, the biologists, in particular." (T. McFadden 504) In addition, Mr. McFadden postulated that the methodologies found in the proposed rule are not applicable to all aquatic stream environments in Florida. (T. McFadden 504) This position was confirmed by the top scientist at the Suwannee River Water Management District, Mr. Robert Mattson. (T. Mattson 583-86)

59. As the Respondent admits, proposed rule section 62-303.300(1) is vague and incorrect in describing the protection afforded under proposed rule sections 62-303.310-353 and 62-303.360-380, because water quality criteria are not designed to protect only aquatic life use support and human health. (T. Joyner 2085)

60. According to proposed rule section 62-303.300(1), the methodology used in the proposed rule was developed pursuant to the statutory direction of Section 403.067, Fla.Stat. However, Section§ 403.067(3)(b)4, Fla.Stat., *requires* that the methodology used by the Department include data modeling. The Department assertions of the requirement for meaningful data modeling in the proposed rule appeared to be matters more of convenience if not after-the-fact rationalizations, rather than careful consideration. In fact, the Respondent's key spokesperson was himself unaware that the Department had used data modeling until after his

deposition in this case. (T. Joyner 1777-79) The result of this failure to follow statutory direction is the creation of a rigid, and to some extent unscientific, approach to using some of the critical data that may be available concerning water quality.

61. In addition, the confusing treatment of the 1998 303(d) list is further apparent when the planning list requirements are considered. While the Department intends to initially include all of the waters on the 1998 303(d) list on its new planning list, pursuant to proposed rule 62-303.300(2), that does not mean that all waters on the 1998 303(d) list will remain on the planning list. Rather, those waters that have a sufficient number of samples to meet the minimum criteria, but do not otherwise meet the planning list requirements will be removed from the planning list. (T. Joyner 1470) In other words, the proposed rule does not provide that waters that are currently listed as impaired on the 1998 303(d) list, and which meet the requisite data sufficiency requirements, will automatically remain on the 303(d) list.

B. 62-303.310 – Evaluation of Aquatic Life Use Support

62. Requiring a rigid quality and quantity of aquatic life use support data in order to place a water on the planning list takes the best professional judgment away from the scientists when these are the people who have the training and background to make the assessments and were hired to make these types of calls. (T. McFadden 510)

C. 62-303.320 – Exceedances of Aquatic Life-Based Water Quality Criteria

63. Barry Wayne Sulkin, a water quality scientist with intensive experience with TMDL programs nationwide, testified at length regarding the Department's methodology for identifying waters to place on the planning list. Mr. Sulkin stated that an objective and credible

study to determine the impairment of water segments would first determine, using qualified professional judgment, the key problem parameters to test, and then design a study to "capture the conditions where the impairment can show up." (T. Sulkin 67) In other words, it is his contention that it is critical that a study should be designed to identify and test for impairment during times when it is expected that one would observe the conditions that would result in impairment (T. Sulkin 67-68) He explained:

> I would look at the sources of the body of water and sources of known potential pollutants into those bodies of water and design my sampling so as to capture the events that I'm trying to characterize. For example, you may have a discharger that only discharges part of the year, it may be a seasonal report. Then you wouldn't want to do your evaluation at a time that has low occupancy, you would want to do it under a more stressed but allowable condition.

(T. Sulkin 69) Mr. Sulkin would rely on EPA approved methods for collecting samples. (T. Sulkin 71) Sample collection protocols for determining impairment should be designed to find exceedances – not to avoid finding them. (T. Sulkin 69) If dischargers are discharging into a water segment it would also be important to know at what capacity they are discharging, i.e., are they discharging at the full capacity allowed by their permit at the time that samples are collected. (T. Sulkin 70) This approach would also apply to non-point dischargers. (T. Sulkin 85-86)

64. Mr. Sulkin testified in detail regarding the proposed rule's general methodology to be used in developing the planning list.

> Q And could you elaborate in detail in reference to specific parts of the proposed rule?
> A All right. The most important one is the list of, or the chart that tells you how many exceedances must occur per number of samples to qualify a body of water.

THE COURT: Are you looking at any chart in particular? I think there were three charts.
THE WITNESS: Yes, Table 1 is the list. There is a similar list, but it is the table that shows sample size and number of exceedances to the right.
THE COURT: You are talking about Table 1 now but what you say has equal applicability to all others?
THE WITNESS: Yes, I will use Table 1 as an example but the same is true in general.
MR. MEDINA: Would you, just for the record, unless Your Honor thinks it is a useless exercise, but I would like him to go ahead and state the rule specifically in the record that he's referring to. It doesn't matter much on this one because we all know where Table 1 is, but it'll speed things along.
THE COURT: Sure.
THE WITNESS: The heading just before Table 1 is 62-303.320.
BY MR. MEDINA: Q Okay. And would you elaborate on the basis of your opinion in reference to that specific part of the proposed rule?
A It requires a certain number of samples and then so many exceedances before it triggers the listing. But it doesn't require the samples to be taken at any particular time. So a sampler might select sample times that are only the good period, for example, only the months when oxygen is not a problem because the flows aren't low, that may only happen one or two months out of the year and samples might not reflect that. So it ignores the severity of the violations in the timing of the samples. It takes them all at face value and turns them all into a yes or no, which is not consistent with nature.
Q Okay. Would you go ahead and state the basis for your opinion in a little more detail.
A This chart tells you to take a certain number of samples and then see if it passes or fails the test. It does not call for the evaluation of the conditions under which those samples were taken, as I described earlier, such as the flow, dilution ratios, quality of the permeative dischargers. It eliminates judgment observations and modeling or scaling of the data to see what might be happening in between those samples.
Q Okay. What is your next concern?
A The next one I picked out, and these are sort of in the order of importance, but it's hard to necessarily rank them as such. There is a requirement that there be at least five independent sampling events during the ten-year assessment period and in at least one in three of the four seasons. And I'm reading from the section right after that table so it would have the same general heading, which is 62-303.320 and it's Paragraph 4.

Q Okay. And what is the basis of your concern with respect to that provision?
A In particular the requirement of three out of four seasons. Some pollutants only express their impact during one season. Again, I'll use dissolved oxygen because that's what I'm most familiar with. Its impact is going to be expressed during the summer season, so if you are forced to use the non-important seasons, to include that in your data, it can show you that it passes the test when, in fact, you have an impairment during August, and an impairment during August is an impairment too.
Q Okay.
A. There's also an overlapping issue here that I had listed for later. And it says, At least five samplings during the ten-year assessment period. Another one of the issues that I had picked out was the ten-year assessment period. I find that also in section, the same section right after the table, actually the same Paragraph 4, the first part of that, I believe that could be read to mean that there needs to be ten years' worth of data as opposed to data within a ten-year period, it's not clear how that's intended. But if it does mean there must be a ten-year period then you could have pollution going on for nine years but it wouldn't qualify for identification until the tenth.
Q Assuming that's not what that's intended to say, and assuming that it's just basically saying that there's a ten-year cutoff, you can't use older data than ten years, would you have a concern, and if so, what would be the basis for it?
A Yes, that is sort of converse, which is also true, is a problem. If you can't use older data, then you don't have historical, or you can't use historical information as it exists as to what the quality should be or might have been before a certain impact occurred, you might not be able to discern natural from unnatural conditions or trends. And if you have no current data but you have a lot of older data showing pollution and nothing to show that it's gone, then you should rely on that older data until you have something more recent, and that should be the basis for listing, in my opinion.

(T. Sulkin 93-97)

65. <u>The Binomial Methodology</u>—It is important to remember that modeling is a flexible scientific toolkit to be used when gaining an empirical understanding of a problem. (T. Reckhow 2070) And in this case there is substantial disagreement between the parties on the issue of using an inflexible statistical method called binomial distribution in order to determine

impairment. This methodology is called an observational study, which means that all parameters of data sampling are not accounted for (T. Mishra 1067) and these types of studies do not carry much credence (T. Mishra 1067). The Department agrees that the planning list aspect of the proposed rule is an observational study. (T. Joyner 2199) When properly employed, binomial distribution requires a three-prong approach: First, the samples must be independent. (T. Mishra 1057). Second, each sample must be appropriately categorized a falling into one of two possibilities. (T. Mishra 1057) Third, the probability of an exceedance must remain the same from sample to sample. (T. Mishra 1057) Therefore, the binomial method allows for only one means of consideration of impairment. In this case, either a water body exceeds standards or it does not. (T. Mishra 1059) Further, the potential misclassification of a water segment as unimpaired based on binomial distribution may not simply exist when there is a limited data set, necessitating sensible data modeling -- even in those situations where the data set is unquestionably complete and one could therefore consider other factors, e.g. magnitude of exceedance, rigid adherence to binomial distribution would rule out meaningful data manipulation. (T. Reckhow 2055) Therefore, the use of this method can result in the failure to consider other factors indicating impairment. (T. Reckhow 2057) An objective and credible design approach would be to allow the taking of samples just below a discharge point if the impact of that discharge on river water quality is under consideration. (T. Reckhow 1263) The same would be true of taking microbiological samples in a river in order to determine the impacts from nonpoint source storm water systems. (T. Reckhow 1263, 1264) And since one cannot sample at all times and places it is important to have a design that reflects the natural conditions and the discharge. (T. Reckhow 1264) It should also be noted that the Department, at least as late as January 20, 2000, appears to also have had concerns regarding the accuracy of

using a statistical approach to assess water bodies. Indeed, the TAC minutes from that date indicate that the Department advised EPA against using statistical approaches in its own revisions to 40 C.F.R. (Respondent's Exhibit 4, January 20, 2000, Page 4)

a. Erroneous Findings—Use of the binomial method can result in erroneous findings. These are known as Type 1 error, which is a false positive (T.) and Type 2 error, which is a false negative. (T. Mishra 1059) A false negative in this case would mean the erroneous finding that a water segment was not impaired. A false positive would mean the erroneous finding that a water segment was impaired. By adjusting the parameters used to conduct the analysis one can achieve more or less of either Type 1 or Type 2 error, as necessary. The standards applied in the proposed rule err by almost a two to one margin on the side of not yielding Type 2 errors, i.e. that water bodies are impaired when they may not be. (T. Wolfe 2311)

b. Confidence Level—For purposes of the consideration of this proposed rule provision, the two primary considerations are the confidence factor and the exceedance rate. DEP's statistician, Lori Wolfe, was not involved in determining either the confidence interval or exceedance frequency to be used in the binomial process. (T. Wolfe 2297) Daryll Joyner gave her the numbers to use. (T. Wolfe 2316) Both the confidence level and the exceedance rate are discussed below. The Department's decision to require an 80% confidence level for the planning list was not the result of a TAC recommendation. Rather, the TAC envisioned using a 95% confidence level for the verified list., which meant that achievement of that level would have automatically resulted in a finding of impairment. (T. Joyner 2101) Ultimately the confidence level for the proposed rule was set at 90% for the verified list, which was a result of a compromise with the TAC. (T. Joyner 1532) The confidence level was then reduced to 80% for

the planning list. The higher the confidence level, the higher probability of false negatives. (T. Mishra 1059) If the confidence level were reduced to below 80% there would be a significant decrease in false negatives. Reducing the false negatives would better protect human health. (T. Mishra 1060) While Dr. Rose agreed with the basic premise that multiple samples should be taken in order to determine impairment (T. Rose 285-86), she disagreed with the concept of creating a high threshold that has to be met in order to determine impairment:

> And it appears that they have set the bar so that it has to exceed so many times with some kind of confidence limit, which they put at 80 percent confidence limit, before it becomes impaired. My concern with that, setting the bar at this level, I guess, is an issue of error on the protection of the side of public health. Generally, when we talk about public health we can talk about two types of errors, you know, a false negative, a false positive type error. A false positive would be an error in which, you know, the water, say the water is impaired or is put on the impaired list but it's not really impaired, it is a false positive. So if you set the bar too high you are going to get a lot of false positives, you are going to put impaired waters on there and spend time assessing ones that maybe don't belong there. If you set the bar too low then what you get are false negatives, that is that the water really is impaired and it doesn't get on the list.
>
> In public health we generally try to err on the side of the false positives. We try to say, we think it's worthwhile because people are going to get sick to err on the side where we take a little bit more time and say, is the beach really safe, should it be there, in other words, should there be something done. Because the outcome as people really -- are people getting ill, having to go to the doctor, having to buy medicines, have to end up in the hospital, whatever. The outcome is people and illness. So, from the public health standpoint, we set that bar maybe so we perhaps get more false positives than false negatives.

(T. Rose 283) And Dr. Reckhow agrees with this principle (T. Reckhow 2056)

c. Minimum Sample Size—The minimum sample size is not statistically based. (T. Mishra 1055) Mr. Joyner initially testified that the TAC supported a minimum sample

size of 10 samples for the planning list. (T. Joyner 1855) However, he later corrected his testimony and reflected that the minimum sample size of 10 was, in fact, for determining actual impairment. (T. Joyner 2099-2100) Mr. Frydenborg, the Department's omnibus scientific witness, implied that in his opinion even 20 samples may not be statistically significant . (T. Frydenborg 2526) However, Frydenborg was not a statistician. In any event, the Department's statistician considered the source of the minimum sample requirement to be policy not statistics. (T. Wolfe 2317, 2327) In fact, less than ten samples could have been required:

> Q What about if you were going to use a 90 percent confidence level, which is the Table 2, if you're going to use 90 percent confidence level, ten percent exceedance factor, using binomial distribution, you could use considerably less than 20 samples, correct?
> A You can do the calculation, yes. It depends –
> Q As low as what?
> A I don't know for sure. I assume it would be more like four or five, but I don't know for sure.
> Q So you could have as low as four or five samples, you reasonably believe, and still do binomial distribution with a 90 percent confidence level and ten percent exceedance rate, correct?
> A Yes.

(T. Wolfe 2319) And the Department concedes that the final proposed rule provision is less protective even than that which was recommended by its own hand-picked TAC. (T. Joyner 2099-2000) Furthermore, requiring a minimum sample size (and a corresponding minimum number of exceedances) troubled Dr. Rose, because until recently marine waters were not sampled at all. Therefore, there may not be enough data to meet the proposed rule requirements. (T. Rose 284-85) Her concern has merit, not only regarding marine waters, but with other waters as well. The TAC minutes reflect just such a concern on the part of EPA officials. One EPA representative, Eric Hughes, noted during the December 15, 1999, TAC meeting that "from the information presented, 47% of all stations for any given parameter have fewer than 10 samples.

(Respondent's Exhibit 4, December 15, 1999, Page 11) And according to Lawrence Donelon, another DEP biologist, biological assessments in the marine waters have not been conducted by the Department since the merger with the Department of Natural Resources in the late 1980s. They were supposed to be conducted by DEP's marine group in Tampa, but to Mr. Donelon's knowledge they have not done them either. (T. Donelon 686)

d. Exceedance Frequency—Similarly, the Respondent's statistician concedes that use of the binomial method assumes the appropriateness of a fixed exceedance frequency. (T. Wolfe 2323) But a set exceedance rate cannot be expected to apply to all water quality situations. (T. Reckhow 2056) The decision to require a 10% exceedance rate was not a statistical decision. (T. Mishra 1083) It was an ad hoc decision[1]. (T. Mishra 1054, 56, 57) And Dr. Reckhow concedes that objective and credible science was not the determinative factor in developing the proposed exceedance rate. Rather, "community values" played a part. (T. Reckhow 1191-93) The NAS panel, when considering a 10% exceedance rate, considered it to be arbitrary and not based on science. (T. Reckhow 2058, 2059) It is still considered to be an arbitrary factor (T. Reckhow 2059), and Dr. Reckhow would not endorse it as a scientist. (T. Reckhow 1266) His testimony was more worthy of credit than Mr. Frydenborg's, who claimed he could endorse the 10% exceedance rate as a scientist (T. Frydenborg 2515, 2516-21) because he views it as necessary to show "representativeness" (T. Frydenborg 2525). Under Mr. Frydenborg's view, no exceedance that was revealed in less than 10% of the samples could be accepted as credible indicia of impairment, regardless of the environmental harm it regularly or periodically causes.

[1] Note, for example, that a 5% exceedance rate could have been chosen. An exceedance rate of 5% would result in needing only one in ten exceedances to place a water on the planning list. (T. Mishra 1055-56)

e. Magnitude of the Exceedances—Dr. Mishra explained that the binomial approach does not allow consideration of the magnitude of the exceedances. (T. Mishra 1056, 1074) The Department's expert concurs. (T. Wolfe 2296) The failure of the binomial method to consider the magnitude of the exceedances is particularly troublesome. Dr. Isphording was concerned that the procedure does not take into consideration the magnitude of each exceedance. (T. Isphording 345, 365) Dr. Heck was of the same opinion and explained that "[o]ne could have very large exceedances that were so large to cause mortality of animals or plants. And maybe it only happened one time, but one time is enough to cause a pretty catastrophic effect." (T. Heck 2799-2800) And Dr. McFadden pointed out (T. McFadden 511), for example, that dissolved oxygen levels fluctuate during the day – so best professional judgment is necessary before making a final determination of impairment.

f. Seasonality—Seasonal cycles, precipitation and natural variability all affect water quality data measurements. (T. Reckhow 1262-63) Seasonality, which is addressed in a limited fashion in proposed rule section 62-303.320(4), should be considered more generally and usually has the greatest impact during low flow summer conditions. (T. Sulkin 84, Reckhow 2064, McFadden 517) Dr. Rose also agreed that seasonality needs to be taken into account in a manner different from what the proposed rule allows:

> I think there's a seasonal risk to recreational waters, and I think that seasonal -- and the risk changes, I think you can have higher risks at certain times of the year and lower risks at other times of the year. And I think it's related to rainfall and temperatures and it's related to currents and it's related to the people using those areas.
> BY MR. MEDINA: Q Does it require some best professional judgment to discern which is the more appropriate data for demonstrating high risk in relation to microbiology?
> A Yes, I think that if you look at, you know, the collection of ten concurrent samples over a 30-day time frame at a beach that may not be adequate to reach these exceedances even though there may remain -- there may be a public health risk on those beaches. And

> I'm not sure how many beaches will fall into that category. My concern is that we are going to miss -- we are going to have some false, what I would call false negatives, that is waters that are impaired from a swimmable standpoint that represent a public health risk, that if you swim in them, that are not going to be included because the bar is set a little bit high.

(T. Rose 287-88) In addition, Dr. Rose authored a paper entitled *The Association between Extreme Precipitation and Waterborne Disease Outbreaks in the United States, 1948 to 1994* in which she concluded that drinking water outbreaks from contamination statistically increased in periods of extreme precipitation. (T. Rose 381) Tim Glover, a representative of Petitioner, Friends of the Saint Sebastian, testified that during periods of high rainfall the C54 Canal discharges into the St. Sebastian River causing increased turbidity. The lower light levels then affect the sea grasses and plant communities (T. Glover 713-14) If water quality problems were detected only during one season, but the sampling data came from only the other 3 seasons the result would be biased. (T. Mishra 1066). Under this proposed rule, however, it would be possible to sample on January 1, April 1 and December 31, which would technically meet the proposed rule requirements, but still miss the entire seagrass growth season. (T. Heck 2757-58) This would not be a scientifically valid way of sampling (T. Heck 2758) and skewed results could happen purely by accident, as well as intentionally (T. Heck 2859). With respect to estuaries, sampling should concentrate on the growth season of seagrasses (T. Heck 2862-63). Likewise, meaningful bioassessments should concentrate on that part of the year when the animals are typically living in the water segment. (T. Heck 2862-63) Nevertheless, the sampling procedure used in the binomial process developed for the proposed rule does not account for seasonal variations, which leads to a biased inference. (T. Mishra 1061) To correct for seasonal variations would require sampling in every season, not 3 out of 4 seasons. (T. Mishra 1063-64)

In addition, adjustments could be made for those seasons where water quality problems are more pronounced. (T. Mishra 1065) Such considerations would normally be taken into account in a design study. (T. Mishra 1066-67) In addition, the proposed rule provision does not allow for targeted monitoring, which would be helpful in assessing pollutant concentrations. (T. Reckhow 2057)

g. Available Modeling Devices—Statistical measures that would be helpful in discerning the objectivity and credibility of DEP's proposed approach simply have not been attempted. For instance, DEP's statistician has not been asked to determine the statistical probability that water quality violations are likely to be repeated (T. Wolfe 2314). She does not know the probability of the Respondent conducting effective enforcement (T. Wolfe 2315), of Respondent appropriately issuing a permit (T. Wolfe 2315), or of Respondent appropriately suspending or revoking a permit when it is determined that projections were incorrect or reasonable assurances unfounded (T. Wolfe 2315).Similarly, the Respondent's statistician does not know the probability that sample results will be erroneous. (T. Wolfe 2316) However, modeling devices exist that would address the Department's task. This is important, because outcomes of studies can be changed by adjusting the statistical analysis used. (T. Reckhow 1273) For example, the Kendall test is a modeling device that allows consideration of seasonal fluctuations. It has been used for many years and is still considered to be a viable tool. (T. Reckhow 2071-73) In addition, when considering dissolved oxygen levels it is important to consider daily fluctuations. (T. Reckhow 2064) Bayesian statistics could be used to factor in the impacts to water segments from dischargers and at the same time receive faster, and more cost-effective, results. (T. Reckhow 1270-71)

h. Best Professional Judgment—Interestingly, some DEP water quality standards implicitly recognize the need to take into account best professional judgment and even lay observations. An example is 62-302.500, F.A.C. While the proposed rule allows for impairment to be shown by a violation of water quality standards, the Department does not have much experience with determining when a water segment does not meet the requirements of 62-302.500, F.A.C., which requires a showing that there are items floating on the water such as debris, scum, oil or any other matter in amounts that form a nuisance. It is basically determined by the use of best professional judgment. (T. Joyner 2080) On the other hand, under this proposed rule public observations of a water segment, even if documented and show that a water segment is polluted, would not be considered valid data under the proposed rule. (T. Reckhow 1211-12) And although best professional judgment can be used to determine whether exceedances are likely to reoccur (T. Frydenborg 2538) this proposed rule does not allow such judgments to be considered.

h. Overall Suitability of Binomial Methodology—DEP makes much of the notion that consideration of all relevant data is considered to be a compositing approach and would allegedly be less environmentally protective than an independent applicability approach. (T. Frydenborg 2487-88) However, when it comes to using quantitative water quality data, which is the subject of the binomial distribution tables, sensible compositing within the data set or other scientifically meaningful data modeling simply is not allowed, in favor of a single rigid statistical approach. It is not possible to create one statistical rule to account for all of the different varieties of water bodies in the state. It is better to allow for use of best professional judgment by qualified scientists. (T. Mishra 1085-86) Neither did Dr. Isphording believe that determination of impairment is an endeavor suited to statistical evaluation. (T. Isphording 345-

46) According to Dr. Reckhow, the use of binomial distribution in this instance was a response to perceived limitations on the agency. (T. Reckhow 1147) Statistical procedures are not the only way to approach the problem. (T. Wolfe 2319) And Ms. Wolfe testified that particularly with larger sample sizes other methods of evaluation could be used. (T. Wolf 2340-41) Ms. Wolfe also believed that if the objective were to comprehensively analyze a water segment to determine whether it was impaired, one would want to evaluate and interpret all the relevant information, hydrological, chemical, and physical. In short, "you would want to look at all the data that were available." (T. Wolfe 2320) Best professional judgment is a viable alternative to modeling with respect to TMDLs. (T. Reckhow 2062) And Dr. Reckhow testified he would consider the best professional judgment of a fully qualified scientist using appropriate methods of analysis who determined that a water segment was impaired. (T. Reckhow 1272)

66. Treatment of Older Data—Older data can be objective, credible, and valuable in determining historical trends. (T. Frydenborg 2559, Joyner 1481) And the determination of whether an agency considered older data to be reliable was considered by Dr. Reckhow to be a non-scientific determination. Rather, it was a decision made based on agency policy. (T. Reckhow 2039-40) Dr. Isphording maintained that the exclusion of data that is over 10 years old is not justified. Many of the older methodologies in use are still valid. The data they produced prior to 10 years is likewise still valid. (T. Isphording 347) Evaluation of older data can also point out a consistency in the condition. (T. Isphording 348) The 10-year limitation precludes trend analysis, since historical data are used to identify trends. (T. McFadden 514-15) Department biologist Don Ray agreed that trend data is beneficial to consider (T. Ray 663) Even historical data that is 15 or 20 years old could have important historical value. (T. Frydenborg 2695) However, under the proposed rule there is no ability for an engineer to certify that based

on his best professional judgment data in excess of 10 years of age is representative of current water segment conditions and should be used. (T. Joyner 1856) In addition, the only time that best professional judgment can be used under the proposed rule with respect to data less than 10 years old is in order to *exclude* said data. (T. Joyner 1857)

67 STORET—Use of EPA's STORET database to retain and generate the water quality data has also been challenged. The system is not user-friendly, which makes citizen participation difficult. (T. McFadden 512) Moreover, Mr. Ray testified that the state's biological database is separate from STORET, and that the data in the biological database is not included in STORET. (T. Ray 655) In addition, not all of the biological assessment data kept by the Respondent's Northwest District Office has been included in the State's current 303(d) list. (T. Ray 654)

68. Acute Toxicity Levels—Proposed rule section 62-303.320(4) requires, in part, a showing of a violation of acute toxicity levels. These levels, according to the Department, are not the same levels as set forth in rule 62-302.500, F.A.C. Rather, they are levels that are recommended by EPA. A listing of the levels is maintained by Department employees. (T. Joyner 2088-90) They are not adopted by rule. (T. Joyner 2088-90) Mr. Joyner admitted that a lay person would conclude that the acute toxicity levels referenced in this part of the proposed rule are those set forth by rule 62-302.500, F.A.C. (T. Joyner 2091-92)

69. Outliers—Petitioners also contest the exclusion of outliers under proposed rule 62-303.320(6). Dr. Isphording testified that the preferred approach would be to analyze the outliers to determine if they really are aberrations. "But if I'm getting an outlier, for example, in Mobile Bay and I see a level of zinc running at 1250 parts per million and the average is 222, then I look at it on the Bay and I say, Lo and behold, there is a chemical company discharge pipe

right nearby where my sample was collected and I can then identify the source of that outlier and it has significance." (T. Isphording 350) Dr. McFadden concurred, and pointed out the outlier may be the one instance that shows the actual poor water quality. (T. McFadden 518) It should be considered and factored into the overall assessment. (T. Mishra 1070) The records suggest that the Department's TAC also felt that best professional judgment should be used when determining whether to consider including outlier information in water quality assessment. (Respondent's Exhibit 4, November 11, 1999, Page 11)

70. Clean Techniques—The required use of clean techniques, as found in proposed rule section 62-303.320(8)(a) would significantly limit the number of existing water quality samples that could be considered, because of the strict techniques required under the EPA protocol. See, discussion of proposed rule section 62-303.200(2), definition of Clean Techniques, supra. The use of Method 1669 would also negatively impact Respondent's ability to consider future samples, inasmuch as no labs in the State of Florida are currently equipped to utilize the same. See, discussion of proposed rule section 62-303.200(2), definition of Clean Techniques, supra.

D. 62-303.330 – Biological Assessment

71. Petitioners contest the use of biorecons for non-wadeable streams. Biorecon protocols are not designed for use in non-wadeable streams. (T. McFadden 529) Hester-Dendy samplers are used to sample deep water streams, such as the Suwannee River. But the biorecon and stream condition indices are procedures that don't allow for that. (T. McFadden 530, 533) Nor do they allow for ponar (dredge-type) sampling. (T. McFadden 533) Robert Mattson confirmed that the Suwannee River Water Management District does not consider biorecons and

stream condition indices as appropriate for sampling non-wadeable streams such as the Suwannee River. (T. Mattson 586-87)

72. Department biologist Don Ray testified that the optimal time to conduct testing is during what is known as the "first flush." "Ideally, it would be the first flush is when you get most of the pollutants draining off highways, or farm fills, or dirt roads, or whatever you have, the first flush is usually the highest biological oxygen demand and most of the chemical constituents and everything are in the first flush of the storm." That's when the turbidity violations would be found. (T. Ray 629) Normally, if a Department biologist goes to a stream and takes samples or does a biorecon or bioassessment, he does not normally go back to do the whole thing over again just to make sure that he got it right the first time. (T. Ray 629) Mr. Ray doesn't believe that two bioassessments should be required. If they were he would only be able to sample half the streams that he does now. (T. Ray 674-75) Per Mr. Ray, it is pretty obvious when a violation is found. (T. Ray 631) Furthermore, in at least one water segment, Williams Creek near Santa Rosa Sound, the Department determined that there was no need to conduct biological testing more than once a year, because the test results were consistent over the course of the year. (T. Ray 645) The Respondent's Northwest District has conducted biorecons on a very small percentage of the over 20,000 water segments within its jurisdiction. (T. Ray 647)

73. The Department used to monitor point source dischargers approximately 4 times per year. Now they generally monitor them at best once every 5 years. (T. Ray 661) In fact, over the past 10 years the Department has collected no biological data on estuaries. (T. Ray 662, Donnelon 686-87)

74. The requirement under proposed rule section 62-303.330 that there be two bioassessments within five years, but only one biological integrity exceedance requirement

within 10 years in order to make it onto the verified list, is not scientifically rational. (T. Joyner 2103-04)

75. Performance of bioassessments should be done during the season when the organisms are present and growing. (T. Heck 2862-63) There is no proposed rule requirement to ensure that this is followed.

76. The Department has not yet adopted SOPs for the field audit required under proposed rule section 62-303.330(2). (T. Frydenborg 2574-75)

77. The placement of waters on the planning list under proposed rule section 62-303.330(3) if there is a failed bioassessment or biological integrity standard as required under rule 62-302.530(11), F.A.C., fails to consider that the Shannon-Weaver Index, which is relied upon in rule 62-302.530(11), F.A.C., is known to return low level readings in estuaries. (T. Heck 2816-18) It returns low readings because it relies upon diversity and even the healthiest estuaries are not particularly diverse. (T. Heck 2816-18) Therefore, even impacted estuaries do not show tremendous changes in the Shannon-Weaver Index. (T. Heck 2816-18)

78. Notwithstanding Dr. Reckhow's general contention that the proposed rule provides clear standards which will be applied (T. Reckhow 1186), the language in proposed rule 62-303.330(4) does not indicate the manner in which the "other information" will be considered. It is vague. (T. Heck 2819)

79. Members of the public cannot enter data into the State's biological database. (T. Frydenborg 2251-52) And biological data cannot be entered into STORET. (T. Frydenborg 2253)

E. 62-303.340 – Toxicity

80. Under this proposed rule provision there could be listing on the planning list if there were two toxicity failures of either chronic or acute toxicity within a 12-month period that was as much as ten years preceding the assessment. (T. Frydenborg 2644)

81. 62-303.340(3) requires two samples indicating chronic toxicity and these samples must have been taken within a 12 month period in order to place a water segment on the planning list. Mr. Frydenborg asserts that this requirement was made based on the best professional judgment of the TAC. (T. Frydenborg 2623) However, there is no ability to use best professional judgment to determine whether one result is more representative of chronic toxicity than the other. (T. Frydenborg 2630-31)

82. Assuming stable resources, there is no reason to believe that the Department will be able to conduct bioassessments on the water segments that have thus far not been assessed if, in fact, the Department has to reassess (pursuant to the proposed rule) those segments that have otherwise already been completed. (T. Frydenborg 2634)

F. 62-303.350 – Interpretation of Narrative Nutrient Criteria

83. This proposed rule provision would not allow consideration for observations made without the benefit of actual testing. For example, the proposed rule would not take into consideration observations made by individuals that a water segment is completely covered with algae to the point that a fisherman can't get a lure through the water surface. (T. Sulkin 98) Mr. McFadden agreed. (T. McFadden 536-37) Additionally, chlorophyll a may not be indicative of water quality, because it is the measure of biomass of photosynthetic plants or algae. Therefore, it may die back in the winter, just as other crops do. (T. Sulkin 98) Therefore, Mr. Sulkin's position is that using annual means testing for chlorophyll a is inappropriate. (T. Sulkin 99)

Since the capacity of water to hold oxygen increases as the temperature decreases, there is less of a dissolved oxygen concern in the winter months. (T. Sulkin 127) Therefore, in Northern Florida, where the water temperatures decrease in the winter, dissolved oxygen would be less of a concern in the winter. (T. Sulkin 127) Mr. Sulkin posited that testing should be done during those times when a problem is more likely to present itself. (T. Sulkin 126-127)

84. Under proposed rule section 62-303.350(1) algal blooms can be considered in determining whether a water segment should be placed on the planning list. Red tide is a form of algal bloom. (T. Joyner 2110; Burkholder 3005-06) Nevertheless, under proposed rule section 62-303.360(3), red tides may not be considered for determining impairment with respect to recreation use support. (T. Joyner 2111)

85. Proposed rule section 62-303.350(1) indicates that algae growth on leaves of seagrasses will be considered; however, there is no indication how it will be considered. For example, there is no determining factor provided for whether seagrasses are being overgrown by algae and whether there are algae blooms on the bottom. (T. Heck 2809-10) These conditions are critical to the health of seagrasses, because if there is a significant amount of algae growth it blocks light which the seagrasses need. (T. Heck 2810) This is the main symptom observed when there is a disappearance of seagrasses (T. Heck 2810), therefore, great weight should be placed on it. (T. Heck 2810, 2820) The proposed rule does not say whether these factors will be major or minor factors when consideration is given. (T. Heck 2848)

86 Proposed rule section 62-303.350(1) requires the use of the trophic state index and annual mean chlorophyll a values as the primary means of determining nutrient impairment. Notwithstanding Mr. Frydenborg's contention that samples from all seasons must be considered (T. Frydenborg 2737) this reliance on the mean chlorophyll a values is misplaced, inasmuch as it

obscures the true impacts to estuaries during the summer months by requiring that mean values be used (which require inclusion of colder seasons). (T. Heck 2821) Ecologists concentrate on the extreme values, not mean values. (T. Heck 2821)

87. Proposed rule section 62-303.350(1) allows consideration of algal blooms, which is inconsistent with proposed rule section 62-303.360(3), which does not allow consideration of red tides. But red tides are a type of algal bloom. (T. Heck 2828) Algal blooms should be considered with regard to estuarine health. (T. 2828)

88. Proposed rule section 62-303.350(2)(b) requires samples to be taken from each year to determine annual mean chlorophyll a values. This can result in excluding data from the summer months when violations are more likely to occur. (T. Heck 2812, 2848)

89. Proposed rule section 62-303.350(3) requires that when comparing historical changes in chlorophyll a or TSI the historical levels must be based on the lowest five-year average for the period of record. Mr. Frydenborg's assertion that the use of this historical data is appropriate (T. Frydenborg 2438-39) neglects the fact that many seagrass areas in the State have not been studied, however, until they have already been impacted. (T. Heck 2854-55) The historical data will therefore all be from areas that are already impacted. (T. Heck 2854-55)

90. Pursuant to proposed rule section 62-303.350(3), in order to assess historical changes for purposes of placing a water segment on the planning list, there must be at least three years of data within the last five years in order to conduct the analysis. (T. Frydenborg 2652) Proposed rule section 62-303.353 then requires that these historical values increase over 50% for estuaries in order to place a water segment on the planning list. But for the verified list under proposed rule section 62-303.450(1) the proposed rule allows for consideration of site-specific evaluations, i.e. using percent changes that are less than 50%. Therefore, best professional

judgment can be used on the verified list under 62-303.450(1). (T. Frydenborg 2653, 2649-50) But the rule doesn't allow for the exercise of best professional judgment for the planning list.

G. 62-303.351 – Nutrients in Streams

91. In order to show sufficient impairment to be included on the planning list under proposed rule section 62-303.351 DEP included a requirement of an annual mean chlorophyll a concentration greater than 20 ug/l, or data indications that there has been an increase of annual mean chlorophyll a values of 50% for at least two consecutive years. When the chlorophyll a concentration exceeds 20 ug/l there is a noticeable tint to the water. (T. Frydenborg 2140-41) DEP used an annual means test to ensure that there is a "consistent" problem. (T. Frydenborg 2142-43) The historic change requirement was meant to ensure that the problem was not allowed to get out of control. (T. Frydenborg 2143-44)

92. However, Robert Mattson, an employee of the Suwannee River Water Management District, testified that rarely does the Suwannee River's chlorophyll a concentration exceed 20 micrograms per liter. (T. Mattson 594) But there are still high levels of nitrogen in portions of the river. (T. Mattson 594) There is benthic algae growth in the river. (T. Mattson 594) It is not measured in the same units as called for in the proposed rule. It is measured in milligrams of chlororphyll a per meter squared of surface area. (T. Mattson 595) But in lakes the test is micrograms per liter of chlorophyll a. (T. Mattson 595) The testing called for under the proposed rule would also not consider chlorophyll a associated with macrophytes, such as water hyacinths that exist in the rivers. (T. Mattson 611)

93. It is too restrictive to require that algal mats [62-303.351(1)] ". . . pose a nuisance or hinder reproduction of a threatened or endangered species, . . ." Waters should be included if they adversely affect any of the wildlife, e.g. aquatic insects and fish. (T. McFadden 537-38)

H. 62-303.352 – Nutrients in Lakes

94. Some rivers in Florida have lake-like characteristics and it would not be unreasonable to see single event chlorophyll a values in excess of 20 micrograms per liter in those systems. (T. Mattson 600, 615-16) However, the proposed rule requires values based on an annual mean chlorophyll a concentration – a considerably stricter measurement.

95. The trophic state index is a lake indicator. (T. Frydenborg 2647) Chlorophyll a is a component of the trophic state index. (T. Frydenborg 2648) The trophic state index is the methodology used in determining lake impairment; however, other measures could be present, but not necessarily be allowed under the proposed rule. While proposed rule section 62-303.350(1) provides that other information indicating an imbalance in flora or fauna can be considered, which would apply to lakes, the Respondent intends that that other information be statistically valid. (T. Frydenborg 2647) But it is sometimes scientifically necessary and prudent to make findings about algal information even though it may not meet a statistical approach. (T. Frydenborg 2647-48)

I. 62-303.353 – Nutrients in Estuaries

96. Chlorophyll a is an indicator of algal biomass, not seagrass productivity. (T. Heck 2842) Chlorophyll a can be a useful indicator in assessing estuarine health, but it should not be the only or primary indicator relied upon. (T. Heck 2841-42) In the proposed rule, chlorophyll a is the primary indicator that is used. (T. Heck 2842) Where chlorophyll a testing can be useful is in open, deeper waters of estuaries. (T. Heck 2810-11)

97. The requirement that annual mean chlorophyll a values have increased by more than 50% over historical values for at least two consecutive years is not a valid measure to

ensure the health of estuarine plants and animals. (T. Heck 2812) There is no biological justification for this requirement. (T. Heck 2813) What is more accurate as an indicator is whether light is reaching the bottom of the estuary -- not just the level of chlorophyll in the water. (T. Heck 2812)

98. The use of annual mean chlorophyll as an indicator averages the values over the space of a year and thus minimizes the impact of the summer months, which are the most stressful time for seagrasses, particularly in the northern estuarine waters of the state. (T. Heck 2805-06, 2812, 2848) The Department's biological witness, Mr. Frydenborg, testified on this issue and explained that in his opinion leaf litter, phosphate deposits and mining all contribute to high chlorophyll a levels and that therefore it was necessary to conduct annual means testing. (T. Frydenborg 2469) The Court finds Mr. Frydenborg's opinion on this matter unpersuasive. Indeed, another Department witness testified that averaging data over three seasons would not necessarily give one an accurate representation of the extent of a nutrient problem in an estuary. (T. Ray 655)

99. An algae bloom is basically a noticeable increase in populations of algae, typically above a certain background level. Sometimes during a bloom of filamentous algae there will be such a buildup that portions of the algae will break off and float as a mat. (T. Mattson 597) In some situations scientists use a threshold of 10 micrograms per liter to indicate an algae bloom event. (T. Mattson 596)

100. Department witness Frydenborg testified that estuaries could be placed on the planning list, pursuant to proposed rule section 62-303.353, using the biological integrity standard, showing changes in seagrasses, aquatic macrophytes, algae communities and/or the attached algae. (T. Frydenborg 2408-09) The undersigned notes, however, that proposed rule

section 62-303.353 does not allow for using these indicators to show estuarine impairment. Proposed rule section 62-303.350(1) does allow for consideration of these types of information; however, the extent to which said indicators will be considered is vague. In addition, Mr. Frydenborg testified that turbidity standards found in rule 62-302, F.A.C. would be applied to determine impairment; however, nothing in proposed rule sections 62-303.350 or 62-303.353 relates back to rule 62-302, F.A.C. (T. Frydenborg 2451) While proposed rule section 62-303.300 does state that a violation of rule 62-302.500, F.A.C. criteria would justify placement on the planning list, the turbidity standards testified to by Mr. Frydenborg are not found therein. Further, proposed rule 62-303.300 does not state the number of violations that are required under rule 62-302.500, F.A.C. to allow a water segment to be placed on the planning list.

J. 62-303.360 – Primary Contact and Recreation Use Support

101. The applicable water quality criteria for bacteriological quality as far as a specific numerical criteria under the Florida DEP rules is fecal coliform. (T. Rose 279) This would not necessarily include enterococci. (T. Rose 279) Dr. Rose explained her concerns on this issue:

> I guess my first concern was that the water quality criteria focus on total and fecal coliforms and they don't include the enterococci which has been recommended now as a better indicator, particularly for marine waters to look at public health risk and swimmability. And, in fact, when -- if you look at the data from California and some of the more recent data where Department of Health, at least in Pinellas County is looking at enterococci plus the coliforms, you would actually have more of what I would say warnings or a violation of the level, an increase above the level that's considered safe if you use the enterococci.

(T. Rose 278-79) While enterococci is not a part of current numerical water quality criteria, it is currently used to make swimability determinations. (T. 281)

102. Proposed rule section 62-303.360(1)(b) requires beach closures as a criterion for the planning list. However, as Dr. Rose explained, health departments do not close marine beaches. (T. Rose 288) So there would not be any data to satisfy this proposed rule requirement. (T. Rose 288)

103. DEP rejected its TACs recommendation of requiring 10 weeks (as opposed to 21 days) of beach closures under 62-303.360(1)(d) ((T. Joyner 1791) There is no scientific basis for requiring a total of 21 days or more of closures, advisories or warnings under proposed rule section 62-303.360(1)(c) as a criterion for the planning list. (T. Rose 290) The proposed rule also does not take into account that it can take 48 hours to receive test results, meaning that people will have been exposed to a contaminated beach for that period of time before the actual closure, advisory or warning is issued. (T. Rose 291) In addition, even one day of exposure can be too much. (T. Rose 291) Rather than using a non-scientific number as a threshold, this factor should be based on best professional judgment. (T. Rose 292) DEP did not consider the public's rights when deciding on the number of days of closure that would be required. (T. Joyner 1753) For example, DEP's irrational, rigid position is that 21 days or more of closures, advisories or warnings constitutes an impairment of the designated use, whereas 20 days does not. (T. Joyner 1754)

104. Proposed rule section 62-303.360(1)(d) requires 12 weeks of closures, advisories or warnings based on bacteriological data in order to meet the planning list criterion. This represents a chronic situation (T. Rose 293); however, with marine beaches the contamination is typically acute. (T. Rose 293). Requiring 12 weeks of closures, advisories or warnings with marine beaches represents the very worst-case scenario, but with marine beaches there could be considerable contamination with less than 12 weeks. (T. Rose 293-94) Under the proposed rule

11 weeks of closures would not qualify for the planning list, although, DEP admits that 11 weeks would also constitute a serious impact upon the public's ability to use the affected waters. (T. Joyner 1745-46)

105. Sewage spills should not be excluded from consideration of the issue of impairment, as is provided under proposed rule section 62-303.360(3). This represents untreated wastewater, which constitutes a major public health risk. (T. Rose 294) Mr. McFadden concurred that sewage spills should be considered, and added that red tides, riptides, sewage spills, sharks, medical wastes, and hurricanes are all factors that cause impairment and should be factored into the impairment consideration. (T. McFadden 538) And with respect to the exclusion of hurricanes, Dr. Reckhow testified that the decision to exclude data is not a scientific decision (T. Reckhow 1247) But he believes that when hurricanes are considered to be a normal occurrence they should be taken into consideration. (T. Reckhow 1249)

106. Harmful algal blooms, including some red tide bloom, sewer line breaks and sewage spills have unquestionably been shown to impair the use of affected waters for swimming. (T. Burkholder 2950) Nutrient pollution from sewage can promote harmful algae, including red tide. (T. Burkholder 2950) Population growth has contributed to sewage plant failures over the past 20 years, and sewage spills are common. (T. Burkholder 2951) Since sewage spills, leaks and breaks often go unnoticed for days, months or even years, enforcement often is not an effective tool for controlling them. (T. Burkholder 2952-53) These events contribute a major portion of nutrients to certain rivers and estuaries. (T. Burkholder 2981)

107. There are different types of red tides. Red tide dynoflagellates include pfiesteria, carinea brevis (genidium brevae) and others found in Florida are toxic. Genidium brevae begins to bloom off shore and then can be stimulated by nutrient enrichment received when it comes

into Florida's coastal areas. (T. Burkholder 2969-70) The nutrients can come from sewage and animal waste(T. Burkholder 2970)

108. Red tides, rip tides, sewage spills, sharks, medical wastes and hurricanes occasionally cause water quality problems, and in some cases, serious water quality problems, in some cases, water quality problems that serious impacts to human health. The Respondent does not dispute this. (T. Crowley 2965, 2978)

109. While Mr. Frydenborg testified regarding his opinions of the exceedance rate being protective of public health, he was not relating his testimony to epidemiology or fecal coliform levels. (T. Frydenborg 2523) he also testified that he is not an epidemiologist. (T. Frydenborg 2523) Therefore, his opinions on this subject were unpersuasive.

K. 62-303.370 – Fish and Shellfish Consumption Use Support

110. Apalachicola Bay produces about 90 percent of Florida's oysters. Therefore, it is for most practical purposes the oyster industry of the State of Florida. It produces somewhere in the range of 10 to 15 percent of the nation's oysters. It also is a very important segment of the economy of Franklin County as well as other fisheries' activities in that area, primarily shrimping. (T. Heil 791) It is also the most productive oyster harvesting area in the northern hemisphere. (T. Heil 792)

111. Proposed rule section 62-303.370 requires a change in classification in order to be considered for impairment. However, given that a shellfish harvesting closure can be mandated based upon high fecal coliform levels, since there would be no change in classification the rule would not consider this situation as an impairment, regardless of the frequency of this very real impairment. (T. Heil 811)

112. According to David Heil, an employee of the Florida Department of Agriculture and Consumer Services, a closure of the bay does not mean that there is a downgrade in classification. Conditionally approved waters are allowed to be periodically closed. (T. Heil 798) Therefore, even though there is not a downgrading of classification, there is still an interference in the ability of oystermen to harvest their oysters from the bay during the period when the bay is closed. (T. Heil 798) Normal rainfall events in the Apalachicola Bay system can result in the closure of the bay to oystering for much of the winter months. (T. Heil 799) In abnormally wet seasons the bay will be closed almost all winter. (T. Heil 799) The closure to harvesting constitutes an interference with the designated use. (T. Heil 804) The closure is for public health. (T. Heil 805)

113. Willard Morris Vincent testified on behalf of Petitioners. Mr. Vincent lives in Eastpoint, Franklin County, Florida where he has lived since 1946. (T. Vincent 1410) Although to pay his bills he is currently a correctional officer he also harvests oysters part-time.(T. Vincent 1411) His step-father oystered, his great-grandfather oystered and now he harvests oysters. He opened his own small processing plant, called Vincent Seafood, which he operated for 28 years. He sold retail and wholesale. He is a director with Petitioner Apalachee Bay and River Keeper, Inc. (T. Vincent 1411) He also was a county commissioner of Franklin County for 4 years. ((T. Vincent 1412) He has extensive knowledge of the oyster business in Franklin County, including Apalachicola Bay. (T. Vincent 1412) A few years ago Mr. Vincent and Leroy Hall (President of the Seafood Dealers Association) went to Tallahassee to meet with Department officials regarding the delisting of Apalachee Bay from the State's impaired waters list, because Mr. Vincent and others were concerned about the effort. (T. Vincent 1412)

114. Mr. Vincent described, in detail, the effects of closing the Apalachee Bay on the people in Franklin County:

> Q. Would you explain to the Court how the winter fronts work in Apalachicola Bay as far as closing the bay?
> A. Can I give you some examples?
> Q. Yes, sir. And first of all, explain what you mean by winter front, what it involves.
> A. Winter season used to go from September to June. Okay. But the most productive and the biggest sales are during the holiday seasons. And if you have a slight summer, then you want to make up for it if you're in business or an oysterman during its good times. But two years in a row, one year the bay was closed for three weeks, it opened about a day before Christmas. Can you imagine what hardships that put on people that was depending on the bay for a living, for their Christmas dinner, for their holiday dinners, and for gifts for their children? And then the same thing happened the following year for two weeks. And I think it opened again about two days before Christmas.
> Q. Explain what a winter front is like, if you don't mind. What does that involve?
> A. Well you have a lot of rain that crosses, you know, over Alabama across the river. And you have a lot of rain in Georgia. And –
> Q. You have a lot of rain in Florida too typically?
> A. Right. And then when the river gets up to 14 feet or 4 inches rain locally, it's closed. It's automatically closed and then they do testing, they start testing the waters. But if you have a southerly wind blowing with high tides, it holds the water in and takes it longer to clear out after the rain stops and the water gets through coming down.
> Q. So that can go on for a period of time?
> A. Yes, sir.
> Q. And during those times, what happens to the bay as far as oystermen?
> A. It's completely closed down.
> Q. And what's the impact of that on shellfish harvesting?
> A. Well you can't harvest oysters. The half-shell bars in Miami and all over the country can't get oysters for holidays.
> Q. What's the impact on the oystermen and their families?
> A. Well, it's devastating really. Well, let's put it like this. Suppose three weeks before Christmas you didn't get a check. Would it affect you?
> Q. What's the impact on the local economy?

A. If you don't have money, you don't buy, you know, you don't eat out as much, you don't go shopping, you don't buy as many groceries. So everybody suffers.
Q. And are oystermen already in a precarious economic position?
A. Yes, sir.

* * *

Q. And are you facing additional pressure about potential extension of summer closure to the full parts of the bay and maybe extended to longer periods?
A. FDA is wanting to close it for six months, six months in the summer, the warm season, the warmer months, because of an organism that's in the gulf waters.
Q. Does that make it that much more important that you keep your winter oystering intact?
A. Yes, sir.

(T. Vincent 1414-18)

115. David Heil testified that control of fecal coliforms would result in fewer closures of Apalachicola Bay, since there would be fewer health problems associated with shellfish harvesting. (T. Heil 814)

116. Fish kills are a problem that can be caused by red tide. Red tide species such as carinea brevis and pfiesteria can directly cause fish to die. They are fish toxins, or ichthyotoxin. (T. Burkholder 2972) There are various toxic dynoflagellates such as ciquatera and soxotoxins that cause diseases in fish. (T. Burkholder 2972-73) Soxotoxins have been shown to cause gonadal tumors and neoplasia kinds of cancer-like tumors in shellfish species. (T. Burkholder 2973) Carinea brevis (a breva toxin) can accumulate in certain cells inside marine mammals such as manatees. In an outbreak in western Florida a few years ago this toxin killed approximately 10% of Florida's endangered manatee population. (T. Burkholder 2973)

117. Thomas Atkeson is the Respondent's internal coordinator for mercury. (T. Atkeson 1926-27) Mr. Atkeson reviewed mercury studies in the Everglades in the 1980s and

early 1990s (T. Atkeson 1930, 1935) Those studies suggested a ten-year trend that was needed to determine the causality of mercury contamination. (T. Atkeson 1930-31) The data was collected and maintained by the Department of Health, and Mr. Atkeson considers the data to be objective and credible. (T. Atkeson 1935-36) This data would nevertheless be excluded under proposed rule 62-303.470(1)(c).

118. There are approximately 7800 named lakes in Florida and about 6200 of them are greater than 10 hectares in size. (T. Atkeson 1937) Due to resource limitations not all of them could be sampled for mercury. Some were sampled in the late 1980s and 1990s. (T. Atkeson 1937) The data that was collected then was objective and credible (T. Atkeson 1938), and the methods used haven't really changed since the 1960s. (T. Atkeson (1938) It would take a substantial amount of time and money to ensure that the 7.5 year limitation on data was met. (T. Atkeson 1938-39) Clearly, therefore the failure to consider objective and credible data in this situation, because of the age limit, works against not only the public interest but also the Departments' interest in that it would require the Department to expend more of its budget to reinvestigate these water segments, contrary to the Department's assertion that it is concerned with its ability to develop a meaningful list of impaired waters because of its budget.

119. DEP rejected its TACs recommendation not to use fish consumption advisories (as opposed to using them) under 303.370(2) (T. Joyner 1791-92)

L. 62-303.380 – Drinking Water Use Support and Protection of Human Health

120. Barry Sulkin testified (T. Sulkin 99) that the use of an annual average for human health criteria is inconsistent with the State's standards, which require the evaluation of concentration at annual mean flows, not an annual average concentration.

121. *With respect to proposed rule section 62-303.380(1)(b) Dr. Rose testified that:*

> Q And specifically you are referring to, in Subsection Paragraph B, Subparagraph 1 where it talks about 25 percent, at least 25 percent to treat contaminants that exceed Class I criteria?
> A Yes.
> Q Could you explain, Class I criteria is a -- what is that?
> A Well, it is a -- I guess that language bothered me because the criteria for microbiology or microorganisms right now would be fecal coliform. And it does add on, Or to treat blue-green algae; however, the blue-green algae are only one of eight microorganisms that have been put on the contaminant candidate list for potential regulation in the future. And the water utilities aren't going to have to increase costs to treat coliforms, they are going to have to increase costs to treat these other contaminants, and these are contaminants like Cryptosporidium, like the viruses. So, while the language singles out the blue-green algae as one of the new contaminants on the contaminant candidate list, it doesn't recognize the others, it fails to recognize the other microorganisms.
> Q And these other organisms, are they or are they not important in terms of microbiological safety of the drinking water supply?
> A Yes, they are microorganisms that have already been put on a list by the EPA to be evaluated for standards, future regulations, to be evaluated for future regulations.

(T. Rose 299-300)

122. Some of the pathogens would not be considered by the Department because they are not listed as Class I criteria or blue-green algae or other nuisance algae in the source water. (T. Joyner 2114) And to the extent that these pathogens affect the safety of potable water supplies and needed treatment it would cause the treatment costs of a public water system to rise. (T. Joyner 2114) But those factors would not be accounted for under this proposed rule. (T. Joyner 2114-15)

123. One cannot look at the water quality criteria table and tell from the four walls of that table what the human health-based water quality criteria are. (T. Joyner 2116) It would be hard if not impossible for a lay citizen to determine which are aquatic life-based and which were

human health-based. One would have to look at the non-rule table in conjunction with EPA guidance documents. (T. Joyner 2116)

124. According to the Department, the methodology used in 62-303.380(2)(b) differs from that found in 62-302, F.A.C. Mr. Joyner testified that "some [Department] human health-based criteria are expressed as annual averages and we didn't think that we should use that same methodology. And, instead, we're going to use the annual average concentration of any year. If that annual average concentration exceeds the criterion for any year, then we would list that water body." (T. Joyner 1670) Therefore, under this proposed rule provision, if a person submitted water samples taken in compliance with the water quality criteria rule, rule 62-302, F.A.C., the samples may not be accepted unless they conformed to this new methodology. (T. Joyner 1915-16)

V. The Verified List

A. 62-303.400 – Methodology to Develop the Verified List

125. Water bodies that are not placed on the planning list, for whatever reason, will not be placed on the verified list under the proposed rule unless there is a sufficient number of samples, i.e. 20, to justify doing so. In those cases, while 62-303.400(2) indicates it will be the Department's "goal" to acquire additional samples, the Department considers it to be a low priority to do so. (T. Joyner 1860) Part III of the proposed rule does not clearly state that citizens can provide the necessary samples to include such waters on the verified list. (T. Joyner 1860) Earlier versions of the proposed rule clearly stated the procedure to be used for allowing such waters to be analyzed for the verified list; however, that procedure was removed from the final version. (T. Joyner 1862-63) Waters that are not on the planning list will nevertheless have to

meet the requirements for both the planning list and the verified list in order to be placed on the verified list. (T. Joyner 1864)

126. Dr. Rose testified that in her opinion it would be inappropriate to exclude data from consideration for impairment based on the proposition that enforcement could correct the problem, inasmuch as spills from wastewater treatment plants could impact public bathing areas. (T. Rose 313)

127. Dr. Isphording also disagreed with the limitation on the age of data for the verified list. As he testified (T. Isphording 353):

> 62-303.400, and that is the methodology to develop the verified list. And under Section 2, the last line in that section there, The Department shall not use data that are more than seven and a half years old at the time the water segment is proposed for listing. Why? There's nothing wrong with data that was compiled seven and a half years ago. How about 7.44 years ago, is that data better than data that was compiled 4.51 years ago? You have to look at the methodology that was employed and you also have to look at the type of instrumentation, the QA/QC. You don't simply unilaterally say, Well, anything over seven and a half years ago is no good, that's just totally without merit and I would take strong exception to that.

Mr. McFadden concurred. (T. McFadden 540) And Department witness, Frydenborg, agreed that even historical data that is 15 or 20 years old would have important historical value. (T. Frydenborg 2695)

B. 62-303.410 – Determination of Aquatic Life Use Support

128. This section is the counterpart to 62-303.310 and reiterates the Department's concept of independent applicability with respect to sections 62-303.420 through 62-303.450. (T. Frydenborg 1476-77)

129. The term metrics as used in this proposed rule provision is not defined in the proposed rule itself. The term metrics equates to an assessment methodology. (T. Frydenborg 1477)

C. 62-303.420 – Exceedances of Aquatic Life-Based Water Quality Criteria

1. Physical Alterations/Determining Exceedances

130. Mr. McFadden maintained, and the undersigned agrees, that under proposed rule section 62-303.420(1)(a) physical alterations that cannot be abated is a very vague concept that should be better defined. (T. McFadden 540) This is especially true of streams that have many physical alterations. (T. 541) Under this proposed rule provision the Department has no discretion to include waters impaired as a result of physical alterations on the list -- although, ironically, it can use best professional judgment in defining physical alterations. (T. McFadden 561)

131. Proposed rule section 62-303.420(1)(b) provides that if exceedances are due to natural conditions or physical alterations the data will not be considered. This applies even if the physical alteration could be abated (T. Frydenborg 2545) and also applies even if the condition is not due solely to natural conditions or physical alterations. (T. Frydenborg 2547) But the language is particularly vague, as is evidenced by the difficulty that the Department's biologist had in attempting to state the criteria that must be met under the provision. (T. Frydenborg 2548-51)

2. Minimum Number of Samples & Exceedances

132. According to DEP in using Table 2 [62-303.420(2)] a water segment could have a 25% exceedance frequency, but if the sample size were less than 20 the water segment still would not be listed on the verified list. (T. Joyner 1731)

133. With respect to fecal coliform, the water quality criteria use a monthly standard that requires no more than 200 fecal coliform colonies per 100 milliliter. (T. Joyner 1908) And in order to conduct a monthly analysis there must be a minimum of 10 samples. (T. Joyner 1908-09) Proposed rule section 62-303.420 requires a minimum of 20 exceedances in order to place a water on the verified list. Therefore, in order to acquire 20 exceedances of monthly fecal coliform results one would have to have taken a minimum of 200 samples. (T. Joyner 1910) But according to Mr. Joyner, "[the Department] never sees that much data." (T. Joyner 1910)

134. DEP rejected its TAC's recommendation that a minimum of 10 samples should be required for the verified list in 62-303.420(2). (T. Joyner 1791) Proposed rule section 62-303.420(2) requires a minimum sample size of 20 in order to confirm impairment for placement of a water segment on the verified list. For those water segments that were placed on the planning list with less than 20 samples the Department intends to collect the additional samples necessary for analyzing the water segment for verification. (T. Joyner 1527-28) But according to the Department it is a goal for the Department to collect the additional samples -- not a requirement. (T. Joyner (1528) The proposed rule, however, says that the samples "will be collected."

3. Best Professional Judgment

135. Proposed rule section 62-303.420(2), Table 2, takes away best professional judgment of the Department's scientists. Water sample results can vary depending upon the time

of day and time of year in which the sample is taken. It requires the use of best professional judgment to properly evaluate the data. (T. McFadden 541)

4. Metals Validation and Clean Techniques

136. The process of metals validation under proposed rule section 62-303.420(4) requires the use of best professional judgment. (T. Fitzpatrick 2727) Proposed rule section 62-303.440(4) requires the use of clean techniques if appropriate. Tim Fitzpatrick denies that appropriateness is determined based on the criteria set forth in Method 1669, as defined in proposed rule section 62-303.200(2) (T. Fitzpatrick 2763-65); however, he does not know how the Department would determine when clean techniques would be appropriate. (T. Fitzpatrick 2766) And as previously mentioned, the required use of clean techniques poses a significant problem, both for consideration of existing data, as well as for the testing of future samples. With respect to this proposed rule provision, the requirement under subsection (4) for use of clean techniques would add mercury, antimony, arsenic, cadmium on the list of metals that must be analyzed by EPA Series 16, or method 1669. (T. Isphording 354) This rule provision also indicates that clean techniques must be used if appropriate. The proposed rule does not define those situations in which clean techniques would be appropriate. Undefined scientific principles will determine the necessity of using clean techniques. (T. Joyner 2101-02)

5. Seasonality/Time of Day

137. It is important to take into account discharge conditions when considering sample data. (T. Wieckowicz 865) Seasonality and time of day are also important. (T. Wieckowicz 866) These factors are not directly considered under proposed rule 62-303.420, although seasonality is considered under 62-303.320(4).

6. Proposed rule 62-303.420(5)

138. Under proposed rule section 62-303.420(5), the exclusion of data arising from permit violations would result in the exclusion of significant amounts of data representing improper and illegal discharges to water segments under the rationalization that enforcement will rectify the problem. (T. Young 981-82) There have been cases in which permit violations have been allowed to continue for years with no discernible improvement in water quality. (T. Young 982-4) In some situations the permits themselves allow for bypasses upon advance notice to the Respondent, and any data collected in relation to such bypasses would not be considered under this proposed rule. (T. Young 984-85) One facility discharges to a river for which it currently operates on an administratively continued permit that includes a 26-mile mixing zone, i.e. the entire length of the river -- none the data accumulated within that mixing zone would be considered. (T. Young 988-89)

139. In the Respondent's Northwest District the subject of lack of enforcement was the subject of a grand jury investigation. The grand jury found, in pertinent part, that:

> We find that the Northwest District of the Department of Environmental Protection failed to properly implement and enforce the environmental laws, rules and regulations. The district office succumbed to political, economic and other pressures, allowing regulated businesses, industries and individuals to pollute the area's air and water. The District Director and others acting on his behalf ignored and concealed environmental violations against the sound advice of staff employees. Consequently, the Director thwarted the well-intended efforts of many staff employees to perform their lawful duties. In several instances, he and/or others acting on his behalf disciplined or threatened to discipline DEP employees who tried to implement and enforce environmental laws.

(T. Young 3028)(Exhibit 474, Page 3) The report also acknowledged that the Respondent's previous attempt to delist water segments from the State's 303(d) list submitted to EPA was, in fact, detrimental to the State. (T. Young 3032-33)(Petitioners' Exhibit 474, Page 9)

140. According to EPA's list of significant noncompliance, i.e. a list of those facilities which are failing to comply with their permit conditions, Florida ranks high in the nation among states for having permittees significantly out of compliance. (T. Young 988-99) Between 1998 and 1999 Florida was 6th in the nation for having major industrial facilities in significant noncompliance. (T. Young 999) Almost 1/3 of Florida's major industrial facilities are in significant noncompliance. (T. Young 1001)(Petitioners' Exhibit 379) This proposed rule would exclude that data when determining impairment.

141. Mr. Sulkin disagreed with the standards applied in proposed rule 62-303.420(5).

> *This is in Part 3, Section 62-303.420, Paragraph 5. My concern* with that is that if exceedances exist and the measurement shows impairment, then it's impaired, as I described earlier. A positive test is a positive. Violations of permit limits can in fact be the cause and a need for identification of a water for TMDL purposes. Those violations may go on for many years, there may be multiple discharges with multiple violations. The point being that, if other dischargers come into the area and want a permit also, for whatsoever reason, there's not an allocation that can be given to them because it's already being used up, whether it's rightfully being used up or not. The Agency still needs to know there's no available load to allocate.

(T. Sulkin 100) He also disagreed with the failure in proposed rule 62-303.420(5) to include data from upsets or bypasses, i.e. untreated discharges to water segments. (T. Sulkin 103-105) He testified that ". . . if it's impaired by that cause, it's still impaired and has limitations that need to be evaluated. And it's often not just a passing, one-time phenomena, it is more symbolic of ongoing problems that need to be dealt with." (T. Sulkin 105) The Department's permits sometimes allow bypasses of the treatment works, provided that the permittee notifies the Department in advance. (T. Young 984-85) In such cases there would be no permit violation and therefore no enforcement. (T. Joyner 2097-99) But the end result would still be a discharge of untreated contaminates into the water segment. Mr. McFadden also testified on this issue:

> Again, it is in the same section, the page following the table, number five in parentheses, 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 where mixing zones are in effect, water quality data collected following contaminant spills, discharges due to upsets or bypasses from permitted facilities. Rainfall in excess of a 25-year, 24-hour storm shall be excluded from the assessment. *That is a huge exclusion from what will actually go on this list.* And the -- if you will look at each of those, Violations of specific effluent limitations contained in state permits, that is talking about the NBDES (sic) permitting program. And, you know, there are a lot of impacts associated with industry discharge that the 303D list should reflect. The public has a right to know and to have an accurate list. This is going to really limit what's on that list. Discharges due to upsets or bypasses from permitted facilities, contaminant spills. All of these things cause impairment, all of them cause impairment. Why would we not want to include those in our 303D so that the public could see them? We want it to be an accurate list. From a practical standpoint we want them on the list because that's how we are going to prioritize the ones that we are going to fix first.

(T. McFadden 542)

142. Dr. Burkholder agreed that these events need to be included. (T. Burkholder 2983) Bypasses are events in which raw sewage or poorly treated sewage is being discharged directly into the water segment. (T. Burkholder 2987) Sewage bypasses cause major impacts to aquatic life in areas including coral reefs, seagrass beds and tidal wetlands. (T. Burkholder 2987) They can cause fish kills and deplete oxygen and cause hypoxia. (T. Burkholder 4987) Some of the nutrient pollution does not just wash away. Instead, it tends to settle out and remain in a river or estuary in the bottom mud where it can be roiled back up into the water column with wave action or wind activity. (T. Burkholder 2988) This, in turn, can cause nutrient over enrichment which causes algal growth. (T. Burkholder 2988) The type of algae which grow are sometimes too small for shellfish to consume, thus causing an oxygen depletion and more shellfish kills. (T.

Burkholder 2988) In addition, the smaller algae can destroy the larger, more beneficial algae that the shellfish eat. (T. Burkholder 2988-89) Repeated sewage bypasses cause chronic effects that are indirect, but nevertheless cause major impairment because they constitute a major source of nutrient pollution. (T. Burkholder 2989)

143. Regarding the exclusion of 25-year storm events, Dr. Rose testified that ". . . when you start getting up into the, you know, 80th and 90th percentile of the higher rainfall event, say around a rain gauge or around a watershed, you start seeing a statistical relationship with waterborne disease. So, I think that those types of rainfall data should be taken into account in looking at impacts on water supplies." (T. Rose 303) This is particularly true when considering the rate of climate variability that we are experiencing (T. Rose 303), because of the high-risk situations that are created regarding impacts to water supplies. (T. Rose 303-304) Dr. Reckhow testified that storm events should be taken into consideration when there is sufficient information to evaluate their impacts. (T. Reckhow 1245) He does not endorse the exclusion of such data. (T. Reckhow 1248) The Department "tries" to take precautions against the effects of 25-year storm events by requiring holding ponds, but not all pemittees comply with the Department's requirements regarding reinforcement of the holding ponds. (T. Joyner 2095-96) Much of the nutrient loading to estuaries results from moderate and major storm events. (T. Burkholder 2989) The contaminates discharged as a result of these storms cause acute and long-term impairment of aquatic communities. (T. Burkholder 2989-90) This can lead to epidemic fish disease, hpoxia, anoxia and oxygen depletion. (T. Burkholder 2990)

144. Under the Respondent's current plans no water segments in the Pensacola area with data sufficiency problems will have them corrected before 2002. (T. Joyner 1732) The testing for Group 5 would be even later. (T. Joyner 1733)

145. It is sometimes difficult to determine the source of a pollutant in a mixing zone. (T. Joyner 1904) Therefore, it could be difficult to discern, under proposed rule section 62-303.420(5), that the existence of a pollutant was the result of a permit violation. (T. Joyner 1904)

146. The Department takes the position that it would be illogical to include data from permit violations in considering water segments for inclusion on the verified list, because the more expeditious way of handling the problem would be through enforcement. (T. Joyner 1535-36) This does not justify ignoring the purpose of the TMDL program, which is to limit the number and amount of pollutants that are discharged into an impaired water segment. Under the Department's approach, while enforcement could be taken, there would be no mechanism to limit the addition of other discharge sources to the water segment via issuance of permits to other facilities. The Department's position also fails to account for the fact that illegal discharges of contaminates, while perhaps infrequent on any given water segment, do not necessarily leave the water segment quickly. Moreover, while one should not assume ineffective enforcement, one should not be forced to assume effective enforcement, and thus the blanket exclusion of enforcement-related exceedances is not scientifically justified. Furthermore, it would be inappropriate to exclude such from consideration for impairment inasmuch as spills from wastewater treatment plants could impact public bathing areas. (T. Rose 313)

147. The Department takes the same position with respect to major storm events. (T. Joyner 1545) Here again, the position does not consider that these storm events can cause significant damage to water segments, (T. Burkholder 2983-86) and therefore the limiting of additional sources of contaminates may be required. Some contaminates can reside in the sediments for long periods of time and cause long-term problems. (T. Burkholder 2992, 2995)

D. 62-303.430 – Biological Impairment

148. Mr. Frydenborg recommended to the TAC that a second bioassessment be obtained in order to confirm that the impairment exists and is representative of the water segment's status. (T. Frydenborg 2414-15) But in Mr. McFadden's opinion there is no need to require 2 failed bioassesments in order to find an impairment. He would require only one as justifiable evidence of impairment. (T. McFadden 546, 548) Mr. Frydenborg's position is unpersuasive.

149. More flexibility should be allowed in the use of other types of methodologies where appropriate, e.g. non-wadable streams. (T. McFadden 549) The requirement that pollutants of concern be identified is likewise misplaced, because if there is a failed bioassessment the integrity of the stream is in question and the identity and concentration of the pollutant are fleeting. (T. McFadden 550)

150. DEP was unable to identify any SOPs currently adopted by rule applicable to bioassessments. (T. Joyner 2109) Mr. Frydenborg confirmed that the SOPs were not adopted at the time the proposed rule was promulgated. (T. Frydenborg 2409-10, 2586, 2678) And the SOPs are needed in order to conduct a biorecon under this proposed rule. (T. Frydenborg 2586) But he also did not know whether the Department's biorecon procedures that are incorporated into the proposed rule are current. (T. Frydenborg 2582-83)

151. Estuaries make up a substantial portion of the State's waters. (T. Joyner 2180) The Department does not have a good methodology for conducting bioassessments in estuaries. (T. Joyner 2181) The Department relies upon the biological integrity standard for estuaries. (T. Joyner 2182)

E. 62-303.440 – Toxicity

152. The "free-from" rules in rule 62-302.500, F.A.C., constitute minimum criteria relating to toxicity. (T. Joyner 2204)

153. Contaminant spills cause significant injury to aquatic life. (T. Burkholder 2992) For example, Dr. Burkholder testified that

> PCBs and other toxic contaminants accumulate in sediments and those sediments tend to be used as habitats by young stages of many finfish and shellfish species, and once they accumulate in sediments from a spill there or a violation spill here over time, then aquatic life, various organisms, will absorb those pollutants and accumulate them and even pass them on to the next generation.
>
> * * *
>
> [Sediments] accumulate in the memory bank of a river or estuary, that is the sediments or the bottom mud, and in a shallow system such as a river or estuary or shallow coastal area they can be continuously redistributed in the water column by wind or wave action where they can cause very long-term problems.

(T. Burkholder 2992, 2995)

154. Mr. Frydenborg testified that the proposed rule requirement that a chronic toxicity failure must be followed by a bioassessment was included to account for conditions in which the failure was due to natural background conditions. (T. Frydenborg 2423-25)

155. According to Mr. Frydenborg, under proposed rule section 62-303.340(2) water segments with two bioassessments within a 12-month period showing acute toxicity go on the planning list. (T. Frydenborg 2643) The samples must have been taken sometime during the ten years prior to the assessment. (T. Frydenborg 2644) And under proposed rule section 62-303.440, if there were 2 failures of chronic toxicity nine years previous there would have to be a failed bioassessment conducted within 6 months of the last failed bioassessment. (T. Frydenborg

2644) This would place the water segment on the verified list. (T. Frydenborg 2645) However, under proposed rule section 62-303.430(2) there would have to be yet another bioassessment conducted within five years prior to the assessment in order to make it onto the verified list. (T. Frydenborg 2645) The witness could not explain how this would be considered rational when asked. (T. Frydenborg 2645)

F. 62-303.450 – Interpretation of Narrative Nutrient Criteria

156. In Barry Sulkin's opinion this proposed rule provision is vague because it could mean that one has to have five years of data or that the data must come from within the last five years. Either way, he disagrees with the requirement for the same reasons he detailed regarding proposed rule section 62-303.350. (T. Sulkin 105)

157. The proposed rule should provide that verification of an imbalance be conducted during the same season that the original imbalance was found. (T. Fitzpatrick 2660)

158. Mr. Frydenborg does not know whether exposure to a toxic chemical which could lead to endocrine disruption would be manifested within six months of the date that the chronic toxicity was detected. (T. Fitzpatrick 2662)

G. 62-303.460 – Primary Contact and Recreation Use Support

159. Dr. Rose's concerns regarding proposed rule section 62-303.360, Primary Contact and Recreation Use Support, are the same concerns that she has with respect to proposed rule section 62-303.460. Dr. McFadden also agreed that proposed rule section 62-303.460(1) is overbroad in allowing exclusions:

> Well, I mean, hurricanes and the rain that comes with them create a lot of flooding problems and all kinds of bacteriological contamination associated with the sewer systems being overloaded, the contaminants coming off of farm fields, the bacteriological contaminants coming off that would impact recreational use support, sewer line breaks, all of those things can cause stream impairment; and therefore, in my opinion, those streams should go on the list. This just provides a big exclusion.

(T. Rose 551)

160. Proposed rule section 62-303.460(1) excludes "closures, advisories, or warnings based on red tides, . . . " as does its counterpart, proposed rule section 62-303.360(3). The exclusion of red tides would result in a failure to consider data pertaining to toxic algae such as pfiesteria. (T. Burkholder 2967) These types of algae have been linked to nutrient pollution and have been found in Florida's waters. (T. Burkholder 2967) Pfiesteria thrives on nutrient pollution. In studies conducted by Dr. Burkholder pfiesteria strains were found in 70% of the sites that were studied around the State. (T. Burkholder 2968) Ironically, red tide can be considered to be the result of algal species richness. (T. Burkholder 3006) Meanwhile, plainly red tide can cause an imbalance in fauna. (T. Burkholder 3008) This imbalance results in fish and shellfish deaths, which in turn results in an increased growth in the harmful algae, because their grazers are gone. (T. Burkholder 3008)

161. Proposed rule section 62-303.460(2) addresses those situations in which a water segment is listed on the planning list as a result of exceedances of water quality criteria for bacteriological quality. It further states that the Department, "shall, to the extent practical, evaluate the source of bacteriological contaminations and shall verify that the impairment is due to chronic discharges of human-induced bacteriological pollutants before listing the water segment on the verified list." This requirement could be read as requiring the Department to verify the source of the impairment, but that it only obligated to evaluate the data, to the extent

practical. (T. Joyner 1891) The requirement could also be read to mean that the Department is obligated to verify the source of the impairment and evaluate the data, to the extent practical. (T. Joyner 1891) How it is interpreted could have an affect on the number of waters listed. (T. Joyner 1891) Mr. Joyner does not feel the language is vague, but does feel that it the provision could be interpreted different from the Department's interpretation. (T. Joyner 1892)

H. 62-303.470 – Fish and Shellfish Consumption Use Support

162. Historically, the Florida Department of Agriculture and Consumer Services has reclassified shellfish harvesting areas and moved them from classification to unclassified, thus restricting harvesting, because of a lack of funding. (T. Heil 831) Generally, the number of approved areas has dropped, while the number of restricted and/or prohibited areas has risen significantly. (T. Heil 828-31)

163. Mr. Heil made nine recommendations to the Respondent's TAC Committee. (T. Heil 838-39) The rule is not consistent with his recommendations. (T. Heil 839) He maintains that proposed rule section 62-303.470 needs to include restrictions on shellfish harvesting. (T. Heil 843)

164. Under the manner in which this proposed rule provision is written a decision by the Department of Agriculture and Consumer Services to reclassify a one meter section of Apalachicola Bay would serve to place the Bay on the verified list. However, if the Bay were regularly and periodically closed in such a manner as put oystermen out of work the Bay would not be considered impaired. (T. Joyner 1740)

I. 62-303.480 – Drinking Water Use Support and Protection of Human Health

165. This section is the counterpart to 62-303.380.

166. The process of transferring a water segment from the planning list to the verified list under this proposed rule provision is not clear, as is evidenced by the testimony of Mr. Joyner at the hearing:

> Q. And can you tell us what that section provides in terms of moving a water body or water body segment from the planning list to the verified list?
>
> A. So first off we're focusing in -- this is for -- if it was listed on the planning list due to exceedances of a human health-based water quality criteria we're going to look at just the last five years of data to meet the data sufficiency requirements of Section 303.324. So that's the -- goes all the way back to the planning list. 320 is the water quality criteria exceedances. And four relates to the various ten samples, ten temporally different independent samples. If there aren't those data, we're going to collect additional data needed to meet the12 requirements. Once we have that additional data we'll reevaluate the data using 62-303.382, what we just talked about. Limit it to the last five years preceding the planning list assessment and additional data. We're going to reassess under 382. And basically, I mean, this is very complicated.

(T. Joyner 1672-73)

VI. 62-303.500 -- Prioritization

167. Dr. Isphording strenuously disagreed with 62-303.500(3)(a), which provides for a low priority designation for 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. According to Dr. Isphording, "[e]ver since Minimona (phonetic) Bay back in the

late 1950s in Japan we have studied mercury and studied mercury in detail. It is the most studied metal in the Periodic Table." (T. Isphording 355)

VII. 62-303.600 -- Evaluation of Pollution Control Mechanisms

A. The Department's History Regarding Pollution Control Mechanisms

168. DEP biologist Donald Ray testified that he has seen a number of "magic bullets" that were supposed to result in cleaning up waters in the Northwest District but over time they have failed to work. (T. Ray 666-71) There was also other testimony that plans and proposals designed to correct improper discharges do not always have their intended effect, i.e. restoring the health of water segments.(T. Donelon 694) Department employees testified to such situations, where Respondent's enforcement actions haven't corrected previously discussed problems (T. Donelon 694)

169. There have been past instances in which ongoing studies have delayed resolution of the problems encountered by a water segment. (T. Young 982) Under proposed rule section 62-303.600 DEP could nevertheless exclude the affected water segments because of the ongoing plans.

B. Future Attainment

170. There appeared to be general agreement that proposed rule section 62-303.600 does not define "future" so that future attainment could be defined indefinitely. See, Sulkin (T. Sulkin 106), Isphording (T. Isphording 356, 368-69), McFadden (T. McFadden 552-553), Reckhow (T. Reckhow 1224). The predictions allowed for under the proposed rule provide for consideration that an impaired water will be returned to attainment based on best-case projections, but in order to be balanced the analysis needs to include worst-case scenarios as

well. (T. Sulkin 106-108) § 403.067(4), Fla.Stat., does not specifically authorize the Department to exclude a water segment from the verified list if the Department has reasonable assurance that through proposed technology it may attain water quality standards in the future. (T. Brooks 1993)

C. Best Management Practices

171. According to Florida Department of Agriculture and Consumer Services employee, Richard Budell, best management practices ("BMPs") are not designed to meet water quality standards. They are designed to improve water quality. (T. Budell 730) Under § 373.4595, Fla.Stat., BMPs cannot be so great that they no longer allow the owner to be competitive in their agricultural operation, or puts him or her out of business. (T. Budell 731) BMPs are voluntary and not enforceable. (T. Budell 731) BMPs must be adopted by rule. (T. Budell 737) In addition, studies have shown that voluntary BMPs in North Carolina have not reduced nutrient loading in downstream waters. (T. Burkholder 2996-98) They also weren't found to effectively control nutrients in Maryland's waterways. (T. Burkholder 3000-01)

172. The proposed rule does not provide for those situations in which it is determined that reasonable progress towards reaching attainment of water quality standards has not been made. (T. Joyner 2874) At one point the Department had offered language as an amendment which would have clarified this point (T. Joyner 2874), but it was not included in the final version.

D. Reasonable Progress

173. The proposed rule fails to provide any definition of reasonable progress so that a member of the public would know what actions the Department would be expected to take. This is a concern, because, the proposed rule, as written, would allow water segments to be left off of

the list simply because promises were made to improve a facility's discharge. As Dr. Reckhow stated:

> No, that's what I'm saying. That's what I believe the rule has done with regards to the verified -- to the preliminary list, the verified list and the delisting. And in this particular case, I'm agreeing with you, that's nebulous language. And it's something, as in the scenario you just described as a citizen, if I was in that situation, I'd be saying, This isn't good enough. I want to know quantitatively exactly what you mean by, "were making progress" and I want to be able to know that so that I can go out and measure it myself and determine whether progress is being made.

(T. Reckhow 1227)

E. Alternatives to Proposed Rule 62-303.600

174. Indeed, as suggested by Dr. Reckhow, above, the record reflects that prior to the April 26, 2001, ERC meeting the Respondent proposed an Amendment 7, which would have had the effect of defining the reasonable assurances that would be required to justify allowing a water segment not to be placed on the verified list because of pollution prevention programs. (T. Joyner 1916) More specifically, Amendment 7 requires a description of the impaired water and the water quality standards not being attained. (T. Young 994) It also requires that the exact management actions be described as well as the goals to be achieved. (T. Young 995) Also required would be the inclusion of written agreements documenting the plans and the enforcement measures that would be taken in the event of noncompliance. (T. Young 995) Amendment 7 was withdrawn by the Department at the ERC. (T. Young 993)

175. It would be a poor approach to remove a water body from the impaired list without first setting goals in advance for its improvement. (T. Reckhow 2033) This proposed rule has no such requirement.

176. Water segments should be included on the list in those situations in which a discharger is meeting technology based effluent limits, but the water segment is nevertheless still not meeting water quality standards. (T. Reckhow 1221-22) This proposed rule, however, allows such water segments to be excluded.

VIII. Miscellaneous Provisions -- 62-303.720 – Delisting Procedure

177. The Petitioners dispute the one year time period provided under proposed rule section 62-303.720(3)(c) in which to allow a water segment to be delisted. Specifically, Dr. Isphording testified that in his opinion one year without a failed toxicity test is too short a period of time to be able to determine whether the water segment has actually changed. (T. Isphording 357, 372)

178. Dr. Isphording also testified that the term "analytical procedures" in 62-303.720(3)(J) was flawed:

> For any listed water, the water shall be delisted following a change in approved analytical procedures, criteria or water quality standards, evaluation of available data indicates that the water no longer meets the applicable criteria for listing. This is in my opinion as a geochemist the most loaded statement in this entire chapter here because the words "analytical procedures" mean that if a new analytical procedure is developed that is capable, for example, of detecting a meta at the part per quadrillion level and the Agency chooses to adopt that procedure, then all other -- all other analysis performed not using that procedure is going to be thrown out. I don't object to the criteria water quality standards, et cetera, I object to those words, "analytical procedures," being in there because the analytical procedure and putting those words, "analytical procedure," in there you have opened a Pandora's box for abuse. And you could make it almost impossible for any water body in the State of Florida to attain the list, simply by saying, Well it wasn't done with a procedure that is capable of analyzing a part per quadrillion, in spite of the fact that the level in which harm occurs is three orders of magnitude or two orders of magnitude above that.
> Q So, if you have data at a higher level that's done in accordance with maybe an older technique, it's not necessarily invalid data?
> A Absolutely not. The levels that are detected are still just as good. And if those levels, then, allow you to determine whether or not that analysis shows you that the water body is impaired or not impaired, then make use of it. Just because somebody has dropped a super new machine that will measure down to the first inch on a rope stretched from here to the moon, which is a part per quadrillion, that doesn't mean that the other analysis is invalid. And it certainly shouldn't be used for delisting a water body that was put on the list because they were demonstrable violations.

(T. Isphording 358-59)

CONCLUSIONS OF LAW

A. Jurisdiction

179. The Division of Administrative Hearings has jurisdiction over the subject matter and the parties hereto pursuant to § 120.56(2), Fla.Stat..

B. Standing

180. By stipulation, standing is not in issue.

C. Burden of Proof

181. Petitioners assert that the proposed rule should be declared invalid because DEP has not carried its burden to prove by a preponderance of evidence under § 120.56(1)(c), Fla.Stat., that the proposed rule does not constitute an invalid exercise of delegated legislative authority under § 120.52(8), Fla.Stat..

182. The burden of going forward in a proceeding challenging a proposed rule is on the party challenging the proposed rule. See, § 120.56(3)(c), Fla. Stat. However, once the petitioner has met its burden of going forward, the burden of proof then changes to the agency to establish that the proposed rule does not constitute an invalid exercise of delegated legislated authority. See, § 120.56(3)(c), Fla. Stat.; *St. Johns River Water Management District v. Consolidated-Tomoka Land Co.*, 717 So.2d 72, 76 (Fla. 1st DCA 1998) ("the burden of persuasion is now reversed in a proceeding under section 120.56(2) to challenge a proposed rule").

183. Moreover, in assessing the legitimacy of the agency's proposed rule it is incumbent upon the trier of fact to liberally construe the provisions of state statutes that are enacted in the public interest. *Department of Environmental Regulation v. Goldring*, 477 So.2d 532, 534 (Fla. 1985) ("The provisions of statutes enacted in the public interest should be given a liberal construction in favor of the public," citing *State v. Hamilton*, 388 So.2d 561 (Fla. 1980)).

D. Failure to Follow Applicable Rulemaking Procedures

184. DEP failed to follow the applicable rulemaking procedures or requirements set forth in Chapter 120, Section 120.52(8)(a). Section 120. Pursuant to Section 120.56(1)(c), " . . . The failure of an agency to follow the applicable rulemaking procedures or requirements set forth in this chapter shall be presumed to be material; however, the agency may rebut this presumption by showing that the substantial interests of the petitioner and the fairness of the proceedings have not been impaired."

185. § 120.54(3), Fla.Stat., sets forth the adoption procedures that DEP was required to follow with respect to the proposed rule. Specifically, § 120.54(3)(c)1., Fla. Stat., required DEP to provide the Petitioners with an opportunity to present evidence and argument at a public

hearing regarding their timely filed petitions. However, the Petitioners asserted in paragraph 8 of their original petitions that the public hearing would not provide an adequate opportunity to protect their interests. The record reflects that the Petitioners moved the ERC to stay the public hearing until the adjudicative process was completed in the Division pursuant to Sections 120.569 and 120.57, Fla.Stat. This motion was amply supported by § 120.54(3)(c)2., Fla.Stat., which states, in pertinent part, that "[i]f the agency determines that the rulemaking proceeding is not adequate to protect the person's interests, it shall suspend the rulemaking proceeding and convene a separate proceeding under the provisions of ss. 120.569 and 120.57." The agency opposed the Petitioners' motion and on April 26, 2001, proceeded to hold the public hearing before the ERC over Petitioners' repeated objections. After the public hearing (which took less than one day) the ERC then adopted the proposed rule, with limited amendments. The result of this action on the part of the DEP and the ERC is that the proposed rule was adopted by the ERC even though the Petitioners' administrative challenges to the rule had not yet been adjudicated. This action on the part of the ERC and the DEP, plainly violated § 120.54(3)(c)2., Fla.Stat. See also, *Agrico Chemical Co. v. State, Department of Environmental Regulation*, 365 So.2d 759, 763 (Fla. 1st DCA 1979)

E. Legal Conclusions Regarding the Proposed Rule

I. § 403.067, Fla.Stat. (1999)

186. The statutory authority for the promulgation of a rule pertaining to the general subject matter of proposed rule 62-303 is § 403.067, Fla.Stat. (1999). The primary subsections relied upon by the Department in adopting the proposed rule are set forth in pertinent part below:

> (2) LIST OF SURFACE WATERS OR SEGMENTS.--In accordance with s. 303(d) of the Clean Water Act, Pub. L. No. 92-

500, 33 U.S.C. ss. 1251 et seq., the department must submit periodically to the United States Environmental Protection Agency a list of surface waters or segments for which total maximum daily load assessments will be conducted. The assessments shall evaluate the water quality conditions of the listed waters and, if such waters are determined not to meet water quality standards, total maximum daily loads shall be established, subject to the provisions of subsection (4). The department shall establish a priority ranking and schedule for analyzing such waters.

(a) The list, priority ranking, and schedule cannot be used in the administration or implementation of any regulatory program. However, this paragraph does not prohibit any agency from employing the data or other information used to establish the list, priority ranking, or schedule in administering any program.

(b) The list, priority ranking, and schedule prepared under this subsection shall be made available for public comment, but shall not be subject to challenge under Chapter 120.

(c) The provisions of this subsection are applicable to al lists prepared by the department and submitted to the United States Environmental Protection Agency pursuant to s. 303(d) of the Clean Water Act, Pub. L. No. 92-500, 33 U.S.C. ss. 1251 et seq., including those submitted prior to the effective date of this act, except as provided in subsection (4).

* * *

(3) ASSESSMENT.--

(a) Based on the priority ranking and schedule for a particular listed water body or water body segment, the department shall conduct a total maximum daily load assessment of the basin in which the water body or water body segment is located using the methodology developed pursuant to paragraph (b). In conducting this assessment, the department shall coordinate with the local water management district, the Department of Agriculture and Consumer Services, other appropriate state agencies, soil and water conservation districts, environmental groups, regulated interests, and other interested parties.

(b) The department shall adopt by rule a methodology for determining those waters which are impaired. The rule shall provide for consideration as to whether water quality standards

codified in chapter 62-302, Florida Administrative Code, are being exceeded, based on objective and credible data, studies and reports, including surface water improvement and management plans approved by water management districts under s. 373.456 and pollutant load reduction goals developed according to department rule. Such rule also shall set forth:

1. Water quality sample collection and analysis requirements, accounting for ambient background conditions, seasonal and other natural variations;

2. Approved methodologies;

3. Quality assurance and quality control protocols;

4. Data modeling; and

5. Other appropriate water quality assessment measures.

(c) If the department has adopted a rule establishing a numerical criterion for a particular pollutant, a narrative or biological criterion may not be the basis for determining an impairment in connection with that pollutant unless the department identifies specific factors as to why the numerical criterion is not adequate to protect water quality. If water quality nonattainment is based on narrative or biological criteria, the specific factors concerning particular pollutants shall be identified prior to a total maximum daily load being developed for those criteria for that surface water or surface water segment.

(4) APPROVED LIST.-- If the department determines, based on the total maximum daily load assessment methodology described in subsection (3), that water quality standards are not being achieved and that technology-based effluent limitations and other pollution control programs under local, state, or federal authority, including Everglades restoration activities pursuant to s. 373.4592 and the National Estuary Program, which are designed to restore such waters for the pollutant of concern are not sufficient to result in attainment of applicable surface water quality standards, it shall confirm that determination by issuing a subsequent, updated list of those water bodies or segments for which total maximum daily loads will be calculated. In association with this updated list, the department shall establish priority rankings and schedules by which water bodies or segments will be subjected to total maximum daily load calculations. If a surface water or water segment is to be listed under this subsection, the department must

> specify the particular pollutants causing the impairment and the concentration of those pollutants causing the impairment relative to the water quality standard. This updated list shall be approved and amended by order of the department subsequent to completion of an assessment of each water body or water body segment, and submitted to the United States Environmental Protection Agency. Each order shall be subject to challenge under ss. 120.569 and 120.57.

Other statutory sections relied upon by the Department, or otherwise at issue in this case, will be noted as appropriate.

II. Invalid Exercise of Delegated Legislative Authority -- Generally

187. Petitioners contend that various provisions of the proposed rule constitute invalid exercises of delegated legislative authority within the meaning of § 120.52(8), Fla.Stat., as amended by Chapter 99-379, Section 2, Laws of Florida. That term is defined in pertinent part as follows:

> (8) "Invalid exercise of delegated legislative authority" means action which goes beyond the powers, functions, and duties delegated by the Legislature. A proposed or existing rule is an invalid exercise of delegated legislative authority if any one of the following applies:
>
> (a) The agency has materially failed to follow the applicable rulemaking procedures or requirements set forth in this chapter;
>
> (b) The agency has exceeded its grant of rulemaking authority, citation to which is required by s. 120.54(3)(a)1.;
>
> (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.;
>
> (d) The rule is vague, fails to establish adequate standards for agency decisions, or vests unbridled discretion in the agency;
>
> (e) The rule is arbitrary or capricious;

> (f) The rule is not supported by competent substantial evidence; or
>
> (g) The rule imposes regulatory costs on the regulated person, county, or city which could be reduced by the adoption of less costly alternatives that substantially accomplish the statutory objectives.
>
> A grant of rulemaking authority is necessary but not sufficient to allow an agency to adopt a rule; a specific law to be implemented is also required. An agency may adopt only rules that implement or interpret the specific powers and duties granted by the enabling statute. No agency shall have authority to adopt a rule only because it is reasonably related to the purpose of the enabling legislation and is not arbitrary and capricious or is within the agency's class of powers and duties, nor shall an agency have the authority to implement statutory provisions setting forth general legislative intent or policy. Statutory language granting rulemaking authority or generally describing the powers and functions of an agency shall be construed to extend no further than implementing or interpreting the specific powers and duties conferred by the same statute.

The language found in the closing paragraph of § 120.52(8), Fla.Stat. (1999) is restated in § 120.536(1), Fla.Stat. (1999) and is commonly referred to as the "flush left" language.

188. In 1999 major changes were undertaken with respect to agency rulemaking authority. The 1999 revisions to the closing paragraph of § 120.52(8) involved an express legislative rejection of the "class of powers and duties analysis," which was set forth in *St. Johns River Water Management District v. Consolidated-Tomoka Land Co.*, 717 So.2d 72, 76 (Fla. 1st DCA 1998), rev. den., 727 So.2d 904 (Fla. 1999). Section 1 of Chapter 99-379, Laws of Florida, states:

> It is the intent of the Legislature that modifications contained in sections 2 and 3 of this act which apply to rulemaking are to clarify the limited authority of agencies to adopt rules in accordance with chapter 96-159, Laws of Florida, and are intended to reject the class of powers and duties analysis. However, it is not the intent of

> the Legislature to reverse the result of any specific judicial decision.

The court in *St. Johns* had applied this analysis in considering "the extent to which rulemaking authority has been restricted by the 1996 revision of the Administrative Procedure Act." 717 So.2d at 77. The court deemed as "clear from the language of section 120.52(8) that the Legislature intended to overrule" a long line of decisions holding a rule to be a valid exercise of delegated legislative authority "if it is reasonably related to the enabling statute and not arbitrary and capricious." Id. at 76-7. Nonetheless, the court reversed a final order invalidating rules of the St. Johns River Water Management District adopted under § 373.413, Fla.Stat.. The court held:

> The administrative law judge interpreted the phrase "particular powers and duties" to mean that the enabling statute must "detail" the powers and duties that will be the subject of the rule. He concluded that the rules proposed by the District were invalid because the "language [of the enabling statute] is merely a general, non-specific description of the agency's duties." The judge stated that under the present law, "a rule must implement statutes which describe more specific programs." We disagree. . . . [S]ection 120.52(8) restricts rulemaking authority to subjects that are directly within the class of powers and duties identified in the enabling statute. It was not designed to require a minimum level of detail in the statutory language used to describe the powers and duties. . . .
>
> Section 120.52(8) provides that a rule can implement, interpret, or make specific, the powers and duties granted by the enabling statute. . . . [W]e conclude that the proper test to determine whether a rule is a valid exercise of delegated authority is a functional test based on the nature of the power or duty at issue and not the level of detail in the language of the applicable statute. The question is whether the rule falls within the range of powers the Legislature has granted to the agency for the purpose of enforcing or implementing the statutes within its jurisdiction. A rule is a valid exercise of delegated legislative authority if it regulates a matter directly within the class of powers and duties identified in the statute to be implemented.

717 So.2d at 79-80 (emphasis in original). The 1999 revisions to § 120.52(8) expressly removed the authority of agencies to "make specific" the powers and duties granted by the enabling statute that was the basis for the *St. Johns* decision. Accordingly, the Legislature has now emphasized that agencies may only adopt rules that "implement or interpret" powers and duties. Further, the Legislature has emphasized that specificity must emanate from the powers and duties conferred by the statute the agency seeks to implement or interpret, rather than be provided by the agency. Thus, the powers and duties capable of supporting current rulemaking must themselves be "specific":

> Statutory language granting rulemaking authority or generally describing the powers and functions of an agency shall be construed to extend no further than implementing or interpreting the specific powers and duties conferred by the same statute.

(emphasis added.)

189. Subsequent to enactment of the amendments to Chapter 120 the First District Court of Appeal of Florida was again asked to consider the specificity needed in a statute in order to confer rulemaking authority on an administrative agency. In *Southwest Florida Water Management District v. Save the Manatee Club, Inc.*, 773 So.2d 594 (Fla. 1st DCA 2000) the First DCA held that:

> It is clear that the authority to adopt an administrative rule must be based on an explicit power or duty identified in the enabling statute.
>
> ***
>
> The question is whether the statute contains a specific grant of legislative authority for the rule, *not* whether the grant of authority is specific *enough*. Either the enabling statute authorizes the rule at issue or it does not. As the Florida Chamber of Commerce said in its brief, this question is one that must be determined on a case-by-case basis.

773 So.2d at 599 (emphasis in original). Thus, a central question that must be answered by the undersigned is whether § 403.067, Fla.Stat., specifically authorizes the actions undertaken by the

Department in the proposed rule. For the reasons stated below, the undersigned concludes that the Department's actions exceeded the grant of rulemaking authority provided by the Legislature in § 403.067, Fla.Stat.

III. Exceeding Grant of Rulemaking Authority

A. The Statutory Framework Governing The Rulemaking Authority

190. § 403.067, Fla.Stat., authorizes the Department to adopt rules for the identification of impaired waters in the State of Florida. According to § 403.067(2), Fla.Stat., the Department is required to submit, on a periodic basis, a list to the United States Environmental Protection Agency. This list, which is submitted under § 303(d) of the Clean Water Act, serves the purpose of identifying for the EPA those surface waters or segments located in the State of Florida that are impaired and for which TMDL assessments will be conducted. Pursuant to § 403.067(2), Fla.Stat.,

> [t]he assessments shall evaluate the water quality conditions of the listed waters and, if such waters are determined not to meet water quality standards, total maximum daily loads shall be established, subject to the provisions of subsection (4). The department shall establish a priority ranking and schedule for analyzing such waters.

This subsection does not provide for rulemaking or for a prescribed methodology for determining which waters or segments will be listed as needing total maximum daily load "assessments." Rather, the listing, priority ranking, and scheduling conducted at this step are explicitly envisioned as an informal process that listens to the public without subjecting the public to the time and expense of litigating against industry and other regulated interests that may oppose listing. The list, priority ranking, and schedule "prepared under this subsection ... shall be made available for public comment,

but shall not be subject to challenge under chapter 120." § 403.067(2)(b). According to the statute, this list "cannot be used in the administration or implementation of any regulatory program." § 403.067(2)(a), Fla. Stat. However, it does go to the EPA, which then has a mandatory duty under the Clean Water Act (CWA) to approve or disapprove the list. *See* § 303(d)(2) of the CWA, 33 U.S.C. § 1313(d)(2); *see also* 40 CFR § 130.7(d)(2).

191. The Legislature explicitly charged the Department with the responsibility of adopting a rule to guide the Department in conducting the assessment identified in § 403.067(3), Fla.Stat., entitled "Assessment.--" and it is in this statutory subsection that the Legislature gives its authority for initiating rulemaking. § 403.067(3)(a), Fla.Stat., requires the Department to conduct a TMDL assessment based on the priority ranking and schedule identified in § 403.067(2), Fla.Stat. Significantly, § 403.067(3)(a), Fla.Stat., assigns several different responsibilities to the Department with respect to the identification of impaired waters and the determination of the need for TMDLs. It clearly expects the Department to have a priority ranking and schedule for the state's water bodies and the State is expected to be divided into basins. It is based on this basin approach that the Department is expected to assess the water bodies for TMDL development. And in conducting the individual assessments the Department is directed to coordinate its actions with other State, local and private entities.

192. Determining which waters are impaired is the next step taken in the TMDL assessment process. The methodology used by the Department in identifying the impaired waters must be adopted by rule. "The department shall adopt by rule a methodology for determining those waters which are impaired." § 403.067(3)(b), Fla. Stat. The methodology requirements are then listed in § 403.067(3)(b), Fla.Stat. But the statute, in § 403.067(3)(b), Fla.Stat., directs the Department to develop administrative rules only for purposes of identifying those water bodies which are impaired.

There is no cross-reference back to § 403.067(3)(a), Fla.Stat., or forward to 403.067(4), Fla.Stat. By contrast, 403.067(4), Fla.Stat., does not specifically authorize rule development. When a statute omits requirements that would otherwise be included, rules of construction dictate that the items that are omitted were intended to be omitted by the Legislature. See, *Gay v. Singletary*, 700 So.2d 1220, 1221 (Fla. 1997) (". . . when a law expressly describes the particular situation in which something should apply, an inference must be drawn that what is not included by specific reference was intended to be omitted or excluded."); *Young*, supra.

193. According to the Statute, once the impaired water segments are identified the next step is for DEP to "confirm" the assessment determinations in order to come up with an "approved" list. *See* § 403.067(4), Fla. Stat. ("Approved List"). Unlike the process of identifying impaired waters in §403.067(2), Fla.Stat., this is a formal process, where the updated list:

> shall be approved and amended by order of the department subsequent to completion of an assessment of each water body or water body segment .... Each order shall be subject to challenge under ss. 120.569 and 120.57.

This process is designed to identify those waters for which TMDLs will be developed. § 403.067(4), Fla.Stat. The fact that this statutory subsection discusses the identification of those waters for which TMDLs will be developed is not happenstance. A close reading of the Statute shows that all impaired water segments are not required to have TMDLs to address the impairment. Rather, the Department is required, pursuant to § 403.067(6)(a)2., Fla.Stat., to develop TMDLs only for all water segments for which the impairment is in whole or in part due to point and/or nonpoint sources of pollution. In other words, for those waters which are polluted solely due to factors other than point and/or nonpoint sources, e.g. naturally occurring impairment, no TMDLs are required. Therefore, the statute envisions identifying and listing all water segments which require assessment, pursuant to § 403.067(2), Fla.Stat. But only those

water segments which are impaired due in whole or in part to point and/or nonpoint sources will require TMDL development under § 403.067(4), Fla.Stat. Thus, the Legislature wisely provided that even though some impaired waters are not given TMDLs they are nevertheless identified as impaired on the State's 303(d) list, which would enable the State to control the addition of point and/or non-point sources of pollution to them in the future.

194. § 403.067(4), Fla.Stat., expressly provides additional legal requirements that apply in establishing an approved list. See, e.g., the requirement in § 403.067(4), Fla. Stat. that "the department ... specify the particular pollutants causing the impairment and the concentration of those pollutants causing the impairment relative to the water quality standard.". Again, however, no rulemaking is authorized under the statute associated with this step. See, *Southwest Florida Water Management District v. Save the Manatee Club, Inc.*, 773 So.2d at 600 ("Because section 373.414(9) does not provide specific authority for an exemption based on prior approval, the exemptions in the rule are invalid."); *Gay v. Singletary*, 700 So.2d at 1221. Indeed, no rulemaking would be necessary, inasmuch as the entry point provided under this subsection assures all affected parties that they will have an opportunity to challenge the Department's decisions.

195. Finally, it is important to note that § 403.067, Fla.Stat., separates the rule-making process into different categories. First, is the identification of impaired waters under § 403.067(3)(b), Fla.Stat.. In the second phase the Department is required to adopt rules for calculating and identifying TMDLs. § 403.067(6)(d), Fla.Stat. The Department is also authorized to adopt rules for (1) delisting, § 403.067(8)(a), (2) administration of funds, § 403.067(8)(b), Fla.Stat., procedures for pollutant trading, § 403.067(8)(c), Fla.Stat., and (4) TMDL calculations

for eight water segments within Lake Okeechobee, § 403.067(8)(d). Notably absent from those statutory provisions authorizing rule development is § 403.067(4), Fla.Stat.

B. The "Two List" Concept

196. For the reasons stated below, DEP exceeded its grant of rulemaking authority provided under § 403.067, Fla. Stat, by promulgating a rule which was not specifically authorized by the Statute. *Save the Manatee Club, Inc.*, supra. Therefore, the proposed rule is invalid, pursuant to § 120.536(1), Fla.Stat..

197. Under step one of the proposed rule, DEP will develop a "Planning List" through a process that essentially merges the statutes' first two steps, listing and assessment, whereas under the statute each step has separate requirements under subsections (2) and (3) of Section 403.067. Part II of the proposed rule ("The Planning List") claims to "establish[ ] a methodology for developing a planning list of waters to be assessed pursuant to [both] subsections 403.067(2) and (3), F.S." *See* Proposed Fla. Admin. Code R. 62-303.300(1) (emphasis added). The result is to create a formal rule barring listing even on the "planning list" except in accordance with a full assessment pursuant to the methodology prescribed by DEP in the rule.[2]

198. The next step under the proposed rule is to "develop" a "verified list." This section states, in pertinent part, that ". . . [w]aters shall be verified as being impaired if they meet the requirements for the planning list in Part II and the additional requirements of Sections 62-

[2] The only narrow relief provided is that:

> (2) Waters on the list of water segments submitted to EPA in 1998 that do not meet the data sufficiency requirements for the planning list shall nevertheless be included in the state's initial planning list developed pursuant to this rule.

See Proposed Fla. Admin. Code R. 62-303.300(2). However, although this will provide a temporary reprieve for data insufficiency, all the other requirements of the proposed rule for being on the planning list will continue to apply even to water segments on the list submitted to EPA in 1998.

303.420-480."[3] This, therefore, is not simply based on a "confirmation" of the assessments, plus the application of the additional requirements expressly provided for under subsection (4) of Section 403.067. Rather, on its face the verification process under Part III ("The Verified List") of the proposed rule would install an additional layer of requirements not based on subsection (4).

199. A significant amount of testimony at the hearing dealt with the issue of whether § 403.067, Fla. Stat, granted to the Department the right to adopt a rule that required the establishment of a "planning list" and a "verified list" which is subjected to a heightened set of requirements.. Department employees Darryl Joyner and Jerry Brooks both testified on the development of the two-list concept. Their recollections regarding the events leading up to the creation of two distinctly different lists are recounted in Paragraphs 50 through 52, above. Further, the TAC Minutes also demonstrate the haphazard process that surrounded the development of a two-list approach to the identification of the State's impaired waters. (Respondent's Exhibit 4) Thus, while the Department currently takes the position that the statute requires a planning list and a verified list with heightened requirements, its position is one that has evolved over the course of time and is not based on the specific powers and duties of § 403.067, Fla.Stat. Rather, it reflects a decision on the part of the Department to effectively ignore the statutory mandate in favor of developing an administrative rule that Department personnel believed would better serve their long-term interests.

[3] Note also that the requirement that a water meet the requirements of the planning list, as well as the requirements under Part III seems to conflict with the definition of an impaired water under the proposed rule. The proposed rule defines "impaired water" to be ". . . 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." 62-303.200(6) There is no definitional requirement that a water segment meet both sets of requirements set forth in Parts II and III in order to be declared impaired.

200. While Petitioners allege a host of other flaws with the proposed rule, the Division needs go nor further than rule on the limited legal grounds of the so-called flush left language of § 120.52(8), Fla.Stat., to find the proposed rule to be an invalid exercise of delegated legislative authority. The proposed rule does not implement or interpret the specific powers and duties granted by the enabling statute. It is not "based on an explicit power or duty identified in the enabling statute." *Southwest Florida Water Management District v. Save the Manatee Club, Inc.*, 773 So.2d at 599. See, also, *DeMario v. Franklin Mortgage & Investment Co., Inc.*, 648 So.2d 210, 213-214 (Fla. 4th DCA 1994)(agency lacked authority to impose, by rule, time requirement not found in statute) reh'g and reh'g en banc denied, rev. denied, 659 So.2d 1086; *Cataract Surgery*, supra at 1361 (agency lacked authority to require 45 data items from patients of free-standing ambulatory surgical centers): *Board of Trustees of the Internal Improvement Fund of the State of Florida v. Board of Professional Land Surveyors*, 566 So.2d 1358, 1360-61 (Fla. 1st DCA 1987)(agency lacked authority to impose technical standards not authorized by statute); *Booker Creek Preservation, Inc. v. Southwest Florida Water Management District*, 534 So.2d 419, 423 (Fla. 5th DCA 1988)(agency acted improperly in varying statutory impact by creating waivers and/or exemptions); *Capeletti Brothers, Inc. v. Department of Transportation*, 499 So.2d 855, 857 (Fla. 1st DCA 1987)(rule improperly expanded statutory coverage) rev. denied, 509 So.2d 1117; *Department of Health and Rehabilitative Services v. Petty-Eiffert*, 443 So.2d 266, 267 (Fla. 1st DCA 1983)(rule improperly imposed non-statutory requirement and was therefore invalid). When the above is considered in light of the requirements of *Southwest Florida Water Management District v. Save the Manatee Club, Inc.*, 773 So.2d 594 (Fla. 1st DCA 2000), the conclusion is that the statute does not give specific authority to the Department to adopt a rule for a preliminary list of impaired waters. Proposed rule 62-303.150(1) incorrectly asserts that the relationship between the planning and verified lists is one borne out of § 403.067, Fla.Stat., and is

therefore invalid. Part II of the proposed rule is invalid[4]. Inasmuch as Parts III and IV of the proposed rule are wholly dependent upon the existence of Part II, Parts III and IV must also be considered invalid.

C. Pollution Control Programs

201. Proposed rule section 62-303.100(5) provides that water bodies that are impaired will not be listed on the verified list if reasonable assurance is provided that pollution control programs will result in attainment of water quality standards in the future and that reasonable progress will be attained by the time the next 303(d) list is filed with EPA. This same exclusion is found in proposed rule section 62-303.600(1) and (2), which exclude said water bodies from the verified list upon a finding that pollution control programs will result in future attainment of water quality standards. For the reasons stated above, these provisions constitute an invalid exercise of delegated legislative authority, inasmuch as Sections 403.067(2) and (3), Fla.Stat., do not allow the exclusion of such water bodies from the impaired waters list. § 403.067(4), Fla.Stat., addresses these situations and simply allows the Department not to require the setting of TMDLs for these water bodies. Therefore, this proposed rule provision is invalid, pursuant to *Young*; *Cataract Surgery*; *Board of Trustees of the Internal Improvement Fund of the State of Florida v. Board of Professional Land Surveyors*; *Booker Creek Preservation, Inc.*; *Capeletti Brothers, Inc.*; *Petty-Eiffert*; *and Save the Manatee Club, Inc.*, supra.

D. Moderating Provisions/Natural Conditions/Physical Alterations of Water Bodies

202. The Department contends that there is no basis for including waters on the 303(d) list if the waters are failing to meet water quality criteria due to moderating provisions (such as mixing zones), natural conditions and/or physical alterations. Therefore, the proposed rule

[4] Notwithstanding this finding, the Court has also evaluated Part II on its own merit and reached independent

automatically excludes waters from the impaired waters list if the impairment is due solely to "natural conditions or physical alterations of the water body not related to pollutants." 62-303.100(2). This provision fails to recognize that under § 403.067(2), Fla.Stat., all impaired waters are considered to be identified and are therefore to be listed on the state's 303(d) list.[5] It is only for purposes of TMDL calculation and/or allocation that the issue of natural conditions and/or physical alterations becomes a factor. Hence the Legislative authorization given in § 403.067(6)(b), Fla.Stat., which permits the Department to exclude these water segments from TMDL calculation. In order to give this statutory provision meaning it is necessary to conclude that the impaired waters list must include these water bodies, but then allows the Department to conclude that TMDLs are not required for the same. This construction is also supported by the consideration that the identification of these water bodies as impaired alerts the state and other entities to the potential for significant increased degradation if point and/or non-point sources of pollution were introduced into these fragile water bodies. Thus, the resource would be better protected. *Goldring*, supra, 477 So.2d at 534 ["The provisions of statutes enacted in the public interest should be given a liberal construction in favor of the public," citing *State v. Hamilton*, 388 So.2d 561 (Fla. 1980)]. See also, *Abood v. City of Jacksonville*, 80 So.2d 443, 445 (Fla. 1955), ("We are entitled to, and should, ascribe to the acts of the members of the lawmaking body a purpose to serve the best interest of the people and the general welfare of the state.").

203. Moderating provisions/ natural conditions and/or physical alterations in the water body that cannot be abated may also serve to prevent waters from being considered on the planning list pursuant to proposed rule section 62-303.320(3)(a) which states, in pertinent part,

conclusions of law with respect to each subsection of the same.

[5] Admittedly, the proposed rule provides that these water bodies will be placed on the state's 305(b) list submitted to EPA -- but neither this provision, nor the exclusion from the impaired waters 303(d) list finds any statutory support

that ". . . 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 . . ." Therefore, the Department intends to consider more recent data if the changes are a result of man-made pollutants. But in those situations in which conditions have changed due to natural conditions and/or physical alterations in the water body that cannot be abated no distinction will be drawn between the two types of data.

204. In like manner, the Department eliminates from consideration on the "Verified List" those water bodies which are impaired as a result of physical alterations in the water body that cannot be abated and/or as a result of natural background conditions. Proposed rule section 62-303.420(1)(a).

205. For the reasons stated above, the Court finds that proposed rule sections 62-303.100(2), 62-303.320(3)(a), and 62-303.420(1)(a) exceed the Department's grant of rulemaking authority.

E. The 1998 303(d) List

206. Contained in Part II of the proposed rule is a requirement that those water segments which were listed by the Department on the state's 1998 303(d) list submitted to EPA be placed on the current list of "potentially impaired" water segments. Specifically, the proposed rule states:

> Waters on the list of water segments submitted to EPA in 1998 that do not meet the data sufficiency requirements of the planning list shall nevertheless be included in the state's initial planning list developed pursuant to this rule.

in § 403.067, Fla.Stat. Therefore, this portion of the proposed rule constitutes an invalid exercise of delegated legislative authority, pursuant to *Save the Manatee Club, Inc.*, supra.

62-303.300(2). By placing these waters on the State's 1998 303(d) list the Department represented to EPA that the same were, in fact, impaired. The de facto impact of the instant provision of the proposed rule is to delist all of these water bodies and to then subject them to a heightened set of requirements if their impairment designation and resulting protection is to be maintained. Moreover, there is no specific language in this proposed rule provision that indicates that the removal of waters on the State's 1998 303(d) list will be accomplished using the delisting procedures set forth in proposed rule 62-303.720. Neither does proposed rule 62-303.720 refer back to proposed rule 62-303.300(2). There is no specific, or even implied, statutory authority for this summary action taken by the Department. Therefore, this proposed rule provision is invalid, pursuant to *Young*; *Cataract Surgery*; *Board of Trustees of the Internal Improvement Fund of the State of Florida v. Board of Professional Land Surveyors*; *Booker Creek Preservation, Inc.*; *Capeletti Brothers, Inc.*; *Petty-Eiffert*; *and Save the Manatee Club, Inc.*, supra.

F. Primary Contact and Recreation Use Support

207. Proposed rule section 62-303.360(3) excludes from the planning list waters that may be impaired due to "advisories, warnings, and closures based on red tides, rip tides, sewage spills, sharks, medical wastes, hurricanes, or other factors not related to chronic discharges of pollutants . . ." This provision if flawed in the same manner as the provisions identified in Section III. C., above. While TMDLs may not be required, the fact remains that these waters are impaired by definition and thus must be listed according to § 403.067(2) & (3), Fla.Stat.

208. Proposed rule section 62-303.460(1), like 62-303.360(3), excludes from the verified list waters that are impaired "based on bathing area closures, advisories, or warnings issued by a local health department or county government, closures, advisories or warnings

based on red tides, rip tides, sewer line breaks, sharks, medical wastes, hurricanes, or other factors not related to chronic discharges of pollutants . . ." 62-303.460(1) also constitutes an invalid exercise of delegated legislative authority.

G. Conclusion

209. § 120.52(8)(b), Fla.Stat. defines an invalid exercise of delegated legislative authority as, inter alia, those situations in which "the agency has exceeded its grant of rulemaking authority, citation to which is required by s. 120.54(3)(a)1." For the reasons stated in Sections III.A. through F., above, the Department exceeded its grant of rulemaking authority in the adoption of 62-303. See, *Witmer v. Dept. of Business & Prof. Reg.*, 662 So.2d 1299, 1302 (4th DCA 1995)("The rule enlarges the provisions of the statutes on which it is based. Thus, the Division exceeded its grant of rule-making authority in the promulgation of rule 7EER92-2(18). See § 120.52(8)(b)-(c), Fla.Stat. (1991).").

IV. Enlarging, Modifying, or Contravening Specific Provisions of Law

A. Prioritization of Outstanding Florida Waters

210. The enabling statute does not authorize DEP's proposed prioritization rule, 62-303.500. Further, proposed rule 62-303.500(4)(a) states that "[a]ll 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." The designation of Outstanding Florida Waters as medium priority directly conflicts with § 403.061(27), Fla.Stat., and rule 62-302.700(1), which states that "(1) It shall be the Department policy to afford the highest protection to Outstanding Florida Waters and Outstanding National Resource Waters. No degradation of water quality, other than that allowed in proposed rule 62-4.242(2) and (3), F.A.C., is to be permitted

in Outstanding Florida Waters and Outstanding National Resource Waters, respectively, notwithstanding any other Department rules that allow water quality lowering."

211. Statutes must be read in pari materia with one another. *Young, Cataract Surgery Center*, supra. Proposed rule 62-303.500(4)(a), inasmuch as it conflicts with 403.061(27), Fla.Stat., and rule 62-302.700(1) likewise runs afoul of § 403.067(9), Fla.Stat., which states that "[t]he provisions of this section are intended to supplement existing law, and nothing in this section shall be construed as altering any applicable state water quality standards . . ." Inasmuch as proposed rule 62-303.500(4)(a) directly conflicts with § 403.061(27), Fla.Stat., it must be set aside as invalid.

B. Other Rule Sections

212. In the following proposed rule provisions DEP enlarged, modified, and contravened the specific provisions of law allegedly implemented, § 120.52(8)(c): 62-303.100(2) improperly allows the Department to avoid listing waters as impaired if the impairment is associated with moderating provision, natural conditions, physical alterations. As stated above, there is no statutory basis for these exclusions. 62-303.100(5) improperly excludes from the impaired waters list those waters for which the Department believes attainment will be met in the unspecified future. Inasmuch as 62-303.150(1) improperly defines the statutory basis for Part III and its relationship to Part IV of the proposed rule it likewise improperly enlarges, modifies and/or contravenes the specific provisions of § 403.067, Fla.Stat. As stated above, 62-303.300(2) improperly allows the Department to delist waters currently on the State's 1998 303(d) list and as such this provision is invalid.

C. Conclusion

213. § 120.52(8)(c), Fla.Stat. defines an invalid exercise of delegated legislative authority as, inter alia, those situations in which "[t]he rule enlarges, modifies, or contravenes the specific provisions of law implemented, citation to which is required by s. 120.54(3)(a)1." For the reasons stated in Sections III.A. through G. and IV.A. through B, above, the proposed rule impermissibly "enlarges, modifies, or contravenes the specific provisions of law implemented" and is therefore invalid. See, *Hillhaven v. Dept. of Health & Rehab. Serv.*, 625 So.2d 1299, 1302-1303 (Fla. 1st DCA 1993); *Witmer v. Dept. of Business & Prof. Reg.*, 662 So.2d 1299, 1302 (4th DCA 1995)("The rule enlarges the provisions of the statutes on which it is based. Thus, the Division exceeded its grant of rule-making authority in the promulgation of rule 7EER92-2(18). See § 120.52(8)(b)-(c), Fla.Stat. (1991).").

V. Vagueness and Standards for Agency Decisions

214. In the following sections the proposed rule is vague and fails to establish adequate standards for agency decisions. § 120.52(8)(d):

a. 62-303.100(5)[Scope and Intent—Pollution Control Programs] Proposed rule 62-303.100(5) provides that water bodies that are impaired will not be listed on the verified list if reasonable assurance is provided that pollution control programs will result in attainment of water quality standards in the future and that reasonable progress will be attained by the time the next 303(d) list is filed with EPA. The portion of the proposed rule providing that future attainment of water quality standards is sufficient to justify a decision not to list a water body as impaired is wholly devoid of any time limitation and is therefore vague.

b. 62-303.330(4)[Biological Assessments—Other Information] provides no standards to be used by the Department in determining whether aquatic life use support has been maintained.

c. 62-303.400(1)[Methodology to Develop the Verified List – Waters that are not on the Planning List] This rule provision is unclear with respect to the treatment that will be afforded for those water segments which, for whatever reason, are improperly left off of the planning list. Simply stated, the proposed rule provides no mechanism to include these waters on the verified list, although the Department's representative testified that the Department's intent was that they be included.

d. 62-303.400(2)[Methodology to Develop the Verified List – Additional Data] states that additional data will be considered and that if more data is needed it is the Department's "goal" to collect the same. This statement gives no indication as to how the Department defines a "goal." For example, there is no indication as to the extent to which budgetary issues will impact such "goals" and whether members of the public will be allowed to provide this data in the event the Department, for whatever reason, decides not to collect the additional data.

e. 62-303.410[Determination of Aquatic Life-Based Water Quality Criteria] is vague inasmuch as the term "metric" is undefined and, in fact, is interpreted by the Department in a manner which is not the same manner as would be normally interpreted by the public.

f. 62-303.420(1)(a)[Exceedances of Aquatic Life-Based Water Quality Criteria: Physical Alterations] The proposed rule does not provide any guidance on how to determine the existence of a physical alteration of the water body that cannot be abated.

g. 62-303.420(4)[Exceedances of Aquatic Life-Based Water Quality Criteria: Metals Criteria and Clean Techniques] The proposed rule does not define those situations in which clean techniques would be appropriate. Undefined scientific principles will determine the necessity of using clean techniques. (T. Joyner 2101-02)

h. 62-460(2) requires that the Department "shall to the extent practical, evaluate the source of bacteriological contaminations and shall verify that the impairment is due to chronic discharges of human-induced bacteriological pollutants before listing the water segment on the verified list." This requirement could be read as requiring the Department to verify the source of the impairment, but that it only obligated to evaluate the data, to the extent practical. (T. Joyner 1891) The requirement could also be read to mean that the Department is obligated to verify the source of the impairment and evaluate the data, to the extent practical. (T. Joyner 1891) How it is interpreted could have an affect on the number of waters listed. (T. Joyner 1891)

i. 62-303.480[Drinking Water Use Support and Protection of Human Health] is vague. During Mr. Joyner's testimony he was asked to explain the process of moving a water segment from the planning list to the verified list and after attempting to do so admitted that this proposed rule section is "very complicated." (T. Joyner 1673)

j. 62-303.500(4)(e) [Administrative Needs of Department vis-à-vis Prioritization] states that medium priority waters will be prioritized, in part, based upon administrative needs of the Department. Once again, the Department has not defined what it considers to be administrative needs and the extent to which priority will be given to this program over other programs within the Department.

k. 62-303.600 [Evaluation of Pollution Control Mechanisms] Proposed rule 62-303.600(2) is the counterpart to proposed rule 62-303.100(5). The former provision also provides for excluding water segments from the verified list if the water segment is expected to attain water quality standards in the future. This provision, like proposed rule 62-303.100(5), is vague.

215. § 120.52(8)(d), Fla.Stat., defines an invalid exercise of delegated legislative authority as, inter alia, those situations in which "[t]he rule is vague, fails to establish adequate standards for agency decisions, or vests unbridled discretion in the agency." The *Witmer* court stated that:

> "[A] government restriction is vague if it 'either forbids or requires the doing of an act in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to its application.' "*Bouters v. Florida*, 659 So.2d 235, 238 (Fla. 1995), *cert. denied*, --- U.S. ---, 116 S.Ct. 245, 133 L.Ed.2d 171 (1995) (citation omitted). The rule in question punishes corrupt or fraudulent practices without ever defining them or referring to a standard by which a practice may be judged to be corrupt or fraudulent. *See State v. Deleo*, 356 So.2d 306 (Fla. 1978). We hold that, because of its vagueness, the rule is an invalid exercise of delegated legislative authority. § 120.52(8)(d), Fla.Stat. (1991). Both the emergency rule and the permanent rule suffer from the same impediment and are invalid.

662 So.2d at 1302. For the reasons stated in Section V, above, the proposed rule is vague, and fails to establish adequate standards for agency decisions and is therefore invalid.

216. The proposed rule also vests unbridled discretion in the agency, § 120.52(8)(d). As stated in Part E., V, above, 62-303.100(5), fails to provide any definition of "reasonable assurance" and likewise fails to set any outer time limitations on when in the future a water body must attain water quality standards to avoid being placed on the 303(d) list. While the term

"reasonable assurance" is generally understood to mean "substantial likelihood"[6] the problem is that in failing to set any outer time limitations on future attainment the proposed rule vests unbridled discretion, without any standards, in the Department to make that determination. *Cortez v. Board of Regents*, 655 So.2d 132, 138 (Fla. 1st DCA 1995)("But the rule "fails to establish adequate standards for agency decisions." § 120.52(d), Fla.Stat. (1993), for or against employing the "negative checkoff," *i.e.*, collecting "donations" from registering students unless they expressly decline to contribute.") In like manner, 62-303.100(5) fails to establish any standards for the Department's decisions. This constitutes the vesting of unbridled discretion in the agency and is therefore invalid.

217. The following proposed rule provisions also vest unbridled discretion in the Department:

a. 62-303.100(5) allows the Department to exclude waters from the impaired waters list if reasonable assurance is provided that reasonable assurance is provided that technology-based effluent limitations and/or other pollution control programs will result in future attainment. By not limiting or defining "future" in this provision, and by failing to establish criteria and guidelines for determining whether reasonable assurance has been given, the Department would be free to adopt any standards it wishes without any meaningful ability for administrative review.

b. 62-303.320(3)(b)[Exclusion of older data] allows the Department to discard data if the Department determines that the data are no longer representative of the water quality of the segment. No standards are provided for making these decisions.

[6] *Metropolitan Dade County v. Coscan Florida, Inc.*, 609 So.2d 644, 648 (Fla. 3d DCA 1992)("'Reasonable assurance' contemplates, in our view, a substantial likelihood that the project will be successfully implemented.")

c. 62-303.400(2)[Methodology to Develop the Verified List – Additional data] requires that the Department "consider" additional data, but does not require minimum standard in the consideration process. In addition, the statement that it will be the Department's "goal" to collect additional data places no limits whatsoever on the Department's decisions in the collection process. It became clear during the course of the hearing that the effort to collect additional samples would be considered a low priority. (T. Joyner 1860)

d. 62-303.420(1)[Exceedances of Aquatic Life-Based Water Quality Criteria – Reexamination of data] contains two flaws. First, 62-303.420(1)(a) gives no standards for determining whether a physical alteration can or cannot be abated. Second, 62-303.420(2) allows the Department to heighten the requirement for determining impairment of aquatic life-based water quality criteria if the Department "believes" that the exceedances are not due to pollutant discharges. Once again there are no standards guiding the Department's decision-making process under this section. Hence, the public would have no ability to know how the Department will make the decisions it will be called upon to make.

e. 62-303.420(3) [Exceedances of Aquatic Life-Based Water Quality Criteria – Reexamination of data] requires the Department to reexamine data if worst case values were used to represent multiple samples taken during a seven day period. The Department must, under this section, decide whether the worst case value should be excluded from the assessment. However, no standards are provided in making this decision.

f. 62-303.420(4) [Exceedances of Aquatic Life-Based Water Quality Criteria – Reexamination of metals data] provides that the Department, in examining metals data, will determine whether the use of clean techniques is appropriate. No standards are put in place to make this decision.

g. 62-303.450[Interpretation of Narrative Nutrient Criteria] places no requirement on the Department to conduct confirmation testing during the same seasons in which the original impairment was found. Thus, the proposed rule would allow the Department to conduct its review on during non-representative seasons and avoid listing a water segment as impaired.

h. 62-303.500(4)(e) [administrative needs of Department vis-à-vis prioritization], as stated above, gives the Department unbridled discretion in determining how to prioritize water segments simply by making an unsubstantiated claim that the prioritization is based upon its administrative needs. This, in turn, places its decisions effectively beyond administrative review and is therefore improper.

i. 62-303.600[Evaluation of Pollution Control Mechanisms], as previously stated, gives the Department what is essentially an unreviewable ability to refrain from listing water segments as impaired, based solely on its assertion that future programs will result in attainment. Thus, a water segment could escape listing simply by an assertion that it will meet water quality standards in 20 years.. This placing of unbridled discretion in the Department is clearly inappropriate and was capable of further clarification, as is evidenced by Amendment 7 that was initially proposed by the Department, but subsequently withdrawn.

VI. Arbitrary and Capricious Actions by Agency

218. § 120.52(8)(e), Fla.Stat. defines an invalid exercise of delegated legislative authority as, inter alia, those situations in which the agency rule is "arbitrary or capricious;" § 120.52(8)(e). An arbitrary action "is one not supported by facts or logic." *Agrico,* 365 So.2d at 763. A capricious action is one which is taken irrationally, without thought or reason. *Bd. of*

Trustees, Internal Improvement Fund v. Levy, 656 So.2d 1359, 1362 (Fla. 1st DCA 1995). Illustrative of rulemaking based upon arbitrary and capricious actions by an agency is *Adam Smith Enterprises, Inc. v. Department of Environmental Regulation*, 553 So.2d 1260 (Fla. 1st DCA 1989). The hearing officer in Adam Smith found that two factors used by DER in its radius formula for establishing zones of protection for aquifers were generated by arbitrary and capricious actions on DER's part.

> In his final order, the hearing officer found that the five years proposed by the rule was arbitrary and capricious. As stated by the hearing officer:
>
> > 77. During the workshop that underscored the proposed rule, the time factor was the subject of considerable discussion and ranged from less than two years to greater than ten years. Based on its own in-house search, the Department initially proposed a 10-year standard. That search revealed that it took 10 to 15 years between the time a contaminant was discovered and cleanup could commence, between the time a contaminant was introduced into groundwater and its discovery.
> > 78. Notwithstanding the results of its own in-house search, the Department, in the face of debate, elected to "compromise" and propose a five-year standard. Such standard was not the result of any **study to access its validity, and no data, reports or other research were utilized to derive it. In sum, the five-year standard was simply a "compromise" and was not supported by fact or reason.**

Id. at 1264. (emphasis added) The First District Court of Appeal held that the hearing officer's findings were properly supported by competent substantial evidence and his findings were therefore affirmed. Id. at 1275.

A. Binomial Method

219. The undersigned finds that the use of the binomial method found in proposed rule sections 62-303.320, 62-303.420, and 62-303.720 constitutes an arbitrary decision on the part of

the Department. The evidence demonstrated that other methods for the evaluation of impaired waters existed, and it is likewise evident that these methods were simply not considered. The expert testimony presented at the hearing repeatedly underscored the need for the use of best professional judgment when considering matters of a scientific nature, including the identification of impaired waters. The evidence established that the binomial method is a statistical method, not scientific, and its use in the proposed rule involves restrictions on data that themselves are not founded on scientific principles and are thus arbitrary.

B. Arbitrary Exclusion of Older Data

220. As previously stated, natural conditions and/or physical alterations in the water body that cannot be abated may also serve to prevent waters from being considered on the planning list pursuant to proposed rule section 62-303.320(3)(a) which states, in pertinent part, that ". . . 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 . . ." Therefore, the Department intends to consider more recent data if the changes are a result of man-made pollutants. But in those situations in which conditions have changed due to natural conditions and/or physical alterations in the water body that cannot be abated no distinction will be drawn between the two types of data. This distinction in the handling of data is without a factual or logical basis. Accordingly, proposed rule section 62-303.320(3)(a) is arbitrary and invalid.

221. As in *Adam Smith Enterprises, Inc.*, supra, proposed rule section 62-303.320(3) was the product of "compromise" on the part of the Department. Evidence produced by the Department at the hearing indicated that the decision not to use data older than 10 years in

developing the "Planning List" was based, not on data, reports or other research, but rather, was based solely on an effort to establish a cut-off point for accepting data to be considered. However, the weight of the scientific evidence established that the preferable means of determining impairment would be to allow for the analysis of all available credible data, since older data would be beneficial in establishing trends in the water segment. In fact, the Department's decision to disregard data over 10 years of age was in conflict with its own TAC, which wanted an open-ended time frame. Accordingly, the Court finds that proposed rule section 62-303.320(3) is invalid. Proposed rule sections 62-303.320(4) and (5) suffer from the same problem, inasmuch as they set arbitrary requirements with respect to the number of samples required for each segment in order to gain placement on the "Planning List."

222. The same holds true for the increased restrictions on the age of data for inclusion on the "Verified List". Proposed rule section 62-303.420(2) requires that the data used to qualify a water segment as impaired be no older than five years. This five-year cutoff is an arbitrary time frame that is not scientifically justifiable. Therefore, this proposed rule provision is invalid.

223. Proposed rule section 62-303.470(1)(c) places a 7.5 year age restriction on the use of data to support the continuation of fish consumption advisories. There is no evidence that the 7.5 year cutoff is based on anything other than an arbitrary decision. In the absence of a scientific basis for eliminating this data this provision is arbitrary and invalid.

224. Proposed rule section 62-303.480 states, in pertinent part, that ". . . the Department shall re-evaluate the data using the methodology in rule 62-303.380(2) and limit the analysis to data collected during the five years preceding the planning list assessment and the additional data collected pursuant to this paragraph (not to include data older than 7.5 years)." Here again, there is no evidence that the 5 and 7.5 year cutoffs are based on anything other than

an arbitrary decision. In the absence of a scientific basis for eliminating this data this provision is arbitrary and invalid.

C. Minimum Sample Requirement

225. The Department also acted in an arbitrary fashion with respect to proposed rule section 62-303.320(1), wherein the evidence shows that the Department's TAC recommended that the Department require a minimum of 10 samples in order to place a water segment on the "Verified List." Despite its TAC's recommendation, proposed rule section 62-303.320(1), Table 1., requires a minimum of 10 samples in order to place a water segment on the "Planning List" and then uses a more restrictive requirement of 20 samples to place a water segment on the "Verified List." See also proposed rule section 62-303.420(2). There was no scientific basis provided for the Department's action. Accordingly, proposed rule section 62-303.320(1), Table 1., and 62-303.420(2) are arbitrary and invalid.

226. Other proposed rule provisions are likewise found to be arbitrary and/or capricious:

a. 62-303.200(5)[Definition of Estuaries] as currently structured would exclude some high salinity areas that are found in the State, including some major bay and lagoon areas, because some high salinity areas simply do not have riverine input. St. Joseph's Bay. It would also exclude some areas of Florida Bay, and waters surrounding the Florida Keys. The Department provided no evidence to justify excluding these areas from consideration. The section is therefore invalid.

b. 62-303.300(2)[Methodology to Develop the Planning List – Waters on 1998 303(d) list], simply stated, is not based on the Statute. It appears to be the result of negotiations with industry groups and EPA. The Department's position on this matter amounts to

an assertion that it placed waters on the 1998 303(d) list without appropriate scientific measures being used. To now remove said waters from that list based on a heightened set of requirements not in place in 1998 and without legislative authority constitutes an arbitrary and capricious action on the part of the Department.

c. 62-303.320(2)[Exceedances of Aquatic Life-Based Water Quality Criteria—STORET Requirements] requires that parties who wish to have their data considered ensure that the data is input into STORET. However, numerous Department witnesses testified that even the Department's biological data is not included in STORET. Further, there is no mechanism provided in the rule for the public to use to "ensure" that their data is included. And while the section requires the Department to consider other data it does not require the Department to give said data equal weight with data found in STORET.

d. 62-303.320(4)[Seasonal Requirements] requires that data come from at least 3 of the 4 seasons in order for a water segment to be considered for impairment. The overwhelming weight of testimony established that in attempting to decide impairment it is critical to focus on those times of the year when impairment is to be expected. For example, algae content, dissolved oxygen levels. Most often impairment is found in the summer, months (particularly in the panhandle) and the use of these restrictions would lessen the impact during this time of year. This position is illogical and, the undersigned concludes arbitrary. As such this provision is invalid.

e. 62-303.320(8) [Exceedances of Aquatic Life-Based Water Quality Criteria—Metals collection criteria] the evidence submitted at trial amply established that the requirement of use of clean techniques would not only invalidate much of the data already accumulated, but would also significantly hinder the future ability to submit sample data to the

Department. The undersigned finds that to effect such a wholesale elimination of data (data which in the past has been relied upon by the Department) from the assessment process would result in an inaccurate representation of impaired waters in Florida. It is wholly illogical and unreasonable and consequently invalid.

f. 62-303.330[Biological Assessment] The Department concedes that the requirement under proposed rule section 62-303.330 that there be two bioassessments within five years, but only one biological integrity exceedance requirement within 10 years in order to make it onto the verified list, is not scientifically rational. (T. Joyner 2103-04) Therefore, this rule provision is invalid.

g. 62-303.360(1)(a)-(d)[Primary Contact and Recreation Use Support] In order to find impairment this section requires closures of bathing areas for more than one week in a calendar year for bacteriological data; however, the unrebutted testimony demonstrated that counties and municipalities currently do not close bathing areas in marine areas. Therefore, there is no ability to satisfy the rule requirements. Further there was no testimony that the time frames found in 62-303.360(1)(b-d) were scientifically based. Accordingly, the undersigned finds that these provisions are arbitrary and capricious.

h. 62-303.360(3)[Primary Contact and Recreation Use Support—Exclusions of Data] allows the exclusion of data for a wide variety of events and discharges. There was no testimony that these events do not cause impairment. Further, it was convincingly established that red tide is a form of algae bloom and that algae blooms are considered for impairment when nutrients are the focus of attention. Yet, red tides are excluded from consideration in this provision. Simply stated, there is no scientific basis and no statutory basis for these exclusions in

this rule provision which is meant to protect human health. This provision is arbitrary and capricious.

i. 62-303.370[Fish and Shellfish Consumption Use Support] The application of this rule provision will lead to wholly illogical results. As was testified to at trial, under the manner in which 62-303.470 (and therefore this proposed rule provision as well) is written a decision by the Department of Agriculture and Consumer Services to reclassify a one meter section of Apalachicola Bay would serve to place the Bay on the verified list. However, if the Bay were regularly and periodically closed in such a manner as put oystermen out of work the Bay would not be considered impaired. (T. Joyner 1740). Given the lack of scientific support for such a requirement the undersigned finds the same to be arbitrary and capricious.

j. 62-303.400 (2)[Methodology to Develop the Verified List] places a 7.5 year limitation on the consideration of data for the verified list. Simply stated, there is no scientific basis for limiting data to the past 7.5 years. As Dr. Isphording indicated at the hearing, there is no reason to exclude data from consideration because, for example, it may be a month older than the cut-off. The cut-off date is purely arbitrary and hence, invalid.

k. 62-303.420(2)[Exceedances of Aquatic Life-Based Use Support—Binomial Method, Table 2] For the reasons previously stated, the undersigned finds that use of the binomial method , as expressed in Table 2 is not based on scientific evidence. The evidence is uncontroverted that the use of a set exceedance factor, confidence level and minimum number of samples as parameters was not scientifically based. Likewise, the decision on the levels to be used was not even statistically based. In the absence of a logical reason being presented for using the numerical criteria as found in this rule provision the undersigned finds that the same were arbitrary and capricious.

l. 62-303.420(5) [Exceedances of Aquatic Life-Based Use Support—Outliers and exclusions of data] For the reasons stated above, the undersigned finds that the exclusions found in this rule provision are arbitrary and capricious. There is no statutory support for the exclusions found in this section. Likewise, the Department failed to present credible evidence that the presence of these conditions would not cause impairment. Instead, this provision summarily disregards significant contributors to impairment and would, if adopted, result in an inaccurate picture of the State's water segments. Accordingly, the section is invalid.

m. 62-303.440[Toxicity] As stated in the findings of fact, under proposed rule section 62-303.440, if there were 2 failures of chronic toxicity nine years previous there would have to be a failed bioassessment conducted within 6 months of the last failed bioassessment. (T. Frydenborg 2644) This would place the water segment on the verified list. (T. Frydenborg 2645) However, under proposed rule section 62-303.430(2) there would have to be yet another bioassessment conducted within five years prior to the assessment in order to make it onto the verified list. (T. Frydenborg 2645) The Department's own witness could not explain how this would be considered rational. (T. Frydenborg 2645) Accordingly, the undersigned finds that this rule provision is arbitrary and capricious.

n. 62-303.460(1)[Primary Contact and Recreation Use Support—Exclusions of data] for the reasons stated above regarding this provision's counterpart, 62-303.360(3), the undersigned finds that this rule section is arbitrary and capricious.

o. 62-303.720(2)(a)[Delisting Procedures, Binomial method, Table 3] for the reasons stated under sections 62-303.320(1-4) and 62-303.420(2) the undersigned finds that the binomial methodology employed in this section, as well as the exceedance rate, confidence level and minimum number of samples required are all arbitrary and capricious and therefore invalid..

VII. Lack of Competent Substantial Evidence

227. § 120.52(8)(f), Fla.Stat. defines an invalid exercise of delegated legislative authority as, inter alia, those situations in which "[t]he rule is not supported by competent substantial evidence;". Competent substantial evidence is defined as "such evidence as a reasonable person would accept as adequate to support a conclusion." *Agrico*, 365 So.2d at 763. See also, *DeGroot v. Sheffield*, 95 So.2d 912, 916 (Fla. 1957). The concept of competent substantial evidence excludes unreliable, undependable or untrustworthy evidence. *Fla. Rate Conf. V. Fla. R.R. & P.U. Comm.*, 108 So.2d 601, 608 (Fla. 1959). For the above-stated reasons, the DEP, based its adoption of the proposed rule upon a lack of competent substantial evidence, § 120.52(8)(f). The proposed rule is therefore invalid.

228. The following proposed rule provisions are found to be substantially based on factors which are not supported by competent substantial evidence:

a. 62-303.200(2)[Definition of Clean Techniques] The Department failed to present credible testimony that Clean Techniques should be required in order to consider data towards impairment. Rather, the weight of the evidence convincingly established that this restriction would result in the unnecessary elimination of valuable data in making impairment decisions.

b. 62-303.200(5)[Definition of Estuaries] The Department failed to present credible testimony that estuaries should be defined so as to eliminate many of the high salinity estuaries around the State. This definition, if accepted would exclude many of these estuaries from consideration.

c. 62-303.310[Evaluation of Aquatic Life Use Support] The Department failed to present credible, scientific, testimony that the use of rigid criteria would be required to assess aquatic life use support is preferable to the use of best professional judgment.

d. 62-303.320(1) [Exceedances of Aquatic Life-Based Water Quality Criteria –Binomial Method, Table 1) The binomial method is unquestionably a valid statistical method to be used in some cases; however, the undersigned finds that it is inappropriate for purposes of identifying impaired waters. Most troubling, is the fact that virtually all of the credible testimony indicated that this method does not consider the magnitude of individual exceedances. As a result, samples that demonstrate a catastrophic situation, e.g. contaminate levels that would cause death in humans, carry no higher weight than samples that show an exceedance barely over the threshold. The Department failed to present any credible evidence to demonstrate why such considerations should not be allowed. In like manner, crucial parameters such as the number of samples required, the confidence levels, and the exceedance rate all appear to be randomly selected. Accordingly, the undersigned finds that there is no competent, substantial evidence to support this rule provision.

e. 62-303.320(3)[Exceedances of Aquatic Life-Based Water Quality Criteria—Exclusion of older data] The Department failed to present any credible evidence that older data should be excluded from consideration. While it is true that such data may not be representative of current situations, it is likewise true that best professional judgment could be used to determine its significance. The exclusion of this data will result in the failure and/or inability to consider trend data, which the experts agreed would be important.

f. 62-303.320(4)[Exceedances of Aquatic Life-Based Water Quality Criteria—Seasonality] The undersigned finds that there is a lack of substantial competent

evidence to support the requirement that ". . . there shall be at least five independent sampling events during the ten year assessment period, with at least one sampling event conducted in three of the four seasons of the calendar year." Proposed rule section 62-303.320(4).

g. 62-303.320(8) [Exceedances of Aquatic Life-Based Water Quality Criteria—Metals collection criteria] The Department failed to present any credible evidence that metals collection criteria should be limited to samples collected using clean techniques. Rather, this section would result in the elimination of a vast amount of data and likewise significantly hinder the replacement of that data due to the unavailability of laboratories in the State that can perform these tests.

h. 62-303.330[Biological Assessment] The Department concedes that the requirement under proposed rule section 62-303.330 that there be two bioassessments within five years, but only one biological integrity exceedance requirement within 10 years in order to make it onto the verified list, is not scientifically rational. (T. Joyner 2103-04) Therefore, this rule provision is invalid.

i. 62-303.340[Toxicity] 62-303.340(3) requires two samples indicating chronic toxicity and these samples must have been taken within a 12 month period in order to place a water segment on the planning list. Department witness Frydenborg asserts that this requirement was made based on the best professional judgment of the TAC. (T. Frydenborg 2623) However, there is no ability to use best professional judgment to determine whether one result is more representative of chronic toxicity than the other. (T. Frydenborg 2630-31) Simply stated, the Department presented no credible evidence to support this section.

j. 62-303.350[Interpretation of Narrative Nutrient Criteria] This proposed rule provision would not allow consideration for observations made without the benefit of actual

testing. For example, the proposed rule would not take into consideration observations made by individuals that a water segment is completely covered with algae to the point that a fisherman can't get a lure through the water surface. (T. Sulkin 98) Mr. McFadden agreed. (T. McFadden 536-37) Additionally, chlorophyll a may not be indicative of water quality, because it is the measure of biomass of photosynthetic plants or algae. Therefore, it may die back in the winter, just as other crops do. (T. Sulkin 98) The undersigned finds that this provision is unsupported by credible evidence inasmuch as it excludes valuable data and relies upon an indicator (chlorophyll a) which is inappropriate

k. 62-303.351[Nutrients in Streams] The use of annual mean chlorophyll concentrations is not supported by credible evidence. It is particularly noteworthy that Robert Mattson, an employee of the Suwannee River Water Management District testified that many sections of the Suwannee River do not exceed the 20 ug/l threshold, but are nevertheless at risk. The Department's principle witness on this subject, Mr. Frydenborg, was not credible and the undersigned finds that parameters used in this section are not based on competent substantial evidence.

l. , 62-303.352[Nutrients in Lakes] The Department failed to present credible evidence that the requirement that annual mean chlorophyll a concentrations be used as an indicator was justified. The undersigned credits the testimony of Robert Mattson that single event chlorophyll a levels is more appropriate.

m. 62-303.353[Nutrients in Estuaries] The Department failed to present credible evidence in support of this section. The requirement that annual mean chlorophyll a values have increased by more than 50% over historical values for at least two consecutive years is not a valid measure to ensure the health of estuarine plants and animals. (T. Heck 2812) There

is no biological justification for this requirement. (T. Heck 2813) The use of annual mean chlorophyll as an indicator averages the values over the space of a year and thus minimizes the impact of the summer months, which are the most stressful time for seagrasses, particularly in the northern estuarine waters of the state. (T. Heck 2805-06, 2812, 2848)

n. 62-303.360(1)(a)-(d)[Primary Contact and Recreation Use Support] As stated above, in order to find impairment this section requires closures of bathing areas for more than one week in a calendar year for bacteriological data; however, the unrebutted testimony demonstrated that counties and municipalities currently do not close bathing areas in marine areas. Therefore, there is no ability to satisfy the rule requirements. Further there was no testimony that the time frames found in 62-303.360(1)(b-d) were scientifically based. Accordingly, the undersigned finds that the Department failed to present credible evidence in support of this section.

o. 62-303.360(3)[Primary Contact and Recreation Use Support—Exclusions of Data] As stated above, this section allows the exclusion of data for a wide variety of events and discharges. There was no testimony that these events do not cause impairment. Further, it was convincingly established that red tide is a form of algae bloom and that algae blooms are considered for impairment when nutrients are the focus of attention. Yet, red tides are excluded from consideration in this provision. Simply stated, there is no scientific basis and no statutory basis for these exclusions in this rule provision which is meant to protect human health.

p. 62-303.370[Fish and Shellfish Consumption Use Support] As stated above, the application of this rule provision will lead to wholly illogical results. As was testified to at trial, under the manner in which 62-303.470 (and therefore this proposed rule provision as well) is written a decision by the Department of Agriculture and Consumer Services to reclassify

a one meter section of Apalachicola Bay would serve to place the Bay on the verified list. However, if the Bay were regularly and periodically closed in such a manner as put oystermen out of work the Bay would not be considered impaired. (T. Joyner 1740). Given the lack of scientific support for such a requirement the undersigned finds the same to be arbitrary and capricious.

q. 62-303.380[Drinking Water Use Support and Protection of Human Health] The Department failed to present credible testimony on this section. The use of an annual average for human health criteria is inconsistent with the State's standards, which require the evaluation of concentration at annual mean flows, not an annual average concentration. The Department admits that one cannot look at the water quality criteria table and tell from the four walls of that table what the human health-based water quality criteria are. (T. Joyner 2116) It would be hard if not impossible for a lay citizen to determine which are aquatic life-based and which were human health-based. One would have to look at the non-rule table in conjunction with EPA guidance documents. (T. Joyner 2116)

r. , 62-303.400{Methodology to Develop the Verified List] The 7.5 year limitation on the consideration of data is not supported by competent substantial evidence. The limitation is simply an arbitrary limit that has no scientific support.

s. 62-303.420(2)[Exceedances of Aquatic Life-Based Use Support—Binomial Method, Table 2] For the reasons previously stated, the undersigned finds that use of the binomial method , as expressed in Table 2 is not based on scientific evidence. The evidence is uncontroverted that the use of a set exceedance factor, confidence level and minimum number of samples as parameters was not scientifically based. Likewise, the decision on the levels to be used was not even statistically based.

t. 62-303.420(5) [Exceedances of Aquatic Life-Based Use Support—Outliers and exclusions of data] For the reasons stated above, the undersigned finds that the exclusions found in this rule provision is not supported by competent, substantial evidence. There is no statutory support for the exclusions found in this section. Likewise, the Department failed to present credible evidence that the presence of these conditions would not cause impairment. Instead, this provision summarily disregards significant contributors to impairment and would, if adopted, result in an inaccurate picture of the State's water segments. Accordingly, the section is invalid.

u. 62-303.430[Biological Impairment] The Department failed to present credible evidence that two failed bioassessments should be required to establish impairment. There was no evidence presented that the Department, in the normal conduct of business, routinely requires a confirmatory bioassessment to demonstrate biological failures. Accordingly, this proposed rule section is invalid.

v. , 62-303.440[Toxicity] As stated in the findings of fact, under proposed rule section 62-303.440, if there were 2 failures of chronic toxicity nine years previous there would have to be a failed bioassessment conducted within 6 months of the last failed bioassessment. (T. Frydenborg 2644) This would place the water segment on the verified list. (T. Frydenborg 2645) However, under proposed rule section 62-303.430(2) there would have to be yet another bioassessment conducted within five years prior to the assessment in order to make it onto the verified list. (T. Frydenborg 2645) The Department's own witness could not explain how this would be considered rational. (T. Frydenborg 2645) Accordingly, this proposed rule section is invalid.

w. 62-303.460(1)[Primary Contact and Recreation Use Support—Exclusions of data] The Department failed to present credible evidence on this point. As stated previously, this provision allows the exclusion of data for a wide variety of events and discharges. There was no testimony that these events do not cause impairment. Further, it was convincingly established that red tide is a form of algae bloom and that algae blooms are considered for impairment when nutrients are the focus of attention. Yet, red tides are excluded from consideration in this provision. Simply stated, there is no scientific basis and no statutory basis for these exclusions in this rule provision which is meant to protect human health.

x. 62-303.470[Fish and Shellfish Consumption Use Support] The Petitioners, through the credible evidence submitted by Mr. Heil, contend that this section should include an acknowledgement that shellfish areas that are closed for harvesting are considered to be impaired. The Department failed to establish through competent, credible evidence that it is appropriate to not consider closures of shellfish areas for harvesting. The undersigned finds that there is no competent, substantial evidence to support this rule provision.

y. 62-303.500(3)(a)[Prioritization—advisories for mercury] The Department failed to present competent, credible evidence supporting the low priority designation for water segments that are listed before 2010 due to fish consumption advisories for mercury.

z. , 62-303.720(2)(a)[Delisting Procedures, Binomial method, Table 3] for the reasons stated under sections 62-303.320(1-4) and 62-303.420(2) the undersigned finds that the binomial methodology employed in this section, as well as the exceedance rate, confidence level and minimum number of samples required are not supported by competent substantial evidence.

VIII. Failure to Implement and Interpret Powers/Duties Granted by Statute

229. DEP failed to implement and interpret the specific powers and duties granted by the enabling statute, as required under the flush left language of Section 120.52(8), Florida Statutes. Instead, DEP intrinsically decided it did not like much of what the Legislature had specifically passed concerning determining what waters will require TMDLs, with no implementation or interpretation at all. Accordingly, the proposed rule provisions identified in Sections E.III. through E.IX., above, constitute invalid exercises of delegated legislative authority.

IX. Failure to Avoid Unnecessary Technical Language

230. § 120.54(2)(b), Fla.Stat., states that "[a]ll rules should be drafted in readable language. The language is readable if: 1. It avoids the use of obscure words and unnecessarily long or complicated constructions; and 2. It avoids the use of unnecessary technical or specialized language that is understood only by members of particular trades or professions." The proposed rule, when considered in its entirety, is in violation of § 120.54(2)(b), Fla.Stat..

X. Improper Incorporation By Reference

231. Under § 120.54(8), Fla.Stat. (1999), "A rule may incorporate material by reference but only as the material exists on the date the rule is adopted." Proposed rule section 62-303.320(7)(a), requires that in order to determine water quality exceedances "data shall be collected and analyzed in accordance with Chapter 62-160, F.A.C., and . . ." This proposed rule provision is based on an administrative rule, 62-160, F.A.C., that had not been adopted at the time of the adoption of 62-303.320(7)(a). As a result the public had no ability to adequately

assess the appropriateness of proposed rule section 62-303.320(7)(a) and its impact upon the exceedance tables found in proposed rule sections 62-303.320(1), Table 1., 62-303.420(2), Table 2. and 62-303.720(2)(j), Table 2. Consequently, the ability to evaluate the impact of the Department's use of binomial distribution upon the identification of impaired waters is compromised. Additionally, proposed rule section 62-303.320(7)(a) directly impacts upon the consideration of water quality sampling in the following rules: 62-303.350(2)(a)[7], 62-360(1)(a), 62-303.370(1), 62-380(1)(a), 62-303.380(2)(a)[8], 62-303.380(2)(b)[9], 62-303.420(4), In addition, rule 62-160, F.A.C., is directly tied to the Department's ability to consider water samples submitted under proposed rule section 62-303.330(2)[10], 62-303.340(1), 62-303.430(1), 62-303.460(1) The fact that the Department is in the process of adopting rule 62-160, F.A.C., as an administrative rule does not alleviate the deficiency inasmuch as the promulgated rule could be challenged and in its final form may not contain the same elements as the Department currently expects. Therefore, this aspect of the proposed rule constitutes an invalid exercise of delegated legislative authority.

FINAL ORDER

ORDERED that Petitioners' rule challenged petition is granted and that:

1) Pursuant to § 120.56(2)(b), Fla.Stat., proposed rule sections 62-303.100(2), 62-303.100(5), 62-303.150(1), 62-303.200(2), 62-303.200(5), 62-303.300 through 62-303.380, 62-303.400 through 62-303.480, 62-303.500(3)(a), 62-303.500(4)(a), and 62-303.600, 62-

[7] This rule, in turn, directly affects the ability of a water segment to be placed on the verified list under 62-303.450(1).
[8] This rule, in turn, directly affects the ability of a water segment to be placed on the verified list under 62-303.480.
[9] This rule, in turn, directly affects the ability of a water segment to be placed on the verified list under 62-303.480.
[10] This rule, in turn, directly affects the ability of a water segment to be placed on the verified list under 62-303.430(3).

303.720(3)(c)are determined to be invalid exercises of delegated legislative authority on the grounds that they violate §§ 120.52(8)(a)-(f), Fla.Stat. (1999); and

2) Pursuant to § 120.56(2)(b), Fla.Stat., proposed rule sections 62-303.320(7)(a), 62-303.320(1), Table 1., 62-303.420(2), Table 2., 62-303.720(2)(j), Table 2., 62-303.350(2)(a), 62-360(1)(a), 62-303.370(1), 62-380(1)(a), 62-303.380(2)(a), 62-303.380(2)(b), 62-303.420(4), 62-303.450(1), 62-303.330(2), 62-303.340(1), 62-303.430(1), 62-303.430(3), 62-303.460(1), 62-303.480 are determined to be invalid on the grounds that they violate §§ 120.54(8), Fla.Stat. (1999); and

3) Pursuant to § 120.56(2)(b), Fla.Stat., proposed rule 62-303 is invalidated in its entirety on the grounds that it unnecessarily uses technical language in violation of § 120.54(2)(b), Fla.Stat.; and

4) Jurisdiction is reserved to award Petitioner reasonable costs and attorney's fees under § 120.595(3), Fla.Stat.

FOR PETITIONERS,
APALACHICOLA BAY AND RIVER
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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that the foregoing was furnished by mail to David Crowley, Sr. Assistant General Counsel and Winston K. Borkowski, Sr. Assistant General Counsel, Office of General Counsel, Florida Department of Environmental Protection, 3900 Commonwealth Blvd., MS #35, Tallahassee, FL 32399-3000, Attorneys for Florida Department of Environmental Protection; Jacqueline M. Lane, 10738 Lillian Highway, Pensacola, FL 32506; James S. Alves, Esq. and Kevin B. Covington, Esq., Hopping, Green, Sams & Smith, P.A., 123 South Calhoun Street, Tallahassee, FL 32301, Attorneys for Florida Electric Power Coordinating Group, Inc., Florida Manufacturing & Chemical Council, Inc., and Florida Water Environment Association, Inc.; and to Terry Cole, Esq. and Jeffrey Brown, Esq., Oertel, Hoffman, Fernandez & Cole, P.A., 301 S. Bronough Street, 5th Floor, Tallahassee, FL 32302-1110, Attorneys for Florida Pulp & Paper Association Environmental Affairs, Inc., on this 15th day of January 2002.

Jerrel E. Phillips, Esq.