

July 18, 2003

J. I. Palmer, Jr.
Regional Administrator
Andrew Bartlett
Chief of the East Standards, Monitoring, and TMDL Section
U.S. Environmental Protection Agency
Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-89

Re: Decision Document for Florida's 303(d) list amendment submitted on October 1, 2002 and amended on May 12, 2003.

Dear Mr. Palmer and Mr. Bartlett:

The undersigned organizations provide the following comments and questions for the E.P.A. Region 4, Water Management Division regarding the above referenced document.

1) Since the EPA characterizes Florida's most recent submittals as an "update to the State's most recently approved Section 303(d) list, approved by EPA on November 24, 1998", what is EPA's position on the regulatory implications for the Group 2 through 4 waters that were listed on Florida's 1998 303(d) list but not yet assessed by Florida using the IWR? Does EPA consider a water body that was on Florida's 1998 303(d) list as impaired when reviewing proposed/draft NPDES permits for Florida?

EPA must clarify to the State of Florida that it considers waters appearing on the State's approved 1998 list but not yet reviewed by the State – i.e. waters that Florida considers "planning list waters" – fully subject to impaired waters permitting limitations under the Clean Water Act. This means that prohibitions and limitations on new or increased discharges must be honored by Florida. We strongly recommend that the EPA provide real time (not after-the-fact) review of all renewed Technical Advisory Committee (TAC) major permits and all new permits for facilities listed on State "planning lists" and on the approved 1998 list because Florida has given every indication it plans to allow permitting as if these waters were not impaired, in contravention of the CWA. Florida should be strongly cautioned that it will not be allowed to authorize new or increased discharges or mixing zones in such waters during the review period.

2. We appreciate that EPA does not rely on Florida's IWR to determine whether Florida waters were considered impaired or not. The Decision Document states "where the State's application of the IWR did not appear to properly implement Florida's approved water quality standards or EPA regulations, EPA addressed that inconsistency as part of this 303(d) list review process." (page 5)

However, the next paragraph of your Decision Document contradicts the previous paragraph by saying, "FDEP's application of its new listing methodology was very successful for identifying waters that are not meeting water quality standards." Yet, the Decision Document concedes that EPA identified 80 additional water quality limited segments that were excluded by Florida's IWR and had to be added to the list by EPA. We have attempted to list all the ways that EPA rejected Florida's IWR in this Decision Document at the end of this letter; we identified ten. In light of this list of 10 ways in which the IWR is not consistent with federal requirements, EPA's characterization of Florida's IWR as "successful" is baffling and sends the wrong signal to Florida and any other state that might be considering a similar approach..

3. We were gratified to see that EPA rejected Florida's primary reliance on Chlorophyll a thresholds as a method to determine whether nutrients are causing an imbalance of flora and fauna. However, EPA arbitrarily and capriciously concluded that the IWR is consistent with Florida's narrative water quality criteria for nutrients based on the IWR's listing process based on a 50% increase in chlorophyll a over historical values. (page 34). Florida's narrative criteria for nutrients says, "In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." A 50% increase over historical values indicates a significant imbalance. Florida's IWR clearly allows serious nutrient problems (imbalance of flora and fauna) to exist without listing a water as impaired.

Specifically, the IWR requires that the presence of chlorophyll a be the sole indicator of nutrient imbalance and that chlorophyll a populations be averaged over four seasons. This requirement ignores all the other indicators of a nutrient imbalance, such as highly elevated nitrogen and phosphorus levels. Furthermore, it masks even a chlorophyll a problem by requiring an annual average (when it is well established that chlorophyll a blooms typically happen between April and October), and often over periods of time far shorter than a growing season. Most irrationally of all, it specifically excludes indicators of imbalance such as red tides. We would like to know if, when EPA re-evaluated Florida's data for nutrient impairment, using the 50% increase test, did you make sure that the seasonal problems were not masked by DEP's annual averaging of the data?

5. In the Decision Document, EPA quotes the federal regulations, which state that "all existing and readily available water quality-related data and information" must be assembled and evaluated. Yet, Florida's IWR excludes numerous categories of data from even being considered. For instance: data resulting from permit violations, sewage spills, mixing zones¹, advisories, warnings, and closures based on red-tides, contaminant spills, discharges due to

¹ While we realize that EPA has authorized states to use mixing zones around outfall pipes from point sources and that water quality criteria need not be met inside these zones, Florida's mixing zone rule does require that designated uses be maintained even inside the mixing zones. In some cases in Florida, this requirement may be ignored and EPA should consider evidence that some mixing zones may be causing the failure of designated uses being met.

unauthorized upsets and bypasses from permitted facilities or heavy rain. EPA should reject FDEP's exclusion of these data. Many of these data may well reflect severe underlying problems with permitted facilities or nonpoint sources. There is no rational basis to authorize a blanket exclusion for these categories of data.

6. Florida's IWR does not provide for a review of whether antidegradation requirements are being met and therefore the list does not reflect an assessment of this component of Florida's water quality standards. Any time it can be demonstrated that any degradation of water quality caused by point sources was authorized in a NPDES permit, and there is no record of the permit authority going through the analysis and public process that is laid out in state and EPA regulations, then antidegradation requirements have not been met and the water should be listed. For instance, when a number of point source discharges have been authorized under a general permit, in a waterbody that was attaining water quality criteria for one or more parameters, but the general permit does not set a cap on the number of operations that can be authorized in a given watershed, there is no way to know when the cumulative effects of all the permitted discharges have caused substantial degradation (Tier 2), or even gone to the point where water quality standards are no longer being achieved (Tier 1). In such cases, the waterbody should be put on the 303(d) list and a TMDL should be done, with the goal of not merely achieving water quality standards, but going back to the pre-degradation condition.

EPA should not approve any state's impaired waters list without a review of the state's compliance with antidegradation requirements for its waters. At a minimum, no waters from the previously approved 1998 list should be allowed to be removed from the list until an antidegradation review is conducted for all dischargers or prospective dischargers to listed waters.

7. FDEP discarded almost 50% of the data available for Group 1 waters before any assessment of those waters was attempted. This data was discarded because it was missing one or more STORET numbers, or the STORET sampling station had been moved, etc. Is EPA aware of this, and if so, did EPA review this discarded data which originated from EPA's own database?

EPA's regulations require that all existing and readily available data be reviewed for listing decisions. EPA must itself review this data (unless it has made a determination that for some reason it is not valid – and the moving of a sampling station, for example, hardly qualifies as a valid reason for ignoring the data!). Moreover, EPA must not accept the IWR's approach for this or subsequent state listing exercises; instead it must insist that the state itself review all such data for this and future listing decisions.

8. EPA correctly states that FDEP held numerous public meetings while they were developing and adopting the IWR. However, for citizens who participated in these meetings (and EPA staff before the Bush administration took over in Washington), it was a complete waste of time, since any comments or suggestions that were not compatible with the demands of industry representatives (electric power, pulp and paper, agriculture, phosphate, sewer plants, etc.) were ignored. Extensive efforts that were made by the public and environmental organizations to assure that the IWR was consistent with federal law were ignored and, in fact, FDEP took the position during the administrative hearing for the IWR that federal law requirements were

irrelevant. (See attachment #7 to the letter dated February 5, 2003 from Linda Young to J. I. Palmer and Andrew Bartlett.)

Perhaps the clearest example of Florida's disregard for public participation is seen in the treatment given by the state to the advice given by the Technical Advisory Committee (TAC). Numerous recommendations made by the Technical Advisory Committee and agreed upon in those "scientific" discussions were later discarded by FDEP when industry demanded different approaches to the listing methodology. For instance, the most important was probably the TAC's recommendation that 10 should be the minimum number of samples that should be required for listing. They also recommended the IWR as one list. It was months after the TAC quit meeting that DEP unilaterally decided to have a planning list and a verified list.

We specifically request that EPA review public comments submitted during the state hearing process and make an objective assessment of how the state considered and addressed public comments. The record will demonstrate that Florida's public participation process was defective because it was so heavily biased in favor of polluters, and hence did not satisfy the public participation requirements of the CWA and TMDL regulations. For this reason as well as the others discussed in these comments, Florida's de-listing decisions for group one waters should be rejected.

9. Representations made during the administrative hearing for the rule challenge were later changed and FDEP is not implementing the federal program in the same way that the public was told it would. (See attachment #6 to the letter dated February 5, 2003 from Linda Young to J. I. Palmer and Andrew Bartlett.)

10. We appreciate EPA's rejection of Florida's IWR temporal and spatial guidelines as we believe these exclusionary devices are contrary to federal requirements and lead to polluted waters being delisted or not listed in the first place.

11. On page 18, EPA states, "EPA defers to a State's interpretation of its water quality standards, including how narrative criteria should be interpreted . . ." This is inconsistent with what EPA says elsewhere in the document.

Regarding nuisance species, Chapter 62-302.530(47) states: Substances in concentrations which result in the dominance of nuisance species: none shall be present (emphasis added). EPA then quotes the IWR, 62-303.330(3) FAC and 62-303.400(1) FAC (biological integrity standard) which is not consistent with the underlying narrative water quality criteria. Before listing a water as impaired for biological integrity, the IWR requires that bioassessment procedures be applied that are inappropriate for some waters and will result in not listing a water that is actually impaired.

The last sentence of the paragraph beginning with "Method for identifying waters not attaining narrative criteria . . ." provides information or a quote from the IWR [62-303.400(1) FAC, that does not exist. No where in that section of the IWR does it say that waters with one failure of this standard are identified as a WQLS. In fact, 62-303.430(2) (Biological Impairment) states, "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. . .” This is in direct contradiction with Florida’s narrative water quality standard quoted above.

Furthermore, the IWR requires that, in order to list a water for failure to attain or maintain biological integrity, the specific pollutant must be known and the concentration of that pollutant(s) and further impossible requirements outlined in subparagraphs #1 and #2. This rule bears no relationship to the requirements of federal law, which refer to compliance with all water quality standards (including narrative standards and such standards as whole effluent toxicity which, by their very nature, do not specify the causative agent of toxicity).

Clearly the intent of DEP is to keep the many waters of Florida that have failed the biological integrity water quality criteria off of the impaired waters list. In fact, there is only one water in the state listed for biological integrity impairment.

EPA needs to reexamine the IWR closely and review again Florida’s biological database as well as the statewide bio-reconnaissance data. In the meanwhile it must reject all de-listings based on the IWR’s biological integrity standard and conduct its own review.

Biological surveys are the most realistic estimators of the effects that are occurring at a contaminated site. They include the combined toxic effects of multiple contaminants, the effects of stressful conditions, effects on all life stages, effects of longer durations of exposure than in laboratory tests, effects of community interactions, etc. For this reason, the USEPA developed procedures for bioassessment of streams receiving contaminants as a supplement to the National Ambient Water Quality Criteria (NAWQC). However, because the criteria for bioassessment are based on hypothesis testing, they do not find “significant” effects in cases where the agency believes there to be important effects. Therefore, the USEPA policy is that biological survey data may only tighten regulation relative to NAWQC, never loosen it. The IWR does the opposite, yet EPA apparently is endorsing Florida’s attempt to mask biological impairments in this fashion.

At the bottom of page 18, EPA blatantly misquotes the IWR and is apparently trying to soften the stringent rule requirements for listing a nutrient-overenriched water. Nowhere in 62-303.450 FAC does it say, “Stream or stream segments shall be listed for nutrient impairments if . . . algal mats are present in sufficient quantities to pose a nuisance or hinder reproduction of a threatened or endangered species, . . .” For EPA to claim this is a paraphrase of some language that is written in 62-303.450 FAC borders on fraud. Instead, EPA should insist on changes in the IWR to ensure that it really does require listing in such circumstances!

13. On page 25 there is a discussion regarding “Impairments Due to Naturally Variable Parameters”. EPA misstates the requirements of the IWR when it says, “Part of FDEP’s methodology included the use of the binomial statistical approach using a 90 percent confidence threshold of a 10 percent exceedance rate. . . .” The IWR requires at least a 90 percent confidence threshold, but in reality uses close to a 95% confidence threshold in all cases. There is a significant difference between a 90% and almost 95% confidence threshold. Then EPA refers to the discussion in Appendix N, regarding the use of the binomial approach when

assessing naturally variable pollutants. While certain “conventional pollutants” are naturally variable, variations in levels of other pollutants can never be the result of fluctuation in natural conditions, like stream flow. EPA has also apparently failed to consider the possibility that certain natural fluctuations can be exacerbated by man-induced lowering of water quality.

Appendix N states, “. . . Florida’s choice of 10% is consistent with EPA’s general recommendations for pollutant parameters of this type, and represents a reasonable choice for this applications with respect to naturally variable pollutants . . .” EPA labels the following pollutants as “naturally variable”: Dissolved oxygen, turbidity, fecal and total coliform, conductivity and alkalinity. Of, these, the following have at least one water quality criterion expressed as “not to exceed on any one day” or some variation thereof: fecal coliform – “MPN or MF counts shall not . . . exceed 800 on any one day.” (the above water quality criterion applies to potable water supply, shellfish harvesting and recreation designated uses); total coliform – “not exceed 2,400 at any time, using either MPN or MF counts” (potable water supply and recreation); alkalinity – “shall not be depressed below 20” (potable water supply and recreation); conductivity – “shall not be increased . . . above background or to 1275, whichever is greater”; dissolved oxygen – “shall not be less than 5.0 Normal daily and seasonal fluctuations above this level shall be maintained.” (note it says fluctuations above, but not “below”) (potable water supply) “. . . and shall never be less than 4.0. Normal daily and seasonal fluctuations above these levels shall be maintained.” (shellfish); “. . . and shall never be less than 5.0. Normal daily and seasonal fluctuations above these levels shall be maintained.” (freshwater and marine aquatic life); turbidity – “less than or equal to 20 above natural background conditions” (applies to all designated uses).

The use of a 10% exceedance rule is not consistent with Florida’s water quality standards and therefore federal law when dealing with pollutants that have water quality criteria expressed as “no concentration greater than _____, at any time”. So EPA should go back and look at the raw data to determine whether there are any waters that should be added because they have one or more valid samples that are higher than the level specified in a “maximum no higher than _____, at any time” water quality criterion.

Additionally, EPA chooses to ignore the “at least 90% confidence threshold (close to 95% in reality) that Florida’s IWR imposes in addition to the 10%. As EPA pointed out to Florida in several comment letters written during the development of the IWR, the 90% to 95% confidence threshold requirement often leads to a false negative (concluding that a waterbody that is, in reality impaired, is not).

14. On page 23 and other places, EPA states that it relied on data no more than 7.5 years of age and that data older than that is less reliable in representing current conditions. Unless there is evidence that water quality has improved over time – a rare occurrence in Florida – then there is good reason to believe that the water quality has probably declined, due to the impact that Florida’s growth rate is having on surface and ground water quality. Expert testimony by FDEP during the administrative hearing for the IWR rule challenge clearly stated that data more than 7.5 years old is just as analytically reliable as newer data. In the case of fish-tissue testing for mercury, almost all of the analyses undertaken by Florida were conducted more than 7.5 years ago (most tests were done in 1992 and 1993). More recent fish-tissue sampling for mercury has

given no reason to believe that the mercury contamination problem in fish-tissue has gone away. Therefore, it is arbitrary, capricious and contrary to federal regulations to arbitrarily create a cut-off date for acceptable data when the regulations clearly provide that each state “shall assemble and evaluate all existing and readily available water quality-related data and information to develop the list . . .” It is particularly inappropriate to disregard data older than some arbitrary age when no more recent data is available. Indeed, it provides the State of Florida with a perverse incentive to allow its already-inadequate monitoring program to wither and die completely. Failing to “find” a problem by closing your eyes to it risks public health and ecological integrity, and EPA should not encourage it by endorsing an arbitrary cutoff date in data to be reviewed.

15. On page 46 EPA apparently tries to change or gloss over current guidance on the time allowed for an impaired water to meet water quality standards (by the next listing cycle) in order to avoid being listed on the 303(d) list. EPA’s apparently new language is “in the near future”. That is arbitrarily vague; a time certain should be used – either the current two years should be selected, or EPA should determine that the “near future” means some other predictable length of time.

16. We are encouraged to see that EPA rejected FDEP’s attempt to delist five segments of the lower Suwannee River based on the “Suwannee Partnership Agreement” submitted by the Suwannee River Water Management District. This plan is based on voluntary measures that are not in place and have no real hope of ever reducing nutrient levels in the Suwannee River, much less in the near future, especially due to the lack of monitoring required by these voluntary approaches. Federal law requires that CAFO dairies have NPDES permits unless they prove they are exempt, and this has not been done. FDEP is not trying to enforce state and federal law. Many of the CAFO dairies in the Suwannee are exceeding nitrate groundwater quality standards. Due to the karst topography in the Suwannee basin groundwater has a direct hydrological connection to surface waters and thus discharges to groundwater contribute to impairment of surface waters. EPA should re-examine this “partnership” and its conclusion that it is an excellent approach and that someday “requirements probably will be met”. EPA may consider the Suwannee basin a low priority, but the citizens of Florida do not.

We agree with EPA’s rejection of the following components of Florida’s IWR, all of which are mandated, as they should be, by current federal law and rules:

1. The IWR contains explicit guidelines for the collection, evaluation and use of data (temporal and spatial) for assessing water quality and impairments to designated uses (62-303.320(4)). This is the section of the IWR entitled “Exceedances of Aquatic Life-Based Water Quality Criteria.” This section lays out the decision rules for deciding if a water belongs on the planning list. EPA determined that these guidelines may be useful tools for identifying water quality limited segments, however, the effect of these data restrictions has been untested in the identification of water quality limited segments specific to Florida ecoregions. For the most part,² EPA reviewed Florida’s list based on Florida’s approved water quality standards, not the IWR. (Page 24)

² Although EPA claims to have always compared ambient data to existing Florida water quality standards, they didn’t actually do so in all cases. The key exceptions are: 1) when you have “instantaneous not to exceed, ever”

2. Concluding that FDEP's assessment process was not reliable for water bodies with associated fecal coliform data when there were more than 20 samples to review. (Page 26)
3. The requirement in the IWR and Florida's Watershed Restoration Act which does not allow any water bodies on the 303(d) list unless the pollutant causing the impairment has been identified. (page 27)
4. The IWR provision that does not allow waters with less than 20 samples within 7.5 years to be included on the 303(d) list. EPA analyzed the available data for trends, looked at pollutant levels during critical conditions, considered the magnitudes of any exceedances, and looked at other data such as biological monitoring, water quantity and flow impacts. (page 27)
5. The IWR methodology for determining impairments caused by toxic and non-conventional pollutants. Unlike the IWR, EPA paid particular attention to the magnitude, frequency and duration of any exceedances, trends, levels during critical conditions, and also considered any compensating periods of time when no exceedances were observed (which is consistent with EPA Technical Support Document for Water Quality-based Toxics Control). EPA also considered biological monitoring data, water quantity and flow impacts. Usually EPA specifically compared the data against Florida's approved water quality standards at 63-302.530 F.A.C. As a result of this more thorough analysis, EPA added additional waters to the 303(d) list where there were fewer than 20 samples taken over the past 7.5 years. (page 29)
6. The IWR requirement that a water body must fail two bioassessments and have the pollutant and its concentration determined in order to get on the 303(d) list. EPA states that one recent bioassessment can be evidence that a water body is not meeting water quality standards. EPA also considered the age of the bioassessment, its quality and any supporting pollutant data and other more site specific data. EPA also gathered information on site specific activities in the watershed, habitat investigation results and other qualitative information. Manatee Springs was added to the list by EPA. (page 31)
7. The IWR requirement that chlorophyll a thresholds be used to identify nutrient impaired waters. EPA based their nutrient impairment decision on a 50% increase in nutrient levels over historical values in combination with the consideration of site specific observations. EPA called chlorophyll a thresholds an acceptable alternative method and recognized that chlorophyll a levels can serve as a "backstop" to prevent impaired waters from being overlooked due to lack of historical data. (page 34)
8. The IWR methodology for determining impairment to shellfish harvesting. The decision document correctly points out that the fecal coliform thresholds used for fecal and total coliforms represents levels to protect recreational uses and not shellfish harvesting uses. Therefore EPA reviewed Florida shell-fish harvesting waters using the most recent classification maps and Florida water quality standards for Class II waters and considered any shellfish harvesting areas

water quality criterion; 2) when EPA felt existing water quality criteria were exceeded due to natural causes; 3) when EPA appears to have failed to compare ambient data to all versions of a water quality criterion (e.g. pathogens, in which they seem to have just looked at one out of the three applicable water quality criteria).

classified as anything other than approved for shellfish harvesting as impaired. EPA also pointed out that water quality data should be considered, but FDEP's database based on WBIDs does not allow this to be done for shellfish harvesting areas. EPA determined that the areas classified as prohibited for harvesting are impaired and added these waters to the 303(d) list. (page 40)

9. The IWR method for identifying impaired drinking waters and added additional waters to the 303(d) list. (page 43)

10. The delisting of the Lower Suwannee River based on 62-303.600, which allows impaired waters to not be on the 303(d) list if there is a plan that will "someday" fix the pollution problem. (page 47)

The many elements of the Impaired waters Rule cited above which EPA has identified as in appropriate grounds for de-listing or not listing Florida waters as impaired, call into serious question the claim in EPA's general introduction to the approval document that the rule overall is sound and yields useful or meaningful results. The numbers speak for themselves: in only one fifth of Florida's watersheds, eighty re-listings were necessary in the course of EPA's review.

Rather than imply, through the sort of laudatory language included in EPA's general introduction to this approval document, that the Impaired Waters Rule is putting Florida on the right track, why not paint an accurate picture for the DEP and the citizens of Florida of the IWR's blatant inconsistencies with the CWA? If EPA were to do so, it would help ensure that future state analyses and listing exercises would not need to be essentially re-done from beginning to end by federal reviewers as this one had to be. We are at a loss to see how the methodology of the IWR, which yielded such manifestly inaccurate results in identifying impaired waters, can receive federal approval.

We look forward to your reply to the questions and comments outlined in this letter.

Sincerely,

Linda L. Young
Southeast Regional Director
Clean Water Network

Natural Resources Defense Council
Jessica Landman
Washington, DC

Sierra Club
Carl Pope
San Francisco, CA

Florida PIRG
Mark Ferrulo
Tallahassee, FL

Florida Chapter Sierra Club
Greg Kalmbach
Saint Petersburg, FL

Save Our Suwannee, Inc.
Svenn Lindskold
Bell, FL

Friends of St. Sebastian River
Tim Glover
Sebastian, FL

Allies of the Earth
Beth Hollenbeck
Winter Springs, FL

Around the Bend Nature Tours
Karen Fraley
Bradenton, FL

Bay County Audubon Society
Candis Harbison
Panama City, FL

Bayou Texar Foundation
Blair Stephenson
Pensacola, FL

Beach to Bay Connection, Inc.
Celeste Cobena
Santa Rosa Beach, FL

Conservation Alliance of St. Lucie County
Bob Bangert
Ft. Pierce, FL

Control Growth Now, Inc. (formerly GEO)
Dan Lobeck
Sarasota, FL

ECO-Action
Beth Hollenbeck
Casselberry, FL

Emerald Coast Parrothead Club
Rick Ricketts
Destin, FL

Florida Consumer Action Network
Susie Caplowe
Tampa, FL

Florida Federation of Garden Clubs
Marion Hilliard
Orange Park, FL

Florida League of Conservation Voters
Nancy Brown
Tallahassee, FL

Four Rivers Audubon Society
Frank Sedmera
Lake City, FL

Friends of the Everglades
Nancy Brown
Miami, FL

Gulf Coast Environmental Defense
Enid Sisskin
Gulf Breeze, FL

Indian Riverkeeper
Kevin Stinnette
Fort Pierce, FL

Manasota-88
Glenn Compton
Sarasota, FL

Outdoor Adventures
Howard Solomon
Jacksonville, FL

Save Florida's Springs and Aquifers (SFS&A)
Stewart Loeblich
Crystal Springs, FL

St. Johns Riverkeeper
Neil Armingeon
Jacksonville, FL

The Eco-Store
Beth Hollenbeck
Orlando, FL

Audubon of Florida
Eric Draper
Tallahassee, FL

St. Lucie Audubon Society
Harold Phillips
Ft. Pierce, FL

Tropical Audubon Society
Cynthia Guerra
Miami, FL