UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF WATER

**SUBJECT:** SAB Review Methods for Florida Estuaries and Coastal Rule

**FROM:** Elizabeth Behl, Director
Health and Ecological Criteria Division [redacted]

**TO:** Science Advisory Board (SAB)

We would first like to thank the Nutrient Criteria Review Panel for taking the time to review our proposed methods and approaches document for deriving numeric nutrient criteria for Florida's estuaries, coastal waters and southern inland flowing waters. The document outlines a conceptual model and tools and approaches we are considering for use in deriving numeric nutrient criteria. We will consider your input and recommendations and use this document as a basis for further developing the technical support document, which will describe the criteria we develop.

We have reviewed your draft response to our charge questions, and we appreciate the general support of our proposed approach, as well as the suggestions you have provided to assist us in this effort.

Specifically, we understand and appreciate your recommendations to more clearly address what is meant by "balanced natural populations". After all, this is fundamental, as it specifies what it is we are trying to protect. We are committed to continue working with Florida's scientists and technical experts to better articulate this concept as we work to translate this statement into numeric values.

With regard to your suggestion to provide more specificity regarding the use of stressor-response relationships: We would like to make sure that you are aware of the guidance document that we provided as background material for this review. This document, *Using Stressor-response Relationships to Derive Numeric Nutrient Criteria*, is available on the SAB's website and should provide the additional information you seek. The technical support document we develop will describe in more detail the methodologies that we use to derive criteria.

On several occasions in your draft review, you suggest that EPA take into account additional considerations, for example, using macrophytes and epiphytes, factoring in climate change, the impacts of urban environments, or the growing demand for freshwater withdrawals for the purposes of drinking water and agricultural irrigation. We would appreciate additional clarification on specifically *how* EPA should proceed to take

such factors from a scientific perspective into account to derive numeric criteria that are protective of the State's designated use.

On page 32, you state that the downstream protective approach proposed in the EPA document *requires* equal allocation of pollutant load reduction. We do not believe that equal allocation is the only approach that can be used. We provided an example using equal allocation only as a simplified illustrative example. We are open to your thoughts regarding the scientific considerations EPA should take into account when applying downstream protection values to upstream waters to ensure the attainment and maintenance of downstream water quality.

We appreciate your concerns regarding the time available for EPA to complete this effort and propose criteria values this November. Please be assured that EPA has the resources available to accomplish this task. In fact, we are well on our way in our effort to develop the necessary tools, including models to be used in developing the criteria. The document you reviewed described in detail the modeling approaches we are developing. The level of detail required to describe the models resulted in a disproportionate number of pages devoted to the explanation of those tools in comparison to other tools, such as reference condition or stressor response approaches. Please be assured we are considering all tools in developing the criteria.

We would also like to clarify a few fundamental requirements of the Clean Water Act which provides the statutory authority and guides the regulatory actions we must take.

- First, EPA's implementing regulations require that the water quality standards of downstream waters be considered when setting the designated use of a waterbody and the appropriate criteria for that use. Simply put, in this effort to establish criteria to control nutrient pollution in the State of Florida, EPA must ensure that the criteria provide for the attainment and maintenance of the water quality standards of downstream waters. So when EPA establishes numeric nutrient criteria to protect estuaries, EPA must also evaluate whether the criteria already set in upstream waters will ensure the protection of the downstream estuaries. If the upstream criteria are not protective of these estuaries, then adjustments must be made. We call these adjustments downstream protective values.
- It is not sufficient to ensure that downstream water bodies are protected solely through the use of the TMDLs (Total Maximum Daily Loads). TMDLs do not provide upfront protection of the designated uses of a water body. Instead, they serve to restore already impaired water bodies. It is the water quality standards that ensure that the water bodies are protected, including the continued protection of high quality waters. We do not believe the CWA envisions an approach to setting WQS that allows degradation of high quality waters only to be addressed once they are impaired, relying on the TMDL program to, at some point in the future, restore water quality within the watershed.
- Lastly, when setting criteria, we are charged to do so using the latest scientific knowledge and the best available information. Several times in your draft review,

you suggest that EPA conduct new studies, take additional samples, or develop new biological indices. We must establish the criteria using the data and information that are currently available. However, if you can identify where this information may be found, we are committed to following up to ensure that we use the best available data to derive numeric criteria for this effort.

In closing, we appreciate you taking the time out of your own busy schedules to review our proposed methods and approaches. This review will help us ensure that the numeric nutrient criteria that we ultimately establish will utilize the latest scientific thinking and sound scientific principles.