# Florida Department of Environmental Protection

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December 21, 2010

Ms. Stephanie Sanzone
Designated Federal Officer
EPA Scientific Advisory Board (1400R)
U. S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C., 20460

Dear Ms. Sanzone:

This letter is a follow-up to our discussion at the December 14, 2010 meeting of the Science Advisory Board (SAB) Nutrient Criteria Review Panel in which you and Dr. Judith Meyer indicated that I could provide additional information to the SAB on the topic of Downstream Protection Values (DPVs) for estuaries. I will limit my comments to those that are responsive to the SAB discussion on DPVs. However, I would like to emphasize that, despite our technical concerns about the derivation of DPVs, we agree that protection of downstream waters is very important and that it must be addressed in a State's overall water quality protection programs.

Specifically, we would like to provide more information on Pensacola Bay, which was used as an example of how DPVs would be developed and implemented:

1) During the presentation Dr. James Hagy noted that DPVs for Total Nitrogen (TN) for a significant portion of the Pensacola Bay watershed were lower than the In-stream Protection Values (IPV) for the watershed (0.67 mg/L), and concluded that the DPVs were required to ensure protection of the downstream estuary. However, it is important to have a full understanding of the information relevant to how the nutrient concentration for the terminal reach was derived. Most significantly, it would be helpful to note that:

    a) In 2008, EPA concluded that additional nutrient reductions were not needed for Pensacola Bay ("An Approach for developing numeric nutrient criteria for a Gulf Coast Estuary." EPA 600R-08/004). EPA may have revised its position based on more recent modeling that examined the low Dissolved Oxygen (DO) levels in the bay, but EPA has also acknowledged that the low DO levels are driven by natural stratification.

    b) EPA's 2008 report concluded that nutrient export from the watersheds of the major rivers entering the bay was similar to pristine or nearly pristine watersheds and that major causes of increased nutrient export were absent from the Pensacola bay watershed, which was characterized by low population, minimal row-crop agriculture, and low atmospheric nitrogen deposition.

c) The Florida Department of Environmental Protection, after conducting public meetings with local scientists, agreed with EPA's 2008 conclusion that reductions in nutrient loadings were not needed for Pensacola Bay in its August 2010 DRAFT report for NNC criteria for Pensacola Bay, and

d) The IPVs for the streams in the Pensacola watershed were based on reference conditions using minimally-disturbed streams in the region.

2) If it is true that further reductions are not needed for Pensacola Bay and that IPVs are derived from minimally-disturbed streams, what would be the reasoning behind setting DPVs at concentrations lower than IPVs?

3) During the discussion, Dr. Mark Noll suggested that EPA determine if DPVs are needed by conducting a model run that set stream concentrations at the IPVs. We believe that this is an excellent suggestion. If these stream reaches were held to the IPV as suggested by Dr. Noll, then the reduction in loading in the upstream reaches could very well off-set the additional loading in the downstream reaches where the IPV is higher than the DPVs.

Thank you for this opportunity to provide supplemental comments on this important issue. If you or any of the SAB have any questions about our comments, please do not hesitate to call me at (850)245-8431.

Sincerely,

Daryll Joyner, Chief
Bureau of Assessment and Restoration Support