

*Southeast Watershed Alliance  
P.O. Box 22122  
Portsmouth, NH 03801*

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September 07, 2012

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Richard Langan, Ph.D.  
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Stephen H. Jones, Ph.D.  
Research Associate Professor, Department of Natural Resources & the Environment  
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University of New Hampshire  
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Regarding: **Request for Input on Proposed Peer Review of Great Bay Nutrient Protection Strategy**

Dear Drs. Pennock, Langan and Jones:

The charge and primary goal of the Southeast Watershed Alliance (Alliance) is to implement solutions to protect and enhance the surface and ground waters of the New Hampshire Coastal Watershed. As you are aware, the issue of appropriate nutrient requirements to protect the Great Bay estuary has been a topic of considerable debate and controversy over the past two years. Some argue that nitrogen is not the primary factor influencing system ecology (e.g., eelgrass populations) based on the available data while others assert that prompt, major reductions are essential to restore and protect this resource. Regardless of the final outcome, given the economic and ecological ramifications at stake, it is in the interest of the Alliance communities to understand the issues affecting the estuary as best we can and to ensure that the protective measures that we implement effectively improve the quality of the resources we all enjoy. Consequently, the Board of Directors of the Alliance, at its August 13<sup>th</sup> meeting, elected to move forward in response to a request for the Alliance to sponsor an independent peer review of the 2009 NHDES Numeric Nutrient Criteria. The subject of an independent peer review was brought before the general membership of the Alliance at its quarterly meeting on August 8<sup>th</sup> and, following lengthy and lively discussion, a majority of the representatives present voted to move forward in furtherance of the peer review. Your input and involvement in that process, as discussed below, would be most welcome.

It is our understanding that the recent scientific debate has resulted in significant additional analyses addressing a number of critical assumptions underlying the 2009 Numeric Nutrient Criteria document. Moreover, recent studies of Great Bay and its tributaries by UNH researchers and others have provided further insight on the

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appropriate scope and benefits of nutrient reduction. Finally, three additional years of data collected apparently show significant improvement in the nitrogen levels in the estuary and that eelgrass beds are recovering. The factors leading to these recent improvements are not fully understood. Whether and how this information should alter prior regulatory directions are open questions. It is also critical that we try to gain a better understanding of the monitoring efforts that can be done to supplement existing data, identify and fill gaps in the existing data, provide additional data that could then be used to develop effective and innovative solutions for implementation to improve water quality in the watershed, and, track the results of implementation efforts in order to assess outcomes and results.

The Alliance understands the important contributions that UNH researchers, and the Jackson Lab in particular, have made in collecting, compiling and analyzing the data associated with the watershed and the estuary. Each of you is on the PREP Technical Advisory Committee assessing the State of the Estuary and has played a major role in expanding the knowledge of the estuary. Through those activities you are familiar with much of the new information that has been developed since 2009. Therefore, in advance of conducting this peer review and as an aid to structuring that effort, we would ask for your short response to the following questions:

- Based on the more recent data and analyses, do you believe that an updated peer review would be appropriate with regard to the recommendations contained in the 2009 Numeric Nutrient Criteria document and nutrient reduction strategies triggered by application of that document?
- What updated information do you believe needs to be considered and evaluated to ensure that local resources are prudently expended?
- Are there critical gaps in our knowledge of Great Bay eelgrass, dissolved oxygen, and ecosystem dynamics that need to be more fully understood at this time?
- Other than yourselves, do you have any recommendations as to experts that should be included in this independent peer review process?

In closing, ensuring that local and state resources are properly focused is a critical concern of the Alliance. A majority of the Alliance members believe that an open, independent peer review is an important step in assessing the available information and the basis of divergent views. This is best accomplished in a public forum, open to anyone who wishes to present relevant scientific information. Given your expertise and long involvement in assessment of this estuary, your involvement as peer reviewers of the information presented would be most appreciated. Please let us know your thoughts on the issues presented above and whether you would be available to participate as reviewers in this process. An adequate budget will be established to ensure that you may devote the time necessary to this critical effort.

We greatly appreciate your time and look forward to hearing from you. I can be reached at: [mtrainque@hoyletanner.com](mailto:mtrainque@hoyletanner.com), (603) 785-3578 (mobile), or at the address above.

Sincerely,

**SOUTHEAST WATERSHED ALLIANCE**



Michael A. Trainque, P.E., Chairman  
Board of Directors