

July 28, 2009

Mr. Tom Danielson  
Department of Environmental Protection  
17 State House Station  
Augusta, ME 04333-0017

Subject: Comments on Proposed Chapter 583. Nutrient Criteria for Fresh Waters

Dear Mr. Danielson:

Thank you for the opportunity to review and comment on the proposed Chapter 583 Rules. First, I'd like to commend the Department for their work to establish this Rule and the tremendous amount of work that has been undertaken to bring us to this point. I am in support of establishing this rule and clarifying the judgment of compliance and noncompliance with respect to nutrients in fresh waters. I do have a number of questions and concerns with the rule as drafted and I will outline them in this note. If you are unclear as to any of my comments or questions please contact me either by phone at 800-426-4262, by cell at 207-671-6855, or by email at [jfitch@woodardcurran.com](mailto:jfitch@woodardcurran.com).

#### General Comments

- I note that the values or data points used in the determination of compliance/noncompliance are often noted as absolute values, meaning that a single value can be used to determine whether a water body is in compliance or noncompliance. I disagree with this approach as the nutrient itself is not the causative agent of damage to the biota or other criteria. The approach taken seems to assume that nutrients are toxic and a one time value can cause water quality problems. I believe that it is the long term or seasonal value that is of concern and that averages or means of a season long analysis program should be the basis of assessing compliance or noncompliance. Likewise if nutrient control at a permitted facility is required the measurement of compliance at the facility should be based on a season long sampling program using an average value or a mean as the measurement point.
- I am concerned that by creating these rules that the Department will automatically require nutrient removal from point sources if the receiving water is found to be in noncompliance. As noted in the proposed rule the environmental response criteria are really the impacts that can result from excessive nutrients in the water body. In most situations it will be more cost effective for a facility to reduce other constituents in their discharge and remove another driver for a particular response criteria, e.g., Dissolved Oxygen levels can be modified by removing additional BOD or TSS (which can become sediment oxygen demanding compounds) or by raising the oxygen level in the discharge.

Comments on the Rule-Making Fact Sheet

- Under the Fiscal Impact section it is noted that the Department can require permittees to collect in stream samples and I assume evaluate those samples for any of the compounds or environmental response criteria noted in the proposed rule. I am concerned with this. The permittee is responsible for the effective operation of a facility and to attain compliance with the details of the discharge permit. In stream monitoring and assessments of water quality compliance are the responsibility of the Department and crossing this line causes me great concern. Permittees should not be required to become extensions of the Department staff and are not trained to gather the samples correctly, may not understand when sampling is inappropriate due to other influences, may not understand the seasonal changes in criteria that occur, etc. I believe that the State would be better served by assuring that the data obtained is quality data and that permittees should not bear this responsibility or the cost of these assessments.
- Also in the Fiscal Impact section you state that the cost could potentially exceed \$1 Million. I have been involved in the design of nutrient removal facilities for a number of clients in Massachusetts, New Hampshire, and Maine and in the vast majority of these situations my clients have expended much more than a million dollars for their facility alone. I expect that if the Department determines that there is nutrient related noncompliance in even a few facilities that the cost impact will be many millions of dollars. This is not a minor impact on the permitted dischargers this is a major fiscal impact that will result in significant increases in user fees for any facility that is required to remove significant amounts of nutrients (likely those on the smaller rivers in the State).

#### Comments on the Draft Rule

- Page 2, section 3A. How is “an established set of samples” defined? Are there a minimum number of samples, is there a minimum duration of sampling, is there a requirement that it is representative of an entire summer season, are data eliminated from an established set after a certain time frame? I think some definition is necessary here.
- Page 2, section 3B (1). It appears that a single noncompliant reading can result in an assessment of noncompliance. I think this is extreme and a longer term set of noncompliant readings should be the basis on a determination. As an example, a storm event can lead to scouring and suspension of clay materials for a long period of time and in some cases it could last for weeks or months as in the example of the Royal River.
- Page 2, section 3B (2). The concentrations noted are very low. What procedure was used to identify these values and what is the basis for using these values as indicators of noncompliance for the different water quality classifications? Also, it appears that any one sample could cause a determination of noncompliance. Nutrients don’t impact the water bodies as toxics do but it appears that the Department is taking the same approach. I believe that long term elevated values are the causative agent of noncompliance not spikes. I suggest a long term seasonal average or a mean be used in assessing compliance.

- Page 2, section 3B (3). Same comment as in section 3B (2) above.
- Page 3, section 3B (4). How is this measured? It seems to me that we need some definition/guidance in this. For example is it within an area of identified dimensions, say 10' on a side; is it across a cross-section of the river of a given width, at this point it is very open to interpretation and judgment.
- Page 3, section 3 B (6). As structured a single value taken at any location at any time of day can result in an interpretation of noncompliance. I believe that daily averages or means is a more appropriate measure for determination of nutrient related noncompliance.

Again, I appreciate the opportunity to present these comments and as noted above I am willing to discuss any of these items with you further or to brainstorm solutions to the issues. Good luck with the next steps in finalizing this rule.

Sincerely,

James H. Fitch, Jr., P.E.

Woodard & Curran, Inc.