

HALL & ASSOCIATES
1620 I STREET, NW
SUITE 701
WASHINGTON, DC 20006

Telephone: (202) 463-1166

Facsimile: (202) 463-4207

E-mail: jhall@hall-associates.com
Web site: <http://www.hall-associates.com>

MEMORANDUM

TO: Colorado Nutrient Coalition

FROM: John C. Hall
Tad S. Foster

DATE: January 7, 2011

RE: Joint Proposal for Services in 2011 Regarding Development of Control Regulation and Related Regulatory Activities

This memorandum addresses the projected costs for addressing various regulatory initiatives underway by the Division in 2011 regarding regulation of nutrients in Colorado waters. The Coalition has made considerable progress in promoting a more cost-effective approach to nutrient regulation in the state. Presently, the Division has tabled the adoption of broadly applicable nitrogen and phosphorus water quality standards, and has agreed to a more limited adoption (applicable to high quality waters) and a control regulation to address point and non-point nutrient sources. A very considerable effort was expended in 2010 to foster this alternative approach – the attachment identifies the scope of activities that was undertaken on behalf of the Coalition by Hall & Associates and Tad S. Foster. Supplemental funding to address those efforts already undertaken is still necessary.

At this point, formal adoption of the control regulation and accompanying rules (*e.g.*, rules to control impacts on high quality drinking water sources, etc.) has been deferred pending the completion of a cost impacts report by the Colorado Water Resources and Power Development Authority (“The Authority”). Completion of that report is anticipated in mid-2011 and rulemaking on the control regulation is now scheduled for March 2012. This deferral provides the time necessary to work out a number of critical issues of concern to the group over a reasonable time frame. However, this additional time must be used judiciously if resolution of key issues is to occur.

Proposed Scope of Work

The following activities need to be addressed over the next 12 months to avoid any confrontation or dispute before the Commission at the time of control regulation adoption.

1. Continue the review and evaluation of draft control regulation requirements with particular emphasis on the following items:
 - a. Application of the rule to small facilities, lagoons or other circumstances where TN reduction, in particular, would result in disproportionately high costs;
 - b. Resolution of the scope of the environmental sampling and monitoring protocol that will be required and how such information will be used to resolve whether and how nutrients are adversely impacting receiving water uses;
 - c. Adoption of performance goals that only require use of moderate BNR reduction technologies, particularly with respect to nitrogen removal. A key focus will be use of annual average requirements for TN or TIN;
 - d. Appropriate variance mechanisms to address conditions where nutrient reduction will not provide any beneficial improvement to ambient conditions;
 - e. An understanding of how the Division will proceed on waters that have identified nutrient impairment problems; and
 - f. An understanding on how the Division intends to identify other waters as nutrient impaired, in the absence of applicable numeric criteria, during the operation of the control regulation (including how such impairment designations will affect growth in such areas pending TMDL development). Identification of such characteristics by the Division would help to limit future attempts by EPA to broadly define waters as nutrient impaired (e.g., via consideration of MMI or narrative standard interpretation). If such a “narrative translator” document could be developed with the Division, future impairment listing would only occur where data clearly support such a determination.
2. Evaluate the proposed rule language and background information with regard to protection of certain “high quality” drinking water supplies. Addressing this aspect of the rulemaking is anticipated to include:
 - a. An evaluation of the disinfection byproducts issues facing various drinking water sources and the background information supporting this concern (e.g., New York State study).

- b. Meeting with the other interested stakeholders to work out regulatory language acceptable to all parties;
3. Assessment of future watershed sampling programs that would assist in resolving criteria development and use impairment issues, allocation responsibilities and pollutant transport questions. This would include an assessment of EPA's recently published guidance entitled "*Using Stressor-response Relationships for Deriving Numeric Nutrient Criteria*" USEPA Nov. 2010. In addition, the Coalition has raised the question of how to balance use needs and pollution reduction requirements for reservoirs that receive large loads from irrigation return flows or from water transfers, in cases where the primary purpose of the reservoir was agricultural reuse, or there is no direct water supply use. How such "waters withdrawn for use" are addressed is an outstanding concern. EPA is also pressing states to reduce TN levels to resolve Gulf of Mexico concerns. Reviewing current data and setting up a program to monitor several large downstream reservoirs would serve to establish a baseline for assessing the benefits achieved by point source regulation under the control regulation and would provide a basis for resolving questions of pollutant fate and transport (particularly with respect to TN).

Cost for Ongoing Services

At this point it is difficult to assess the degree of assistance that will be necessary to address issues as they arise. The effort should be considerably less than that expended in 2010, assuming that the control regulation hearing, previously scheduled for August 2011, is actually deferred. Consequently, we would recommend that a monthly budget of \$7,500 be provided to address issues over the next 12 months. This works out to \$90,000 for the year and would be in addition to the resources needed to cover the efforts expended in 2010. This should provide sufficient flexibility to allocate resources to various issues of concern. Action on Items 1 and 2 clearly are the greatest priority. Item 3 is related, in part, to resolving the scope of future monitoring and how the data will be used in future impairment assessments (Items 1b and 1f). Therefore, we would suggest that action on this item should be a function of progress made in resolving control regulation monitoring issues. If other concerns arise (and, given the fluid nature of this entire process, that is probable) we can provide the group with an estimate of effort and costs to address the matter.

Please let us know whether this scope of work meets the priorities of the Coalition. The group should be very satisfied with the progress made to date. We started with an extremely difficult situation, given the standards under consideration, and seem to have turned the corner to a more workable and cost-effective regulatory approach. Nonetheless, considerable work is left to make the new approach a reality and to ensure that the federal program does not attempt to supersede the state approach. We look forward to the Coalition's approval of this proposal and to providing assistance to the group in the coming year.

COLORADO NUTRIENT COALITION

List of Coalition Consultant Activities in 2010

The goal of the CNC is to support development of cost-effective nutrient control requirements for statewide implementation. In furtherance of that objective, the following activities were undertaken in 2010 by Hall & Associates and Tad S. Foster:

1. “White Paper” entitled “Evaluation of Nutrient Criteria Adoption on Colorado Municipal and Commercial Interests” (July 2010);
2. Comments of Colorado Nutrients Coalition on Water Quality Control Division’s June 2010 Colorado Nutrient Criteria Concept Paper (July 2010);
3. PowerPoint Presentation on Nutrients Concept Paper including Basic Concerns with the Colorado Approach and lack of consistency with EPA Scientific Advisory Board critique of EPA’s empirical methods used by the Division (August 2010);
4. Technical Evaluation of Colorado Nutrient Criteria Derivation Methodology and Draft Criteria for Lakes and Streams (August 2010);
5. Alternative Nutrient Approaches Analysis and Proposals (August 2010);
6. CNC Draft Nutrient Criteria Concept Proposal for Lakes and Reservoirs, Rivers and Streams (September 1, 2010);
7. Review of Mechanisms Influencing Nutrient Dynamics in Lakes and Streams (September 8, 2010);
8. Meeting with CWQCD concerning CNC Concept Proposal and Denver Metro Reclamation District’s Concept Proposal;
9. Identification of Major Colorado Storage Reservoirs affected by proposed standards;
10. Significant comments on improving the Denver Metro Concept Proposal to use a Control Regulation to support Technology Based Effluent Limits for Nutrients and monitoring, while adopting nutrient values to be applied to pristine streams and high quality drinking water reservoirs (September 2010 to present);
11. Comments on WQCD’s proposal for MultiMetric Index (MMI);
12. Continued analysis of data and methods of analysis of WQCD supporting Division’s initial proposed nutrient values;

13. Promoted utilization of Independent Peer Review process to evaluate Division's methodologies for developing nutrients values and standards;
14. Support to "Small Group" control regulation negotiators (September 2010 to present);
15. Support to numerous CNC conference calls to discuss issues and positions;
16. CNC letters to Division and EPA Region VIII concerning total nitrogen standards; and
17. Draft regulatory language/letters to Division supporting WQCD/Metro Concept Proposal.