Fiscal Year 2009 Work Plan
Water Quality Academic Advisory Committee

Prepared for the

Virginia Department of Environmental Quality
Office of Water Quality Programs

Submitted by
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Project Duration: ~~July~~ August 1, 2008 to June 1, 2009

Freshwater Nutrient Criteria for Wadeable and Non-Wadeable Streams/Rivers

Goals and Objectives

The AAC will continue to provide assistance to Virginia DEQ in developing a scientifically sound and workable approach to nutrient criteria in freshwater streams and rivers. The goal of AAC FY09 activities is to continue its work on freshwater nutrient criteria for streams and rivers and build on AAC work that was initiated during FY06-FY08.

The major objective for FY09 activities is to provide assistance to the DEQ Office of Water Quality Programs for the development of freshwater nutrient criteria for Virginia's wadeable and nonwadeable freshwater streams and rivers. FY09 work plan and specific tasks to be accomplished are described below.

Work Plan

Task 1: Wadeable Streams

Upon completion of the EPA funded pilot program, recommend to DEQ whether or not nutrient criteria for freshwater wadeable rivers and streams should be based on the Screening Value approach. If yes," recommend appropriate parameters and approaches for implementation and assessment. If "no," recommend an alternative approach to be pursued.

1a. Analyze pilot program results to determine if its results support application of the screening value approach to nutrient criteria development. If so, use pilot study results to recommend suitable nutrient concentrations that can serve as screening values and as critical values. Also, recommend needed protocol refinements for its effective use in Virginia as a basis for determining attainment of the nutrient criteria.

1b. Analyze DEQ probabilistic monitoring and/or ambient monitoring data as a means of verifying or confirming proposed screening and critical values derived from the pilot program data analysis.

1c. If the pilot program results fail to support the Screening Value approach, evaluate alternative approaches for developing nutrient criteria and recommend a suitable approach to be explored for application in Virginia.

Deliverables

Final report by June 1, 2009 recommending either appropriate nutrient criteria as part of the screening value approach or an alternative approach that should be explored for Virginia's freshwater wadeable streams and rivers and related implementation/assessment issues.

Task 2: Nonwadeable Streams

Work with Virginia DEQ to continue development of nutrient criteria for nonwadeable freshwater streams and rivers.

2a. Work with DEQ ProbMon program to develop a unique, synoptic database for fish communities and nutrients in nonwadeable streams and rivers. Continue efforts to extract and analyze data from DEQ ambient monitoring program and INSTAR biological database that represent nonwadeable streams and rivers.

2b. Based on analyses of the datasets above, develop draft nutrient criteria for nonwadeable streams and rivers that are consistent in approach with those developed for wadeable streams.

2c. Provide recommendations for a pilot implementation program focused on nonwadeable streams and rivers.

Deliverables

Final report by June 1, 2009 recommending either appropriate nutrient criteria and a pilot implementation program for Virginia's freshwater nonwadeable streams and rivers or an alternative approach that should be explored. Report will be similar in scope and content to the AAC January, May and July 2005 reports on nutrient criteria for Virginia's lakes and reservoirs.

Task 3: Regulatory Framework

3a. Suggest a listing, planning and permitting strategy for nutrient water quality management in freshwater wadable and nonwadable rivers and streams applying the results from tasks 1 and 2.

3b. Building on research accomplished by the AAC (Younos) in FY 08 concerning definitions of wadeable and nonwadeable streams, and interfacing with the Probmon Working Group (an interagency advisory group to the DEQ Probmon program), recommend potential definitions appropriate for use in both the wadeable and nonwadeable freshwater streams and rivers rulemakings.

Deliverables

Final report by June 1, 2009 recommending a strategy for nutrient water quality management, including related implementation/assessment issues.

Task 4: Meetings

4a. Meet with DEQ water quality standards staff to discuss nutrient criteria development in the fall of 2008 and during late winter or spring of 2009. (All members of AAC)

4b. Participate in meetings scheduled by DEQ to inform stakeholders of nutrient criteria development progress.

4c. Identify a representative from the AAC to attend along with DEQ staff the EPA region 3 RTAG meeting if scheduled in FY09. Present the AAC's findings and recommendations to date on approaches for Virginia's development of nutrient criteria for freshwater rivers and streams.

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Budget

VT Sub-Awards*	
Tamim Younos	$4,000
Carl Zipper	4,500
Gene Yagow	1,000
Golde Holtzman	1,500
Kurt Stephenson	1,000
Fred Benfield	500
Consultant Services**	
Leonard Smock (VCU)	$3,000
Greg Garman (VCU)	4,000
Paul Bukaveckas (VCU)	1,500
Leonard Shabman (RFF)	1,500
Total Direct Costs	$22,500
Indirect Cost @ 10%	2,250
Total Cost	**$24,750**