Supplemental Agriculture Land Use Loading Data Request for Proposals

I. Summary

The U.S. Environmental Protection Agency Chesapeake Bay Program (CBP) through its Expert Panel Management Cooperative Agreement with Virginia Tech (VT) is seeking to gather information/data related to land use-based nutrient and sediment "edge of field" and "edge of stream" loads. Within the Chesapeake Bay Watershed Model (CBWM), edge of field loads are defined as the amount of a given constituent (e.g., nutrients or sediment) that is available for export from a given land use per unit time, i.e. a loading rate. This request for proposals (RFP) seeks specifically to identify an entity that will work with regional colleges and land grant universities to gather agricultural land use loading rate information/data that is available, but that has yet to be published in peer-reviewed journals (e.g. project reports, unpublished research data, grey literature)**. Data compiled in response to this RFP must be delivered to the CBP by March 2015**.

II. Background

Within the CBWM sector-specific (e.g. agricultural, urban) land uses form the foundation upon which nutrient and sediment loading values to the environment are managed or modified for environmental benefits through Best Management Practices (BMPs) and/or land use changes. Establishing scientifically-grounded and documented base land use loading rates is critical to ensuring that the benefits of present and future management actions are accurately credited. The goal of this project will be to identify and synthesize agricultural land use loading rate data that may exist in grey literature, project reports, or other research data sets available from colleges and land grant universities located in the six-state Chesapeake Bay region. Under a separate agreement with EPA, the consulting firm Tetra Tech has been tasked with performing a comprehensive peer-reviewed literature review to synthesize published agricultural land-use loading rate data.

III. Scope of Work

This RFP solicits proposals for an individual, or team, to search for and summarize agricultural land use nutrient and sediment loading rate data available from regional colleges and land grant universities that has not been previously published in peer-reviewed journals. The data compiled thru this effort may be of high, medium, low, or mixed "quality" as characterized in Table 1 below. Synthesis and analysis of the data compiled through this effort will be performed by Tetra Tech under their existing agreement with the CBP.

Table 1. Data source characterization.
Adapted from http://www.chesapeakebay.net/documents/Nutrient-Sediment_Control_Review_Protocol_v7.14.2014.pdf

	High Quality	Medium Quality	Low Quality
Year	Gathered after 2000 or seminal research	Gathered prior to 2000	Gathered prior to 2000
Applicability	Purpose/scope of research/ publication matches information/data need	Limited application	Does not apply
Study location	Within Chesapeake Bay	Characteristic of CB, but outside of watershed	Outside of CB watershed and characteristics of study location not representative
Data collection & analysis methods	Approved state or federal methods used; statistically relevant	Other approved protocol and methods; analysis done but lacks significance testing	Methods not documented; insufficient data collected
Conclusions	Scientific method evident; conclusions supported by statistical analysis	Conclusions reasonable but not supported by data; inferences based on data	Inconclusive; insufficient evidence
References	Majority peer-review	Some peer-review	Minimal to none peer-review

The successful proposal will be expected to identify, obtain, and submit relevant data (as outlined in Table 1) for synthesis/analysis by Tetra Tech. Agricultural production systems of interest include commodity crops (corn, soybean, small grains); pasture, hay, legume and forage; specialty crops; and relevant impervious cover (e.g., AFO, CAFO, farmstead). Data related to the loading/loss of nitrogen, phosphorus, and sediment are the most relevant. Tetra Tech has developed a data collection/characterization spreadsheet, which will be shared with the award recipient. The recipient is encouraged to use this spreadsheet when compiling data in response to this RFP. The recipient will be expected to prioritize the identified data sources using the criteria specified in Table1, and provide nutrient and sediment loading summary statistics for the various land use classes that are characterized in those sources. The recipient shall follow quality assurance/quality control checks to review the data entry of the loading rates; guidance on these checks can be provided by Chesapeake Bay Program Office staff.

The recipient shall develop a technical report detailing the search and evaluation process, data analysis, quality assurance/quality control procedures, and summarize estimated loading rates suggested by each data source.. The award recipient is expected to provide products as developed (e.g., document tracking spreadsheets, data entry forms) including copies of all source data (e.g., unpublished articles, website addresses). The award recipient shall support knowledge transfer to technical staff at the Chesapeake Bay Program office in Annapolis, Maryland

IV. Content and Length

Proposals submitted under this RFP may request funding up to **$20,000** in total costs. No indirect, facilities & administration (F&A) or overhead charges are permitted on this project. The project will conclude by **March 30, 2015**. Proposals should be no longer than five (5) 8 ½" x 11" pages, single-spaced, 12 pt Arial font. Two-page (maximum) CVs that document the qualifications of each of the proposed project participants should be included with the proposal submission. The CVs are in addition to the five page proposal limit. Proposals must specify/identify the following:

1. The Project Lead.
2. All other project participants.
3. Project Narrative/Approach/Scope of Work that details how the Project Lead and other team members plan to locate and obtain any new or additional peer-reviewed studies, grey literature or other datasets for delivery to the CBP. This section should document how the proposed individual(s) will adhere to the deadline and expectations described in this RFP.
4. Project timeline.
5. Project Budget including a detailed budget justification.

V. Proposal Review and Selection

Proposals will be reviewed by Chesapeake Bay Watershed Research and Outreach Collaborative (CBW-ROC) Steering Committee. Current CBW-ROC Steering Committee membership includes representatives from selected land grant universities within the Chesapeake Bay watershed (Table 2). Proposals will be scored and ranked using the criteria specified below. The proposals will also be shared with and reviewed by the CBP Program Officer responsible for oversight of the Expert Panel Management Cooperative Agreement with VT. Review comments made by the CBP Program Officer will be considered when selecting the winning proposal.

Table 2. Current Chesapeake Bay Watershed Research and Outreach Collaborative (CBW-ROC) Steering Committee

Jurisdiction	Team Member	Institution
Delaware	Jenn Volk	University of Delaware
Maryland	Frank Coale	University of Maryland
New York	Quirine Ketterings	Cornell University
Pennsylvania	Matt Royer	Penn State University
Virginia	Brian Benham (Chair)	Virginia Tech
Washington, D.C.	Tolessa Deksissa	University of the District of Columbia
West Virginia	Tom Basden	West Virginia University

V.i. *Evaluation Criteria:*

1. ***Organizational Capability and Program Description (40%):***
   Proposals will be scored based on the overall quality of the proposal and how it demonstrates/illustrates the process/tasks that will be undertaken to successfully achieve the project's objectives by the posed deadline. Reviewers will specifically assess the extent to which proposed project acknowledges and will adhere to the project expectations and deadline.

2. ***Past Performance and Programmatic Capability (20%)***
   Proposals should, to the extent possible, discuss how the applicant's past performance will ensure the successful completion of proposed activity (i.e., ability to seek out and obtain relevant data/information that can yield science-based, defensible land use loading estimates).

3. ***Probability of success of the project (40%)***
   Proposals will be evaluated against the following criteria:
   a. Reasonableness of timeline.
   b. Qualifications of proposed Expert Panelists and their willingness to participate (can be demonstrated with a letter of collaboration appended to proposal).
   c. Appropriateness of requested budget and budget justification.
   d. Adequacy of available support personnel and facilities (if specified in proposal).

VI. Proposal Submission

Proposals are due by the close of business on January 5, 2015. Proposals may be submitted via email or via regular mail to:

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Professor and Extension Specialist
Virginia Tech
Biological Systems Engineering (MC0303)
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Questions about this RFP should also be directed to Project Coordinator Jeremy Hanson (410.267.5753; hanson.jeremy@epa.gov) or Dr. Benham.