Research Scientist in Optimization Tool Development

The Chesapeake Research Consortium (CRC) invites applications for the position of research scientist in optimization tool development at the Chesapeake Bay Program (CBP) office in Annapolis. This position is in support of the CBP partnership to inform state, regional, and local decision-making on the implementation of the most cost-effective, efficient, and targeted nutrient and sediment reduction actions. Priorities for this position are set by the CRC's Advisory and Support Committee (ASC) with specific technical guidance provided by the Science and Technical Analysis and Reporting (STAR) Team and its workgroups, specifically the Modeling Workgroup.

The successful candidate will lead efforts to develop optimization software for maximizing cost-effectiveness of resources committed to achieving water quality goals. The successful candidate will work directly with non-federal stakeholders and other users to ensure procedures are in place to collect the necessary information for optimizing cost effectiveness of resources. The candidate will work with [CAST (Chesapeake Assessment Scenario Tool)](#) developers on ways to link a new optimization tool using CAST datasets and interfaces. S/he will develop, link, apply, and refine a prototype optimization system to more deeply explore response surfaces for selected objective functions and mathematical representations of relevant constraints, in an effort to gain insight into cost effectiveness of different kinds of BMPs.

Candidates should have a PhD in environmental engineering, environmental science, systems analysis, economics, or a related field. Strong candidates will have an exceptionally good understanding of concepts of optimization and systems analysis, including experience in modeling uncertainty or stochastic processes, and excellent computer programming skills across multiple platforms. In addition, good working knowledge of watershed processes, models, and best management practices is an important attribute. Excellent written and verbal communication skills are required.

The successful candidate is entitled to CRC benefits and salary is commensurate with experience. To apply, please e-mail a cover letter, resume, transcripts from Ph.D. studies, and contact information for three references to William Ball at BallW@si.edu. Review of applications will begin on 21 November 2016. The position will remain open until filled. CRC is an equal opportunity, affirmative action employer. This position may require a background check.