

The Center for Stormwater Technology Advancement (CSTA)

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Goal:

Advance the science and understanding of stormwater technologies to better address national and state clean water goals through the creation of a university-led research center.

Problem Statement:

The investment required to meet the urban stormwater management needs of the Chesapeake Bay TMDL in Virginia will exceed \$10 billion, with annual operating costs of over \$1 billion. This spending will be taking place in an environment where the policies and technologies for mitigating urban stormwater pollution have not been developed to a level comparable to those for wastewater management. Urban development will *increasingly* affect water quality throughout the Commonwealth, and without improved technologies and practice, water quality management goals may not be achieved. A likely result will be more stringent future regulation.

Proposal:

Create a partnership between the Commonwealth, State Universities (Virginia Tech and ODU), local governments, and the private sector to support a research center to address information shortfalls and support future technology development. Evidence-based design and performance outcomes will give MS4¹ jurisdictions the ability to implement urban stormwater programs with more certainty and defensibility, thereby protecting the investment of public funds. Discussions have revealed widespread support for the concept in both the MS4 community and at DEQ.

The Center for Stormwater Technology Advancement (CSTA) will be organized and jointly administered by Virginia Tech and ODU. Additional university partners may be added after a start-up period. Funding for the Center is proposed to derive from a combination of (1) industrial affiliate membership programs at the universities, (2) an

incremental increase in the stormwater VSMP² general permit fees, (3) applied research project revenues, and (4) grant funds developed by participating faculty.

An oversight board will be created and composed of representatives from the partner universities, Virginia DEQ, VDOT, MS4 communities, facility owners, and the industry sector (e.g., stormwater manufacturers, Virginia Association of Homebuilders, NAIOP-VA³). The board will oversee Center operations, and will provide guidance on research directions and technology transfer.

For an initial five-year period, core operations will consist of program development, research methods training and development, stakeholder outreach, and execution of applied research projects. The initial 5-year funding requirement is estimated at \$600,000 annually. Operations during the period will include initial field studies and parallel programs of technology transfer, including seminars and training for practitioners and managers.

A more detailed plan for CSTA is attached for your information

Request:

Support legislation to:

- Increase VSMP general permit fee by 10% and dedicate the increase to CSTA
- Increase MS4 phase 1 permit fee by 2% and dedicate the increase to CSTA
- Direct DEQ to appoint a member to serve on the CSTA governance board
- Recognize CSTA and direct a research agenda to insure MS4 permit and Stormwater Ordinance requirements are based upon the most up-to-date science and engineering evidence.

Funding Plan:

- Increased fees from legislation anticipated to raise \$300,000
- Contributions (VT-CEE, VT-NCR, VT-ICTAS, ODU) anticipated to generate \$60,000
- Fees from affiliate members anticipated to generate \$240,000
- Also seeking grant funding via the NSF

Notes:

¹Municipal Separate Storm Sewer System

²Virginia Stormwater Management Program

³Virginia section of a national commercial real estate development association