

Table 1: Project Description Your Name:

**Normand Goulet, Urban Stormwater Workgroup
Chair**

Goal Implementation Team:

Water Quality GIT

Project Title:

**Development of Chesapeake Bay Chesapeake Bay
Technology Assessment Protocol for Manufactured
Stormwater Treatment Devices**

Project Type (See Section IV above):

Performance measure development

Goal/Outcome:

**Development of a protocol for the official
recognition of nutrient and sediment removals for
proprietary stormwater manufactured treatment
devices**

Estimated Cost:

\$50,000

Justification: Provide a 2 paragraph description of the work and why it is needed. It is recommended that you draw upon one or more work plans.

Develop a stormwater manufactured treatment devices (MTD) testing protocol designed to quantify the nutrient and sediment reduction efficiencies for proprietary devices completing the testing protocol. Upon completion of the testing protocol and approval of the USWG, these BMPs would be approved for incorporation in the Chesapeake Bay modeling tools.

In March of last year a Chesapeake Bay Science and Technology Advisory Committee (STAC) Workshop was held to discuss the challenges of incorporating MTDs into the Chesapeake Bay TMDL framework. Currently the Chesapeake Bay Program (CBP) does not provide water quality nutrient or sediment credit to the States for MTDs installed in its modeling for TMDL attainment. Workshop participants reached an overwhelming consensus that an MTD evaluation program is necessary, and that because of the water quality treatment needs associated with the Chesapeake Bay TMDL, the CBP may provide an excellent venue for such a program. Workshop participants strongly recommended that an advisory panel be formed through the leadership of the CBP's Urban Stormwater Workgroup (USWG)

to design this program.

Clearly a challenge exists in balancing the need to monitor and verify nutrient removal performance of MTDs and the need to establish a reasonable process that continues to encourage innovation and MTD product development. Some may argue that testing is too expensive and presents a barrier to enter into a competitive industry, or that monitoring may stifle design innovation. The counterargument is that testing and verification is not new to industry at all and that it sets a bar and levels the playing field for all. Within the regulated community, there is a clear need for a rigorous, consistent, and scientifically defensible process that is both transparent and affords manufacturers a clear path towards approval. The private companies that have invested hundreds of thousands of dollars into research and design are hopeful that the Chesapeake Bay Program and its partnership can reach a consensus

Methodology: Provide a 1-2 paragraph description of how the work is likely to be accomplished.

As with all Chesapeake Bay partnership actions, it will start with the development of an advisory panel. Ideally, this panel would be represented by members of the various MTD sectors; including the MTD industry, regulatory community, engineering consultant, academic research and practitioners. To benefit from work in the prior development of existing MTD protocols such as TARP and TAPE, the panel will establish lines of communication with the respective agencies to involve them in the discussion and coordinate efforts.

The Panel will need to determine a specific protocol framework, its programmatic depth and how the process will be administered. For programmatic depth, options range in complexity from self-verification to 3rd Party to certification.

It is anticipated that the initial approach of the

Panel might be to start the development of Chesapeake Bay Technology Assessment Protocol (CBTAP) utilizing the framework of the recently withdrawn Virginia Technology Acceptance Protocol (VTAP). The previously described limitations and concerns in regard to existing protocols lead to Virginia's effort to develop the VTAP as a means of addressing MTDs within the Commonwealth. Unfortunately, this protocol was withdrawn by the Virginia Department of Environmental Quality (DEQ). While the existing protocol will need to be refined, and certainly to accommodate the Bay Watershed as a whole, the framework should serve as an excellent starting point.

Ideally, the final protocol would result in a manufacturer's testing protocol which will produce nitrogen/phosphorus/sediment removal efficiencies which can then be incorporated into the Chesapeake Bay modeling framework with a degree of confidence. Successful completion of the testing protocol will also enable the manufacture to market the device throughout the watershed and be able to claim an associated load reduction that a developer/local government can then claim credit for in a TMDL Action Plan.

Cross-Goal Benefits: What other goals may be advanced through this work?

Are you willing to serve as GIT lead (see description of the role in Section VI above) If no, suggest other GIT lead **Yes**