

## Check It Out

The importance of independent review for storm water treatment product evaluation



Michael Macnoskey

The latest rush of applications to the Washington State Department of Ecology seeking use designations for storm water treatment technologies has made clear the need for a third-party performance verification program. Objective evaluation of storm water treatment system performance is not a simple task. It can be difficult to sift through product information and performance claims that may be poorly documented—and even contradictory.

To sort out the facts, independent review of product applications in Washington state is performed by the Board of External Reviewers, which is composed of leading storm water management experts. Over time, a lot of independently verified performance data have been generated for a variety of innovative storm water treatment systems, from hydrodynamic devices to biofilters.

Any treatment product performance claim should be independently verifiable. Supporting laboratory or field reports should be readily available in their full forms. Preferably, the performance claim will be audited by a local agency to ensure that it will perform as specified, provided that regular system maintenance procedures are in place. If the local jurisdiction does not have the expertise, funding or interest required to evaluate performance claims, there are several state programs that can be referenced.

The Washington State Department of Ecology has developed the Technology Assessment Protocol—Ecology (TAPE), whereby treatment systems are tested, and depending on performance, issued use level designations for common storm water pollutants like total suspended solids, oil, phosphorous and dissolved metals. This program gives storm water system engineers confidence in the performance of the systems they select for their projects. As performance data is collected, technologies progress from the pilot level, where only lab data is required; to conditional use, where field evidence suggests that the system may meet performance objectives; to General Use Level Designation, where field testing

results following the TAPE protocol have been independently verified to meet the performance objectives.

Another well-established and well-respected third-party testing program comes from the New Jersey Corp. for Advanced Technology (NJCAT). The main advantage of following the NJCAT verifications is that the designer can benefit from the extensive time and money invested in best management practice (BMP) evaluations by the state of New Jersey. Over the past 10 years, NJCAT and the New Jersey Department of Environmental Protection (NJDEP) have collected and verified performance data for at least 10 different gravity separators. The approved sizing criteria for each verified system is publicly available on the NJDEP website.

Product advertisements also should be evaluated for accuracy and truthfulness. You may find in your research that some manufacturers state in their literature that a product is “tested in accordance with high level standards.” Statements like this should be critically evaluated. Tested by whom, and when? Who backs up that statement? It is usually worthwhile to visit the reference agency website and ensure that either a media filter or the hydrodynamic device is listed and certified, and then compare the published data with the consistency of the manufacturer’s claim.

Visit the Washington Ecology and NJCAT websites or consult your local storm water program authority for the most current BMP evaluation information. Where there is no local verification program, the Washington State Department of Ecology and NJCAT review programs can guide the selection of a reliable system. Both websites have comparisons of products for which they have provided their designations and various levels of acceptance. **SWS**

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