

## Keeping up With BMPs

Storm water management's  
skeleton in the closet



Derek Berg

It is unlikely that anyone knows precisely how many storm water best management practices (BMPs) have been implemented in the U.S. over the past several decades. Given that a recent article reports that there are 32,000 installed in Maryland alone, however, it seems safe to say that the number likely can be counted in the hundreds of thousands.

What we know with a higher degree of certainty is that the majority of existing BMPs have been largely neglected. BMP maintenance has gotten very little of the attention it deserves, and, as a result, we are left with a huge inventory of neglected and poorly documented BMPs.

I am not aware of any structural storm water BMPs—whether landscape based or subsurface—that are designed and billed as being maintenance free, but that is how we have opted to treat the majority of them. Apparently the “set it and forget it” approach does not just appeal to fans of rotisserie chicken.

Thus, many of these BMPs likely stopped providing water quality benefits long ago, and the cost to rapidly identify and restore them is out of reach for most storm water programs. Multiple factors have contributed to our plight, but one of the major drivers is that we have treated the installation of post-construction BMPs as equivalent to crossing the finish line. After permit compliance has been met, paperwork has been filed and construction is complete, developers then sell properties to new owners who often do not know they have BMPs—never mind think about maintaining them. Time- and resource-strapped regulators file away the permit paperwork for private development, never to be thought of again. And the public goes about its business without a care, unless one of those BMPs happens to flood their yard or basement.

Generally speaking, the system is broken when it comes to BMP maintenance. There are certainly a few programs that are exceptions, but if

we are going to achieve our overarching storm water quality objectives, BMP maintenance needs to be front and center. Addressing this issue will require a monumental effort to document and restore installed BMPs, and we will need to make some fundamental changes to our collective attitude toward BMP maintenance to avoid more of the same problems.

First, we need to identify, prioritize and fund efforts to restore critical BMPs currently in a state of neglect.

Second, long-term maintenance needs to be a core component of BMP selection criteria. The BMP with the lowest capital cost may not be the best choice if its lifecycle operating cost is exorbitant. To inform such decisions, we need comprehensive data on what it costs to maintain all different types of BMPs over their expected operational life span. For many types of BMPs, maintenance cost data is scattered, highly variable and difficult to synthesize; therefore, it is extremely challenging to make lifecycle cost comparisons prior to BMP selection.

Third, maintenance obligations need to be addressed at the regulatory level. The voluntary approach is not working, so it is time for binding maintenance contracts as a condition of permitting, and enforcement action against those failing to comply. A sound BMP inventory and inspection program also becomes increasingly critical given our current transition to numerous small-scale BMPs dispersed throughout each site.

Until we put maintenance front and center, we will continue to install BMPs that protect water quality for a short time—but ultimately fall into disrepair and fail to perform as intended. **SWS**

**Derek Berg is a regional regulatory manager for Contech Engineered Solutions. Berg can be reached at [dberg@conteches.com](mailto:dberg@conteches.com).**

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