Vaikko Allen II, CPSWQ

The Triple Bottom Line

Balancing people, planet and profit in storm water policy

Triple-bottom line accounting is a full-cost accounting approach considering the economic, environmental and social impacts of a decision, or more poetically, the three Ps: people, planet and profit. In the storm water infrastructure planning world, as in many other urban planning arenas, it is gaining in popularity.

This is an encouraging trend, as it provides a framework for capturing the multiple benefits of infrastructure improvement projects. The relationship between the three Ps is dynamic. In most cases, increasing the benefit for one factor will increase the cost of another. The most common trade-off is the additional project cost associated with enhancing social or environmental benefits. For example, project costs generally increase as more water is treated or as infrastructure for public use (e.g., benches, walkways and signage) is added.

In the regulatory world, a similar triad of interrelated factors is affecting outcomes. A policy proposal must be scientifically based, politically achievable and economically viable to stand a chance of making it to policy. It is interesting to view recent policy shifts toward a green infrastructure-based approach through this lens.

There is obvious political appeal. Sustainability, low-impact development and green infrastructure are near-universal goals at a broad level. There is also compelling evidence that the kinds of multiple-benefit, runoff-reducing technologies that are the building blocks of such approaches can provide superior protection to downstream environments at lower costs.

So everybody wins, right? Not exactly, or at least not all the time: There are trade-offs. On the science front, there is still a lot of work to do. We seem to take it for granted that matching predevelopment runoff hydrology mainly by relying on infiltration best management practices (BMPs) is the way to go. But is there a danger of over-infiltrating if most rainfall is evapotranspired in the natural condition? Will we be able to recover pollutants accumulating in groundwater and soils? Can landscape-based BMPs effectively control pollutants such as nutrients, bacteria, pesticides and herbicides? The answers to many of these questions will be locally specific.

On the policy side, storm water professionals must be certain not to create unwanted side effects, including urban sprawl and avoidable new potable water demand. We must ensure that the maintenance, funding, expertise and authority exist to care for distributed landscape-based BMPs and that proper material procurement and construction practices can be assured. Policies and design standards must be simple and prescriptive so that plan-checkers can review plans efficiently.

In an era of $500,000-per-block green street demonstration projects, it is helpful to remember that there exists an obligation to protect the beneficial uses of receiving waters, not of project sites under the Clean Water Act. It is a nice bonus if a project provides recreation, habitat or aesthetic benefits at the project level, but these things cost money. To have any chance of meeting receiving water quality goals, we need to spend every dollar judiciously.

As the storm water industry balances these often competing interests, concessions will be made and the political, scientific and fiscal purists will be disappointed. Those able to wear all three hats simultaneously stand the best chance of emerging satisfied. SWS

Vaikko Allen II, CPSWQ, is western regulatory relations manager for Contech Stormwater Solutions. Allen can be reached at allenv@contech-cpi.com.

For more information, write in 5001 on this issue's Reader Service Card or visit www.estormwater.com/lm.cfm/st091001.