Jordan Lake comments

We should be focusing much more strongly on managing new development, in the Jordan Lake watershed and elsewhere. Retrofitting existing development is difficult and expensive. This doesn't mean we shouldn't do it, but it does mean that we should be doing everything possible to prevent additional retrofit needs. This means requiring a regional and/or watershed approach to managing new development such that development is concentrated in areas that are appropriate for it and where the runoff is intensively managed, while development in areas that are ecologically sensitive or otherwise inappropriate is STRICTLY curtailed (e.g., 20-acre minimum lot size or greater).

Relying on site-level BMPs to mitigate watershed impacts is just a Band-Aid, for a number of reasons. The impacts of sprawl reverberate in our watersheds well after the backhoes and construction crews have left the site. The hydrologic changes wrought by removed forests, compacted soils, and impervious cover make it impossible for our watersheds to ever again function as they once did. Buffers are often impacted during the development process, either via bad plan review, a variance or permit, or sheer oversight, reducing the effectiveness of these critical natural features.

Once development is in place, human activities contribute huge quantities of non-point source pollutants into our waterways. Altered hydrology causes stream bank instability and chews away at riparian buffers, hitting habitats with additional sediment and higher temperatures. It is unreasonable to expect structural stormwater BMPs to mitigate these enormous and far-reaching impacts of widespread automobile-dependent development.

According to the U.S. Environmental Protection Agency, concentrating development into compact nodes helps maintain a low overall level of impervious cover, which reams of research show to be one of the prime determinants of water quality. Moreover, if done properly, the new impervious surface and disturbed area that is created will consist of more economically and socially beneficial businesses and residences and fewer economically unproductive and costly parking lots and roads. Higher densities also make better, more functional BMPs more cost effective and easier to manage over the long term. Concentrating development would also make it easier to ensure that buffers are being protected during development.

The state needs to spur local governments to take more muscular approach to managing new development. Trying to improve water quality while development proceeds as it has been is like trying to bail a sinking Titanic using a bucket with no bottom.

Most local governments have barely begun to manage BMPs over the long term to ensure continued functionality. Those that have can attest that BMPs are problematic to manage, and problems difficult (and costly) to resolve. "Stormwater management" must be reconceived such that we look first to manage land use and locate density in appropriate locations in a way that maximizes the benefits of new impervious surface, secondly to ensure that the development is done in a way that respects natural features and minimizes impacts to them. Only as a last resort should we turn to stormwater BMPs to mitigate, control, and treat runoff.

All of the strategies proposed are important, but unless new development is managed to minimize disturbed and impervious areas at a watershed level, the success of all of the overall nutrient management strategy is seriously doubtful. Densifying new development and locating new development based on watershed characteristics go perfectly hand in hand to maximize the benefits of growth while minimizing impacts to water quality.

James Carnahan, member

Board of Directors of The Village Project, Inc.