

Regional Stormwater Management

By

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Before

State Senator Ted Erickson

Chairman of the Senate Majority Policy Committee,

Joint Senate Majority Policy Committee

And

Senate Environmental Resources and Energy Committee

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I'm Mark Gutshall. I am a member of the Lancaster County Clean Water Consortium. I am also the founder of LandStudies, an environmental restoration and planning firm in Lititz, Lancaster County.

I have been involved in environmental restoration for the past 27 years. Most of my work is related to design\build water resource projects.

I was born and raised in Pennsylvania, and the commonwealth's water resources have always been important to me. I am an avid waterfowl and upland bird hunter as well as a fly fisherman. Much of what I know about functional, natural ecosystems I have learned through observation during the considerable time I spend outdoors. Perhaps the most fundamental lesson I have learned is that we often create more problems than we solve when we try to control natural systems instead of mimicking or working with them.

Today, I'd like to share with you some of what I have learned as it relates to storm water management and flooding. My testimony in support of this alternative perspective consists of three main components:

1. Working on a regional scale,
2. Employing a holistic approach, and
3. Establishing economic feasibility.

First, we need to move beyond addressing the problems of storm water management and flooding "only at the site." Floodplains are a regional component of our landscapes. As nature intended, a functional, stable floodplain is the ideal and logical place to manage flooding and storm water. Unfortunately, many of Pennsylvania's floodplains are buried under four to eight feet or more of what is referred to as "legacy sediment" – a result of our history of extensive land clearing and mill dam construction. Legacy sediments, because of their characteristics and abundance, have severely limited the functionality of our original floodplains, including but not limited to storm water management and flooding. The legacy sediment issue has been studied by scientists at Franklin and Marshall College for the last eight years. Their work and published findings have received national accolades. As a result, The Pennsylvania Department of Environmental Protection approved Floodplain Restoration as a Best Management Practice in their Storm Water Manual.

Second, we need to look at potential management areas in a more holistic way, and learn how to incorporate multiple benefits into one project design. Projects that have been planned and designed with a natural, holistic approach can address not only storm water management and flooding, but also nutrient and sediment loads, water quality, groundwater supply, wildlife habitat, and community benefits such as greenway trails through improved recreational and open space. “Benefit stacking,” as it’s sometimes called, is the product of understanding and employing nature’s own systemic approach.

Third, we need to make regional, holistic approaches to storm water management and flooding economically viable through regulatory flexibility and financial incentives. One well-designed project, based on a regional and holistic perspective, can solve multiple regulatory issues such as MS4’s, TMDL’s and NPDES. It is more cost-effective to design and build at a scale larger than our traditional, one-dimensional storm water basins. The recent nutrient trading format led by DEP and PENNVEST is a good example of a process that opens the door to innovation and to engage market forces. Similar offsets or storm water credit trading processes are necessary for regional multi-benefit facilities.

This approach is consistent with a recently passed Pennsylvania Association of Conservation District state resolution that was introduced by Lancaster County which states....

Pennsylvania Association of Conservation Districts (PACD) endorses a pilot public-private market-based Stormwater Trading Program (state resolution), addressing pending stormwater (MS4,NPDES) concerns and the Watershed Implementation Plan (WIP) to meet the Total Maximum Daily Load compliance requirements in the form of credit offsets or benefit stacking on a regional scale. PACD also encourages that adequate compensation be provided to conservation districts in order to offset costs associated with serving as an adviser/facilitator for such a program.

In my remaining time, let me direct your attention to several PowerPoint slides. These slides illustrate the principles of floodplain restoration and legacy sediments; benefit stacking; and economic viability.

The Lancaster County Clean Water Consortium is developing county-wide strategies to restore our waterways. Thank you for allowing us to share our approach to managing these challenges in a cost-effective way.