

Recommendations for Considering, Selecting and Financing Cost-Effective Urban Stormwater Best Management Practices (BMPs) to Achieve Pollutant Load Reductions

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Many Pennsylvania jurisdictions will have to find ways to reduce their stormwater pollutant loads during the next NPDES MS4 permit term, starting in 2018. The following suggestions are provided for consideration by MS4 permittees to possibly reduce capital expenses:

I. What Has Already Been Done?

- The calculation of your current pollutant load can reflect the load reductions achieved by structural BMPs implemented previously as long as they continue to function and are within the storm sewer shed of impaired streams. This includes both Chapter 102 and non-Chapter 102 BMPs.

II. What Can Be Done in the Short Term?

- Most jurisdictions with urbanized areas contain stormwater BMPs, such as dry retention ponds, which were designed in earlier decades for flood attenuation. Those features often provide little if any value in terms of stormwater pollution control, but may be readily adapted to improve pollutant reduction efficiency. Look for these opportunities. Many will be privately-owned. Discuss the issue with the owners and seek affordable agreements for necessary planning, design, construction, and operation and maintenance.
- Where there are no existing, readily-adaptable stormwater BMPs to retrofit, encourage existing private property owners to voluntarily install retrofits. Providing canned designs and lists of experienced designers and contractors may help. Make a special effort to approach large businesses that may see value in being “green.”
- For municipalities, consider changes to your stormwater ordinance (and/or zoning ordinance or SALDO).

Create requirements in the ordinance to control stormwater where earth disturbances are less than one acre. The requirements can mirror Chapter 102 or be different, at the discretion of the municipality. The entire pollutant load that is reduced through this requirement can be used by the MS4 permittee toward meeting its pollutant reduction objectives.

III. Collaboration Helps Identify Cost-Effective Options

- Approach neighboring MS4 permittees about collaborating in the development and implementation of TMDL Plans and Pollutant Reduction Plans (PRPs) to pool resources and expand opportunities for BMPs, or participate in regional efforts already underway.

AS long as the BMPs are implemented in the MS4 planning area(s) and address the pollutant(s) of concern, the pollutant reductions afforded by the BMPs may be shared between the collaborating MS4s. This can allow far more cost-effective choices than the alternative which is to require each permittee to accomplish their entire load reduction obligation within their jurisdiction.

- Seek quality, low-cost technical support from county planning commissions, county conservation districts, colleges and others.

IV. Consider a Fee System to Provide Resources

- Fee systems typically support the repair/replacement/maintenance of traditional stormwater infrastructure as well as stormwater pollution control.
- Advantages of typical fee systems include:
 - Reliable revenue source not reliant upon tax-based general revenue.
 - Equitable because typically based on “stormwater production” rather than property value.
 - Charges all properties (including non-taxable properties).
 - Allow partial credits for voluntary BMPs, encouraging property owners to do their share.
 - Reduced property taxes.
- Activities in the creation of a typical fee system include:
 - Providing start-up funding for planning work in advance of fee availability.
 - Calculating how much is currently being spent on stormwater issues (typically more than people realize).
 - Identify the current gaps in stormwater management.
 - Develop budget.
 - Identify the typical impervious area for residential properties. Use GIS to calculate the impervious area of non-residential properties. Add to establish total impervious area.
 - Develop fee structure.
 - Public education.
 - Legal work.

Take care in how you approach your public about fees¹

- What the fee is called matters.

¹ From [Keystone Water Quality Manager](#), April/May/June 2015. Erik Eckl, Water Words that Work and Nathan Walker, AICP, AMEC Foster Wheeler.

- Clearly show ratepayers how the money will be invested.
- Present the fee as a solution to local problems and providing local benefits.
- Present the fee in its smallest increment (dollars per household per month).
- Affirm that the money will be used for its stated purpose.

V. *Consider Funding Sources, Like PENNVEST*

The Pennsylvania Infrastructure Investment Authority (PENNVEST) offers financing for stormwater BMPs. See the PENNVEST website at <http://www.pennvest.pa.gov>.