

7th Annual Potomac Watershed Trash Summit
November 7, 2012
8:30 a.m. – 4:30 p.m.



**CLEAN LAND.
SAFE WATER.
HEALTHY LIVES.**

Compost:
Protecting Our Watershed

Overview:

Focus: Compost can be an effective tool in managing stormwater runoff, one that can help protect the water quality within the Potomac Watershed while building healthy soils. This session explored how compost can improve our watershed's water quality, identified opportunities to adopt compost as a best management practice, and discussed how to incorporate compost into policy. This session worked to promote and develop an action plan for composting and ensuring the use of compost in the region.

Moderator: Brenda Platt, Program Director, Waste to Wealth and Sustainable Plastics, Institute for Local Self-Reliance.

Speakers:

- Greg Evanylo, Professor and Extension Specialist, Soil Environmental Quality, Department of Crop & Soil Environmental Sciences, Virginia Polytechnic Institute & State University – Exploring the environmental benefits of using compost in construction and landscaping.
- Ann English, RainScapes Program Coordinator, Montgomery County, Maryland – Implementing and promoting compost use to managing stormwater.
- David McDonald, Resource Conservation Planner, Seattle Public Utilities – Taking lessons from *Soils for Salmon* on how to involve key stakeholders and successfully get compost adopted into policy. *Joined us remotely.*

Key Questions:

- What is our biggest challenge to raising demand for compost in the region: policy, perception, or practice?
- How do we begin to change the region's perception of compost?
- Who needs to be educated? How do we best go about educating them?
- How do we launch a DC region initiative to promote the benefits of utilizing compost?

Action Items:

An ad hoc committee was formed at the session to further the use of compost in the region, including working on the following action items:

- Create a list of companies and contractors with expertise for using compost
- Create standards, including amendment rates, appropriate for the region in terms of soil, climate, and stormwater models.
- Identify and recruit stakeholders

- Create and disseminate tools for homeowners
 - Develop a master composter program in the DC metro region.
- Develop tools and methods to educate both homeowners and builders. Develop a system to quantify benefits of compost for the region.
- Submit Comments to DDOE on their Proposed Rulemaking on Stormwater Management and Soil Erosion and Sediment Control.- Diane Cameron, Becky Hammer and Tom. Date due: 11/8/2012.
- Identify a “hook” for our efforts and a recognizable name for this composting movement.

Full Session Notes:

1st Speaker: Dr. Greg Evanylo

Why compost is advantageous for urban use. Many urban soils are disturbed, degraded, compacted, and therefore poor for establishing vegetation. Compost is an effective treatment for such soils. Dr. Evanylo cited several studies, including his own research, documenting the positive effects of compost on soil pH, carbon to nitrogen ratio, and porosity. Plants in sites treated with compost survived drought conditions better and had thicker rooting systems than those grown without. Compost treatments can also be used to prevent erosion and runoff and can serve as a natural filter for pollutants found in stormwater when used in construction projects. Other benefits include a reduction in greenhouse gas emissions by avoiding synthetic fertilizer. Dr. Evanylo reported that compost is a good treatment for land reclamation of acid sulfate soils and can lead to vegetated sites after three years.

2nd Speaker: Ann English

Ways compost can be used to manage stormwater and support healthy watersheds and clean drinking water. Using examples from the Montgomery County RainScapes program, including rain gardens and compost-amended landscapes, Ann English stressed how compost as an important element in the “toolbox” of stormwater management. RainScapes promotes healthy soils and the composting of plant waste on site. Amending soils with compost aids in the establishment of vegetation, further beautifies the site, and increases the likelihood of a successful project. Techniques can also be easily achieved at home. In one study all sod was taken up and compost was laid instead. All plants survived and the capacity to absorb water increased. A range of compost treatments provide the infrastructure that improves the capacity of a site to absorb water. The rebate program for the RainScapes program, including compost landscapes and rain gardens was outlined.

3rd Speaker: David McDonald

Lessons learned from the Soils for Salmon project in Washington State. Dr. McDonald highlighted compost as meeting the need for green stormwater infrastructure and not simply waste diversion. He defined green infrastructure as natural systems providing ecosystem services to supplement or replace built system services. Best management practices using compost for construction projects can remediate disturbed soils and manage runoff. He outlined his organization’s efforts to contribute techniques for using compost to builders’ manuals. In the coming decade, all local jurisdictions will include these codes. Dr. McDonald also explained his contributions to the Washington Department of Transportation’s best management practices for medians and slopes beside roads. He advised that those wanting to adapt compost in building and DOT BMPs work one-on-one with policy makers; build industry leaders; engage local soil scientists (especially important to attract funding for research); conduct “how-to” seminars with engineers; and provide web-based resources. Dr. McDonald emphasized the importance of collecting data on effectiveness of these techniques. When reaching

builders, compost advocates should highlight the “2-for-1” value of using the same compost for erosion control during construction, and then using it for soil remediation once the project is complete. In addition, compost amended soils result in better-looking lawns, which will be more attractive to prospective buyers. Dr. McDonald made further suggestions about how to make green infrastructure “business as usual”: find allies across business silos; promote policy change; communicate compost as resource recovery; facilitate solid research; and find a local “hook” to get public buy-in (e.g. salmon health in Pacific Northwest). Please refer to the Soils for Salmon website for full details on this program, at www.soilsforsalmon.org/. There are also new national specs that he helped develop for “Sustainable Sites” criteria, which are similar to LEED (green building) standards for landscapes.

Discussion:

Q: Nelson Widell – What’s the difference between compost made out of yard vs. food waste and can food waste derived compost be used effectively in bioretention?

A: David McDonald – For bioretention you can use up to 35% food waste derived compost with the rest coming from yard waste. It is good to have the woody residuals from yard waste in bioretention because it helps absorb more water and filter pollutants. For all other purposes (landscaping, etc), there is no limit to how much food waste derived compost should be used.

Q: Diane Cameron – Where do we find compost expertise in the region? Are there companies that know how to implement these practices and if so is there a list of contractors?

A: Collaborative answer – We can start by asking compost producers and suppliers. Virginia Tech works with builders on how to do this and the turf grass industry has been trained in compost purchasing and application. Maryland nursery and Landscapes Association and Montgomery College would be good places to look. The Virginia Tech extension website has a compost directory.

Q: Are there Incentives for Builders in the Maryland region?

A: Stormwater regulations help provide incentive. This has been done in the state of Washington and the City of Seattle, which has a manual that might be a good example to model our own efforts off of. However storm events are very different in the region, so we would need to develop our own regional standards.

Diane Cameron reminded the attendees of the District of Columbia’s Proposed Rulemaking on Stormwater Management and Soil Erosion and Sediment Control. All comments to DDOE are due no later than November 8, 2012.

Ann English stated that standards for Maryland soil climate and stormwater models amendment rates. One goal of the RainScapes program is to convert 50 impervious acres of land. Prioritizing a rain garden vs. compost amended soil would depend on labor and cost. RainScape Manuals would be a good resource.

There is a need to monitor efforts and collect data to support using compost in landscaping and construction.