



ISSUE 65 • NOVEMBER 2016

### **INSIDE THIS ISSUE:**

- Newly Approved Urban Tree Canopy BMP Credits for the Chesapeake Bay / 1
- Center Awarded Contract to Administer Innovative Program to Incentivize Cost-Effective Green Infrastructure in the District of Columbia / 2
- Center to Play Expanded Role in the Delaware River Watershed Initiative / 3
- Upcoming Events / 4
- NEW from the Center! / 4

## **Newly Approved Urban Tree Canopy BMP Credits for the Chesapeake Bay**



The Chesapeake Bay Program recently approved updated protocols to credit urban tree canopy for nutrient and sediment reduction under the Chesapeake Bay TMDL. The credit will be available with the release of the Phase 6 version of the Chesapeake Bay Watershed Model in 2017.

The crediting recommendations were developed by an Expert Panel, which was chaired by the Center's own Dr. Neely Law, and included Center staff Karen Cappiella, as well as other renowned experts in urban forestry, hydrology and nutrient processes from across the country. The Panel Coordinator was Jeremy Hanson from Virginia Tech.

The newly adopted credit includes two BMPs: 1) Urban Tree Canopy Expansion and 2) Urban Forest Planting. The Expert Panel's final report provides the scientific-basis and supporting documentation for the credit which was missing from the current Urban Tree Planting BMP.

For Urban Tree Canopy Expansion, each newly planted tree is given credit for creating 144ft<sup>2</sup> of canopy, and the pollutant reduction is calculated as a relative reduction of the pollutant load from the underlying land cover. Percent nitrogen, phosphorus and sediment load reduction values are provided for canopy over turfgrass and canopy over impervious. The recommendations are based on a literature review of the best available science on the hydrologic and water quality benefits of trees, modeling (i-tree Forecast and a water-balance model), along with best professional judgment.

A second BMP called Urban Forest Planting applies only to planting projects that are undertaken with the intent of establishing a forested condition. The project must demonstrate that it meets certain conditions in order to qualify for this credit. The credit itself is simply based on conversion of urban land to forest land and the pollutant reduction is calculated as the difference in pollutant loading rates from these land use types.

Tree planting is a popular activity in the Chesapeake Bay watershed undertaken by many local jurisdictions, watershed organizations and other groups, as well as State and Federal governments. The recently approved recommendations provide local jurisdictions with flexibility in seeking credit for tree planting efforts by better representing the different types of tree planting that increase tree coverage in developed areas, from single trees to forested lots.

The complete Expert Panel report and associated documentation [is available for download from the Chesapeake Stormwater Network](#). For more information about this project, contact Neely Law at [nll@cwp.org](mailto:nll@cwp.org) or 410-461-8323.

---

## **Center Awarded Contract to Administer Innovative Program to Incentivize Cost-Effective Green Infrastructure in the District of Columbia**



*Photo credit: Walter Caldwell, DOEE*

In 2014, the District of Columbia established an innovative Stormwater Retention Credit (SRC) trading program, under which regulated development sites can comply with up to half of their stormwater management requirements by buying SRCs from voluntary green infrastructure projects. The District's new SRC Purchase Agreement Program builds upon the trading program by providing a structure under which SRC generators can opt to sell credits to the District under a purchase agreement. Only new green infrastructure projects within the roughly 2/3 of the city that drains without treatment to District waterbodies will be eligible.

The Center was recently awarded a contract from the District Department of Energy and Environment to administer the SRC Purchase Agreement Program, which is expected to mobilize millions of dollars of private investment in green infrastructure by creating a price floor in the SRC market and providing more certainty about the return that an investment in green infrastructure may provide. In addition to administering \$11.5 million in purchase agreements over six years, the Center's role will be to award funds to support the outreach and technical work required for SRC generators to identify and evaluate green infrastructure locations in the District. For more information about this project, contact Greg Hoffmann at 410-461-8323 or [gph@cwp.org](mailto:gph@cwp.org).



## Center to Play Expanded Role in the Delaware River Watershed Initiative



Photo credit: Academy of Natural Sciences of Drexel University

The Delaware River Watershed Initiative (DRWI) is an ambitious effort to protect and restore the Delaware River Basin's water quality and overall ecological health. Funded through a \$35 million commitment by the William Penn Foundation, the DRWI has engaged more than 50 leading conservation organizations in aligned, prioritized efforts to protect important landscapes, restore degraded areas, and measure the scientific impact of the work through an intensive monitoring effort. The organizations are focusing their efforts in eight targeted subwatershed "clusters" within the basin.

The Center's initial involvement with the DRWI was as an outside expert hired by the William Penn Foundation to review the plans and compile the identified projects for each of the subwatershed clusters into a single catalog. This work addressed the need to summarize and take stock of the DRWI efforts on a basin-wide scale. As follow up to that work, the Center is again working with the William Penn Foundation to identify needs and offer technical assistance, specifically on urban stormwater management, to the cluster organizations as they work on refining and implementing their protection and restoration plans.

In a complementary effort, the Center is starting up a new role as Field Liaison on urban stormwater management to the Delaware River Restoration Fund (DRRF). The DRRF is a funding program dedicated to

restoring the water quality and habitats of the Delaware River and its tributaries and is managed by the National Fish and Wildlife Foundation and funded by the William Penn Foundation. As Field Liaison, the Center will work with non-profits and local governments in the Basin to increase their capacity to apply for these grants; provide direct assistance to grantees and facilitate discussion and information sharing among partners in the basin.

Two other projects the Center is just starting in the Delaware basin include:

1. A research project led by Rutgers University with the Pinchot Institute for Conservation to evaluate the status of regulatory protection for forested buffers in the Delaware basin
2. Work with MottMacDonald for the New Jersey Department of Environmental Protection to develop guidance for New Jersey communities with combined sewer systems on incorporating green infrastructure into long term control plans for combined sewer overflows.

For more information on these and other Delaware basin projects, contact Julie Schneider at [jas@cwpa.org](mailto:jas@cwpa.org) or 215-277-1655.

## Upcoming Events

April 4, 2017

### Center for Watershed Protection 2017 Watershed and Stormwater Conference

This conference is designed to allow both in-person discussion at multiple locations and online attendance. Participants can learn about local and national stormwater and watershed issues while networking at their preferred attendance location. Learn about exciting research, case studies, innovative technology, and special regional considerations from experts around the country. Registration will open soon. [Stay tuned for more information on registration and sponsorship!](#)

### 2017 Webcast Topics

Since 2009, the Center for Watershed Protection has been providing high quality webcasts for stormwater and watershed professionals. Over the past six years, an estimated 17,000 professionals have participated in the Center's webcasts. Here is a sneak peek at the 2017 webcast topics:

- Webcast 1 (March): Stormwater Contaminants of Emerging Concern
- Webcast 2 (May): Nutrient Trading
- Webcast 3 (June): Making Urban Trees Count
- Webcast 4 (September): Stream Restoration
- Webcast 5 (October): Bringing Better Site Design into the 21st Century
- Webcast 6 (November): Modeling for Water Quality

[Check back on our webcast page for more details on the 2017 webcasts and registration](#)

---

## NEW from the Center!

### Blog Post

#### [“Standards” and Specifications – Retrofitting is for everyone but not all manuals are!](#)

Ari Daniels, Water Resources Engineer at the Center, dives into the making of the Watershed Stewards Academy Rainscaping Manual while discussing the portions of the project that were successful, and not so successful.

### Resources on the Online Watershed Library

To subscribe to OWL, [click here](#).

- [Upper Mississippi Nutrient \(Loss\) Reduction Strategies](#)
  - [Cities going underground to look for nutrient reduction credits: Fixing illicit discharges from storm, sewer networks goes a long way to prevent pollution](#)
  - [A Private Incentive-Based Stormwater Mitigation Program to Enhance Stormwater Management Control beyond Current Minimum Standards in Residential Subdivisions](#)
  - [Wetland Soil Carbon in a Watershed Context for the Prairie Pothole Region](#)
  - [Watershed-Scale Impacts of Forest Buffers on Water Quality and Runoff in Urbanizing Environment](#)
  - [The Potential Role of Urban Forests in Removing Nutrients from Stormwater](#)
  - [Soil in the City: Sustainably Improving Urban Soils](#)
  - [Green Infrastructure: Lessons from Science and Practice](#)
- 

The Center would like to thank the Max and Victoria Dreyfus Foundation, Inc. for their support.

---