

# 2019 | NC Green Industry Council - 9th Annual Water Symposium

*Cultivating Water Stewardship*



## **Cultivating Water Stewardship Our Evolving Environment**

**June 20, 2019**

**McKimmon Center, Raleigh, NC**

**~ Honorary Chair: Dan Gottlieb ~**

*Director of Planning, Design and Museum Park, NC Museum of Art*

**8:00 – 8:30 a.m.**

**Registration/Check-in**

**8:30 a.m.**

**Welcome by Dennis Niemeyer, NCGIC President**

**8:40-9:30 a.m.**

**Opening Address—Floods, fire, and heat: The Southeast Climate Assessment**

*Dr. Adam Terando, Southeast Climate Adaptation Science Center, Raleigh*

There's no question that North Carolina has been slammed with weather extremes in the recent past. Cities have seen all-time record breaking rainfall in just the past year. But what are the climatic changes that will shape the future for landscapers, municipalities and other professionals as we create business and operational plans for the future? As the federal lead author of the Southeast Chapter of the US National Climate Assessment, Adam has a deep understanding of the effects of climate change in the region and across the nation. He'll provide insights into the climate trends and changes that will affect employees, landscape design and maintenance and ongoing operations now and into the future.

**9:30-10:20 a.m.**

**Plants in the landscape: How climate is altering landscapes**

*Dr. Christy Rollinson, Morton Arboretum, Lisle, IL*

Phenology—it's a word popping up more often in conversation and writings about plants. That's because the study of how plants respond to weather has become more critical as we learn to handle heat waves, late freezes and more irregular winter temperature extremes. Christy conducts research at Morton Arboretum in Chicago to develop the information and tools necessary to both understand and predict how pressures from climate and human management impact the world of plants. She'll share insights on what trees and plants are doing in response to extreme weather and climate. You'll gain insights into how the plants suitable for the functional landscapes of tomorrow may be changing.

**10:20-10:45 a.m.**

**Break**

**10:45-11:35 a.m.**

**The role of landscape in weather mitigation**

*Andy Fox, NC State Dept. of Landscape Architecture, Raleigh*

This talk will discuss how landscape strategies such as Low Impact Development (LID) and green infrastructure help mitigate weather-related impacts at the site/property and neighborhood/local levels. The presentation will illustrate how landscapes can be sustainably designed and constructed to handle stormwater and provide other benefits while being economically viable for businesses. The discussion will also describe the importance of

collaboration and how the interplay of multiple disciplines can improve project delivery and outcomes.

11:35-11:55 a.m.

## **The Blue Green Innovator of the Year Award**

11:55-12:45 p.m.

### **Lunch and visit with sponsors**

12:45-1:35 p.m.

#### **Update from the Dean**

*Dr. Rich Linton, NC State College of Agriculture and Life Sciences, Raleigh*

Dean Linton will provide a perspective about how the college has grown over the past six years and will talk about some of the new agricultural initiatives that are helping the state of NC. Dean Linton is shaping the College of Ag & Life Sciences around partnerships to address the issues we face today. NCSU CALS is bringing students, faculty/staff and industry together to grow North Carolina's agricultural economy and benefit the public.

1:35-2:25 p.m.

#### **The soil's role in the landscape**

*Dr. John Havlin, NC State Dept. of Soil Science, Raleigh*

Soils provide multiple services at the site level. Soils have variable capacity to store carbon and plant available water and nutrients in quantities related to plant health and productivity. Understanding how soil and plant management practices either enhance or degrade soil health is essential for sustaining the productive capacity of the landscape. John will discuss soil management effects on carbon, water, and nutrient cycling to enhance soil health, landscape productivity, and environmental protection.

2:25-2:50 p.m.

#### **Break**

2:50-3:40 p.m.

#### **Using the urban forest to manage stormwater: A 12-city study**

*Karen Firehock, Green Infrastructure Center, Charlottesville, VA*

Trees matter in mitigation of weather events. Karen's organization, The Green Infrastructure Center (GIC), conducted a 12-city field test to demonstrate the role of trees in stormwater uptake. The project, Trees to Offset Stormwater, resulted in a spreadsheet calculator tool developed by the GIC. Using the spreadsheet calculator tool, a city can easily determine the runoff consequences of losing or adding trees and for setting canopy goals. There is also an audit tool for testing whether city policies make the city more pervious or impervious and recommended management actions to move policy in the desired direction. Karen will spotlight local projects conducted in Apex and Wilmington.

3:40-4:30 p.m.

#### **Closing Address—Constructing Landscapes**

*Christian Gabriel, US General Services Administration, Washington, D.C.*

Constructed and managed landscapes hold the potential to improve and to regenerate the natural benefits and services provided by ecosystems in their undeveloped state. At the General Services Administration (GSA) Christian has worked to assess the performance and value that landscapes bring to projects, embedding landscape and site sustainability into projects from the outset. GSA provides space for more than 1 million federal workers and tens of thousands of citizens that visit 8,603 government buildings and public spaces daily. He's demonstrating stewardship of public money by showing how functional landscapes contribute to the public in the form of stormwater management, carbon sequestration, pollinator habitat and more. Through his leadership, the agency is committed to ensuring their landscapes deliver by developing and verifying metrics and benchmarks to ensure consistent performance.

Christian will present the audience with a range of work, including capital projects, new design policies and procedures, short thematic films and other innovative models, which he uses to elevate the awareness of landscape function in the projects his agency develops. One of his best known projects is the US Coast Guard headquarters in Washington, D.C.

4:30-5:00 p.m.

#### **Wrap up**

