A STAC Workshop:
Monitoring and Assessing Impacts of Changes in Weather Patterns and Extreme Events on BMP Siting and Design

September 7-8, 2017
Crown Plaza Hotel, Annapolis, MD

Workshop Goals

The two-day workshop is planned for the purposes of: 1) assessing the state of the knowledge on how anticipated changes in weather patterns and extreme events may affect the structural integrity of a subset of urban stormwater, agriculture, and stream restoration Best Management Practices (BMPs) over time; 2) compiling siting and design guidelines to reduce the future impact of sea level rise, coastal storms, increased temperature and extreme events on BMPs; and, 3) identifying remaining gaps and highest priority needs (i.e., research, monitoring measures, programmatic efforts) to address in order to better inform and improve BMP development and implementation.

Preliminary Agenda

Day 1:

8:30 Registration, light breakfast (provided)

Session I: Introduction - General Siting and Design Principles

9:00 Introduction and Purpose of Workshop – Mark Bennett, USGS; Zoe Johnson, NOAA

9:30 State of the Science: Climate Change Impacts on the Chesapeake Bay –

10:15 BMP Performance: Literature Review - Jon Butcher, Tetra Tech

11:00 Discussion: What can we draw from literature review about siting and design principles?

12:00 LUNCH

Session II: Characteristics of Resilient BMPs - Case Studies

1:00- 3:30 Case Study Presentations

Agricultural BMP's

Co-Benefits and Adaptability of Agricultural BMPs in the Chesapeake Bay Watershed - Curtis Dell, USDA - ARS
Using Cover Crops to Adapt to Climate Change - Jason Kaye, Penn State

Coastal/Riverine BMP's

Adapting Living Shorelines: Siting and Design for Climate Impacts - Molly Mitchell, VIMS
Climate Considerations for Ecological Restoration: Kevin Smith, Maryland DNR

Urban BMP's

Patuxent/Illinois BMP Analysis - Jordan Fischbach, RAND Corp.
GreenPhilly Case Study - Art McGarity, Swarthmore College
New York City Case Study - Pat O'Connor, NYCDEP (invited)
Difficult Run Modeling Study: Lessons Learned for Improved BMP Design – David Sample
Modeling BMP Design for Extreme Events - Scott Job, Tetra Tech

3:30-3:45 Break (Provided)

3:45-4:45 Discussion: What are specific characteristics (flexibility, adaptability, robustness) of BMP design to address extreme events and provide co-benefits.

4:45-5:00 Wrap-up

Day 2:

8:15 Registration, light breakfast (provided)
8:45 Welcome, Summary of Day 1, and Comments from Workshop Participants

Session III: Tools & Resources

9:00 Compilation of available tools and resources - Zoe Johnson, NOAA Chesapeake Bay Office

9:30 Overviews of available tools and resources

- *MARISA Climate Data Portal (ChesWx Historical Climate Datasets) - Rob Nicholas/ Jared Oyler, Penn State*
- *Climate Ready DC* - Kate Johnson, DOEE

- *Guidance for Building Climate Resilience into Habitat Restoration - Nicole Carlozo, MD DNR*
- *Urban Tools and Resources: Stormwater Calculator* - Jason Berner, EPA
- *Green Infrastructure for Chesapeake Stormwater Management: Legal Tools for Climate Resilient Siting* - Jim McElfish, ELI

11:30 DISCUSSION - What are the remaining gaps and highest priority needs (tools and resources) to better inform BMP development and implementation?

12:30 LUNCH

Session IV: Wrap Up - Research and Monitoring Needs

1:30 DISCUSSION - What are the remaining gaps and highest priority needs (i.e., research, monitoring measures, programmatic efforts) to address in order to better inform and improve BMP development and implementation?

2:30 WRAP UP

3:00 Convene Steering Committee for Workshop Documentation