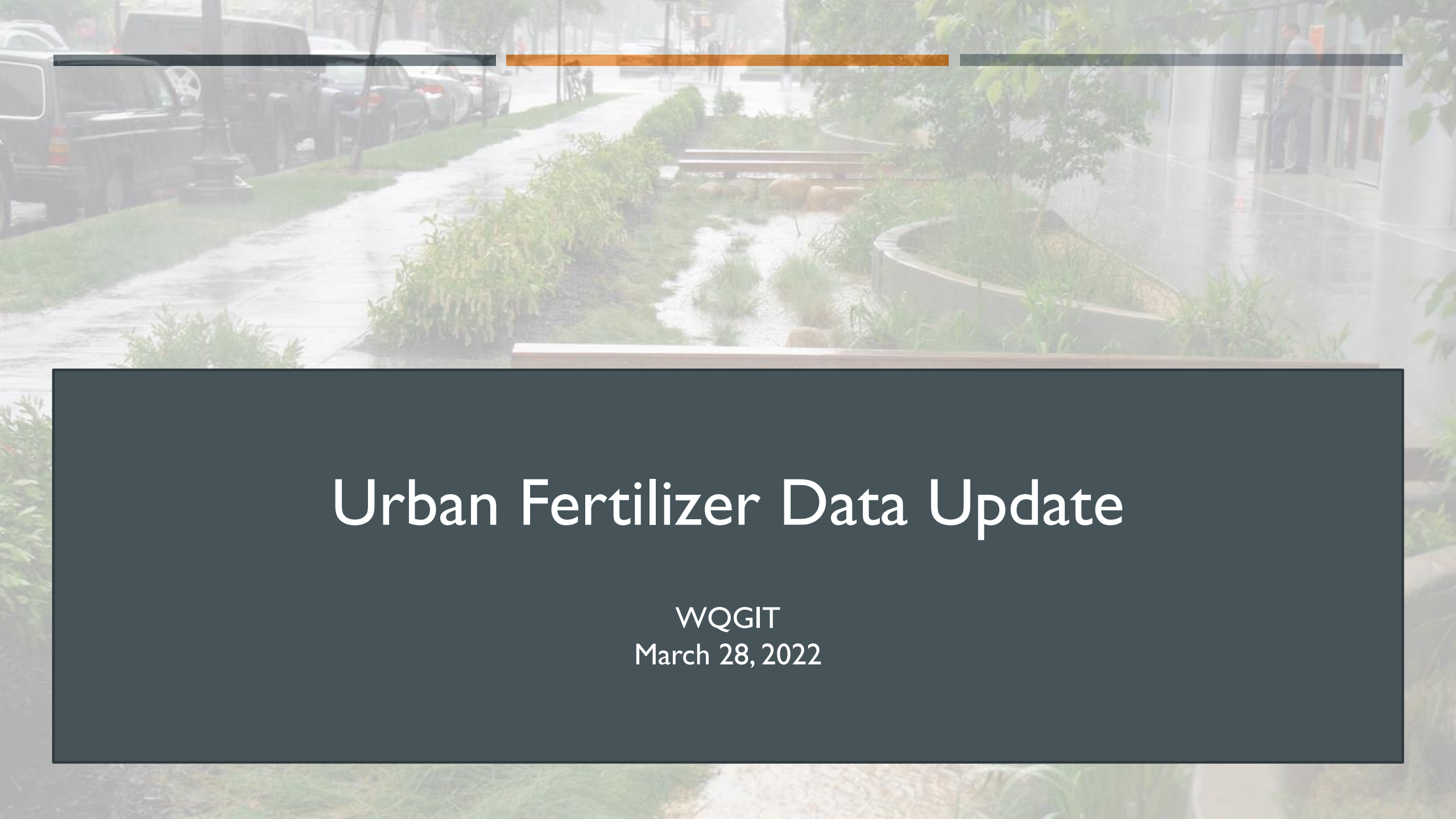


Urban Fertilizer Data Update

WQGIT
March 28, 2022

OUTLINE

- Quick Overview of the Bigger UNM Picture
- USWG Vote
- Discussion and Questions

BACKGROUND/HISTORY OF EXPERT PANEL

- Most research reviewed was 2010 or earlier
- Panel launched in 2011 and approved in early 2013
- State-wide fertilizer ban credit expired in 2015 to be replaced by valid state data
- Urban fertilizer inputs were estimated from AAPFCO non-farm fertilizer statistics in 2016
- UNM inputs and urban nutrient dynamics revised as Phase 6 model replaces Phase 5.3.2 in 2017
- 2017-2022 -Not much use of UNM credits besides MD and VA

CORE ISSUES

- *High Variability in Urban Nutrient Application Rates*
- *Lapsing Credit for State-wide Fertilizer Legislation*
- *Differentiation of Fertilized and Non-fertilized Land*
- *Tracking, Reporting and Verification of UNM Plans*

PROPOSED TASK FORCE

Approach	Ad-hoc scoping team to review new research and data sources on non-farm fertilizer sales, application, and verification.
Team	6-8 participants, to be determined. CSN to coordinate, with intern support.
Timing	4-6 month effort beginning roughly in August, 2022.
Funding	Available via CSN's role as USWG coordinator.
Product	Memo to USWG detailing findings from new research and data availability. Memo will recommend a path forward for the UNM panel report and urban nutrient application rates based on the results.

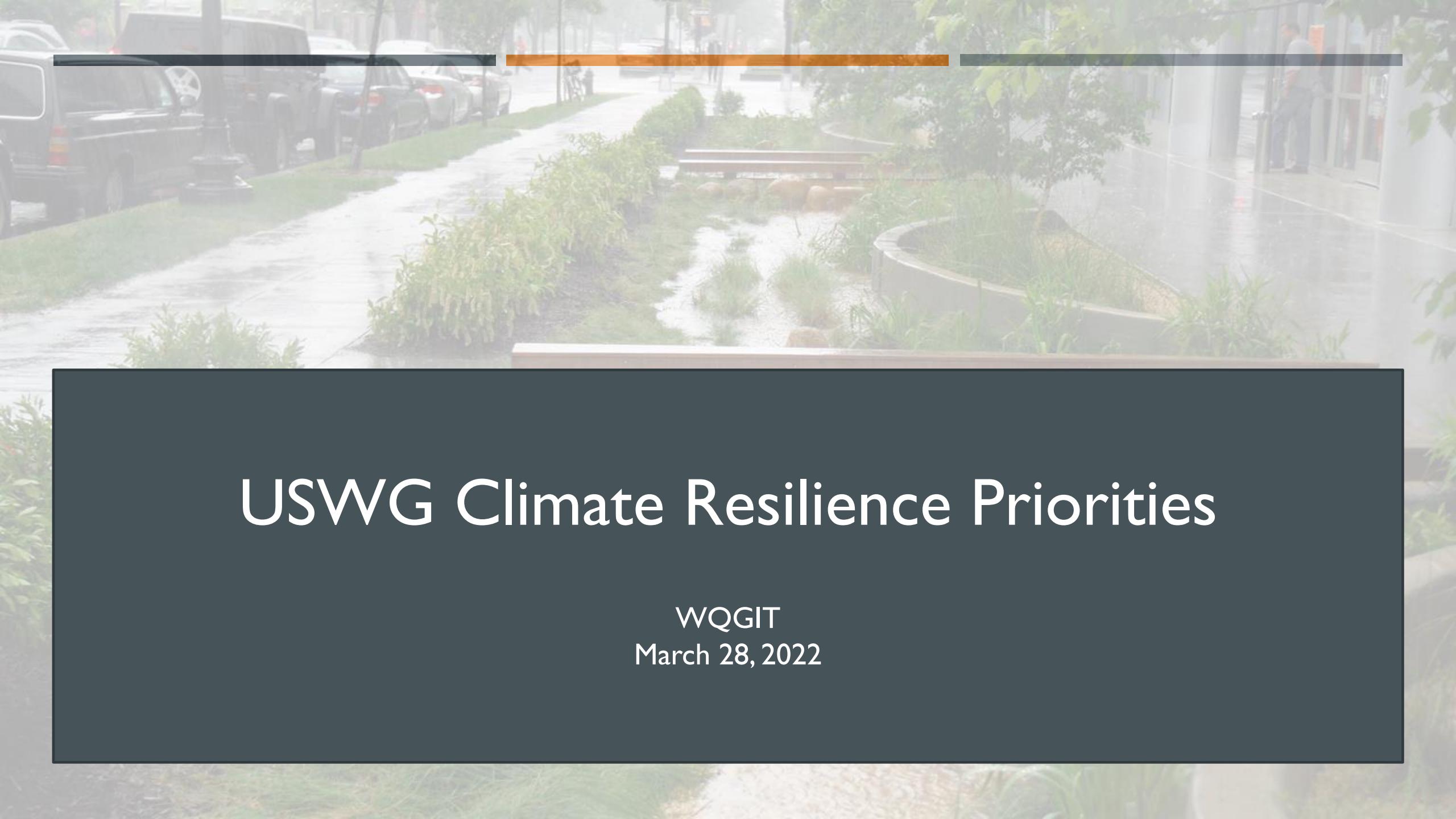
URBAN FERTILIZER IN CAST-21

- Several jurisdictions commented about the change in turf grass fertilizer application rates between CAST19 and CAST21, especially those with large increases

1) Current Method: Approved by USWG on 6/21/16, including varying applications by jurisdiction and through time

2) Proposed Method 1: Linear regression through 2012-2016 smoothed data; Use slope to vary per-acre rates from 2012 to 2016

3) Proposed Method 2: Linear regression through 2012-2016 smoothed data; Use annual percent change in per-acre rates from 2012 to 2016



USWG Climate Resilience Priorities

WQGIT
March 28, 2022

OCTOBER JOINT WORKSHOP

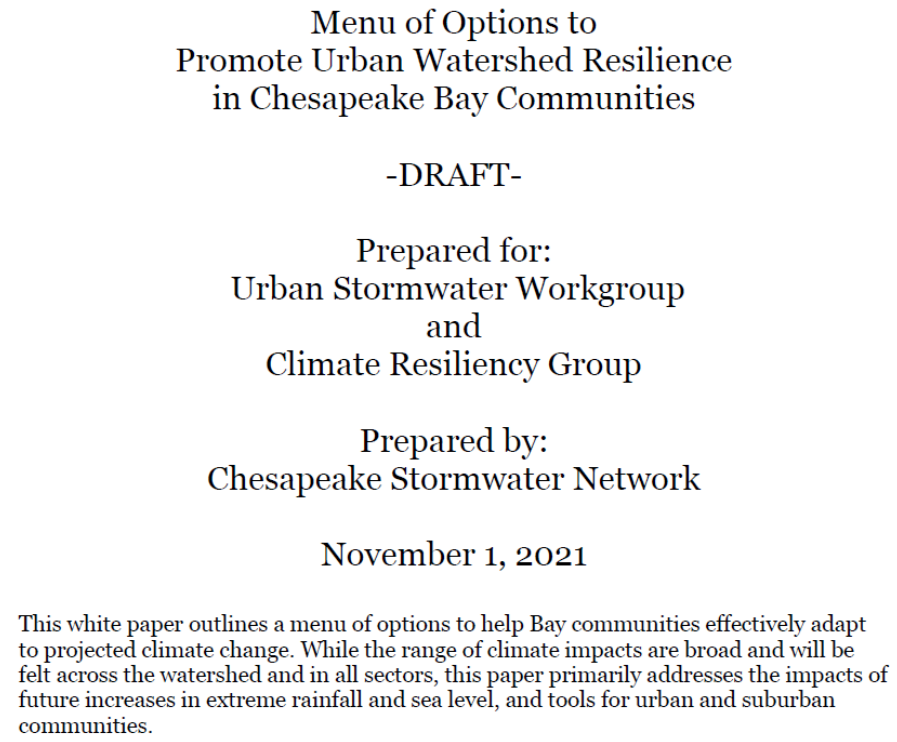
- Co-sponsored by Urban Stormwater WG and Climate Resilience WG

Goals:

- Get general partner endorsement of the completed work
- Round up some top research recommendations for CRWG
- Receive enough feedback from partners to put together a few priority next steps/recommendations for the CBP

WHITE PAPER ON RESILIENCE OPTIONS

- 9 Options presented to the USWG
  - 4 vulnerability assessment tools
  - 4 tools to support more resilience design criteria
  - 1 tool on reviewing local codes
- Workgroup members were polled for priorities ahead of November meeting
- Follow-up discussion in Nov/Dec with each USWG jurisdictional member



Menu of Options to
Promote Urban Watershed Resilience
in Chesapeake Bay Communities

-DRAFT-

Prepared for:
Urban Stormwater Workgroup
and
Climate Resiliency Group

Prepared by:
Chesapeake Stormwater Network

November 1, 2021

This white paper outlines a menu of options to help Bay communities effectively adapt to projected climate change. While the range of climate impacts are broad and will be felt across the watershed and in all sectors, this paper primarily addresses the impacts of future increases in extreme rainfall and sea level, and tools for urban and suburban communities.

THE 4 PRIORITIES

- **Develop Vulnerability Assessment Tools for Local Communities**
  - GIS tools for assessing vulnerable communities, as well as municipal assets
  - Tool to assist review of local codes and ordinances

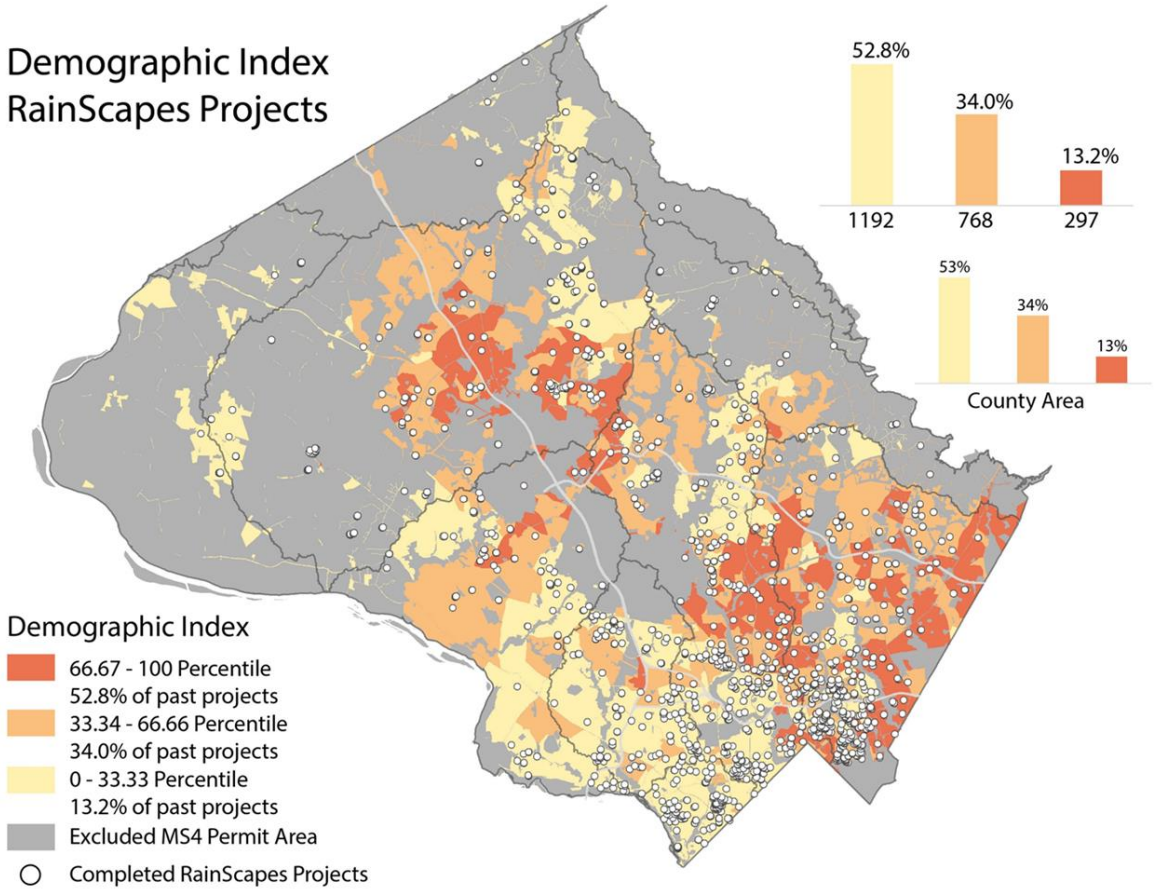
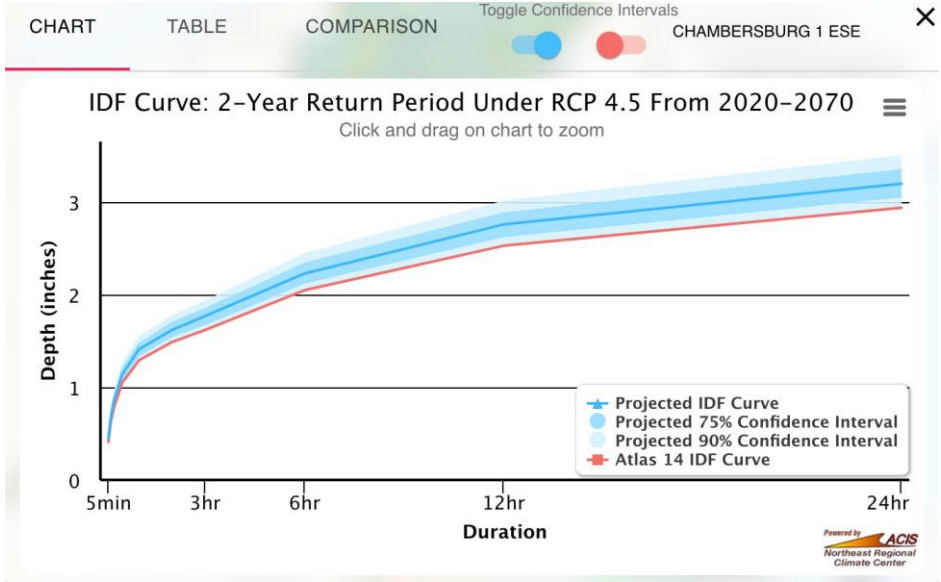
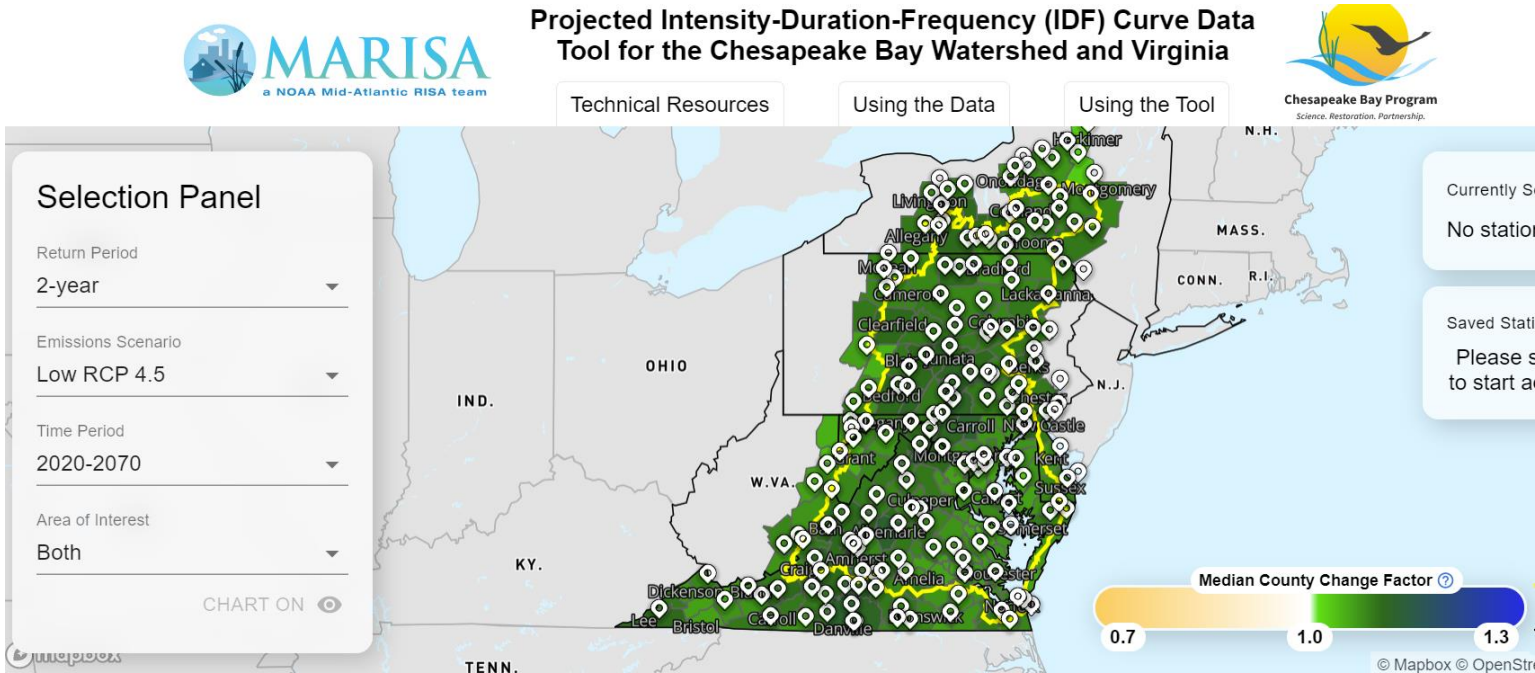


Image Courtesy: Montgomery County DEP

THE 4 PRIORITIES

- **Provide Enhanced Decision Support Tools to Choose Optimum Design Storms to Manage Different Local Infrastructure Assets**



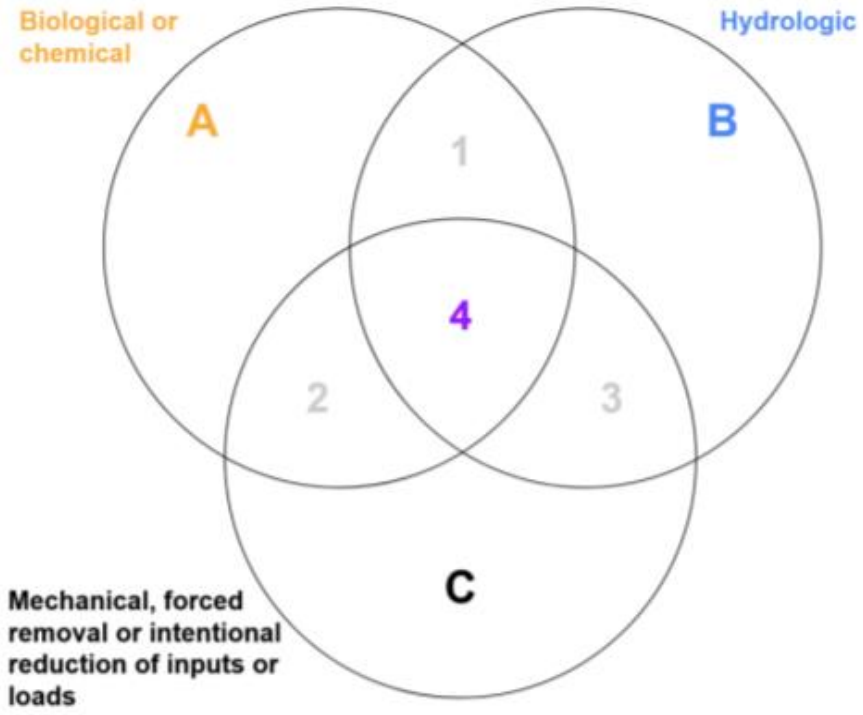


THE 4 PRIORITIES

- **Establish Resilient Design Adaptations for Stormwater Infrastructure and Restoration Practices**
  - Look at most commonly implemented restoration practices
  - Improved “plumbing” techniques
  - Enhancing runoff reduction
  - Better construction and maintenance indicators
  - Sizing and reference conditions

THE 4 PRIORITIES

- **Modeling to estimate the impact of future hydrology on simulated urban BMPs to estimate how removal efficiencies will respond, along with the estimates of uncertainty**

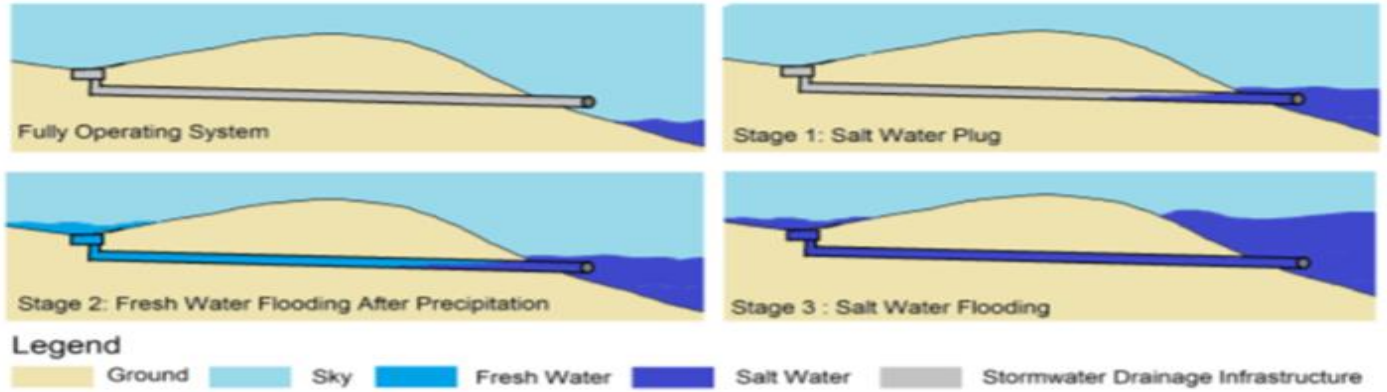


Courtesy: Virginia Tech

IN PLANNING: COASTAL RISING WATERS WORKSHOP

- Hybrid Virtual/In-person Workshop in Fall 2022
- Unique issues of coastal communities have been under-addressed in stormwater resources to-date
- Discuss specific tools and resources to help coastal local governments

Figure 2.5: Stages of stormwater drainage failure due to sea-level rise. Graphic by Emily Niederman, Stetson University.



QUESTIONS?

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