

# Update on Chesapeake Bay Program Climate Resiliency Work

COG WRTC Meeting  
September 10, 2021

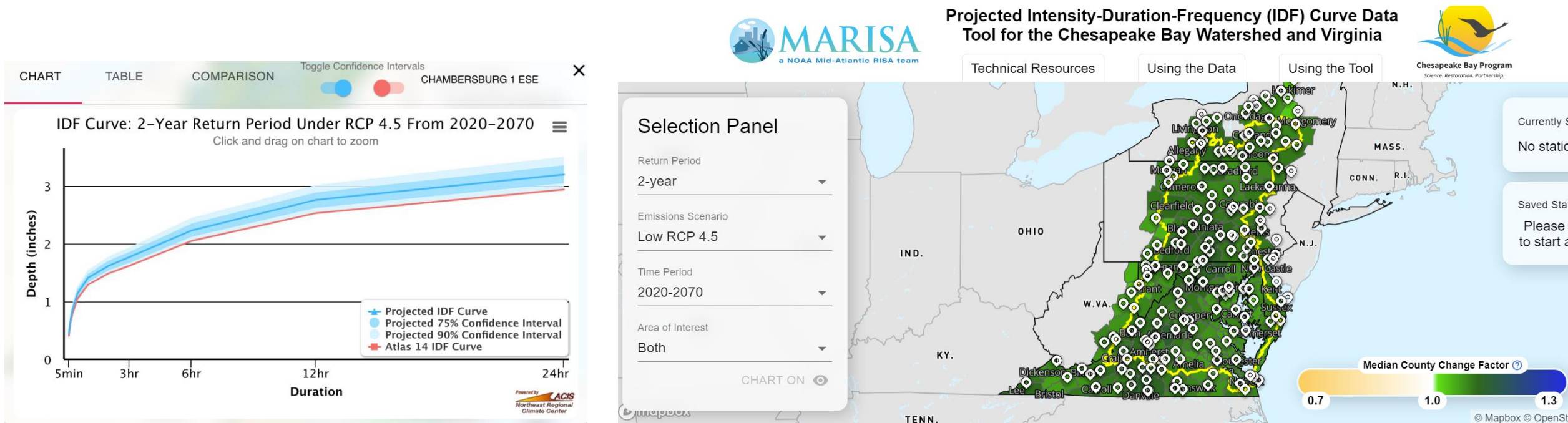


# CBPO-SPONSORED RESOURCES



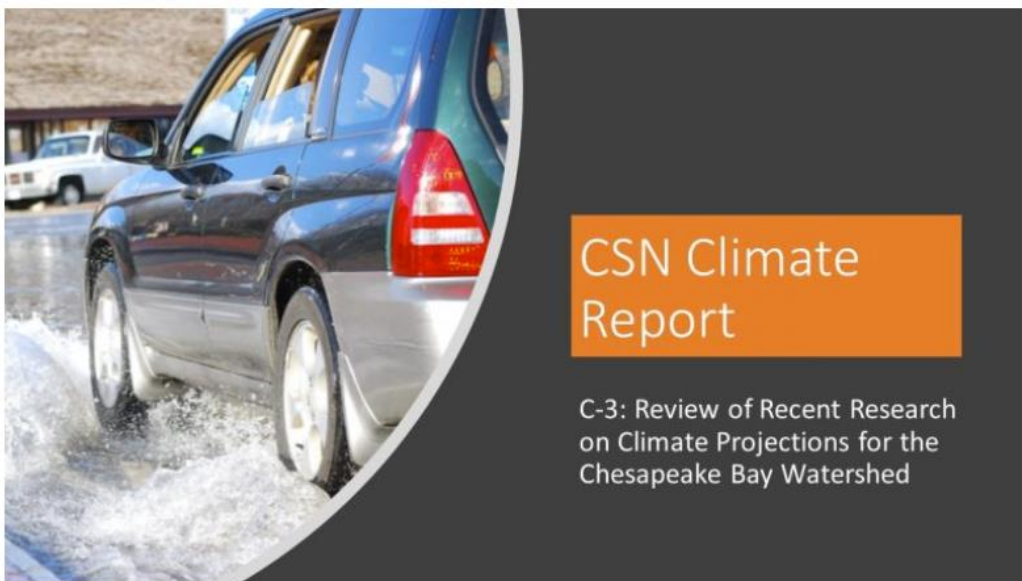
# TOOL #1: CLIMATE CHANGE-INFORMED IDF CURVES

- Data Tool: <https://midatlantic-idf.rcc-acis.org/>
- Webinar: <https://chesapeakestormwater.net/events/projected-chesapeake-idf-curves/>



# TOOL #2: CSN CLIMATE AND STORMWATER REPORTS

- **Reports & Fact Sheets:** <https://chesapeakestormwater.net/climate-change-and-stormwater-management/>
- **Webinar:** [https://chesapeakestormwater.net/events/bmp\\_vulnerability\\_resilience/](https://chesapeakestormwater.net/events/bmp_vulnerability_resilience/)



C-3: Synthesis of Chesapeake Bay Climate Projections



C-4: BMP Vulnerability Analysis and Resilient Design Considerations

# TOOL #3: CSN RUNOFF RENDEZVOUS WEBINARS

- Climate Change and Extreme Rainfall: Translating Future Projections into More Resilient Urban Communities
- New Paradigms to Manage Future Urban Floods in the Bay Watershed
- Developing the Next Generation of Stormwater Design Criteria

## Today's Panelists

Full Bios Here: <https://chesapeakestormwater.net/events/climate-change-and-extreme-rainfall-translating-future-projections-into-more-resilient-urban-communities/>



Dr. Franco Montalto  
Drexel University



Dr. Michelle Miro  
RAND



Dr. Fushcia-Ann Hoover  
National Socio-  
Environmental Synthesis  
Center (SESYNC)



Kim Grove  
Baltimore City Dept. of  
Public Works

## Our Distinguished Panel



Scott Crafton  
VA DOT



Kelly Lindow  
CityScape  
Engineering



Dave Hirschman  
HWE



Jon Hathaway  
UT-Knoxville



Ted Scott  
SMC

## TOOL #4: VIRGINIA TECH SYNTHESIS REPORT

- Assessing existing climate change-related literature on CBPO-identified **ag**, urban, “**natural**”, and **tidal water BMPs** to help inform a BMP climate resilience research agenda
  - How do climate change and variability affect nutrient/sediment cycling in the watershed?
  - How do climate change and variability affect BMP performance? Under what conditions do they fail?
  - Which BMPs appear to be the most robust to climate change and BMP performance uncertainty? Which are the most sensitive?
- Delivery Date: October 2021



# OTHER RESOURCES



# TOOL #5: CLIMATE IMPACTS TO RESTORATION PRACTICES

- Report: [https://cbtrust.org/wp-content/uploads/Grant16928-Deliverable11-FinalProjectReport\\_120820.pdf](https://cbtrust.org/wp-content/uploads/Grant16928-Deliverable11-FinalProjectReport_120820.pdf)
- Fact Sheet: [https://cbtrust.org/wp-content/uploads/Fact-Sheet-RestorationResearch\\_Grant16928\\_formatted\\_100120.pdf](https://cbtrust.org/wp-content/uploads/Fact-Sheet-RestorationResearch_Grant16928_formatted_100120.pdf)

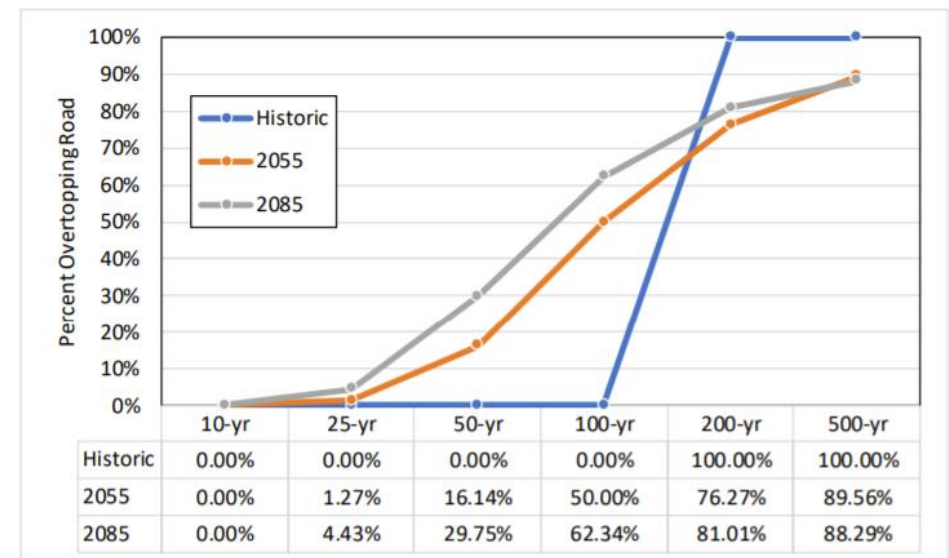
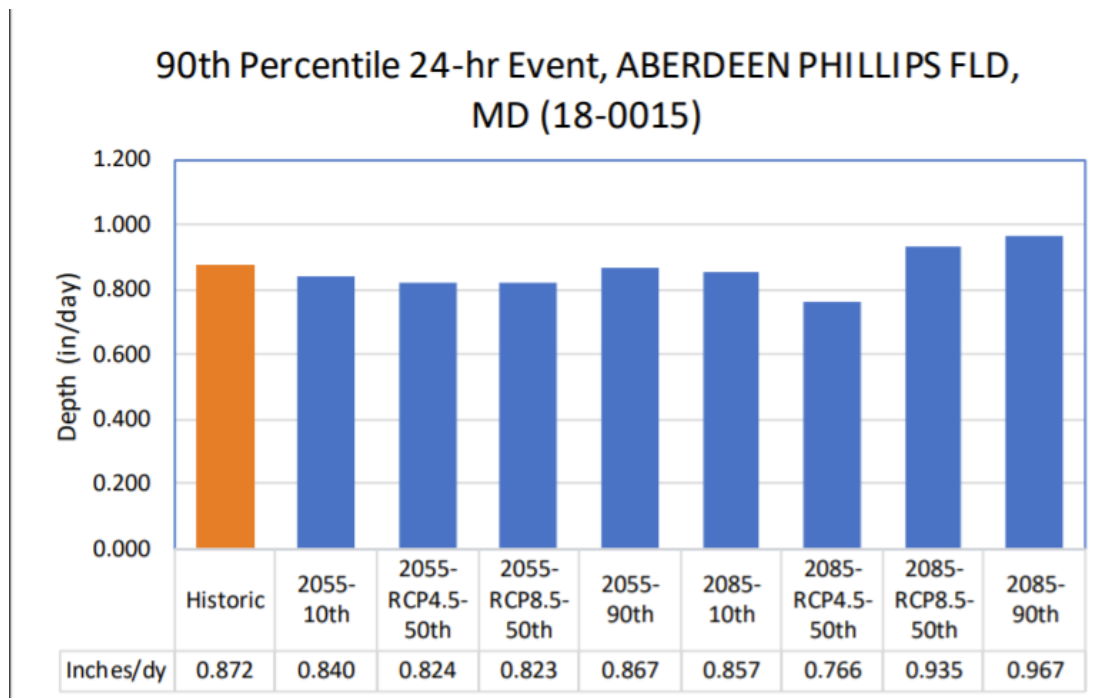
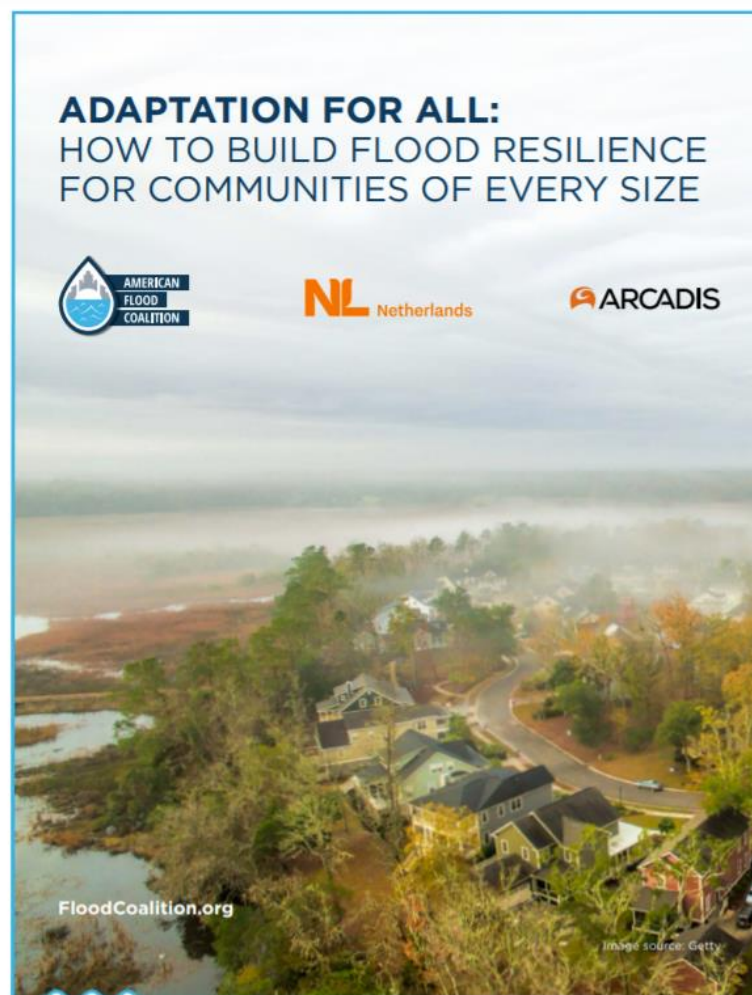


Figure 6-13. Predicted Frequency of Road Overtopping under Future Climate, Minor Arterial Culvert



## TOOL #6: CASE STUDIES

- NYC Stormwater Resilience Plan:  
<https://www1.nyc.gov/assets/orr/pdf/publications/stormwater-resiliency-plan.pdf>
- ADAPTATION FOR ALL: HOW TO BUILD FLOOD RESILIENCE FOR COMMUNITIES OF EVERY SIZE
- Virginia Beach Public Works Stormwater Design Manual:  
<https://www.adaptationclearinghouse.org/resources/virginia-beach-public-works-design-standards-manual-sea-level-rise-and-precipitation-adjustments-for-stormwater-management-design.html>





# WHAT'S NEXT



# OCTOBER JOINT WORKSHOP

- Co-sponsored by Urban Stormwater WG and Climate Resilience WG
- October 18-19<sup>th</sup> (times TBD - each day will be about 2-3 hours)
- Meetings are open, but they will focus on CBPO partner feedback (state and local govts)

## 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 MB

# OCTOBER DRAFT MEETING OUTLINE

- Virginia Tech Climate Synthesis
- Resilient Stream Restoration Design Considerations
- CSN Memo Recommendations
- Resilient Stormwater BMP Design
  
- Climate-Informed IDF Curves
- Case Studies and Next Steps for Implementing Resilient Design Principles
- Floodplain Management and Climate Change
- Possibly more, TBA



# QUESTIONS?

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