

Scientific and Technical Working Group Meeting

February 17, 2023

2:30 - 4:00 pm

By ZOOM

<https://umces-edu.zoom.us/j/86091909324?pwd=RGU4TkdwcnJCUi9tNzdLSGRrSDJ6Zz09>

Meeting ID: 860 9190 9324

Passcode: 419196

Dial by your location

+1 301 715 8592 (Washington DC)

Meeting Objectives:

- Update on MCCC and STWG Activities
- Overview of Emerging Climate Ready Engineering Practice

Meeting Agenda

Times shown are approximate only

1. Welcome, Introductions, and Roll Call
Peter Goodwin, STWG Chair
2. Approval of November Meeting Summary
3. Update on 2022 MDE Activities for the MCCC
Mark Stewart (MDE) (10 minutes)
4. Maryland 2023 Sea Level Rise Projections. *Don Boesch (5 minutes)*
5. Natural and Working Lands Strategy. *Rachel Lamb and Vimal Amin (30 minutes)*
6. Lecture: **Climate Resilient Infrastructure** [Presentation will start at 3:20pm]
Professor Bilal M. Ayyub, Professor and Director
Center for Technology and Systems Management, <http://ctsm.umd.edu>
This presentation will give a broad overview of emerging engineering practices, available resources and trends at the regional and national levels. Q&A will identify initiatives that will be covered later in the year by STWG or other Working Groups.
6. Public Comment. *[5 minutes]*
7. Summary of Action Items and Closure [Krieg] *[2 minutes]*

**2023 Publications of Relevance to the
Maryland Commission on Climate Change**

General Interest

White House announcement on release of Nature Based Solutions Roadmap. November 2022.
<https://www.whitehouse.gov/briefing-room/statements-releases/2022/11/08/fact-sheet-biden-%E2%81%A0harris-administration-announces-roadmap-for-nature-based-solutions-to-fight-climate-change-strengthen-communities-and-support-local-economies/>

IPCC Working Group II Sixth Assessment Report: Climate Change 2022 - Impacts, Adaptation and Vulnerability: <https://www.ipcc.ch/report/ar6/wg2/>

American Society of Civil Engineers
Responding to Code Red
Civil Engineering January 2022. 36-45

Impacts of Future Weather and Climate Extremes on United States Infrastructure: Assessing and Prioritizing Adaptation Actions
Book authored by the ASCE Task Committee on Future Weather and Climate Extremes. December 2021.

Which racial/ethnic groups care most about climate change?
<https://climatecommunication.yale.edu/publications/race-and-climate-change/>

Professor Matt Fitzpatrick (UMCES) on the shifting climate of America's cities.
<https://www.bostonglobe.com/2021/06/29/metro/boston-has-seen-baltimore-style-heat-june-it-might-be-preview-summer-comes/>
The tool is available at:
<https://www.umces.edu/futureurbanclimates>

Location of Maryland's Air Monitoring Stations
<https://mde.maryland.gov/programs/Air/AirQualityMonitoring/PublishingImages/MonitoringNetwork.png>

NOAA National Integrated Heat Health Information System
<https://nihhis.cpo.noaa.gov/>

NOAA analysis of new climate normals
<https://www.noaa.gov/news/new-us-climate-normals-are-here-what-do-they-tell-us-about-climate-change>

Maryland's Coast Smart Climate Ready Action Boundary (CRAB) Tool
<https://mdfloodmaps.net/CRAB/>

Policy

Inequitable patterns of US Flood risk in the Anthropocene.

O.E.J. Wing et al.

[Nature Climate Change](https://www.nature.com/natureclimatechange) | VOL 12 | February 156 2022 | 156–162 | www.nature.com/natureclimatechange

Opportunities for U.S. State Governments and in-Region Partners to Address Ocean Acidification through Management and Policy Frameworks. Turner, J. et al., August 1, 2021

<https://www.tandfonline.com/doi/full/10.1080/08920753.2021.1947126>

Additional background on BIL/IIJA implementation in Maryland:

<https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Commission/Governors%20Infrastructure%20Subcabinet%20presentation.pdf>

Science

EPA. Climate Change Indicators

<https://www.epa.gov/climate-indicators>

Technology

Maryland Energy Innovation Accelerator: Creating Investible Clean Energy Businesses

October Newsletter and signup for updates

<https://mdeia.org/>

International Energy Agency.

Dramatic action is required in the next decade to have any hope of achieving a net-zero goal by 2050, IEA said. Where electric vehicles now account for 5% of global automobile sales, they will need to represent 60% of new automobile purchases in 2030. Annual renewable installations, which hit a record 280 gigawatts last year, will need to exceed 1,000 GW. And energy efficiency improvements will need to grow by 4% annually, roughly three times their current rate. Read the article:

<https://www.scientificamerican.com/article/net-zero-emissions-by-2050-are-possible-landmark-report-says/>

Future World Vision: Mega City 2070

futureworldvision.org (available after February 22, 2022).

Engineering

American Society of Civil Engineers (August 2022)

Objective Resilience: Policies and Strategies
Manual of Practice 146

Objective Resilience: Objective Processes
Manual of Practice 147

Objective Resilience: Technology
Manual of Practice 148

Objective Resilience: Applications
Manual of Practice 149

Further details available [at ASCE](#):

Human Health

Maryland Climate and Health Program webpage:

https://health.maryland.gov/phpa/OEHFP/EH/Pages/climate_change.aspx

Maryland Environmental Public Health Climate Adaptation Tracker:

<https://maps.health.maryland.gov/climatechange/>

Webinars and Other Events

Webinars

Workshop: Nature-Based Solutions. November 30, 2022. <https://mailchi.mp/nas/register-now-measuring-what-matters-comprehensive-and-equitable-evaluation-of-benefits?e=223b065c1c>

Workshop: Exploring Best Practices for Large-scale Marsh Persistence and Restoration in the Chesapeake Bay.

October 6, 2022. Virtual and In-person

Maryland Sea Grant and Chesapeake Bay Sentinel Site Cooperative

Collaborative activities on blue carbon in Maryland
Living Shorelines in Practice - Enhancing Coastal Resilience

<https://drive.google.com/file/d/18grfKOesGi6yHGoKpmI61iRZ0kYCS64v/view>

<https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/STWG/Blue%20Carbon%20in%20Maryland%20presentation.pdf>

Collaborative activities on blue carbon in Maryland: Living Shoreline webinar
Living Shorelines in Practice - Enhancing Coastal Resilience

Coastal Adaptation Report Card. 2021

<https://www.youtube.com/watch?v=v4ivioWna94&t=20s>

https://virginia.planning.org/conferences-and-meetings/mid-atlantic-planning/?utm_medium=email&utm_source=govdelivery&utm_term=

Recordings:

Adaptation For All

is available at: <https://nlintheusa.com/adaptation-for-all/>

Flood Resilience in the Year Ahead: Opportunities for the New Congress

is available to watch here: <https://www.youtube.com/watch?v=dI91vyl6GYw>