

## Scientific and Technical Working Group Meeting

**April 19, 2024**

**1:00 - 2:30 pm**

**By ZOOM**

<https://umces-edu.zoom.us/j/81913871322?pwd=bFBCT0ZDTnN5enpNWmJ4UeMzdTRFOT09>

Meeting ID: 819 1387 1322

Passcode: 057392

Dial by your location +1 301 715 8592 US (Washington DC)

### Meeting Agenda

*Times shown are approximate and subject to change*

1. Welcome, Introductions, and Roll Call  
Dr. Bill Dennison (STWG Chair)
2. Approval of March Meeting Summary
3. STWG Activities, Relevant Publications, or Announcements from STWG members *[10 minutes]*
4. Shale Gas, Methane, and Climate Disruption, Dr. Bob Howarth, Cornell University *[45 minutes]*
5. Discussion *[20 minutes]*
6. Public Comment *[5 minutes]*

## General Interest

National Academies Report: [\*Accelerating Decarbonization in the United States\*](#) – October 2023

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-previous-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/>

## **Environmental Justice**

Scientific American/E&E News, 2023.

[\*This part of the US. will suffer most from climate change\*](#)

Centers for Disease Control and Prevention: Environmental Justice Index  
<https://www.atsdr.cdc.gov/placeandhealth/eji/index.html>

FEMA : National Risk Index of Natural Hazards  
<https://www.fema.gov/flood-maps/products-tools/national-risk-index>

EPA (2022): EJ Screen  
<https://www.epa.gov/ejscreen>

White House (2023): Climate and Economic Justice Screening Tool  
<https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>

## **Policy**

Inequitable patterns of US Flood risk in the Anthropocene.  
O.E.J. Wing et al.

[Nature Climate Change](#) | VOL 12 | February 156 2022 | 156–162 | [www.nature.com/natureclimatechange](http://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](http://futureworldvision.org) (available after February 22, 2022).

## Engineering

American Society of Civil Engineers (June 2023)  
[Resilience Toolkit](#)  
[ASCE-NOAA Workshops to Inform Engineering Design](#)

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](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>

*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>

*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=](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=dI91vy16GYw>