

**Scientific and Technical Working Group**

**May 21, 2021**

**Meeting Notes**

**2:00-2:45 pm**

**Webinar: Ocean Acidification: Impacts to Chesapeake Bay and the State Plan**

Speakers: Dr. Jeremy Testa, UMCES and Jim George, MDE

The presentation provided a comprehensive overview of the general mechanisms of ocean acidification. Long-term data collected by the State of Maryland was used to show trends and expected implications in Chesapeake Bay. The priorities for the Maryland Ocean Acidification Action Plan were highlighted.

**3:00pm STWG Business Meeting**

1. Welcome, Introductions and Roll Call  
*Peter Goodwin, STWG Chair*

Members Present: Adel Shirmohammadi, Russ Dickerson, Belay Demoz, David Vanko, Jane Kirschling, Peter Goodwin, Eric Davidson

Guest Attendees from state agencies: C. Beck, J. Foster, K. Drake, C. Osorto

Other Guests: P. Berman, D. Green, S. Knoche, J. Testa, J. George, V. Amin, K. Lanzarotto, K. Jahan, M. Trice

2. Approval of Minutes of April 16 Meeting  
*Approved unanimously.*
3. Update on Maryland's Landfills  
*Chris Beck*

MDE's Air Quality Regulatory Group will be evaluating landfills and methane emissions over the next few months. The Greenhouse Gas Mitigation Working Group will focus on this issue at their June 22 meeting. MDE also will be hosting a stakeholder meeting on June 23 to gather input. MDE is working to develop a correction for methane in the GHG inventory. Russ Dickerson already is engaged but MDE welcomes input from STWG on emerging technologies for managing or monitoring methane or any other ideas by STWG members. Russ highlighted one example of methane release to the atmosphere can be restricted.

Additional background information mentioned during the methane discussion:

*GGRA PPT summary online from 2017--mentions landfills (from Josh).*

<https://mde.state.md.us/programs/Air/ClimateChange/MCCC/MWG/MWGMDEPres02242017.pdf>

*Reference on SPARROW model. (from Khurshid)*

<https://onlinelibrary.wiley.com/doi/full/10.1111/j.1752-1688.2011.00574.x>

#### 4. 'Pop-Up' Significant Science Findings and Emerging Technologies of Relevance to MCCC

(refer to the list of recent publications and science events below)

*STWG Members*

Eric Davidson gave a presentation on wood as a source of energy that commented on the recent presentation by the U.S. Forest Service to the Greenhouse Gas Mitigation Working Group. The presentation reflected some of the concerns expressed by the Maryland Department of Natural Resources that this issue is more complex than previously indicated. [View the presentation.](#)

Norm Augustine (lead author) on the recent report 'The Perils of Complacency' testified at the U.S. House of Representatives in April. The testimony focused on national security but the main report addressed the national imperative of increasing federal research funding to sustain US competitiveness.

EPA Climate Change Indicators are now available (refer to "Recent Publications")

The recent edition of EOS (magazine of the American Geophysical Union) focused on social justice issues in Natural Disasters.

Jane Kirschling has updated the list of significant publications related to human health and climate change. (next page)

#### 5. Public Comment

None

#### 6. Summary of Action Items

Russ Dickerson will follow up with MDE about the possibility of some landfill sites in Maryland being used to test new technologies for remotely measuring methane. Russ and other STWG will reach out to MDE with additional ideas that would monitor or control methane emissions from landfills.

DNR and MWG to determine if the conversation on wood energy should be continued in July meeting.



The June 19 meeting is cancelled in recognition of Juneteenth.

## Recent Publications of Relevance to the Maryland Commission on Climate Change

### General Interest

EPA Releases Delayed Climate Report

<https://www.bbc.com/news/world-us-canada-57095347>

### Policy

EDF, Recapturing U.S. Leadership on Climate: Setting an ambitious and Credible Nationally Determined Contribution. March 2021.

<https://www.edf.org/climate/recapturing-us-climate-leadership>

### Science

EPA - Climate Change Indicators 2021

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

Tate, E. and C. Emrich, March 2021. Assessing Social Equity in Disasters.

EOS Vol 102(3). Before and After the Disaster. AGU

### Technology

How the Shipping Industry Can Go from Global Polluter to Carbon Neutral.

[https://www.fastcompany.com/90633254/how-the-shipping-industry-can-go-from-global-polluter-to-carbon-neutral?partner=feedburner&utm\\_medium=email&utm\\_source=rasa\\_io&PostID=30039167&MessageRunDetailID=5178069265](https://www.fastcompany.com/90633254/how-the-shipping-industry-can-go-from-global-polluter-to-carbon-neutral?partner=feedburner&utm_medium=email&utm_source=rasa_io&PostID=30039167&MessageRunDetailID=5178069265)

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/>

Robert F. Service, 2021. Carbon Capture marches toward practical use. Science. March 26. p 1300.



## Human Health

Preparing for the Regional Health Impacts of Climate Change in the United States  
CDC July 2020. 38p.

Climate Change, Health and Nursing: A Call to Action  
Alliance of Nurses for Healthy Environments. 36p

The Impacts of Climate Change on Human Health in the United States: A Scientific  
Assessment

US Global Change Research Program, April 2016. 332p.

[health2016.globalchange.gov](https://health2016.globalchange.gov)

Environmental Health in Nursing. Unit VI: Climate Change

Alliance of Nurses for Healthy Environments

L. Anderko and S. Chalupka. 12p.

The 2020 Report of the Lancet Countdown on Health and Climate Change: Responding  
to Converging Crises. *Lancet* 2021; 397: 129–70

Published Online [https://doi.org/10.1016/S0140-6736\(20\)32290-X](https://doi.org/10.1016/S0140-6736(20)32290-X)

Ebi, K.L., J.M. Balbus, G. Luber, A. Bole, A. Crimmins, G. Glass, S. Saha, M.M. Shimamoto, J. Trtanj, and J.L. White-Newsome, 2018: Human Health. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 572–603. <https://nca2018.globalchange.gov/chapter/health>

## Webinars and Other Events of Relevance to Maryland Commission on Climate Change:

*Recording*

**Adaptation For All** <https://nlintheusa.com/adaptation-for-all/>

*Recording*

**Flood Resilience in the Year Ahead: Opportunities for the New Congress** <https://www.youtube.com/watch?v=dI91vyl6GYw>

*May 19, 2021:*

*Maryland Dredged Material Management Program*

**Mid-Bay Island Ecosystem Restoration Project**

<https://maryland-dmmp.com/>

Opportunities for Blue Carbon, habitat restoration and more.



*May 20, 2021:*

**Solar Geoengineering**

[Climate Conversations: Pathways to Action](#) is a new monthly webinar series from the National Academies of Sciences, Engineering, and Medicine that aims to convene high-level, cross-cutting, nonpartisan conversations about issues relevant to national policy action on climate change.

*May 21, 2021:*

**Webinar: Ocean Acidification: Impacts to Chesapeake Bay and the State Plan**

Jeremy Testa, UMCES and Jim George, MDE

*May 25th: Climate Leadership Conference: C2ES and Bloomberg Philanthropies*

**Climate Leadership Exchange: America is All In to Fight Climate Change**

<https://www.cvent.com/events/virtual-climate-leadership-exchange/registration-b720a07daa854be5b651df14ae67a44c.aspx?fqp=true>

*Coming up, June 9th, 2021:*

**Triggering Transformation: How Corporate Transparency Has Moved the Dial in Favor of Water Security (40 mins)**

Cate Lamb, Global Director, Water Security of Carbon Disclosure Project (CDP)

<https://www.iahr.org/index/detail/325>

