

## Science and Technology Working Group

### Meeting Notes for February 18, 2022

#### Attendees

Members: Peter Goodwin (Chair), Paulinus Chigbu, Russ Dickerson, Jonah Erlebacher, Adel Shirmohammadi, David Vanko

Agencies: MDE: Suzanne Dorsey, Susan Casey. Erick Thunell, Jim George, Vimal Amin, Cindy Osorto; MDE: Josh Foster

Others: Matt Fitzpatrick

UMCES Staff: Tassew Mekuria, Dave Nemazie

#### Objectives

Review 2022 STWG Activities - including expected requests from MCCC or other Working Groups, and update on regional GHG

#### Introduction

The Scientific and Technical Work Group (STWG) is responsible for updating and informing the MCCC on the science of climate change. In 2022, the STWG focused on multiple climate change topics in the USA and the State of Maryland. The 2022 STWG meetings and discussions were partially affected by the COVID-19. Topics discussed in this meeting included a legislative update on climate issues, expected 2022 priorities for MCCC, suggestions on enhancements to the coastal adaptation scorecard, review tentative schedule for 2022 STWG activities, update on regional GHG emissions, and preparation of the science section of the MCCC annual report.

#### STWG meeting outcomes

New STWG members were introduced.

The November 2021 meeting summary was approved without amendment.

#### Legislative Updates of Relevance to STWG

Dave Nemazie provided a legislative update. On the Senate side, the Climate Solutions Now act

is important with a goal to achieve net-zero emission by 2045 with similar bills on the House side.

State, commercial and residential buildings are also included in this bill and the legislature has been considering recommendations made by MCCC.

### Mitigation Working Group Priorities

This year, the Mitigation Working Group is focused on the transportation decarbonization strategy.

Also, the biomass to energy is being considered with a small group of MWG, STWG and external invitees exploring details. A literature review is in process. The MWG and STWG are collaborating to produce a concept paper that can inform MCCC and any potential future legislation. STWG members are invited to participate or review the report if they have relevant expertise.

### ARWG Priorities

Allison Breitenother presented on behalf of the ARWG. The focus is on four key priority recommendations for this year. (1) the implementation of the Maryland Climate Adaptation and Resilience Framework recommendations document. (2) Advancing the saltwater intrusion plan recommendations specifically related to the wetland adaptation. (3) Building capacity to compete for natural infrastructure funds available through federal agencies. (4) Embedding environmental justice and equity into all aspects of adaptation and resiliency planning and implementation. Assistant Secretary Dr. Suzanne Dorsey commented on flood risk, future development and stormwater management.

### Update of Monitoring Regional GHG Emissions

Dr. Russell Dickerson presented a summary of recent research on GHG emissions and recent findings from programs measuring methane. He pointed out the significant science findings and emerging technologies of relevance to MCCC. The hydrocarbons from the extensive oil and gas operations of the front range in Colorado. Climate change and GHGs exacerbate poor air. A recent article in *The Lancet* concluded environmental pollution, primarily air pollution kills more people than the combination of HIV, tuberculosis, malaria, and armed conflict combined. The electricity that comes from the western United States has a higher percentage of renewables. Use of biofuels is down more than 50% with substantial reductions in China and the US. There are reductions in GHG in cities, but little reduction around fossil-fueled power plants. The papers are linked and cited under in the meeting agenda materials.

The IPCC is expected to publish the final three reports for the 2022 Sixth Assessment. The *AR6 Climate Change 2022: Impacts, Adaptation and Vulnerability* will be released later this month and *AR6 Climate Change 2022: Mitigation of Climate Change* will be released in April 2022. The final report *AR6 Climate Change 2022: Synthesis Report* will be released in September 2022.

These assessments are conducted every 5-6 years and will be a focus of STWG to ensure this information and strategies are communicated to the MCCC and important findings included in the 2022 Annual Report.