Science and Technical Work Group
2021 Work Plan

As requested by MCCC and MDE, STWG will provide scientific guidance related to adaptation strategies and setting priorities on how Maryland can achieve prevailing GHG reduction goals as set by state or federal legislation,

Blue Carbon. Work with the MCCC and external partners (COMPASS, Restore America's Estuaries) to explore the opportunities associated with blue carbon for carbon sequestration, protecting shorelines and enhancing the tidal ecosystem. Blue Carbon is defined as the carbon accumulating in vegetated, tidally influenced ecosystems such as tidal forests, tidal marshes and intertidal to subtidal seagrass meadows. Blue carbon exhibits significant potential for both mitigating and adapting to the adverse impacts of climate change. MCCC is interested to know if multiple benefits for sustaining wetlands, enhancing coastal resilience, reducing flood risks and protecting infrastructure can be achieved. This will be achieved through virtual events such as webinars and on-line workshops during COVIS-19 restrictions.

Identify New Technologies and Innovations. The STWG will build up its membership with experts in new technologies that can reduce emissions or sequester carbon. As the impacts of climate change continue to become a threat to ecosystems and human health, a significant number of innovative concepts are being recommended. For those new innovations that seem to hold promise, the STWG will hold mini-review sessions to determine if broader investigations should be considered.

Advise Maryland's Ocean Acidification Activities. The STWG will assist MDE and DNR in developing an *Ocean Acidification Research and Monitoring Action Plan* as part of the State's membership in the International Alliance to Combat Ocean Acidification. The STWG, in coordination with agency partners, will hold a workshop of regional scientists who are working on ocean acidification within the Chesapeake and Coastal Bays. The purpose of this ocean acidification workshop will be to share knowledge on emerging research, consider the need for additional monitoring, and discuss mechanisms for reducing the impact to Maryland. In addition, the STWG will work with the ECO Work Group to engage the public in the challenges and potential solutions associated with ocean acidification.

Review GHG Reduction Strategies. Many local, state, and other national governments have developed greenhouse gas reduction plans that are either more aggressive than Maryland's and/or have innovative reduction strategies that Maryland has not currently incorporated into its own planning efforts.

Environmental and Climate Justice. STWG will identify experts from within the academic community that can be a resource to MCCC or other state activities. As the various strategies addressing structural racism related to climate evolve within Maryland, STWG will ensure this critical factor is included wherever needed.

Advise the ARWG and UMCES on Resiliency Indicators. UMCES in coordination with the ARWG has been holding a series of mini-workshops (including one with the STWG) to select indicators. These workshops have been held Maryland-wide. The draft indicators will be posted on the project's website by mid-November, inviting written feedback and comments from stakeholders. Depending on responses, one more workshop may be held before the end of 2020. The selection of indicators is key to developing a *Maryland Climate Adaptation Report Card* in 2021.

Enhance Interactions between MCCC Workgroups. Continue to have STWG members participating in the other workgroups and respond to requests from other work groups. This has occurred mostly with the ARWG and MWG and will be expanded to the ECO Workgroup. STWG will work with other Working Groups to identify common science and engineering priorities for planning or implementation of strategies. This will be initiated through a small workshop to identify the common issues that require deeper evaluation of what is needed to inform mitigation, adaptation and communication of climate issues.