

Approved by workgroup members 08/03

Adaptation & Resiliency Working Group Quarterly Meeting

May 11, 2020 | 2:00p - 4:00p

Virtual Meeting Only

Google Hangouts Video Link: meet.google.com/exw-shxa-zmn

Conference Line: +1-314-730-0702 Pin#: 936-552-479#

Chair: Secretary of Natural Resources, Jeannie Haddaway-Riccio

Coordinator: Allison Breitenother, allison.breitenother@maryland.gov

Agenda

I. Welcome, Introductions & Review of Agenda

2:00 - 2:05p

Secretary Haddaway-Riccio, will open the meeting, ask for introductions and seek approval of February 10, 2020 meeting notes.

Materials: [February 10, 2020 Draft Meeting Minutes](#)

Notes:

- 2:00 Introduction by Secretary Haddaway-Riccio – appreciation for everyone convening for the call
- 2:03 Review of participants by Matt Fleming: Secretary Jeannie Haddaway-Riccio, Matt Fleming (DNR), Alexandra DeWeese (CAC), Anna Eun Joo Choe, Annie Bennett, Annie Carew (UMCES), Beth Groth (Charles County), Bill Neville, Breck Sullivan (CBP), Bruce Michael (DNR), Carrie Cook (DNR), Catherine McCall (DNR), Charlotte Shearin (CAC), Christine Conn (DNR), Christopher Beck, Claudia Jones, Delegate Dana Stein, Darya Minovi (Center for Progressive Reform), Dave Guignet (MDE), Dave Nemazie (UMCES), Deborah Herr Cornwell (MDP), Dorothy Morrison (MDOT), Drew Budelis (Versar), Eamon Flynn (MDH), Elliott Campbell (DNR), Emily Vainieri (DNR), Erick Thunell (MDE), Erik Meyers (The Conservation Fund), Hannah Bruback (Chesapeake Legal Alliance) Hans Schmidt (MDA), Heath Kelsey (UMCES), Jaleesa Tate (MEMA), Jan-Michael Archer (UMCES), Jason Dubow (MDP), Jeff Silva, Jennifer Raulin (DNR), Jill Lempke (MDOT), Jim Bass (ESLC), Jim George (MDE), Joseph Brodine (MDH), Josh Foster, Joe Abe (DNR), Joy Hatchette (MD Insurance Administration), Julie Reichert-Nguyne, Kate McClure (MD Sea Grant Extension), Katie May Laumann (UMCES), Katherine Charbonneau (CAC), Kevin Antoszewski (MDA), Kevin Wagner (MDE), Kim Drake, Kristen Fleming (DNR), Linda Li (MDH), Lisa Nissley, Lisa Wainger, Lynn Faulkner, Megan Granato (DNR), Michael Bayer (MDP), Michael Grassman (CAC), Treasurer Nancy Kopp, Nell Ziehl (MHT), Nicole Carlozo (DNR), Paul Berman, Dr. Peter Goodwin (UMCES), Robert Newton (DNR), Sandi Olek (DNR), Sandy Hertz (MDOT), Sasha Land (DNR), Spyridon Papadimas (DNR), Susan Gore

(DBM), Susan Kacey, Susan Payne (MDA), Taryn Sudol (MD Sea Grant Extension), Tim Lavalle (MD Department of Commerce), Travis Cooke

- 2:05 Review and approval of February 10, 2020 meeting notes by the Secretary. Motion to approve by Jason Dubow, second by Susan Payne. No abstentions or opposing votes voiced.

II. Partner & Member Presentation

2:05 - 2:25p

The University of Maryland Research team & Sandra Olek (DNR) will give a presentation and demonstration of the Park Equity tool developed through a partnership with the University of Maryland and the Department of Natural Resources.

Notes:

- The Presentation was provided by Jan-Michael Archer (UMCES) and Sandi Olek (DNR). An initial comment was made by the Secretary about how important and useful this tool has already been for DNR's work.
- The development of the Park Equity Tool was supported by DNR through the use of NOAA funding
- The environmental justice (EJ) movement has always been a spatial movement because it is concerned with where you are in a space and where pollutants, toxins, etc. are relative to you. We know that access to green space is an EJ issue because spending time in green space provides health benefits (social, physical, and mental) to individuals and communities. Previous studies have researched these trends; a map was shown that illustrated the connection between demographics and the "greenness" of an area of California.
- The idea behind this project was to combine two tools:
 - The MD Park Equity Mapper, which was developed in 2008 and updated in 2015
 - The MD Environmental Justice Screening Tool (MDEJSCREEN), which was developed in 2017 and has data at census block level.
- The project team started by conducting a literature review of factors that influence park access. The MD Park Equity Mapper had been heavily weighted on distance to parks, but the literature shows that there are additional barriers that need to be considered. Of the 24 barriers identified by the project team, seven were focused on for this project: percent non-white, median household income, percent children under 18, percent adults over 65, walkability, public transport access, and population density.
- Jan-Michael demonstrated the tool, which is available at go.umd.edu/parkequitymapper
 - Layers available include:
 - Layers for each of the factors listed above
 - Park layer, showing all of the parks in local land preservation and recreation plans (LPRP). The parks are also categorized as being people-powered, nature-based, or people and nature based
 - Park amenities, which gets to the quality of the park based on how many amenities it has
 - Public transit
 - Park equity layer - dark areas should be given higher priority when considering what locations need parks



- EJScreen layers also available as well as layers that are Maryland-specific such as distribution of supermarkets, small groceries, superfund sites, and demographics including income. **The team is looking to add health and climate vulnerability layers next year and are seeking input from ARWG members on what types of data and layers they should add. Specifically, they would like guidance on the addition of layers related to heat and heat island effect.** The team is also hoping to add layers to MDEJSCREEN that better represent cultural context and barriers to communities.
 - The “select” tool allows you to choose a specific geography for more detailed investigation. PDF reports can be generated based the selected area. The user can also compare the location to the rest of the county, or compare one county to another county. The reports provide tables of data and can also generate statistics and box and whisker plots
 - The “side by side mapper tool” allows the user to look at different variables across two maps
 - From Sandi: There are many barriers to creating green space, ranging from zoning issues and lack of funding to political will. This tool will help guide us when we do have funding to invest and can also help inform strategic planning and development reviews.

III. 2020 Priorities Status Update

2:25 - 3:40p

- A. Develop and Adopt Adaptation Indicators - *Katie May Laumman, Anne Carew and Heath Kelsey (UMCES)*, will provide the workgroup with a summary of phase I (research and inventory) and lead a discussion for phase II (stakeholder mapping and engagement)

Notes:

- The UMCES Integration and Application Network (IAN) is a group of science communicators and integrators with experience in ecosystem assessment and communications. This group develops report cards in the Chesapeake Bay and worldwide and have been contracted by DNR to assist with the “Develop and Adopt Adaptation Indicators” project. The report card process has 5 steps – conceptualization, choose indicators, define thresholds, calculate grades, and communicate
- Coastal communities are affected by climate change (they are first to be impacted and their effects more severe) and climate change effects are unavoidable (even if warming and emissions goals are met). Effects are mostly related to sea level rise (SLR) and more frequent and intense storms. Resulting impacts include loss of coastal wetlands, erosion, saltwater intrusion, and property damage and loss. Coastal communities need to adapt along multiple timescales – gradual (organizations and infrastructure) and rapid (disaster preparedness and recovery from extreme events). Progress towards coastal adaptation must be assessed by considering actions already being taken and their effectiveness. Metrics must be relevant, measurable and have data available.
- The team is currently in the “conceptualization phase” and has conducted a literature review of coastal change across the globe. Part of that literature review



researched four categories of metrics that have been used in other projects: development and physical infrastructure, ecosystem restoration and management, disaster preparation and response, and public education and engagement.

- One of the next steps will be to determine which metrics will be used for the Maryland report card. This will rely on stakeholder engagement. A diverse group of stakeholders is needed. Diversity includes various levels of interest and varying levels of influence in adaptation work (as illustrated on diagram).
- **The Project team needs help in identifying stakeholders and ensuring adequate representation across sectors and backgrounds. Emails will be sent to all ARWG members, asking everyone to put themselves and their organizations on the interest/influence diagram provided. The stakeholder list will also be shared and ARWG members, who will be asked to evaluate what stakeholders are missing and where those stakeholders fall in diagram.**
- Once the stakeholder list is completed virtual workshops will be held to determine what is important to the stakeholders and to develop the metrics and thresholds for evaluation. The project team is going to have to adapt its approach based on Covid-19 impacts.
- The metrics will then be assessed and scored against threshold/target conditions; scores will be converted to a number grade as well as a letter grade (A-F) to make them more digestible. The results of the assessment will be shared with the stakeholders before being released more widely.
- Question from Jason Dubow – How will this effort be connected to the ARWG Framework project? From Katie May – this effort will rely on the framework a lot. There will be a lot of coordination across. From Heath – UMCES is willing to work with adaptation framework group to make sure the efforts are complimentary.
- Questions and comments can be directed to Katie May Laumann at klaumann@umces.edu

B. Development of an Adaptation Framework - *Catherine McCall, Megan Granato (DNR) and the Sector leads* will provide ARWG with a progress update and summary of sector specific work thus far.

Notes: DNR is working on contracting with the University of Virginia Institute for Engagement and Negotiation (IEN) to help facilitate this work. DNR will be working with IEN to revise the project schedule as necessary, but is hoping to hold a large-group kickoff meeting in June or July. The sector groups will continue to meet through the end of 2020 and into the start of 2021 to identify the best practices that will guide the development of the framework. Many thanks to the sector group members for starting in on this work and conducting initial group calls. Several points of connection have already been identified across sectors and research and reference assembly (including examples of adaptation work and plans that can help us identify best practices) is underway. Contributions to this effort are welcome. The following are updates from the initial sector group meetings:

- Water Resources – Quantity and Quality (*Megan Granato*): This group is planning to focus on three main topics: water supply management, water



pollution control, and water hazard management. The last topic – hazard management – is a cross-sector issue that will need additional collaboration. During the group’s initial call they discussed ideas for the project’s end deliverable, including a framework for documenting, communicating and tracking progress on action commitments across state partners. The framework could help organize key action commitments and promote coordination and accountability among key institutions. The framework could have an online presence in order to make state adaptation work more transparent to the public. Other topics discussed included action versus planning (we need to make it clear that we are in the action phase of state adaptation work), how adaptive management will be needed to keep the project results current, and how to effectively incorporate uncertainty into adaptation work in a way that doesn’t undermine progress and public perception.

- Natural Resources and Ecosystems (*Catherine McCall*): This group discussed how we currently manage resources and how that management may need to change based on climate impacts. The group also discussed connecting with local partners and the MCCC Scientific and Technical Work Group (STWG). The subject matter addressed by this group could include off-shore topics, including ocean acidification. Habitat migration may bring ecosystem fluxes into vulnerable communities, and the group began to think through implications of being on front lines of habitat migration. Changes to resources that will impact industries and jobs were also discussed.
- Local Government Action and State Service Delivery (*Jim Bass*): This group’s conversation focused on identifying partners (individuals and organizations) that can amplify messages and community involvement related to adaptation and resilience. The sector leads developed a survey that the group members will complete to help identify those partners and prioritize actions from phase I and II state adaptation plans. This prioritization will help the group focus on where most of its time and efforts will be spent.
- Human Health (*Megan Granato on behalf of Allison Breitenother*): This group is planning to focus on three main topics: local adaptation practice, university research (which could involve engaging a university senior or master’s student on a “state of the science on health impacts of climate change in Maryland”), and impacts to different population groups. The group talked through the focus of the sector in terms of whether it should be on adaptation outcomes that address an individual’s health (asthma, heat illness, etc.), health systems (hospitals, urgent cares, systemic resiliency) or both. They decided that the two could not be teased apart and that both individual and systems strategies are needed. This group will schedule a meeting in June or July and reach out to both the University to discuss current research and the insurance sector.
- Natural and Working Lands (*Susan Payne*): This group’s discussion focused on the need to understand incremental effects of climate change on agriculture and forestry. Topics discussed included temperature, rainfall, pests, disease, invasive species, and saltwater intrusion (including alternative crops, wetland mitigation, and drainage ditch systems). The group also discussed how to accelerate implementation of practices and provide education to the farming community to help get their involvement. The Healthy Soils Initiative’s advisory committee



will identify MD-specific practices that will use funding to help incentivize farmers to sequester carbon and generate carbon credits. Additional topics discussed included the need to connect with local partners and stakeholders, the rural/urban interface, and connections with both the Natural Resources and Ecosystems sector group and the MCCC STWG.

- Protecting Critical Infrastructure (*Sandy Hertz*): This group has held two meetings and have identified participants that will help with action items. They have also begun data gathering (GIS files, reference documents including the state hazard mitigation plan, energy sector documents, etc.) and assessing gaps
- Diversity and Environmental Justice (*Nell Ziehl*): Today's Park Equity Tool has provided inspiration – engaging marginalized communities is crucial. We have an uphill climb in building relationships and trust, which takes time and resources. This group's members have a lot of interest but not a ton of expertise and are hoping to leverage expertise from allied organizations. The group is preparing a short qualitative survey that will be used to identify and engage partners and stakeholders. Input on the survey is welcome from all ARWG members.
- Climate Jobs and Training – This group does not yet have a lead identified and has not met.

Dorothy Morrison comment - needing to address environmental justice, diversity, and jobs seems to be a recurring theme both in this project as well as across the MCCC and its work groups. Diversity and environmental justice and climate jobs and training are so closely connected we could consider combining them.

C. Saltwater Intrusion Plan Recommendations - *Jason Dubow (MDP)*

Notes: The plan was adopted in late 2019 and includes 40 or so research recommendations. The workgroup that developed this plan is now working on plan implementation, having most recently met on April 29. The group members completed a survey, developed by MDP, to create a priority list of 15 research recommendations. During the April 29 meeting the group learned about funding opportunities through the Center for Agro-Ecology and Sea Grant. The MCCC also asked the group to develop a report investigating different easement options, and they are coordinating on scoping a first phase wetland adaptation plan as well. Action on the latter has included looking at existing resources, projects, and grants. The first phase of developing the plan will be to agree on goals and objectives.

D. Review Nuisance Flood Plans - *Sasha Land (DNR)*

Notes: Workshops were conducted late last year. The project team has received many questions and inquiries from Maryland communities, which they are providing technical assistance to address. Three plans (Kent County, Somerset County, and City of Salisbury) have been submitted to date and additional plans are being reviewed. DNR, MEMA and MDP have been employing a team approach to review the plans. The deadline for plans to be submitted to MDP is October 1; Sasha will be reaching out to communities with a reminder and an offer for assistance with deadlines so that the team can provide meaningful comments. Sasha has also developed a tracking system for the plans as well as written statements of no nuisance flooding. A flood documentation tool, MyCoast, which will help communities keep track of nuisance flooding is in the process



of being contracted by DNR. Interestingly, most communities are not just identifying tidal flooding but are also including flooding resulting from precipitation/stormwater, which goes beyond the requirement. MEMA is working on adding the nuisance flood plans as a link to its hazard mitigation plan layer as well.

E. Maryland Climate Leadership Academy - *Kristen Fleming (DNR)*

Notes: Cohort G (Anne Arundel County) is in progress and has switched to an entirely virtual format. Two additional cohorts will be scheduled for this summer and fall, both of which will be completely online. The in-person course is conducted in 8-hour classroom days, which isn't ideal for online learning. The team is looking at two different formats for the online courses - 2 to 4 hour increments in the week or after hours on week nights. New trainings are also being developed, including a clean and resilient transportation infrastructure workshop for MDOT and clean energy coursework.

F. Development of a Resiliency Portfolio - *Christine Conn (DNR)*

Notes: DNR has started a resiliency opportunity zone analysis and is looking at existing datasets and logic criteria. The goal is to complete this analysis by the end of the summer. Candidate areas will then be selected and outreach will be performed to see if communities are interested. Technical assistance in the development of project portfolios and financing strategies will be provided to those communities that would like to participate. **Two requests for ARWG members are to start assembling project portfolios from other planning efforts and programs (for example, projects proposed, but not funded, through the Trust Fund) and to share the your agencies' geographic priorities.**

IV. 2020 Work plan

3:40 - 3:50p

Work plan review and approval

Materials: 2020 Work Plan

Notes:

- A brief overview was given to the MCCC during the April meeting
- **Final comments, edits, and suggestions should be emailed to Matt Fleming before Friday, May 22**

V. Public Comment, Updates, & Next Steps

3:50 - 4:00p

Notes:

- The Secretary thanked the presenters and participants. Many people and organizations are involved in this work and this collaboration is making sure we move forward with tangible deliverables.
- The next meeting in August. In the meantime, please email any questions you were not able to ask during the meeting and we will respond as soon as possible.



Next ARWG Meeting: Monday August 3, 2020, 2:00p - 4:00p

For upcoming Maryland Commission on Climate Change meetings:

<https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Pages/Commission.aspx>

Comments or questions? Contact ARWG Coordinator, Allison Breitenother (allison.breitenother@maryland.gov)

