

**Adaptation & Resiliency Working Group**  
**Q3 2019 Meeting Agenda + Notes**

**Date/Time:** Monday, August 5, 2019; 2:15-4:00 PM

**Location:** Maryland Department of Natural Resources  
580 Taylor Avenue, Annapolis, MD 21401  
Conference Room C-1

**Chair:** Secretary of Natural Resources, Jeannie Haddaway-Riccio  
**Coordinators:** Catherine McCall and Kim Grubert

**Meeting Objective:** The third quarter meeting will provide an opportunity for the ARWG to hear progress updates on several 2019 Work Plan topics, including plans to address saltwater intrusion and nuisance flooding, as well as opportunities to build climate change resilience through environmental compliance programs. Additionally, building off presentations and discussions at the May 20 meeting, this meeting will provide a forum to further discuss the next phase of adaptation work in the state. These conversations will guide the main goal of this meeting, which is to generate the 2020 adaptation-related recommendations that are due in September for the 2019 MCCC Annual Report.

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**I. Welcome, Introductions & Review of Agenda**

**2:15 - 2:20 pm**

*Catherine McCall, DNR*

**Decision:** Seek approval of May 20, 2019 meeting notes.

**Materials:** Q3 2019 Meeting Agenda  
[May 20, 2019 draft meeting notes](#)  
[2019 ARWG Work Plan](#)

**Attendees:**

Nancy Kopp (MD State Treasurer); Kim Grubert, Catherine McCall, Matt Fleming, Jackie Specht, Jenn Raulin, Joe Abe, Elliott Campbell, Christine Conn, Bruce Michael, Sandi Olek, Sasha Land (DNR); Emily Vainieri, Anthony Cusato (OAG); Spyros Papadimas (DGS); Taryn Sudol (MD Sea Grant); Kate McClure (MD Sea Grant Extension); Jason Dubow (MDP); Kate Charbonneau, Alex DeWeisse (Critical Area Program); Suzanne Dorsey, Matt Rowe, Gary Setzer, Jim George (MDE); April Morton (DLS); Zoe Johnson (Navy); Allison Gost Breitenother (MDH); Caitlyn Madeira (MEA); Susan Gore (DBM); Nell Zeihl (MHT); Andrew Asgard-Hoffman (MEMA); Ed Link (UMD); Susan Payne (MDA); Jim Bass (ESLC); Peter Goodwin, Dave Nemazie (UMCES); David Bohannon (BPW); Sandy Hertz (MDOT); Drew Budelis (Versar); Paul Berman (private citizen); Jeff Silva (private citizen)

**By phone:**

Mark Belton (MCCC MACO Rep); Joy Hatchette (MIA); Erik Myers (TCF); Sam Ray (DNR); Melanie Diaz (Georgetown Climate Center)

Meeting called to order at 2:20pm. Motion to approve (Jason Dupow) and seconded (Susan Payne). May 20 meeting minutes approved.

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## II. HB 1350 / SB 1006 Progress Updates

2:20 - 3:00 pm

*Jason Dubow, MDP, update on Saltwater Intrusion Plan, 2:25 - 2:50 pm*

*Sasha Land, DNR, update on Nuisance Flood Plan guidance, 2:50 - 3:00 pm*

**Background:** The Maryland General Assembly passed House Bill 1350 / Senate Bill 1006 in July 2018, which directs MDP to establish a plan to adapt to saltwater intrusion by December 15, 2019. MDP initiated a work group of state agency and subject matter experts in 2018 and has continued in 2019. A draft Saltwater Intrusion Plan will be provided to the ARWG for review this fall. Amendments this year also require that on or before October 1, 2019 MDP, in consultation with DNR and MDE, shall develop and publish guidance to assist local jurisdictions in the collection of data to establish nuisance flooding baselines.

**Discussion:** Both Saltwater Intrusion and Nuisance Flood Plans are listed in the 2019 ARWG Work Plan, so this Q3 meeting provides an opportunity to hear progress, ask questions, and discuss next steps.

**Jason Dubow (MDP)** presented on the status of the Maryland Saltwater Intrusion Plan; see presentation posted online (<https://mde.state.md.us/programs/Air/ClimateChange/MCCC/Pages/ARWG.aspx>). Plan has been developed with input from: peer-reviewed research and technical review, state agency workgroup, interviews of subject matter experts, ARWG & STWG, and stakeholder review. Has been an iterative process informed by best available science. The process of creating this plan has generated more questions than answers, so the plan lays out a 5-year research and study plan, as well as some adaptation measures for immediate implementation. ARWG members are asked to review the draft adaptation measures and provide feedback. Annual progress reports on implementation of this plan will be provided to ARWG and MCCC. **Draft plan will be emailed to ARWG by mid-August. Questions, comments, or edits should be sent to Jason Dubow ([jason.dubow@maryland.gov](mailto:jason.dubow@maryland.gov)) by September 13.**

### Questions

Treasurer Kopp: How integrated is this plan with other end-of-year reports coming out (e.g. GGRA)? A: This is a separate report required by the Coast Smart Council legislation, but mentions concurrent efforts.

Jim George: Will be an important topic in the Adaptation 2020s effort. Yes, all agreed.

Joe Abe: Did you look at the impact of salt intrusion on buried infrastructure? Yes, but data was limited.

**Sasha Land (DNR)** presented on the status of nuisance flood plan guidance. 2019 legislation (HB1427) updated the 2018 legislation (HB1350). Current deadline in statute is July 1, 2020. Current legislation lists DNR and MDP as leads to advance, so guidance is being reviewed by both Secretaries. Anticipate that guidance will go out to local jurisdictions on or before October 1, 2019. Jurisdictions will be encouraged to integrate nuisance flood plan into their Hazard Mitigation Plan and/or Comprehensive Plan. **Guidance will be distributed to the ARWG and members encouraged to disseminate to their networks.** Catherine thanked ARWG members who assisted in the development of guidance, including Sasha Land, Jaleesa Tate, Jason Dubow, Debbie Herr-Cornwell, Jim Bass, Elizabeth Habic, and staff from Kent County and the City of Annapolis.

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## III. Park Equity and Hazard Risk: Opportunities for DEIJ in Adaptation Discussions

3:00 - 3:20 pm

*Sandi Olek, DNR*

**Background:** In the 2019 Work Plan, the ARWG committed to providing a forum for discussing diversity, equity, inclusion and justice (DEIJ) to allow the membership to better understand how current climate work can better incorporate DEIJ. DNR staff will highlight a project being conducted in partnership with the Maryland School of Public Health to integrate a Park Equity Analysis tool into MdEJSCREEN as a sub-tool. To fully realize the social, environmental and health benefits, green space can be defined by proximity, usability and quality. The work will ultimately provide

Maryland with public health indicators for underserved communities in need of green space and the ability to understand more about underserved communities and hazard risk.

**Sandi Olek (DNR)** presented on the Maryland Park Equity Analysis; see presentation posted online (<https://mde.state.md.us/programs/Air/ClimateChange/MCCC/Pages/ARWG.aspx>). Research shows that spending time in nature is beneficial. Access to green space and parks aids in mental health, reduces crime, and beautifies community; green spaces also sequester carbon, improve stormwater control and water quality, and helps combat impacts of urban heat island effect. A statewide analysis of parks and open spaces was conducted. All data/analysis pulled together into online tool and integrated into Maryland Land Preservation and Recreation Plan. Now partnering with UMD School of Health to continue analysis - will be ready by October 1, 2019. Going forward they want to better incorporate climate stressors and how health disparities, social, and other environmental stressors impact access to parks. They want to target two jurisdictions to complete a very detailed analysis. **Contact Sandi Olek ([sandra.olek@maryland.gov](mailto:sandra.olek@maryland.gov)) for questions, feedback, or ideas.**

#### Questions

Sam Ray: Did you overlay with Opportunity Zones? Yes, analyses like this have been done before, but trying to do this for the state so finding statewide data has been a challenge.

Matt Rowe: Can you incorporate more environmental health data? Yes, working with MDH to get more fine scale data.

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#### **IV. Adaptation 2020s & Annual Report Recommendations**

**3:30 - 3:50 pm**

*Catherine McCall, DNR*

**Background:** Since the 2007 Executive Order was signed establishing the MCCC, Maryland has been a national leader in advancing climate adaptation. The ARWG developed Phase I and II adaptation strategies in 2008 and 2011 for advancing resilience across sectors. After a decade of strategy implementation and as we learn more about how risks are evolving and ways to build adaptation, the ARWG is discussing evaluation of progress and definition of future steps and opportunities. In May 2019 ARWG membership discussed the need for and interest in scoping the next phase of adaptation milestones. Volunteers from the May 20 meeting met July 10 at DNR to initiate a discussion about potential sectors and scope potential outcomes.

**Discussion:** The sub-committee will present a summary of the July 10 meeting and ARWG members will participate in a discussion about ways to identify needed next steps to advance Maryland's next decade of climate resiliency progress.

Water Resources – Quantity/Quality (Matt Rowe & Jim George, MDE)  
Natural Resources & Ecosystems (Catherine McCall, DNR)  
Local Government Action/State Service Delivery – (Jim Bass, ESLC; Jason Dubow, MDP)  
Human Health – (Allison Gost Breitenother, MDH)  
Natural & Working Lands – (Susan Payne, MDA)  
Infrastructure & Transportation – (Sandy Hertz, MDOT)  
Diversity & Environmental Justice – (Nell Ziehl, MHT/MDP)  
Climate Jobs & Training – (Kim Grubert, DNR)

Individuals presented short overviews of the proposed and draft sectors that might be explored in a strategy for the next decade of adaptation work. These sectors were identified after a look back at the Phase I and II strategies, a review of state and national areas that have emerged as focus areas of adaptation work, and initial feedback from ARWG members. Volunteers to participate in continued scoping discussions were welcomed at the meeting verbally and members could sign up on charts posted at the meeting. [Additional responses came in via email and are still invited and welcomed.](#)

#### **Water Resources:**

In the past, this topic was largely associated with water supply. A newer element is water pollution (e.g. Phase III WIP), and also water hazard management. Obvious intersections between water and climate, so this strategy provides opportunity for a coordinated umbrella. Likely topics include regional coordination, saltwater intrusion, wastewater and stormwater infrastructure, and how to address the overlap in issues across sectors. Needs to consider how will resiliency and adaptation be impacted by current regulatory programs/structures, as it will directly impact ability to achieve adaptation goals.

Volunteers as of 8/13: Jim George, Matt Rowe (MDE); Nick Kelly, Michael Grassman (Critical Area); Sandy Hertz (MDOT); Drew Budelis (Versar); Spyros Papadimas (DGS); Sarah Lane (DNR)

### **Natural Resources & Ecosystems:**

Potential to look specifically at forests and wetlands, but will aim to capture adaptation strategies for all habitats and species shifts impacted or affected by climate change. Will be sure to connect with Phase III WIP.

Volunteers as of 8/13: Kim Grubert, Kelly Collins-Choi (DNR); Sandy Hertz (MDOT); Charlotte Shearin, Claudia Jones (Critical Area)

### **Local Government Action / State Service Delivery:**

Hope to maintain open lines of communication between local jurisdictions and state service providers; ensure local needs are heard and acted upon. Opportunity for ARWG to be better tapped into local needs and bring those up to state level. Will aim to facilitate messages from local communities and to local communities. Will make connections with local capital budgets (e.g. investment in cooling centers and heat days increase).

Volunteers as of 8/13: Jim Bass (ESLC); Megan Granato (DNR); Jason Dubow (MDP); Drew Budelis (Versar); Sandy Hertz (MDOT); Tay Harris, Alex DeWeisse (Critical Area)

### **Human Health:**

Some work already underway with local jurisdictions, next steps are downscaling data and making it actionable. Vibrio and other vector-borne diseases will be included. Connections to port equity and park expansion. Downscaled data is needed, but has some HIPAA challenges. Will work to share the information in a way that reflects health records management. Will consider connection with electricity supply - brownouts and associated health impacts. Will look into connections/opportunities to partner with hospitals.

Volunteers as of 8/13: Allison Gost Breitenother (MDH); Matt Rowe (MDE); Sandi Olek (DNR); Tay Harris (Critical Area)

### **Natural & Working Lands:**

In prior adaptation strategy agriculture had a limited role; was looped into vector-borne diseases, water quality, and other sectors. Opportunity to better highlight importance of food and water security. The US has 50 harvests left. Need to consider legacy phosphorus and connections with rising temperatures and precip/drought; implications on weeds/pathogens/invasives. Soybeans are the main food source for eastern shore poultry; if lose soybean harvest have two industries impacted: soybean and chickens. Will be integrated with the Healthy Soils Initiative to promote co-benefits (water quality benefits, carbon sequestration). 40-50% of timber lands are located on farms, so several opportunities for co-benefits between these two industries. Opportunity to use Soil Conservation Districts, which are located in every county, to disseminate information, resources, tools.

Volunteers as of 8/13: Susan Payne, Hans Schmidt (MDA); Alex DeWeisse (Critical Area)

### **Infrastructure & Transportation:**

Legislative requirements at the state level in MD have changed since last strategy. FAST Act - Federal requirement to fix surface infrastructure. Federal transportation bill - roads/bridges in national highway systems. Resilience improvement plans at DOT within states - funding set aside for state plans to identify resilience improvement plans and implementation of projects - also reference to federal emergency release funds and nuisance flooding. Recoverability from disruption.

Volunteers as of 8/13: Sandy Hertz (MDOT); Alex DeWeisse (Critical Area)

### **Equity & Environmental Justice:**

ARWG has talked around this issue for a long time; confusing in a climate context because vulnerability can mean many things to many audiences. MHT received feedback in the development of their preservation plan on this issue and is willing to lead discussions. Should consider physical vulnerability vs. social vulnerability - color, age, income, language, disabilities. Historically under-mapped/under-maintained historical resources in certain communities. Lean on experts in the field. Discussion on humidity and mold - this is a growing issue with a need to add AC units, which not everyone can afford - an example showing not everyone can handle humidity increases equally. Nuances between day-to-day impacts vs. sustained, peak impacts, and recognition of the rural/urban differences. Not just an equity issue, but also an affordability issue.

Volunteers as of 8/13: Nell Ziehl (MHT); TBD (Critical Area)

### **Climate Jobs & Training:**

Envision that first 6 months may be more intensive to scope this topic, but eventually the vision is that it - like EJ - will become an overarching topic that weaves through each of the other 6 themes. As other teams advance their scoping, they should do so with an eye toward identifying specific jobs needs and opportunities that will be need to advance those new goals, and how those jobs may be filled.

Volunteers as of 8/13: TBD

**NEXT STEPS: indications of interest from ARWG members welcomed; each team draft a 1-page scope of ideas to focus on - majority of work will begin when we have facilitation assistance.**

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## **V. Updates, Meeting Recap & Next Steps**

**3:50 - 4:00 pm**

### *ARWG Membership*

#### Adaptation Indicators

- CZM-funded proposal with UMCES
- Chesapeake Bay Program Climate Resiliency Work Group proposal

#### New Business

- Annual report recommendations: Due to MDE (MCCC staff) in September
- Upcoming Discussion about a Community of practice for the Climate Leadership Academy

#### Upcoming Dates:

- Next MCCC meeting: Thursday, August 8, 2019 1-3 pm at MDE
- 2019 ARWG meetings at DNR: Monday, November 18 2:15-4pm at DNR
- Workshop in the fall to further refine adaptation indicators

DNR is executing a contract with UMCES-IAN to assist in developing indicators and metrics for tracking adaptation progress. ARWG staff are closely following discussions at the Chesapeake Bay Program Climate Resiliency Work Group (CBP CRWG) who have submitted a Goal Implementation Team (GIT) funding proposal to develop a scorecard to track climate resilient actions for the Chesapeake Bay Watershed. DNR funding is available in October, while GIT funding would be available in January. ARWG staff will coordinate with the CBP CRWG to identify opportunities to collaborate.

In September the ARWG will be asked to submit draft recommendations to be included in the 2019 MCCC Annual Report. These recommendations tend to guide work plan items the following year. Work groups are being asked for 3-5 actionable and specific recommendations. **Four draft recommendation ideas that could incorporate many topic**

areas were displayed and these will be circulated for feedback. Contact Catherine McCall or Kim Grubert asap. Draft recommendations will be circulated to the ARWG for review in early September.

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