

Adaptation & Resiliency Working Group Meeting

May 11, 2022 | 2:00p - 4:00p

NOTES

Chair: Secretary of Natural Resources, Jeannie Haddaway-Riccio

Coordinator: Kristen Fleming, kristen.fleming@maryland.gov

Attendance: Alexander Borkowski, Alisha Mulkey, Amir Sapkota, Anna Sierra, Anne Hairston-Strang -DNR-, Ari Engelberg -DNR-, Beth Groth, Bill Richardson, Blake Langford, Brandy Espinola, Bunky Luffman -DNR-, Carrie Cook, Catherine McCall -DNR-, Chas Eby, Christine Conn -DNR-, Cindy Osorto -MDE-, Cliff Mitchell, Dave Guignet, Deborah Herr Cornwell, Donna, Elliott Campbell, Erik Meyers, Jason Dubow, Jeannie H. Riccio -DNR-, Jennifer Raulin -DNR-, Jessica Shearer, Joanna Birch, John Quinn, Josh Foster, Justin Bowers, Karen Metchis, Kate McClure, Katherine Charbonneau -DNR-, Kevin Antoszewski, Kevin Wagner -MDE-, Kimberlee Drake, Kristen Fleming, Lisa Nissley, Matthew Fleming, Matthew Hurd, Matthew Rowe, Megan E Granato, Mike Sheffer, Nell Ziehl, Rachel Lamb, Rebbecca Rehr, Robert Newton, Russel Strickland, Sandy Hertz, Sara Bender, Shawn Kiernan, Theodore Henry, Tom Parham, Vanessa Calaban, Victoria Venebale

I. Welcome and Introductions 2:00 - 2:05p

- A. *Secretary Haddaway-Riccio (DNR)* will open the meeting, call roll and review the agenda.
 - a. Action: Member approval of February 9, 2022 Minutes via vote - Call to order at 2pm - Motion Vanessa Calaban -MDEM-, Jason Dubow Second
 - b. Materials: February 9, 2022 draft meeting notes

II. Extreme Heat, Climate, Health and Equity 2:05 - 3:05p

- A. Presentation on health impacts of heat, emphasis on urban heat (15 minutes) - *Dr. Amir Sapkota (UMD School of Public Health)* - Heat vulnerability - define vulnerable populations (health/social/psychological). Issues with extreme heat and chronic diseases (e.g. ESRD end stage renal disease, asthma etc.) these populations cannot compensate for extreme heat (e.g. drinking more water). An increase in heat related deaths occur when these health factors are coupled with a medically underserved area. Minority populations have increased risk of heart attack during an extreme heat event. EHE are becoming more frequent and longer. Need to increase warning lead time. Discussion of potential solutions - season to season predictions, leverage large scale weather

phenomena with early warning. Need to evaluate current warning systems to see if they are working at reducing these occurrences (e.g. code red warnings).

- B. Modernizing Environmental Public Health Tracking to Advance Environmental Health Surveillance (15 minutes) - *Dr. Cliff Mitchell (MDH)* -Heat vulnerability - how do we use data to better inform the public about health and environmental issues. Better forecasting (refining) not the only answer - really need to look at multiple characteristics to determine what will be most useful data for the public. Question about what role insurance has to play in these topics and how they can adapt.
- C. Baltimore Tree Trust tree planting strategies to address urban heat, health and equity (15 minutes) - *Justin Bowers, Chief Operating Officer* - Had to adjust because of technical issues - See notes (this was canceled-m
- D. ARWG discussion to identify initiatives to explore in our 2022 work (15 minutes) - Ideas for ARWG to pursue under workplan and the adaptation framework - *Sandy Hertz* - what does the resiliency toolkit look like for local communities - so many targeting tools out there. Need to be consistent with what we are using or at least set up a process that prioritizes these considerations.

III. **Water Resources Element Update** (2:47 Start)

3:05 - 3:25p

Jason Dubow (MDP and Matt Rowe (MDE) will present on the recent Water Resources Element of the Comprehensive Planning Guidance. The update includes the incorporation of climate change adaptation into water resources planning (20 minutes) - WRE is part of county comp plans for 15 years. Overview of what WRE is and what it identifies (ensures water resources are sufficient to meet growth needs). Update from 2007 - there are new checklists and best practices to help protect critical water resources and integrate climate considerations (flooding etc.) - WRE will also identify data gaps that need to be addressed before the next comp plan update. Water Resources Management Framework helps planners identify suitable receiving waters and identify other areas where there may be issues (impaired waters). Overview of tools available to help planners incorporate climate issues with this process. Training is occurring with local governments as well as MDE and MDP staff. Anne H-S asked about how this is being incorporated into local programs.

IV. **SB0630 / HB0706: Office of Resilience Overview** (3:12 Start)

3:25 - 3:45p

- A. Maryland Department of Emergency Management will discuss the bill and frame out expectations (10 minutes) - *Secretary Russ Strickland or Chas Eby, Deputy Executive Director* - Office of Resilience bill discussion - This will be a coordinating office. Trying to make ongoing efforts more efficient by working across agencies. The Office will support locals on identifying risks and helping with hazard mitigation. Help communities build resiliency. Becomes law Oct. 1 - outreach will begin with other agencies to help build relationships and build efficiencies. Enacted text: <https://mgaleg.maryland.gov/2022RS/bills/sb/sb0630t.pdf>. Anne H-S mentioned wildfire risk and the need to incorporate that (as an example) and coordinate with others in the state as potential risk/hazard.

B. ARWG discussion to identify approaches for coordination (10 minutes)

V. Public Comment, Updates, & Next Steps -

3:45 - 4:00p

Alex Borkowski (Insurance) - what is the role of insurance in adaptation - having speakers from national insurance (?) talk about how their work can integrate with MCCC and ARWG and address climate related risks.

Next Meeting: September 7, 2022 - **Adjourn 3:57**

From chat box

Jason Dubow -MDP-2:27 PM

Did folks see the recent Washington Post article about extreme heat in India? Adaptation measures have included shelter construction and limiting school and work hours, but there are other consequences due to that of course.

<https://www.washingtonpost.com/world/2022/05/09/india-heat-wave-climate-change/>

Cindy Osorto -MDE-2:31 PM

Jason, reminds me of the unfortunate events that resulted from some Hurricane Katrina efforts here in the US - <https://www.independent.co.uk/arts-entertainment/films/news/brad-pitt-hurricane-katrina-make-it-right-b2013765.html>

Tom Parham -DNR-2:34 PM

Dr. Sapkota - Interesting talk. While we know general changes in climate are occurring, it is still very difficult to accurately forecast beyond about 4 days. Especially with the increased variability. We wrestle with these same questions as we try to better understand changing Bay conditions

Jason Dubow -MDP-2:44 PM

Maybe something parallel to the Community Rating System but for heat?

Theodore Henry 2:47 PM

Tom Parham, my professor noted this semester that weather prediction capabilities achieve about a 60% correlation for 8 day forecasting and an 80% correlation for 6 days. I am not sure the 2 or 4 extra days really makes much of a difference with regard to the presentations and the goals, but just thought I would note that we appear to be a bit better than 4 days now: -)

Jason Dubow -MDP-2:47 PM

<https://planning.maryland.gov/Pages/OurWork/envr-planning/water-resources-mg/2022/2022-guidance-update.aspx>

Anne Hairston-Strang -DNR-2:49 PM

@ Dr. Mitchell or Dr. Sapkota, MD Forest Service is starting the 5 Million Trees Initiative that could help with urban heat island effect. We have 13 new positions posting for advertisement tomorrow, and would welcome suggestions on how to best connect to the public health community as these new people start outreach.

Amir Sapkota 2:57 PM

That is fantastic Anne. Kindly share the announcement, will be happy to share.

Alexander Borkowski -MDInsurance-3:03 PM

@Jason Dubow: Yes-- that's a good parallel. California's Environmental Protection Agency (CalEPA) developed the Urban Heat Island Index to quantify the extent and severity of extreme heat waves and to let cities set goals for heat reduction. The Index can be found here:

<https://calepa.ca.gov/climate/urban-heat-island-index-for-california/>

Jason Dubow -MDP-3:09 PM

WSSC Water's 5 year effort to integrate climate change adaptation:

<https://www.jacobs.com/webinars/in-the-know/water-utility-resilience-covid-19-response>

Jason Dubow -MDP-3:09 PM

EPA Creating Resilient Water Utilities initiative: <https://www.epa.gov/crwu>

Chas Eby-MDEM-3:12 PM

Office of Resilience enacted bill: <https://mgaleg.maryland.gov/2022RS/bills/sb/sb0630t.pdf>

Tom Parham -DNR-3:14 PM

Theodore Henry -Thanks for the response. You are correct about the land based forecast accuracy.

However, the marine forecasts we use for ocean and Bay conditions are less accurate. Sorry I wasn't clear in my earlier comments.

Anne Hairston-Strang -DNR-3:14 PM

Surface temperature is one of the elements in the American Forests Tree Equity Score mapping

<https://www.treeequityscore.org/>. We also look at the MD Park Equity mapper (not directly surface temp but density will be correlated) <https://dnr.maryland.gov/pages/parkequity.aspx>

Sandy Hertz3:21 PM

Great comment Anne! Proactive.. key to resiliency

Theodore Henry3:22 PM

Tom Parham - Appreciate the extra response and clarification. Makes sense. I tend to tend to fall in the realist to pessimist perspective range about climate change realities and our challenges,, so when I find a moment to note something positive, I try to bring it up; -)))

Cindy Osorto -MDE-3:23 PM

One potential resource that may be helpful: <https://www.usclimatealliance.org/publications-1>

Jason Dubow -MDP-3:29 PM

2021 study, "The Benefits and Limits of Urban Tree Planting for Environmental and Human Health" -

<https://www.frontiersin.org/articles/10.3389/fevo.2021.603757/full>

Anne Hairston-Strang -DNR-3:33 PM

Marylanders Plant Trees Coupon

<https://dnr.maryland.gov/forests/Pages/MarylandersPlantTrees/Print-Your-Coupon.aspx>

karen metchis 3:34 PM

work with local stormwater departments and transportation departments, as well as local environmental departments

Rebecca Rehr3:34 PM

(public comment) Along these lines...You could also consider having a booth about the 5 million trees initiative at local health fairs. To make those community connections and get community input (and seconding Dr. Sapkota's suggestion about jobs, care, and follow up)

Anne Hairston-Strang -DNR-3:36 PM

Appreciate everyone's inputs for 5 Million Trees! Great suggestions.

karen metchis 3:41 PM

green walls

Theodore Henry3:44 PM

Just to point out an example is Baltimore City is working on a cool roofs ordinance.

<https://static1.squarespace.com/static/5b104d0b365f02ddb7b29576/t/62701263804cf13aa0ea11be/1651511908520/Baltimore+Cool+Roof+Ordinance+Rebuttal.pdf>

Shawn Kiernan3:44 PM

The living canopies concept that Sandy had mentioned is discussed here:

<https://agnr.umd.edu/news/living-umbrellas-designed-umd-researcher-provide-natural-cooling-beat-summer-heat-sustainably>

Sandy Hertz3:45 PM

Karen - the Climate Solutions Now Act of 2022 speaks to that a little bit. In terms of updating building codes for greater energy efficiency and reduced emissions.

https://mgaleg.maryland.gov/2022RS/chapters_noln/Ch_38_sb0528E.pdf

karen metchis 3:47 PM

but the question pertains to developers' and builders' responsibility to adopt those companion practices to cool the urban heat island, and mitigate flooding - in building codes

Theodore Henry3:49 PM

As temps continue to increase, dense and lower income urban areas will have no choice but to invest in modern cooling centers.

Jason Dubow -MDP-3:50 PM

Sorry, need to leave the meeting early for a 4 p.m. meeting. Thank you for the opportunity to present!

Vanessa Calaban -MDEM-3:51 PM

Karen - could you email us your question about building codes? mitigation.mdem@maryland.gov

Anne Hairston-Strang -DNR-3:53 PM

To Sandy's comment, we could look at urban heat island as an urban element and the Soil Health Initiative for some of the rural areas. Agroforestry is one element that could help with the soil health, and part of the MD approach to the USDA Climate Smart Ag and Forestry regional proposal.

Sandy Hertz3:54 PM

Yes!

Vanessa Calaban -MDEM-3:56 PM

oh yay!!!!!!

Matthew Rowe -MDE-3:56 PM

Yes thanks for sharing Sandy!