Climate Resiliency Workgroup in-person Meeting
Theme: Building Resiliency in the Chesapeake Bay Watershed
Monday, May 20, 2019
10:00 AM –3:30 PM Full Workgroup

Conference Line: 929-205-6099 Meeting ID: 614-039-187
Webinar*: https://zoom.us/j/614039187
Meeting Materials:
https://www.chesapeakebay.net/what/event/climate_resiliency_workgroup_may_in_person_meeting
CBPO Location: Fish Shack

*If you are joining by webinar, please open the webinar first, then dial in.

AGENDA

Action Items:
- ✓ Jen will send the workplan to the workgroup with the new edits incorporated in it. Please send Jen any comments you may have about it before the workplan is finalized.
- ✓ Discuss how to incorporate climate into the SRS process possibly through the materials, SRS pre-meetings, discussions with MB, and/or draft presentation with STAR.
- ✓ Contact David Flores about potentially proposing his 2018 GIT funded project on a BMP indicator for 2019.
- ✓ Contact workgroups to see if they are interested in completing a workshop on the Climate-Smart Framework and Decision Support Tool.
- ✓ Call the workgroup/Send a survey money for the workgroup to prioritize the proposed 2019 GIT funded projects before June 14th.
- ✓ Consider a meeting where the states present their climate action plans.

10:00   **Welcome, Introductions & Announcements** – (Co-Chair Mark Bennett, USGS and Co-Chair Erik Meyers, The Conservation Fund)
- Jen announced that Molly Mitchell is working with the Fish GIT on a STAC proposal which includes a climate aspect. The proposal looks at fisheries data since the 1960's on how changing climate factors will impact the habitat of fish and how it will affect human decisions.
- Mark provided feedback on the meeting at the Coastal Policy Center at William and Mary College focused on funding climate resilience. It looked at alternative means for funding which included sharing information on the role of the insurance agency. He mentioned there are investment groups looking to invest in climate resilient projects for localities. Industries are starting to compare the cost of adaptation vs. the future loses which are not going to happen because of investing in climate resilient plans. Here is a link to the meeting with video presentations.

    Zoe asked if they discussed anything on public/private partnerships. Mark stated they did because of the potential for investors. They are gambling on major events, so they are willing to fund climate resiliency construction with return on their

investment. They are hoping the locality doesn't default, but investors are interested because it diversifies their portfolio away from stocks.

- Ben announced the VA Commission revealed a [resiliency dashboard](#) which tracks local resiliency projects. It includes 350 projects with 12 different localities. It was asked on who decides which projects are put in the dashboard. Ben commented it is only local projects through municipalities, but there is an ongoing conversation to include non-profits and private projects.

10:05   **Update on BMP Research List – Mark Bennet** (USGS)
Mark will brief CRWG member on the latest discussion of focused research on BMP resiliency to climate change with resiliency research issue paper.
[Link to Briefing Paper](#)

Mark discussed how the BMP Research started with the PSC tasking the CRWG to assess the impact of climate on BMP efficiency and design for the 2022 and 2023 Milestones. Mark went to the Management Board (MB) in August and pointed out the CRWG didn't have the research capacity to complete this task, but if they wanted to answer these questions then they needed to take a more active approach and present an RFP. As a result, the CRWG prioritized their research concerns and brought it in front of STAC, the MB, and the Water Quality GIT (WQGIT) to get their input. Two of the main comments the WQGIT gave were that while stormwater management may be the number one priority, there is still other important BMPs that requires research too. The other comment was that the timeframe for 2022 or 2023 is not possible. Therefore, Mark told the MB that the process for an RFP would just be the start for all this research. Lewis Linker presented to the MB in April and put together an issue paper which laid out a process on how this effort could work. Since this meeting, Lew has identified some potential funding for short term efforts ($60,000 in the budget) from NOAA Interagency Agreement. The MB specified it would be for stormwater management, and then it will be expanded to other BMPs.

Jim stated that he is working with a colleague from DNR to find the state of the science on this kind of work. Jim had a question on a comment Gary Shenk made on the matter which was - it is easy to crunch the numbers and get a result, but it is difficult to understand if those result is any good. Jim has seen the modeling workgroup is downscaling near term estimates which is a major source of uncertainty. Jim is wondering if they should start thinking about revised stormwater management.
Lew mentioned how the future hydrology is hard, but the really hard part is what do the local government, highway departments, practitioners need. He states the need to get to the point where there are different stormwater management criteria appropriate for the lifespan of the practice.

Mark stated that he hopes whatever effort the CBP undertakes doesn't just look at the projections but looks at the past 40 years of data too. Therefore, the CBP can look at the change, how it is occurring throughout the 40 years and how is it even changing across the bay.

Ben stated VA Beach has a study on past precipitation and future possibilities. VDOT is trying to see if they can replicate it for a statewide project.

Ben also mentioned how Hampton Roads DCVA has had conversations with NOAA to update the Atlas 14. This area is not a high priority for NOAA now so Ben is very interested in the work CBP is doing and whoever is working on this endeavor should reach out to VDOT and VA Beach.

Krista stated stormwater management is an area of focus for RAND. They are working with NY city to do a stormwater and wastewater management workshop focused on utilities. They are trying to bring people together to learn the state of the science on stormwater management. They are hoping to learn from the NY workshop and create on in the Fall for the Chesapeake Bay program. Here is the link Krista recommended-*Robust Stormwater Management in the Pittsburgh Region*. Krista will provide more information about the NY workshop once available.

10:30   **WIPs Climate Narrative – Jennifer Dopkowski** (NOAA)
Each jurisdiction has made their draft Phase III WIPs plan available for the public to review and comment. This discussion will be focused on the climate aspects of the plan. Links to the plan can be found here.

Jim represented MD and provided an overview of the climate narrative. MD provided background information, historical trends and projections, strategies, support of state and local legislation government and strategic science framework, implementation guidance, and key challenges and opportunities sections. In the section for support of state and local legislation government and strategic science framework, MD provides what actions they have been doing since 2007 and summarize the MD governance structures such as the Maryland Commission on the Climate Change and this workgroup. In the section for key challenges, they mention how climate change will impact the water quality for the Chesapeake Bay, and they also stated one of their main goals is to mitigate greenhouse gas emissions. MD did not use numerical information or targets. They did reference the Climate-Smart Framework and Decision Support Tool in the narrative and commented how solutions and management to future climate issues will be interdisciplinary which is going to increase cost. More experts are needed to make sure co-benefits are covered and addressing the issues correctly. One challenge for MD was gathering all the work they have done in previous years for combating climate change. They need to make sure the work they did in the past aligns with future work, so they do not repeat themselves or try and reinvent the wheel. They also had some difficulty with contacting executive officials to have them assess some bold commitments they wanted to put in the narrative. Therefore, they are in the document as potential actions. MD also fell short of documentation and tools for educational outreach, and Jim is hoping to improve that section to reflect everything MD is doing on this subject. Jim stated they found the WIPs expectation document to be very helpful, but they had difficulty understanding the 9 million lb reduction estimate.

Lew explained the 9 million lb reduction estimate is a preliminary estimate. It is not a total N estimate due to the climate influence of increased precipitation volume. With this stressor, there is more nitrate movement into the Bay. Nitrate is a great generator

of hypoxia so to translate it into the general N we remove in our management practices we go from a few million lbs to 9 million lbs. There is not only a change in load but a change in Bay response that lead to the net reduction goals.

Dave Montali represented West Virginia and stated the climate narrative and WIP3 have reduction targets well beyond their current level of progress. They addressed climate change directly and numerically. The narrative states the BMPs identified in the WIP that the state is currently using or will in the future. It also describes the BMP's climate resiliency benefits. Dave described their new initiative which tries to fund voluntary retrofits for urban stormwater because they are hoping to get smaller communities in a position to have plans to combat the climate impacts already affecting them.

Jen DeMooy represented Delaware and started with stating much of the narrative was prepared by a contractor with TetraTech. She mentioned the sample climate narrative template was very useful. The state took a descriptive approach for the narrative. Jen also noted that in the narrative some of the climate policies and programs relate to the entire state and not only the portion of the Chesapeake Bay watershed in the state. A lot of climate adaptations actions investments are focused on coastal areas, but again this includes the Delaware Bay, Atlantic, and Chesapeake Bay areas.

Molly Mitchell and Pam Mason went over the Virginia climate narrative. Molly agreed the climate narrative template was very helpful. She mentioned the state's two big efforts are through climate resiliency and reducing greenhouse gasses. Virginia hopes to control the atmospheric conditions through lowering their greenhouse gas emissions which can hopefully reduce the amount of climate change. Pam talked about the state's initiative to promote fuel-efficient cars and consideration to expand the Chesapeake Bay Preservation Act. A positive step from this WIP is VA is going to increase their VCAP (Virginia Conservation Assistance Programing) funding by putting in money themselves. Another change for the state is that for agriculture properties shoreline practices are going to be included.

Jen went through the PA WIP3 and touched on key points. The state is going to focus on the reduction of their fleet and switching over to hybrid or electric. They are also going to incorporate more solar into their mix.

Cassandra Davis spoke for New York. The narrative includes their current action plans and programs and regulations such as the New York State Climate Resilient Farming Program and Resilient New York Flood and Mitigation Strategy.

Melissa represented DC for the climate narrative. The narrative highlights the Climate Ready DC Plan and its current implementations such as reducing flooding and increasing green infrastructure. The narrative also addresses the Resilient DC Plan that recently was released.

12:00   **Lunch** (Bring your own)

1:00　　　　　**Application of CBP Climate Smart Framework and Decision Support Tool**
The [climate smart tool](#) was developed in 2017 and two climate smart workshops focusing on [Toxic Contaminants](#) and [Habitat Restoration](#) had been held. Fish GIT and Habitat GIT would like to use the climate smart tool to build climate resiliency component into their workplan.

From the Toxic Contaminants workgroup, Michelle Toxins stated the workshop happened a few years ago, and they were able to work through the framework. They applied it to a couple of hypothetical (Strawman) plans and focused on how to incorporate climate into the development of TMDL concerning PCBs. Once the workshop was completed, they did not have a clear path forward on how to apply the tools to the partners. The workgroup has a basic capacity issues so adding climate on top to everything is an issue for their partners. If the Climate Resiliency Workgroup is interested, the Toxic Workgroup would really appreciate some leadership and facilitation to create a tool for their partners.
Zoe was curious what Michelle meant by needing another tool. Zoe cautioned the creation of another tool because sometimes adding another tool is too much for practitioners. Michelle answered they haven't really gotten to a point to know what the workgroup needs and gaps.
Mark clarified that the problem is going from the initial dialogue to something that is actionable.
Michelle agreed with Marks comment on how they are struggling with going from step A to step B. She also commented that the Toxics Workgroup challenge is they work within a lot of different divisions. To make it even harder, the CBP doesn't have connections with organizations such as FEMA. As a result, two entities may be working on climate resiliency in different manners with different regulatory standards, but progression really depends on them working together. Other workgroups may be facing this same problem.

Jennifer Greiner presented for the Habitat Goal and Implementation Team. She provided background on the GIT funded project which initiated the use of the Climate-Smart Framework and Decision Support Tool. Some of the lessons they learned from the workshop was workgroup members had different meanings for the word stressor, to encourage the application of framework with an outcome instead of a hypothetical action, and the contracted facilitator was helpful. She then discussed how the Black Duck Workgroup could possible improve using the tool by considering a wider breadth of stressors included in Management Strategy Work. Jennifer suggested the Climate Resiliency Workgroup should move forward with requiring climate resilience in the SRS process by making climate incorporated into the SRS materials and dialogue with MB. Jen suggested the Climate Resilience Workgroup have a member present during the pre-meetings for other workgroups during the SRS process to make sure climate is represented in the work.
Mark agreed with the idea of making sure to incorporate climate in the SRS process because the work going through the SRS process goes towards the workgroups workplan.

2:45   **Comments for the CRWG Workplan – Jennifer Dopkowski (NOAA)**
Jen will walk through logic table recommended edits.

The workgroup went over possible edits on the workplan and came to a mutual decision on changes. Jen will send out the workplan to the workgroup again for everyone to review it. Please send any comments to Jen. The workplan will hopefully be finalized in the next week or two weeks.

3:00   **2019 Chesapeake Bay Program Goal Team Funding (Mark Bennett, USGS)**
Objective: GIT Funding Ideas: Goal Team Funding for 2019 will once again become available, with funding for projects within the $25-$75k range and the total funding amount is $860,000. Proposals (Table 1) will be due on June 14th. Please be prepared to discuss these ideas further, and/or other project ideas for this year's funding.
Material: FY2019 GIT Funding Project Request for Ideas document

The Habitat GIT, Climate Resilience Workgroup, and LGAC are brainstorming on a GIT funded proposal to match local decision-maker needs with easy-to-apply information on climate readiness in vulnerable areas and equip them with green solutions tailored to their area. The potential phases of work (to be done by a combination of in-house and contracted employees) are as follows:
- Inventory/user-test features of climate tools
- Compile relevant GIS layers (climate vulnerability)
- Identify local officials' biggest needs concerning climate
- Develop options for formatting/translating information
- Contractor begins work to "fine tailor" info delivery to meet needs

The above proposal would be led by the Habitat GIT which means the Climate Resiliency workgroup can still bring forth some proposals. Jen is going to try and find other workgroups interested in the doing a workshop to use the Climate-Smart Framework and Decision Support Tool. As a result, the workgroup can reuse the GIT funded proposal they used last year. Jen is also going to get in contact with David Flores to see if he would be interested in resurrecting his GIT funded proposal from 2018 on a BMP indicator.

3:15   **Wrap-Up** (Co-Chair Mark Bennett, USGS and Co-Chair Erik Meyers, The Conservation Fund)

Next Meeting Dates: June 17th (conference call)

Participants: Michelle Williams, Jennifer Dopkowski, Zoe Johnson, Ben McFarlane,Jim George, Kate McClure, Taryn Sudol, Krista Romita Grocholski, Molly Mitchell, Lew linker, Andrew Davis, Kevin Dubois, Heidi Bonnaffon, Matt Confirst, Jennifer DeMooy, Mark Bennett, Dave Monteli, Jeremey Hanson, Paige Hobaugh, Margot Cumming, Jennifer Greiner, Cuiyin Wu, Angie Wei, Cassandra Davis, Melissa Deas, Rebecca Chillrud, Pamela Mason, Zane Havens, Earl Bradley, Ian Yue, Shannon Sprague, Breck Sullivan, Brian Bradley, Cassandra Davis