



## Climate Resiliency Workgroup Meeting

Monday, May 17, 2021  
1:30 PM – 3:30 PM

Webinar\*: <https://global.gotomeeting.com/join/132597285>

**Password: CRWG**

Conference Line: +1 (669) 224-3412 Access Code: 132-597-285

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

Meeting Materials:

[https://www.chesapeakebay.net/what/event/climate\\_resiliency\\_workgroup\\_crwg\\_may\\_2021\\_meeting](https://www.chesapeakebay.net/what/event/climate_resiliency_workgroup_crwg_may_2021_meeting)

*This meeting will be recorded for internal use to assure the accuracy of meeting notes.*

### Action Items

- ✓ Share with Bart Merrick ([bart.merrick@noaa.gov](mailto:bart.merrick@noaa.gov)) any contacts that work with climate education, outreach, and engagement for the Action for Climate Empowerment (ACE) effort.
- ✓ Breck Sullivan will add the CRWG to the Monitoring Newsletter mailing list.
- ✓ Peter Tango would like to follow up with Jim George and Julie on coastal acidification monitoring information.
- ✓ Peter Tango would like to come back to the workgroup for a more focused topic presentation based on a particular monitoring network and how it can assist with specific CRWG needs that the workgroup proposes.
- ✓ CRWG leadership will consider having a theme meeting on living shorelines and invite the lead (Gina Hunt) from the living shoreline GIT-Funding project to present.
- ✓ Julie will reach out to Kristin to get notes from the Biennial meeting on the wetland outcome to see if they can incorporate any of the suggestions into the GIT-Funding proposal.

### AGENDA

#### 1:30 PM Welcome and Meeting Overview – Chair Mark Bennett (USGS)

Focus of meeting:

- Introduction of PSC request to the Integrated Monitoring Network Workgroup and how CRWG can assist.

- Sharing of proposal idea for FY21 GIT-funding that could help further actions on better understanding sea level rise impacts to coastal marsh habitats and building capacity for adaptation.

1:35 PM

**Announcements:**

- The Logic and Action Plan and Management Strategy were submitted for public signatory feedback on April 30<sup>th</sup>. Materials are available [here](#) (filter for Climate Change and Resiliency). Public signatory period lasts until May 28<sup>th</sup>. Final materials are due June 9<sup>th</sup> and presented to the Management Board on June 10<sup>th</sup>.
- EC Climate Action Team Update (Mark Bennett, USGS)
  - The main activity is editing the document. The group is done, but they are waiting on Principal Staff Committee (PSC) feedback. All of the jurisdictions are a part of the group, but they expect some editorial comments directly from the PSC. The direction of it is still to be an EC Directive. It will be on the upcoming PSC agenda for June 2, 2021.
- [Local Engagement Educational Modules](#) (Laura Cattell Noll, Alliance for the Chesapeake Bay)
  - They created a set of educational materials for local officials. They are entry level materials to get everyone on the same page about Chesapeake Bay topics. There are seven modules, and each one has climate connections incorporated into them. The modules are not branded materials so everyone can make edits to fit their organization.
  - Nicole Carlozo asked if any local leaders were engaged during development of the materials.
    - Every module was reviewed by the Local Government Advisory Committee and Local Leadership Workgroup which is made up of local government associations. Subject matter experts were also involved reviewing each module.
  - The Local Leadership Workgroup August 24<sup>th</sup> meeting theme is Climate.
  - Laura Cattell Noll offered for CRWG members to reach out to her if they would like to chat about the modules and how members can use them to engage with local officials in your network. (lnoll@allianceforthebay.org)
- New Program: [Chesapeake Youth Initiative Call for Mentors](#)
  - For more information about the effort, contact Monserrat Pizarro.
  - Mentor recruitment will end on May 21, 2021.
- [Action for Climate Empowerment \(ACE\)](#) – NOAA is looking for federal agency individuals as potential members of an Interagency Working Group to develop the ACE National Strategy that focuses on climate change education and engagement. Specifically, individuals that work in education,

outreach, communications, and public engagement spaces. If interested or would like to nominate someone, please reach out to Bart Merrick ([bart.merrick@noaa.gov](mailto:bart.merrick@noaa.gov)) for Chesapeake Bay regional representation or Frank Niepold ([frank.niepold@noaa.gov](mailto:frank.niepold@noaa.gov)) for national representation.

- ACE is doing a stock take on where climate education, outreach, and engagement is occurring in the federal government. Bart Merrick is asking the CRWG members to provide contacts that works in that space so ACE can learn about what they know, what groups they have, and how to expand the network.

1:50 PM

### [Improving Monitoring Networks: PSC Request – Peter Tango \(USGS\) & Breck Sullivan \(CRC\)](#)

Peter provided an overview of the PSC request for information and guidance to support and improve the CBP monitoring networks (Tidal, Nontidal, Benthic, SAV, Citizen Monitoring). As part of this effort, the team is addressing how existing monitoring data and analysis may be used to address gaps and provide connections to CBP outcomes. This presentation included information on what the current monitoring networks can provide. The group discussed monitoring needs of the CRWG within the scope of the PSC request.

The Principal Staff Committee (PSC) was interested in understanding the CBP budget and funding for monitoring. Lee McDonnell shared this information at the March PSC meeting. The five monitoring networks discussed were tidal water quality, nontidal nutrients and sediment, Submerged Aquatic Vegetation (SAV), tidal benthic organisms, and citizen monitoring. In the presentation to the PSC, they acknowledged there is a history of resource limitations to sustain and grow the monitoring program resulting in decreased capabilities of the CBP networks. However, the networks could be improved by using newer research developments and innovations to address capacity gaps. PSC recognized that the monitoring program needs to be enhanced so they requested information on what is needed to improve the CBP monitoring networks.

The last monitoring review occurred over a decade ago which allowed the team to update the monitoring needs and address new gaps with the current review. The primary CBP outcome this effort will address is the Water Quality Standards Attainment and Monitoring Outcome, it will also look for cross GIT monitoring opportunities to address other CBP outcomes.

Peter Tango commented STAR will lead this effort in collaboration with Scientific Technical Advisory Committee (STAC), CBP Goal Implementation Teams (GITs), and partners participating in the monitoring networks. The process will take 9 months to provide the PSC recommendations while answering 8 questions on the status and threats of the monitoring program. The end project will be a short, targeted synthesis on how to sustain and improve the monitoring program. The eight questions consist of:

- Network status

- o Numerous summaries are available about the network status, and examples are available on the CBP website. Some of these summaries have not been updated to include changes in the monitoring network.
- Vulnerabilities
  - o An example is a list of stations that may be lost due to funding or safety issues.
- Programming strategy
  - o This question addresses what the cost is of sustaining existing operations which is available in the grant documents.
- Information gaps to fill
  - o Use the gaps identified in the CBP Science Needs Database and assess if there are any gaps missing and how they can be addressed.
- Monitoring program options to fill gaps
  - o Identify if current monitoring products can fill information gaps. This will be discussions at future workgroup meetings across the CBP and at newly accepted STAC Workshop.
- What innovations are available
  - o Discuss utility and readiness of innovations, the data, and the products especially through the STAC Workshop to see how it can improve the monitoring program.
- Who – partners for addressing information gap data and products
  - o Once the innovations are identified, the groups will provide a list of current and potential partners.
- Detail on financials for sustaining and growing network to meeting information needs
  - o Provide a list that reflects the costs of these needs.

The proposed timeline is to capture the status and vulnerabilities of existing networks during Spring 2021, innovation assessment and financials of sustaining networks during Summer 2021, and evaluation limitations, financials for adopting innovations, and recommendations in Fall 2021.

This will be a collaborative effort through multiple network groups along with supporting CBP groups. Peter Tango has started sharing this effort with other groups and plans to meet with more groups that benefit from and utilize the monitoring information. Peter Tango has created a more detailed outline for each core group. He has also developed a Monitoring Newsletter that will be sent out each month. The May Monitoring Newsletter is available [here](#).

CRWG can help with this effort by providing consultation on all the networks to align monitoring with climate stressor information. Peter Tango is seeking the CRWG to identify beneficial use of existing monitoring data to support the CRWG outcomes which will help with the climate change indicators, including the Bay-wide water temperature indicator. He is also asking the CRWG to identify

beneficial uses of new monitoring innovations within the scope of the current networks. If CRWG monitoring needs cannot be met immediately or through this review, he asks that they are tracked through the Strategic Science and Research Framework because STAR will consider these needs in other efforts and through additional resources. Multiple examples of how CRWG aligns with the PSC request for a monitoring review were taken directly from the Science Needs Database so the effort to capture the science needs are being used and utilized throughout CBP work. Sharing more diverse monitoring needs will be captured in the final report recommendation for work beyond this review.

Julie Reichert-Nguyen asked about future engagement for the CRWG members and how members can be included in the Monitoring Newsletter mailing list. Breck Sullivan will add the CRWG to the Monitoring Newsletter mailing list.

Fredrika Moser asked where the discussions may be going regarding including more robust measurements of carbonate chemistry (e.g. for ocean acidification tracking) as part of the monitoring program. Peter Tango said if The CRWG finds it a metric they would like to see added he asks for help understanding the prioritization and justification and who he should reach out to for this information. It is not something the monitoring program currently has, but it could be captured as part of long-term program based on justification and recommendations. Jim George said he seconds the comment by Fredrika Moser. Maryland DNR and Dept Environment are looking into this in coordination with Jeremy Testa UMCES. Julie commented another group that may be helpful is the Mid-Atlantic Coastal Acidification Network, and she is happy to help initiate the conversation.

Scott Phillips emphasized this effort is not only looking at enhancing monitoring, but also is an opportunity to further interpret monitoring data. An example is using temperature data to help develop a climate change indicator for changing Bay water temperature. Peter Tango agreed with Scott's comment and also referenced that it might take some years to develop all the recommendations.

Julie Reichert-Nguyen said she can see this effort aligning with the climate change indicators. The CRWG worked with the MB to identify the climate indicators the workgroup will develop or refine in the next few years. A new indicator around water temperature change will hopefully be addressed during a Scientific and Technical Advisory Committee (STAC) on rising water temperatures. Julie asked Peter Tango if he sees those two efforts aligning. He does think it aligns, but there are only a few months until these recommendations are put in front of the PSC so there will need to be continuing efforts such as the STAC workshops to address all of the monitoring gaps and needs. Scott Phillips agreed that it would be a good idea to utilize monitoring session of the STAC Rising Water Temperature workshop.

Peter Tango said he can come back to the workgroup for more focused topic presentations maybe on a particular monitoring network and how it can assist with a specific need.

Nicole Carlozo commented there may be opportunities for air temperature (citizen science) data collection for urban heat island (some work was done in Washington DC and Baltimore a few years back). Peter Tango commented this is a great way to collect information for the air and connect it to water temperature. Julie said CRWG has been working to incorporate the extreme heat temperature indicator with tree canopy, but the extreme heat temperature indicator does need modification.

Julie Reichert-Nguyen asked if they are incorporating stressor analysis for the interpolator tool. Peter Tango said the initial build out of the tool is to work with salinity, DO, and temperature due to its impacts on living resources that the water quality standards were established for. It will not be a process driven model. They are trying to interpolate with new statistical tools and the water quality data itself at scales that are more locally relevant while also trying to address the entire Bay.

Julie Reichert-Nguyen asked if the monitoring networks included citizen monitoring. Peter Tango said yes, this effort will capture citizen science. The citizen monitoring program has grown, and they may have multiple sites in a tributary where the long-term monitoring program only has one. The Alliance for the Chesapeake received the award again for the Chesapeake Monitoring Cooperative.

2:40

**[GIT Funding Proposal Idea: Marsh Adaptation Workshop, Jackie Specht \(TNC\) and Taryn Sudol \(MD Sea Grant\)](#)**

Taryn summarized the Marsh Adaptation Workshop Goal Implementation Team (GIT) funding proposal idea submitted by CRWG members. The proposed idea is for a workshop that aligns research and management priorities to launch collaborative marsh adaptation. The proposal planning team discussed this GIT-funding idea with the workgroup and got their feedback on it.

The proposal supports the individual program goals of the planning team and connects with the needs of the CRWG. The purpose of the workshop is to identify overlapping priorities to target collaborative watershed scale strategies and research opportunities that support marsh resilience to sea level rise. There is a lot of work being done to build up marsh resilience and they see the workshop as an opportunity to bring the work together and find alignment between efforts.

Marshes will continue to provide valuable ecosystem services if they can be managed to be resilient to sea level rise. As a result, the team sees an opportunity to implement large-scale restoration strategies with cross-goal

benefits. They have already made connections with the Climate Resiliency, Vital Habitats, and Stewardship Goal. The proposal will also build on past and current work including the FY20 CRWG GIT Funding project which looks at what data exists to analyze marsh migration and look at the different marsh models to target wetland restoration and conservation under sea level rise. The project would not be finished in time for the Workshop, but it would be far enough along to provide vital information for it. The workshop proposal also aligns with the goal of the previous marsh summit which assessed what marsh resilience means. At the end of the summit, people wanted to talk about specific projects and discuss how to have resilient marshes in the Chesapeake Bay, so this proposed workshop would be a vital next step.

The components of the workshop proposal have three phases. The first phase would be stakeholder engagement to understand geographically where organizations have projects on the ground and their programmatic priorities. Phase two would be the two-day workshop to present the current and future conditions and make alignments of the projects across the different organizations to find some priorities that could be pursued as a larger restoration effort. The results would be presented in phase 3.

Workgroup discussion with planning team—Nicole Carlozo (MDDNR), Taryn Sudol (MD Sea Grant Extension), Jackie Specht (TNC)

1. Does the proposed project align with your organizational goals? How would you refine it?
2. Are you aware of any potential synergies from other programs, stakeholders or work groups?
3. What deliverables would you like to see from a project like this?

Julie Reichert-Nguyen commented this proposal aligns with the discussion held at the CBP Biennial Meeting about the Tidal Wetlands Outcome. The discussion was around what a large-scale restoration would look like while incorporating climate resilience.

Kevin Du Bois stated a potential workshop speaker on landscape-scale wetland protection/restoration may come out of the article Military and Environmentalists Align to Protect Key Coastal Salt Marsh -

<https://www.scientificamerican.com/article/military-and-environmentalists-align-to-protect-key-coastal-salt-marsh/>

Kristin Saunders recommended if this project goes forward that they look at the [US Army Corps of Engineers comprehensive plan](#) that looked at the priorities of the jurisdictions and overlapping layers from the goal teams, including habitat to understand where it made sense to do restoration/conservation work on the ground. Some of this may save them time and money with the contractor. She also asked if they could speak to how this project would help accelerate implementation on the CBP wetland goal. Nicole Carlozo said one of the main

deliverables is identify short-term marsh restoration efforts that multiple partners would be a part of to create co-benefits. It is a way to jump start restoration or conservation over the short-term. The US Army Corps of Engineers comprehensive plan focused more on restoration and conservation priorities, but another priority they would like to address in the GIT Funding proposal is research gaps needed to inform decisions at the regional scale. Taryn Sudol also said to achieve those short-term actions they need to link the priority actions to available funding so that it moves out of conversation to more realistic opportunities which they want to address in their proposal. Kristin said the Biennial Meeting included brainstorming on how to accelerate tidal wetland restoration and large scale big new ideas and how to perhaps connect it to new federal funding as well as innovative finance. This workshop could be informative to making those ideas come to fruition. Julie said she would reach out to Kristin to get notes from the Biennial meeting on the wetland outcome to see if they can incorporate any of the suggestions into the GIT-Funding proposal.

Julie Reichert-Nguyen said NOAA is interested what would be effective for wetland restoration at a regional scale. For the Oyster Outcome, it has a comprehensive plan with multiple organizations working together on it. They are interested if something similar can be done for wetland restoration efforts especially under the lens of climate change.

Jim George said things to consider is the VIMS work for Maryland on living shoreline suitability tool and the role of harbor dredging and beneficial reuse of dredged materials.

Katie Brownson asked if they considered the future of marshes across the landscape, it would also be good to think about the ecosystem service implications of other transitions (for example the loss of coastal forests). Jackie Specht said they could, and it would come out of talking about priorities with stakeholders to help direct the conversation.

Julie Reichert-Nguyen stated it might be helpful for the contractor to conduct a survey ahead of the Workshop to pinpoint the priorities.

Kevin Du Bois stated The Commonwealth of VA recently changed from having living shorelines to be optional for erosion control on private property to being required (unless technically infeasible). New changes to their Chesapeake Bay Preservation Act also require climate considerations. There is going to be the need for lots of education and outreach to execute this behavior change - similar to agricultural field agents. Could the proposal include how to help with capacity and outreach, e.g., create a group of field technicians to help with education/outreach? Nicole Carlozo stated there is a social marketing GIT-Funding project already being worked on to create living shoreline ambassadors. The contractor is engaging community members to become ambassadors to



share techniques with their neighbors. They are developing a tool kit for the ambassadors to utilize which helps them identify living shoreline locations and resources. This is happening in DE, MD, and VA. She doesn't know how it might be incorporated into this GIT-Funding project so that it doesn't try to address too many issues, but maybe the materials out of the workshop can help with those outreach efforts. Julie asked who is the lead of the living shoreline GIT-Funding project. Gina Hunt is the lead for it. Julie suggested reaching out to them to learn about it, and CRWG could have a theme meeting on living shoreline and making connections with workplan actions.

Julie Reichert-Nguyen asked if there were any objections to the team moving forward with the GIT-Funding proposal. There were no objections.

**3:30**      **Adjourn**

**Next Meeting: June 21, 2021 9:30 – 3:30** (Cross Workgroup meeting to support Rising Water Temperature STAC Workshop preparation)

**Participants:** Breck Sullivan, Peter Tango, Tom Butler, Mark Bennett, Taryn Sudol, Jackie Specht, Allison Breitenother, Ashley Gordon, Julie Reichert-Nguyen, Debbie Herr Cornwell, Fredrika Moser, Kate McClure, Katherine Dyer, Katie Brownson, Laura Cattell Noll, Nicole Carlozo, Scott Phillips, Bart Merrick, Jim George, Adrienne Kotula, Kristin Saunders, Cassandra Davis, Carl Friedrichs, Lena Easton-Calabria, Kevin Du Bois, Marisa Baldine, Matthew Konfirst, Molly Mitchell, Neil Ganju