



Climate Resiliency Workgroup (CRWG)

Thursday, January 16, 2025

1:30 – 3:30 PM

ACTION ITEMS

- Assessments to be completed by January 30th
- STAR/CRWG to incorporate feedback into the final version of the outcome assessment
- Decision to be made between consolidating and reclassifying outcomes
 - making adaptation outcome more quantitative and incorporating holistic watershed approach
 - revise language of outcome to make it more implementable and clearly identify responsible parties
 - two way accountability and touch points for progress
 - integrate climate change into other group outcomes and work more collaboratively for monitoring and assessment outcome
 - focus on leadership and accountability
 - CRWG should focus on providing science support and guidance for adaptation efforts
 - develop a list of objectives that are climate change aware for each work group
 - Science focused outcome to fill in data gaps on adaptation strategies to present an options/matrix of why projects are successful versus not with changing climate conditions
- CRWG to discuss presentation of research projects in February's meeting or working on outcome language (depending on Management Board direction after 2/10 meeting)

MEETING MATERIALS [LINK](#)

MINUTES

1:30 – 1:35 PM Welcome – Mark Bennett, Chair (USGS) and Julie Reichert-Nguyen, Coordinator (NOAA)

Meeting Focus:

Continuing getting feedback on the Beyond 2025 outcome assessments for the climate adaptation and climate monitoring and assessment outcomes. Check out the December

meeting [minutes](#), which includes in-depth notes on the adaptation outcome assessment conversation. Check out slides 11-24 in this [presentation](#) from the December meeting for information on this task.

Workgroup Announcements:

- Marsh Adaptation proposal to the University of Michigan SEAS Masters Student Program, in collaboration with the CBP Wetlands Workgroup, has been selected. Four Master students and two professors will be supporting development of marsh adaptation products for identified focus areas from January 2025 to April 2026 (Point of Contact: Julie Reichert-Nguyen). Submitted priority action related to developing the student's scopes of work.
- Submitted priority action on a climate resiliency framework for Beyond 2025.
- Old Dominion University and Tetra Tech partnered on a proposal for the STAC Synthesis funding opportunity that addresses a top climate science need to quantify the resilience effectiveness of nature-based solutions and cost effectiveness. Congrats!

1:35 – 2:15 PM Review and Discuss Climate Adaptation Outcome Assessment

Presenter: Julie Reichert-Nguyen

Description: Julie will provide an overview of recommendations and rationale for the Climate Adaptation outcome assessment for feedback.

Materials:

- *Draft climate adaptation outcome assessment document*

Summary

- Julie presented on our recommendation to update adaptation assessment; add quantitative elements, modify to a holistic watershed approach
 - see slides for more on the recommendation
- Discussion followed on recommendation
 - discussion summary:
 - Emphasis on accurate and necessary data collection, beyond the success or failure of project
 - include consistent baseline year
 - focus on science and data application

Discussion

- Joe Galarraga- Discussed that it is worth mentioning the specificity of processes, for example in restoration and protection projects specific recommendations, the design and construction of planning and design. Allow for identifiable way for success of outcome- restoration and protection of specific services

- Peter Tango in chat: Along the lines of specificity - putting BMPs in place doesn't equal success. Success is in the ecosystem response demonstrating resilience. We continue to see small watershed studies with excellent accounting of significant BMPs but no water quality response - is that success? Similarly, can we see reductions in pace of temperature rise or sea level impacts or salt water intrusion of flood protection economics - can we be that specific?
- Other responses concluded that specificity of input (processes, materials) could limit the natural change of a project over time if it needs to respond to environmental changes, and specificity in the beginning is not an indicator of success.
- Keith Bollt: Coordinating our partners' collective resources is needed to implement the current collective goal and give the outcome a sound theory of change
- Katie Brownson: forestry is thinking about how the Bay program can think more comprehensively about resilience, there is interest in potentially pitching new forest conservation outcomes to include stewardship for resilience, carbon mitigation, etc.
- Vamsi Sridharan: Emphasis should be on pre- and post implementation monitoring as a metric of project success, a planning horizon should phase out projects with limited probability of success over a tangible timeframe. Maybe even a small incubator program for exploratory projects might encourage a valorization of failure until the field matures.
- Kelly Maloney: Modify outcomes and goals to establish/include a consistent baseline period year to document change and set targets, ex. SHWG uses 2008
- Shirley Clark: Structure the data collection to not only capture metrics of success/failure, but also additional information that will allow for an analysis of why failure or success occurred. Example; the International BMP Database did not initially require that people put in information on the size of the BMP and the size of the drainage area. It was optional (design information)
- Peter tango: And, the "2008 baseline", for analysis purposes, is 2006-2011. 6 year blocks for stream health IBI data provided sufficient spatial coverage for a status assessment.
- Nicole Carlozo- I would love to see a focus on science and data application

2:15 – 3:25 PM Review and Discuss Climate Monitoring and Assessment

Outcome Assessment

Presenter: Mark Bennett

Description: Mark will provide an overview of recommendations and rationale for the Climate Monitoring and Assessment outcome assessment for feedback.

Materials:

- *Draft climate monitoring and assessment document*

Summary

- The workgroup needs input on monitoring and assessment, and advice for the management board on how to consolidate, reduce, update, remove, replace, or add new outcomes within GIT's
 - Things to keep in mind
 - SMART language and goals
 - consider public interactions
- Discussed working with other workgroups to make sure climate resiliency is integrated into their work, example working with the modeling workgroup to model impacts
- The current outcome doesn't identify who is responsible and there are pieces that have not been completed. Mark is pushing to make the language more implementable
- The workgroup is seeking input on what to do: do we replace and focus language on incorporating climate considerations for other outcomes, consolidate and combine with a SMART place-based adaptation outcome, or reclassify and integrate as output under relevant outcomes in watershed agreement
- Discussion followed on input
 - discussion summary
 - Reclassify, incorporate framework language and have group responsible for tracking; formal process for integrating outcome in SRS
 - Consolidate- adaptation outcome with a science output, assess and compile science from partners to inform adaptation
 - Ask other groups what they have done on the planning side- roll up and report
 - Feedback from other GIT teams on what science they need
 - Reclassify- in output, structure in the agreement so that key elements are not being lost
 - Work on indicators of climate- broad and based on trends, not an indicator of progress as a program

Discussion

- Keith Bolt recommends being a cross-GIT climate policy workgroup with reps from all GITs
- Peter Tango: Monitoring and assessment are activities, and they provide valuable outputs. In that way, the outcome doesn't fit well with expectations for a SMART outcome. Changing trajectories of climate impacts seems a piece of an updated outcome.
- Breck Sullivan: This is an opportunity for us to re-emphasize what we need to do and focus on integration in outcome language, and emphasize the framework of it. Could gear towards reclassifying- add marks point that we need someone in charge, a point of contact for tasks to make sure it's getting done and make leadership responsible.
- Peter tango: "SMARTCIE" outcomes such that all should include "C" Climate change clearly integrated I think aligns with Breck's thoughts. Like Breck - Reclassifying here might be a good consideration :-)
- Kelly Maloney: Guidance and expert knowledge on climate science is an important role of the CRWG. For example which of the oodles of projections does this group deem best

for Chesapeake Bay science, and then updates as they occur. Other WG are very focused on their methods, they may use different non-optimal projection scenarios. CRWG could provide valuable input.

- Keith Bollt: Recommends a cross-program climate policy workgroup to have climate champions in every GIT and someone as a checkpoint in the QPM process. Integrate more in SRS process- formalized process to make sure principles are being addressed; group that tracks resilience progress
- Michael C Maddox: UMD and the state climatologist office at UMD do downscaled monitoring, trends and projections for the MD climate resilience network and have resources available.
- Mark- Language standardization is important.
- Peter Tango: Relocating where some work is highlighted is part of the streamlining and aligning as elements of a consistent structure to the agreement presentation without losing the work
- Bruce Vogt: Consolidate- adaptation outcome with a science output, bring climate science into the program. Fish GIT is using consolidate for fish habitat and forage, and planning to have a fish habitat outcome with forage as an output under it.
- Michael C Maddox: Would it be useful to have 5, 10, 15 year standard scenarios that need to be considered for longer term outcomes?
- develop standardized projections? states may still want to use their own
- Vamsi: have each project team/GIT give written summaries of achievements towards climate resilience workgroups objectives at the end of the year, then use SMART definitions to evaluate responses and consolidate objectives for the next year, puts the onus on more focused groups to track progress towards each workgroup objective.
- Bruce: Science most meaningful and how it is used to address issues across the program- feedback needed from other goal and implementation teams on what science they need. Also: Indicators were not connected with management decision; have an adaptation outcome (option), have adaptation outcome and science output under it- science is tied to advancing the adaptation outcome; science would be focused on tools and science to lead and further develop adaptation endpoints. Adaptation outcome with a science output.
- Discussion on Value added/benefits of outcome assessment to public
 - connecting the climate science to create guidance on adaptation
 - ensures climate is integrated into the program- supports accountability, are we explicit about it, are we making progress towards outcome, and are outcomes considering climate resilience
 - Molly Mitchell VIMS: A collaboration between modeling and climate group, how to create the same level of collaboration with other work groups.
 - SMART: every workgroup has an objective that is climate resilient
 - Vamsi: Could send a survey with a simple question. Maybe just have each GIT/project team give a report in an annual meeting. Just a 3 slide presentation from each team on some high-level metrics to overcome the reporting inertia Julie talked about.
- Discussion on unintended consequences if removed from outcome assessment

- Keith Bolt: Outcomes can't be SMART if they are not climate resilient
- Nicole Carlozo: we need avenues for collaboration with other workgroups to provide technical support and help elevate climate considerations

3:25 PM Partner Announcements

- Jason Dubow from Maryland Department of Planning shared the [Maryland's Plan to Adapt to Saltwater Intrusion and Salinization Plan](#).
- Funding Opportunity for restoration: NOAA [Transformational Habitat Restoration and Coastal Resilience Grant](#). Applications due April 16, 2025. Proposals between \$750,000 and \$10 million.

3:30 PM Adjourn

Next Meeting: TBD

Attendance

| Name | Affiliation | Name | Affiliation |
|-----------------------|--------------------------------------|--------------------|-----------------------------|
| Julie Reichert-Nguyen | NOAA | Keith Bolt | EPA CBPO |
| Allison Welch | | Sharon Hockenberry | |
| Julia Fucci | CRC | Shirley Clark | |
| Gabriel Duran | CRC | Taryn A Sudol | MD Sea Grant |
| Bruce Vogt | NCBO | Wai Yan Siu | ODU |
| Breck Sullivan | USGS@CBP | Laura Cattell Noll | Alliance for the Chesapeake |
| Amy Freitag | NCCOS | Matt Konfirst | EPA |
| Laura Costadone | Institute for Coastal Adaptation and | Nadya Chehab | MDA |

| | | | |
|-------------------------|------------------------------|----------------------|---|
| | Resilience (ODU-Norfolk) | | |
| Adrienne Kotula | Chesapeake Bay Commission | Nicole Carlozo | MDNR |
| Kevin Schabow | NOAA Chesapeake Bay Office | Amy Freitag | NOAA |
| Kate Charbonneau | Maryland DNR | Ben McFarlane | Hampton Roads Planning PDC |
| Cassie Davis | NYS DEC | Celso Ferrerira | GMU |
| Taylor Woods | USGS EESC | Debbie Herr Cornwell | Caroline County Planning |
| Vamsi Krishna Sridharan | Tetra Tech | Kate Vogel | Coastal Resilience Manager, NWF |
| Joe Galarraga | The Nature Conservancy MD/DC | Sierra Hildebrandt | NCCOS |
| Katherine Rainone | MWCOG/TPB | Molly Mitchell | VIMS |
| Michelle Ashworth | VAMWA/MAMWA | Peter Tango | USGS@CBPO |
| Breck Sullivan | USGS | Ben McFarlane | HRPDC |
| Mark Bennet | USGS | Kelly Maloney | USGS |
| Amanda Small | MD DNR | Michael Maddox | University of Maryland Climate Resilience Network |