Climate Resiliency Workgroup
February 15th, 2024
1:30 – 3:30 PM EST

Event webpage:
https://www.chesapeakebay.net/what/event/climate-resiliency-workgroup-meeting-february-2024

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

Minutes

Workgroup Actions

- *GIT-Funded Marsh Adaptation Project:* Follow up with partners in the Middle Peninsula to understand utility of mapper and analysis for development of project proposal and securing funding.
- *GIT-Funded Marsh Adaptation Project:* Follow up with Dave Curson on identification of specific sites for Marshes for Tomorrow effort and if there is interest in using the mapper to inform marsh adaptation considerations.
- Follow up with Taylor Woods and Sean Emmons about connecting them with folks at the Chesapeake Bay Program regarding best management practice implementation data in the watershed around streams.
- Invite Taylor Woods and her team to present on project updates at a future workgroup meeting
- Invite Kevin Du Bois to present on Department of Defense and Navy's effort around identifying carbon sequestration rates of best management practices as a part of the Navy's Climate Action 2030 Plan.
- Invite Katie Brownson and Brooke Landry to a future CRWG meeting to present updates on their groups' GIT-Funded projects

Partner-to-Partner Actions

- Katie Brownson offered to pass along any comments or suggestions to the contractor leading their GIT-Funded Optimizing Riparian Forest Buffer Implementation for Climate Adaptation and Resilience project.
- Katie Brownson mentioned she would pass along the idea of investigating riparian forest buffers impacts on wildfires to the contractor for their GIT-Funded Project.

1:30 PM **Welcome, Opening Remarks, and Announcements – Mark Bennett, Co-Chair (USGS), Jackie Specht, Co-Chair (MD DNR) and Julie Reichert-Nguyen, Coordinator (NOAA) [10 minutes]**

Focus of meeting:

- *Debrief of GIT-Funded Marsh Adaptation Project workshop*
- *Provide requested feedback on current efforts within the CBP partnership*
- *Hear about current GIT-funded projects that might be of interest to workgroup*

Workgroup Announcements:

- *Marsh Migration Corridor Envelope (MMCE) data are now available on the Chesapeake Bay Program's GIS portal. Available as both ArcGIS Layers and raster data, the Chesapeake Bay Program produced the MMCE for Maryland and Virginia to support the geospatial screening of potential marsh migration corridors under future sea level rise scenarios using the methodology developed by the Virginia Institute of Marine Science (Mitchell et al., 2023).*

1:40 PM **Debrief: GIT-Funded Partnership-Building and Identification of Collaborative Tidal Marsh Adaptation Projects Workshop [25 Minutes]**

Julie Reichert-Nguyen and Nicole Carlozo will provide a debrief on the workshop that took place in January as a part of our workgroup-supported GIT-Funded Marsh Adaptation project. This workshop brought together various stakeholders from the two regional focus areas (Middle Peninsula, VA and Wicomico River, MD) to discuss the opportunities for large-scale marsh adaptation in these regions.

Discussion

Julie provided a quick overview of the GIT-Funded Marsh Adaptation project and shared some highlights from the project's workshop discussions. This project focuses on providing support for identifying opportunities for marsh adaptation projects in two regional focus areas (Middle Peninsula, VA and Wicomico River/Deal Island, MD), which were selected by the Steering Committee from several potential focus areas. Julie mentioned potentially holding workshops for the other focus areas once the project is complete if funding and/or staff resources are available. The workshop for the two selected focus areas was divided into two breakout groups based on focus areas, with each group discussing marsh adaptation strategies that were pertinent to the particular area.

For the Virginia breakout group, discussions focused on how to prioritize marsh migration and adaptation strategies in the region. There were conversations around public investment and how best to set priorities given different sea level rise (SLR) scenarios. Discussions also focused on tradeoffs between focusing efforts on regions with the greatest likelihood of marsh

persistence versus under-resourced regions that could benefit from public investment, but the marshes might be more vulnerable. While there were no clear solutions from the discussion, the points were documented so that regional partners have the ability to continue the conversation and work towards co-developing solutions. The Virginia group also discussed the need for new regulatory frameworks to allow for innovative approaches. The group suggested engaging with the Chesapeake Bay Program's Beyond 2025 efforts to encourage regulatory sandboxing, allowing for some pilot programs in areas to allow for innovate approaches and flexibility around regulations pertaining to beneficial use of dredge materials and other strategies. On the topic of beneficial use of dredge material, the regulations currently require the use of all the sediment, which is not conducive for strategies like thin layer placement. The Virginia group also focused on the exploration of incentive programs for donating vulnerable private land to allow for effective marsh migration; some private landowners have donated land, however incentive programs or programs that purchase land could be used to target strategic marsh migration areas to allow for effective migration through time. The group also identified the need for more wetland scientists to properly site and design projects that incorporate long-term strategies that plan for marshes to migrate and remain healthy. Additionally, they also suggested considering a portfolio approach to planning that allows for short-term (~5 years) and long-term (~30 years) goals, however there is the need for long-term funding to monitor for success, especially for communities where environmental justice is a central focus.

Julie asked for input on the strategies and ideas that were discussed by the Virginia group, especially the idea around the incentives programs. Molly Mitchell commented that she liked the incentive programs approach. She does not think that the regulatory sandboxing approach would have the same types of impacts that the incentives programs would have. She said that the areas included in the sandboxing approach might have some small gains or benefits in specific areas, whereas the incentives approach would have a broader spectrum of bigger impacts. Julie could see that perspective and how the regulatory sandboxing could be smaller scale. Julie mentioned that with the incentives program, there was discussion about how there are private landowners who have been dealing with flooding and impacts of SLR who would be ready to offload the land. Molly mentioned that areas dealing with flooding are probably a good target for increasing marsh migration potential through land conservation for that purpose.

For the Maryland breakout group, discussions focused on beneficial use of dredge material for different objectives in the area, including the various challenges that these strategies face. One such challenge included the timing of implementation, as there is a mismatch between the timing of getting the sediment and dredge material and the timing of the permitting process and project timeframes. There was also discussion on where beneficial use of dredge materials might be most strategic, specifically in the case of adding or maintaining elevation. In areas that elevation is fine, but the marshes are still becoming drowned out from water trapped underneath the marsh, they discussed the implementation of a hybrid approach, combining more than one strategy, such as runneling alongside the use of dredge materials. There was also discussion around how to coordinate smaller projects on private land that might benefit

from dredge material, including better communication to private land owners about these projects and bringing them in to the conversation more so that their thoughts are also included in the development of these projects. Private landowners have previously expressed concerns around feeling like these projects that are implemented on their land are experimental, without much explanation as to the outcomes, goals, or objectives. In addition to the conversations around landowner buy-in and coordination needed for this work, there was also a discussion around landscape transition over time, when facilitating marsh migration. Within this region, adjacent land-use includes agricultural and forested lands, so conversations touched on how to handle forested lands prior to the potential saltwater inundation from SLR or coordinating with farmers about their lands that may be impacted from SLR.

Julie then provided an update on the status of the GIT-Funded Marsh Adaptation Project. Currently the contractors are working on drafting a final report. Once this report is complete, either Julie or Nicole Carlozo, who has been serving as technical lead, will present the findings to the workgroup. Next steps for this work could include leveraging opportunities that could present themselves through the Beyond 2025 effort or coordinating with CBP's Tidal Wetland subgroup. There will be a lot great resources and a framework for these types of discussions that come out of this project. Once the report is complete, Julie mentioned that it will be shared with the workgroup and there can be a discussion about where to take the work next. Jackie Specht mentioned that these next steps should include getting to a place where there are identified projects that could be moved forward for funding. This current project has done a lot of the ground work of bringing people together and really understanding the dynamics and the landscape, and next steps should include identifying specific projects. Julie mentioned, while the project was not able to assist in identifying specific sites to target, for the Middle Peninsula, the Coastal Wetlands Plan already had identified sites, and the project team was able to provide insights from the current project's mapper to inform their proposal development for the NOAA Transformational Habitat Funding. Julie mentioned that it would be helpful to follow up with this group to understand the usefulness of the project's mapper and analysis for their proposal and securing funding.

Joe Galarraga followed up on Jackie's comment about next steps including identifying specific sites and projects, mentioning that the Delmarva Restoration and Conservation Network is currently working on a Marshes for Tomorrow project that is looking across Maryland and thinking about high marsh and habitat for Salt Marsh Sparrow and how to prioritize restoration efforts, including thin layer placement. He commented that it would be potentially helpful to connect with this effort. Julie responded that David Curson, who works with Audubon in this region and works on Marshes for Tomorrow, helped facilitate the Maryland breakout session during the workshop and presented on the work he is doing. She mentioned that if Joe knew if the group had selected specific sites for this work, the Marsh Adaptation Project mapper could potentially help inform next steps. She commented that there are other identified focus areas from the project and that the deliverables from the project could help inform project proposals and efforts, and next steps can include understanding where the Climate Resiliency Workgroup can support these efforts.

Workgroup Feedback Requested:

2:05 PM **USGS Ecosystems Mission Area: Priority Ecosystems Studies Large Landscapes Update (Taylor Woods, USGS) [25 Minutes]**

Taylor will present on this USGS effort, which focuses on 5 regions including the Chesapeake Bay to a) model annual streamflow events (floods, low flows) for all streams (including ungaged streams) 1980-2020, b) forecast climate and land-use/land-cover change effects on streamflow events at all streams in the future 2021-2100, and c) perform a vulnerability assessment of stream fishes to climate & land-use change-induced changes in streamflow. Her team is requesting feedback in the early stages to help inform the project.

Summary

Taylor Woods presented on her ongoing work with USGS, which she thought might be of interest to the Climate Resiliency Workgroup and Stream Health Workgroup. This project is focused on assessing climate and land use/ land cover change effects on stream flow, and subsequent impacts to how these flow regime alterations might affect fish communities. The project is focused on five regions across the United States and span a broad range of anthropogenic conditions and potential climate change impacts. For each region, they are gathering feedback in the early stages of the project to inform their modeling objectives, scope, and deliverables to help meet the specific needs of each region.

Taylor provided some background on the project and its conception. It is funded by the FY23 USGS Priority Ecosystems Studies Large Landscapes program, and their team was selected as the inland project. The funding focuses on seven large landscape regions throughout the United States, which were selected due to their high potential vulnerability to climate change and high stakeholder investment. For each region, they are covering 5 landscapes, and in each region they are partnering with a local regional ecology lead, with Taylor and Kelly Maloney as regional leads for the Chesapeake Bay. Within each region, they are working to compile fish datasets, which will assess stream fish vulnerability to climate, land-use change and altered flow regimes, identify science needs, and establish collaborative partnerships. This multi-region approach will assist in understanding how stream fish and stream flow vulnerability to climate and land-use change might be similar or different across regions. They are also hoping to understand what tools and techniques are used for vulnerability assessments in each region and apply lessons learned in one region to the others. They are collaborating with hydrologists from the Water Mission Area, who will be modeling the effects of climate and land-use changes on flow regimes to predict annual flow regime metrics.

Potential outcomes from this hydrological analysis would be a dataset of annual flow statistics for flood and drought events from 1980 to 2100, which can give insight into how these events' frequencies and durations are predicted to change. The potential ecological outcomes from this work include vulnerability assessments of fish responses, informed by specific biological endpoints, or habitat suitability models for specific species or guilds of interest. These

outcomes can give insights into which fish species might be most affected by climate and/or land-use changes across space.

Discussion

Taylor requested feedback from the workgroup to inform modeling needs and project deliverables. She mentioned that, within each region, they are working to identify science needs, and from discussions with other regions have already identified a common research themes around stream flow effects on invasive species, potential fish and mussel vulnerability and impacts to spawning. Taylor handed the conversation over to Sean Emmons, a research ecologist working on this project as well and has been helping with the discussions.

Sean Emmons started the discussion by providing a web-based form where people can provide feedback to the discussion questions as well. He then asked the first discussion question, which seeks input on science needs as they relate to climate and land use impacts on in-stream flows and fish communities. Kevin Du Bois asked in the chat if they were seeing different effects to native species like brook trout, as opposed to brown trout, which are a little more tolerant to marginal conditions. Julie commented as she relayed the question for Kevin, that she does not know if they have any data on this yet since the project is in the early stages, but also asked if they have determined specific species to examine and if they plan on looking into species that are particularly vulnerable to climate and land-use changes. Taylor answered that they think this work could examine the impacts to these vulnerable fish species, adding that there was also a concern around brook trout in the other regions of this project. She added that they could also look into potential spread of invasive species of concern.

Alison Santoro, one of the co-chairs of CBP's Stream Health Workgroup, commented that there is a need around how increased erosion can lead to degraded habitat conditions, as increased stream flows and velocity's energy discharge will cause more erosion which could impact benthic habitat for macroinvertebrates. She said, essentially, that she is concerned about how these changes can impact the base of the food web.

Julie commented that the CRWG, along with many other groups in the CBP, assisted with an effort to look at rising water temperatures in the Bay and identify the management implications around them and develop actionable management recommendations. There was discussion about how some best management practices (BMP) that are implemented to help with water quality also heat the water that are discharged into the streams and watershed. She was wondering if this research is looking at how these sorts of management actions could be exacerbating any of the climate change issues around temperature and flow in the streams, and if their research findings could help inform management practices in this regard. Taylor responded that currently, management practices are not a particular scope of this work; they are focused on flow from an abiotic perspective, but they might be able to look at temperature effects indirectly through the target fish species and temperature impacts on flow. She mentioned that Sean is leading a study on management practices and that they could think about how this research could inform management once they have their findings. Julie commented that there are many efforts in the Bay Program to determine adjustments that need to be made around management efforts to not exacerbate climate change impacts,

however there are research gaps that need to be filled in regards to warming water temperatures to inform these efforts. Katie Brownson also commented that one connection to help inform management strategies could be the mapping of the land-use transitions studies alongside the maps that exist of best management practices to understand potential effects of these BMPs on stream flow and fish communities. She commented that this connection could help managers who are trying to understand which BMPs might be better for fish communities. She also asked what types of land-use metrics they are using in the study, and Taylor responded that they will be using forecasted changes in land-use classes around streams. Julie asked Katie if there are maps of these BMPs that are being implemented in the watershed that could be shared with the project team. Katie responded that she does not think so, as BMPs are often reported on a county scale. She mentioned that there might be better people at the Bay Program to connect with to see if this type of dataset exists. Julie mentioned that if Taylor and Sean are interested in pursuing this connection the CRWG could help connect them. Taylor mentioned that it is not currently in the scope but would be good to think about if it's feasible. Kelly Maloney commented in that he, Sean, and Taylor have been working with Olivia Devereux, who works with CAST, and they do have available BMP data, but it's not comprehensive. Julie commented that the Land-Use Workgroup might have some available data as well.

Julie mentioned that as the project progresses and the team would like to update the workgroup or get more feedback, then she would be happy to bring them to a future workgroup meeting or arrange smaller focus groups with specific folks who might work more in this space.

2:30 PM **Beyond 2025 Climate Small Group Talks Recommendations (Bo Williams, EPA & Breck Sullivan, USGS) [30 Minutes]**

Bo and Breck will present the recommendations that were developed by the Climate Small Group Talks that are taking place as a part of the Chesapeake Bay Program's Beyond 2025 Effort. This group is charged with forming recommendations around climate change to inform the new Chesapeake Bay Watershed Agreement. Once finalized, the Beyond 2025 Steering Committee (SC) reviews the recommendations, they will be integrated into the SC's final product to the Executive Council.

Summary

Breck and Bo presented the draft recommendations that were developed by the Chesapeake Bay Program's Beyond 2025 Climate Small Group. They provided a brief overview of the effort for context and to help frame the recommendations that they are presenting. The small group is comprised of federal, state, and local agencies and nonprofit organizations. The charge of the small groups and of the Beyond 2025 Steering Committee, broadly, is to think about if and how the partnership goals should change, and how might the structure of the partnership need to change to support that. The Steering Committee requested that the Small Groups, including Climate, identify the "3Vs," which are vision (where do we want to be), value (how do we work), and vanguard (what would be a particularly transformational idea for the future of the

Bay and how do we implement that). The scope and purpose they developed for the Small Group states that the will be, "providing recommendations to transform Chesapeake Bay Program partnership policies, programs, and projects to address the significant ongoing and future impacts climate change will impose on the Bay and its watershed and people across generations. These recommendations should include strategies to better incorporate climate mitigation, adaptation and resiliency across the watershed and tidal Bay."

The discussions that informed the recommendations focused on several pertinent and important topics, including defining resilience, adaptation, and mitigation, climate vulnerabilities, food security and agriculture, decision science, adaptation frameworks, integrating climate factors into CBP work, ecosystem services, and CBP climate capacity and structure. For this presentation, the recommendations are in draft format, as final discussions were just wrapping up, and the order of the recommendations is not prioritized. Additionally, Bo underscored that the recommendations are broad concepts with detailed justifications provided to the Steering Committee for more specific details.

The first recommendation is to prioritize climate adaptation efforts and the resources to support them, including developing a vision for the Bay of the future, establishing a numerical climate adaptation goal, and investing in climate adaptation initiatives (e.g., science, and integrating climate projections into strategies). The second recommendation focuses on empowering partnerships to integrate climate considerations into collaborative decision-making and organizational capacity; this recommendation discusses the need for partnership structures to adapt by increasing capacity to effectively advance the integration of climate considerations by including climate considerations in decision-making partnership-wide, improving CBP knowledge and capacity to apply scientific capabilities to respond to climate threats, and applying structured decision making and other decision science tools at all levels of the partnership. The third recommendation promotes a multi-benefit approach to carbon stewardship, including adopting water quality practices that sequester Green House Gasses (GHGs) and minimize emissions and advance understanding around the science of mitigation and stewardship that support multiple benefits. This recommendation seeks to add value to carbon mitigation and stewardship, recognizing what states and jurisdictions are already implementing. The fourth recommendation seeks to improve resilience of communities to key regional climate vulnerabilities, including prioritizing adaptation and resilience for the most vulnerable communities, building community capacity, promoting nature-based solutions, accounting for public health as it relates to community resilience, and supporting cultural and historical continuity. The fifth and final recommendation promotes strategies that enhance the resilience of natural ecosystems to be healthy and productive under changing climate conditions, which includes enhancing the confidence and use of nature-based solutions, development and applications of ecosystem health indicators, defining and evaluate multiple stressors on ecosystem health, research to estimate the future conditions under different scenarios of managing, and pursuing the development of a CBP soil health outcome.

<u>Discussion</u>

Julie thanked Bo and Breck and commented that this is still an ongoing process and that there still might be changes made to the recommendations that were just presented. Kevin Du Bois asked in the chat if there was any idea on what a numeric climate goal would look like. Julie added that currently the qualitative nature of the two climate outcomes has been a challenge for measuring progress. Bo responded that they have not dived into the detail on what that would look like, and commented that he would invite any ideas for a numeric goal. Breck added that these current recommendations are broad in nature with the goal of developing the "how" later on if it moves forward and past leadership approval. She provided an example of having the Climate Resiliency Workgroup elevated to a Goal Implementation Team, with more specific measurable goals and outcomes within the group. Bo commented that this is a message that a numeric goal is something that the partnership needs to work towards, in whatever form that may look. Julie commented that projects that support understanding of best practices to enhance resiliency could help pave the way for creating goals around increasing implementation of these strategies.

Kevin commented in the chat that the DoD has done a literature review, as a part of a comprehensive project resulting from the Navy's Climate Action 2030 Plan, that identifies the carbon sequestration rates of 20-30 BMP types and are developing a methodology for calculating annual rates of carbon sequestration from these practices in the Chesapeake Bay. He mentioned that the Navy has been working on understanding new sources of carbon sequestration and last year funded 15 new projects in the Bay watershed. He commented that there are definitely differences in BMP types, so if folks want to include rates of carbon sequestration in their decisions of which BMPs to implement, this work will act as a preliminary guide. He also added that this work aims to help track progress towards a numeric goal of 5 million metric tons sequestered, which was set by the Climate Action Plan. The project has found that some of the best sequestration BMPs are ones that are natural or nature-based features. He added that the project should be wrapping up in the spring. He lastly highlighted that when it comes to water quality BMPs, this guide can help users select practices that also have resilience benefits. Katie Brownson commented that part of the carbon stewardship puzzle is also considering carbon storage implications of any land use transitions occurring along with BMP implementation. Julie commented that this would be helpful, especially in the decision matrix when selecting BMPs and understanding their role in either adding or sequestering GHGs. Julie also added that there is a joint meeting in April with the Climate Resiliency, Modeling and Urban Stormwater and potentially the Agriculture workgroups to prepare for the Climate Model 3.0, so this information could potentially be helpful in that effort. She mentioned looping Kevin in on the effort to potentially present findings. Kevin said that would be great and added that it would be great to have the scientific community review the findings and recommend improvements to ensure that the product is evidence based and has management utility.

Lightning Talks: Current GIT-Funded Projects of Interest

3:00 PM **Protecting Chesapeake Bay SAV Given Changing Hydrologic Conditions: Priority SAV Area Identification and Solutions Development (Brooke Landry, MD DNR) [10 Minutes]**

Brooke will be providing an overview of the Submerged Aquatic Vegetation (SAV) Workgroup's GIT-funded project, "Protecting Chesapeake Bay SAV Given Changing Hydrologic Conditions: Priority SAV Area Identification and Solutions Development." This project will identify high-priority SAV areas within the Chesapeake Bay Watershed and determine which best management practices (BMPs) could be most effective in protecting those areas from loss during high-flow events/years using GIS spatial analysis/modeling and existing SAV, flow, land-use, and water quality data. With this information, steps can be taken to target high-priority SAV areas for implementation of BMPs and land management policies that will protect or restore those priority SAV habitats/

Summary

Brooke Landry presented on the recent progress made on the SAV Workgroup's GIT-Funded Project "Protecting Chesapeake Bay SAV Given Changing Hydrological Conditions: Priority SAV Area Identification and Solutions Development." For background, she discussed that between 2018 and 2019, the Bay lost roughly 1/3 of its seagrasses primarily due to long-term, recurrent high flow events, bringing nutrients, sediments, and increased turbidity. Preceding that loss, the efforts in the Bay were close to meeting the interim goal for SAV abundance. In response to the loss, the SAV Workgroup reported to the Management Board that to meet the current SAV goal in the Chesapeake Bay Watershed Agreement, efforts in the bay will have to go above and beyond current nutrient load reductions to mitigate impacts to SAV during high flow events. They recommended an adjustment to the Bay TMDL, accordingly after 2025. The Management Board sought to understand if there are particular BMPs that could mitigate high flow events and locally protect high priority SAV beds, which spurred the development of this GIT-Funded project. TetraTech is current leading this effort and have identified three main goals for the project: 1) utilizing an expanded set of criteria to evaluate and select high priority SAV habitats; 2) data analyses to associate water quality, land use, other environmental factors, and existing BMP effects to temporal and spatial responses of SAV as a basis for recommending the most appropriate BMPs; and 3) assessment of the functioning and efficiency of various BMPs through both literature review and data analysis/modeling in order to link these to the conditions and needs of priority SAV areas.

Currently, the project team has just completed the first goal. The criteria that they used to identify the high priority beds for the first goal were size, maturity, density, species richness/diversity, sensitive/rare species, habitat value, and representativeness. The project Steering Committee informed how each criteria should be weighted. From this, they identified 10 specific beds to consider as high priority throughout the Bay (i.e., Susquehanna Flats and Elk River, Potomac River and Aquia Creek, Onancock and Pungoteague Creeks, and Mobjack Bay and the mouth of the York River). Next steps are focused on the second goal of the project.

Discussion

In the chat, Kevin Du Bois asked if the team thought about the location of SAV beds in relation to reducing wave height to provide shoreline climate resiliency when determining priority beds. Brooke responded that wave attenuation was not a criteria considered for priority beds, directly. However, bed size and density play a big role in their effectiveness at reducing shoreline erosion, and those two criteria were included in the selection process. She also added that bed maturity was a criteria, which would contribute to more effective erosion control because of the denser, deeper rhizome network. Julie commented that she wondered if there would be ways to translate those criteria Brooke mentioned into shoreline erosion protection, but she also recognized that this funding is not focused on that. Brooke added that shoreline erosion protection as a metric is implied within the other criteria.

3:10 PM **Optimizing Riparian Forest Buffer Implementation for Climate Adaptation and Resilience (Katie Brownson, USFS) [10 Minutes]**

Katie will providing an overview of the Forestry Workgroup's GIT-funded project, "Optimizing Riparian Forest Buffer (RFB) Implementation for Climate Adaptation and Resilience." This project increase the implementation of RFBs within the Chesapeake Bay Watershed through the a) synthesis and communication of information and guidance on the climate adaptation benefits of RFBs, b) identification of options to maximize climate adaptation benefits of RFBs and improve resilience of RFBs to climate change, and c) identification of characteristics of priority areas for riparian restoration and conservation.

Summary

Katie Brownson presented on the status of the Forestry Workgroup's GIT-Funded Project, "Optimizing Riparian Forest Buffer (RFB) Implementation for Climate Adaptation and Resilience." The project, which is led by Chesapeake Conservancy, is still in its early stages. This project focuses on synthesizing and communicating the climate adaptation and resilience benefits of RFBs as well as strategies that can be implemented to maximize the benefits. Katie commented that this work is also an opportunity to follow up on relevant recommendations that came from the Rising Water Temperature STAC Workshop. The project deliverables will include a synthesis report, covering the various climate adaptation benefits of RBFs and opportunities to maximize these benefits through targeted siting and design, and a StoryMap, communicating the findings of the report and highlighted ~8 case studies from within the watershed. The first portion of the report will focus on understanding how RFBs increase resilience during flooding and storm events, understanding its impacts to fish, wild life, and water quality and quantity, and understanding community health impacts. The second portion of the report will focus on understanding how to maximize the benefits of RFBs, including targeted siting for greatest adaptation benefits, persistence of these RFBs in a changing climate, and environmental justice considerations, design considerations, and maintenance of the RFBs. Katie finished the presentation by mentioning that this was just a brief overview, but feel free to reach out with any suggestions or questions, which they can pass along to the contractor.

Discussion

Kevin Du Bois asked Katie if projections are indicating if increased drought conditions, should there be some thought given to RFB management for resilience to wildfire. Katie mentioned this

potentially should be a consideration. She commented that the climate predictions indicate the potential for flash droughts at the end of the summer season, which could definitely create increased risk for wildfires. Julie asked if it is being built into the guidelines of this project. Katie did not know if it is currently, but commented that it is a good suggestion. She mentioned that she might check to see if the contractors have come across anything along those lines. She added that she does not know how much information is available about forest buffer management for wildfire resilience, but it would be good to see if the project team has come across anything.

Jim George asked in the chat if evapotranspiration in small streams come into play in the Chesapeake region. He clarified that in arid areas, small streams with RFBs around them dry out because the RFBs evapotranspire the water out. He suspects that it is not an issue in the Bay region but was curious if it has come up in discussion. Katie responded that she also suspects that it is not as much an issue in the Chesapeake Bay region as it is in arid regions, however was also curious if the other benefits provided by RFBs (e.g., groundwater infiltration and promoting base flow) would outweigh the impacts from the evapotranspiration.

Julie thanked both Katie and Brooke for their lightning presentations on these projects, and mentioned that it would be great to invite them back to the CRWG to present on progress made as they get more underway.

3:20 PM **Opportunities, Partner Announcements and Wrap-up [10 Minutes]**

- The National Fish and Wildlife Foundation (NFWF), in partnership with the U.S. Environmental Protection Agency (EPA) and the federal-state Chesapeake Bay Program (CBP) partnership, is soliciting proposals through the Chesapeake Bay Stewardship Fund to restore water quality and habitats of the Chesapeake Bay and its tributary rivers and streams.

  Through the **Small Watershed Grants (SWG) Program**, delivered in partnership with EPA and the CBP partnership, NFWF is soliciting proposals for projects within the Chesapeake Bay watershed that promote voluntary, community-based efforts to protect and restore the diverse and vital habitats of the Chesapeake Bay and its tributary rivers and streams.

  All proposals must be submitted no later than **April 3, 2024**. NFWF will host an optional applicant webinar at 1:00PM on Tuesday February 13th. Interested parties must register for the webinar here. For those who cannot participate, a recording of the webinar will be posted to NFWF's website by Thursday, February 15th. In addition. Interested applicants can also schedule individual proposal consultations with NFWF staff using this link. Prospective applicants are also encouraged to contact CBSF field

liaisons to vet potential project ideas prior to contacting NFWF staff directly.

- The National Fish and Wildlife Foundation (NFWF), in partnership with the U.S. Fish and Wildlife Service (FWS), is soliciting proposals through the Chesapeake Bay Stewardship Fund (CBSF) to conserve, protect, and restore vital fish and wildlife habitat of the Chesapeake Bay and its tributary rivers and streams.

  Through the Chesapeake Watershed Investments for Landscape Defense (WILD) Grants Program, NFWF is soliciting proposals for projects that enhance conservation, stewardship, and enhancements of fish and wildlife habitats and related conservation values in the Bay watershed.

  All proposals must be submitted no later than April 10, 2024. NFWF will host an optional applicant webinar at **10:00AM on Tuesday, February 20th**. **Interested parties must register for the webinar here.** For those who cannot participate, a recording of the webinar will be posted to NFWF's website by Thursday, February 22nd. In addition, interested applicants can also schedule proposal labs with NFWF and FWS staff using **this link**. Prospective applicants are also encouraged to contact **CBSF field liaisons** to vet potential project ideas prior to contacting NFWF staff directly.

3:30 PM **Adjourn**

Participants

First Name	Last Name	Affiliation
Alexander	Gunnerson	CRC
Alison	Santoro	MD DNR
Amy	Freitag	NOAA
Ashley	Kelly	DoD
August	Goldfischer	CRC
Bailey	Robertory	CRC
Bill	Jenkins	EPA

Bo	Williams	EPA
Breck	Sullivan	USGS
Brooke	Landry	MD DNR
Carl	Friedrichs	VIMS
Claire	Buchanan	ICPBR
Dylan	Burgevin	MDE
Emma	Corbitt	HRPDC
Fredrika	Moser	MD Sea Grant
George	Doumit	DNREC
Jackie	Specht	MD DNR
Jamileh	Soueidan	CRC
Jillian	Seagraves	DNR
Jim	George	MDE
John	Wolf	USGS
Joseph	Galarraga	TNC
Julie	Reichert-Nguyen	NOAA
Katie	Brownson	USFS
Katlyn	Fuentes	CRC
Kelly	Maloney	USGS
Ken	Hyer	USGS
Kevin	Du Bios	DoD
Mark	Bennett	USGS
Molly	Mitchell	VIMS
Richard	Tian	UMCES
Sean	Emmons	USGS
Taylor	Woods	USGS
Troy	Bernier	