Joint Scientific, Technical Assessment and Reporting (STAR) Meeting/
Coordinator & Staffer Strategic Review System
Quarterly Progress Meeting

Thursday, July 23, 2020
9:30 AM – 12:30 PM

Conference Line: +1 (571) 317-3112 Access Code: 497-365-613
Password: STAR
Webinar*: https://global.gotomeeting.com/join/497365613
Meeting Materials:
https://www.chesapeakebay.net/what/event/scientific_technical_assessment_and_reporting_star_team_meeting_july_2020

AGENDA

9:30 **Welcome, Introductions & Announcements – Bill Dennison** (UMCES) and **Scott Phillips** (USGS)- STAR Co-Chairs, **Peter Tango** (USGS) and **Emily Trentacoste** (EPA), STAR Co- Coordinator

Upcoming Conferences, Meetings, Workshops, & Webinars-

- Fishable Swimmable Summit, September 23, 2020. Baltimore, Md.
- Chesapeake Watershed Forum, October 29 - October 30, 2020. Virtual.
- CitiesAlive Conference, November 15-18, 2020. Virtual Conference.
- Behavior, Energy and Climate Change Conference, December 7 - 10, 2020, Washington, D.C.
- American Geophysical Union Fall Meeting, December 7-11, 2020. **Abstracts due July 29.**
- Sustainable Agriculture Conference, February 3-6, 2021. Lancaster, PA
- A Community on Ecosystem Services (ACES), December 13-16, 2021. Bonita Springs, FL.

Announcements:

Kristin stated the House passed the America's Great Outdoors Act with full funding for land and water conservation. It is awaiting the President's signature.

Elizabeth reminded everyone that the CMC is co-hosting a hackathon in August in partnership with Booz Allen. Registration is open. Please contact her (lchudoba@allianceforthebay.org) for more information. She would like to present the results at a future STAR meeting.

The Fish GIT Forage Action team is meeting next week, July 30, from 9-12. The focus is on the forage indicator development. He mentioned it would be great to get representation from the indicator team at the meeting.

James Martin announced CAST 2019 was approved, and *Understanding Chesapeake Bay Modeling Tools: A history of updates, governance, policy and procedures* was recently released. The report is written for a more general audience, and explains what the Chesapeake Bay Program (CBP) suite of modeling tools are, how they are used in regard to the Bay TMDL and associated two-year milestones, how EPA uses the updated suite of modeling tools and provides a history of how the process for updating every two years came about.

Scott reminded STAR of the USGS publications recently released. The first publication is a synthesis of factors affecting nutrients in nontidal rivers and streams released in the Journal of Environmental Quality. A summary and link to the article can be found at: https://www.usgs.gov/centers/cba/science/new-synthesis-describes-current-understanding-factors-driving-nutrient-trends?qt-science_center_objects=0#qt-science_center_objects. USGS is also working with the University of Maryland IAN team, and the Chesapeake Bay Program, to prepare a fact sheet of the results. The second item is a USGS report providing an overview of aquatic invasive species in the Chesapeake Bay watershed, including interviews with stakeholders on their research needs. The publication is available on-line: https://pubs.er.usgs.gov/publication/ofr20201057

9:35 **CBP Communications Update – Rebecca Chillrud** (CRC)
Rebecca stated there have been a few indicator updates and more are on the way such as the reducing pollution indicator. It is national moth week, and Caitlyn Johnstone did a blog about the moths in the region and the science around how they pollinate.

9:40 **2020 University of Maryland Center for Environmental Studies Chesapeake Bay Report - Card Caroline Donovan** (UMCES)
Materials: Chesapeake Bay Report Card
Caroline will provide an overview of the 2020 Chesapeake Bay Report Card which expanded its scope both geographically to include the entire watershed and conceptually to include socio-economic indicators. STAR will follow up with a discussion on how GITs can help fill the data gaps for empty report card indexes.

The report card continues to assess and grade Bay Health, and it was not a good year due to a lot of precipitation. The grade was C- for the Bay, but the trend is going up which is good news. New to the report card this year is grading the watershed health. The watershed indicators have a varying timeframe unlike the one-year timeframe for the bay health. For the indicators, they worked on aquatic indicators and a social index as well. The Total Nitrogen (N), Total

Phosphorous, and Turbidity indicator scored an overall 60 - 80%. For the Benthic community indicator, they used the samples collected from 2006 – 2011 because the next iteration (2012 – 2017) is still being analyzed. The scores varied throughout the reporting regions.

The Social Index uses data about social vulnerability from the Center for Disease Control and Prevention (CDC) collected within the American Community Survey. Social vulnerability is defined by the CDC as a measure of how able a community is to respond and bounce back from hazardous events such as a natural disaster, tornado, or disease outbreak. The report card scores regions that are more vulnerable according to the CDC as less healthy, and regions that are less vulnerable as more healthy. According to the CDC, a social vulnerability index score of 1 is the highest vulnerability a census tract can have. This would translate to a score of zero in the report card.

The following indicators need to be approved on and hopefully included in the next report card: Stewardship index, protected lands, fishing (recreation), fish (aquatic), economic indicators, diversity, soil health, and forest health. The Stewardship indicator data comes from the 2017 Baseline Citizen Stewardship Indicator survey from the categories behaviorism, volunteerism, and civic engagement. They are considering to use the same stewardship index but adjusting the scale so that scores are more reasonable based on what people could actually achieve and combine it with the likelihood responses. The Protected lands data comes from Chesapeake Progress, but the data is not divided up based on the report card reporting regions, so they are trying to figure out how to divide it up among the watershed. For Recreation, they have data for hunting and fishing licenses but only at the state-wide level so the calculation can only be done at the watershed level. Soil Health, fish, diversity, and forest health are at the beginning stage, and they are still exploring different data options.

Economic Indicators are going to be a large part of their work load this year, and they are working with CouncilFire, LLC, experts in the field. They are hoping to have a workshop in 2020 to do the same process they did with other indicators. They would love suggestions on participants for this workshop and working group so please contact them if interested or know someone who should be on the list. They are hoping the indicators will focus on the local community.

Bruce Vogt asked if there were any climate factors in the social index. Bill said no, but there they are considering climate. It might not be a separate climate indicator, but they are looking to incorporate it into the social index. There used to be climate indicators, but they were Bay focused not watershed. Julie Reichert-Nguyen mentioned The Climate Resiliency Workgroup (CRWG) is

developing a scorecard for tracking climate resilience in watershed communities, and they are in the early stages of this project. They are already collaborating with Katie May (IAN) who is working on the MD DNR Adaptation Report Card. The CRWG also got accepted for the Chesapeake Watershed Forum to have a session on different scorecards throughout the watershed. Bruce Vogt likes the idea of using climate as a layer with the social index. He suggested to look at this link: https://coastalscience.noaa.gov/data_reports/a-coastal-community-vulnerability-assessment-for-the-choptank-habitat-focus-area/

Denice Wardrop asked given the heightened interest in recreational access during the pandemic, would it be worth reporting on stewardship on a preliminary basis? Caroline responded the recreational access is a different indicator than the stewardship index so it is different data. Talking about the use of recreational access during the pandemic would be a great story and would be important for the overall message. Denice commented that maybe there is a way to use it as an opportunity on how to improve it. Bruce Michael stated DNR's State Park activity has doubled compared to previous years since the onset of the pandemic.

James Martin stated Virginia has developed a tool to target land conservation work in the Commonwealth. ConserveVirginia - https://www.dcr.virginia.gov/conservevirginia/ It may be supplemental to the CBP most valued lands. Kristin Saunders responded they are being very intentional about the analysis given VA's conservation layers and mindful of how to incorporate it.

Scott Phillips asked if the fisheries indicator considered health or focus on species diversity? They are going to attempt to calculate a species diversity index by reporting region, such as the Simpson's Diversity Index or Shannon Weiner Diversity Index, but they are open to understanding different ways fish are looked at in the watershed. Bruce Vogt said he would be interested in talking with IAN about fish indicators. NCBO is working with the northeast fisheries science center on the state of the ecosystem report and trying to better represent the Bay. Ideally, they could collaborate to meet both products. The state of the ecosystem does not score but does illustrate status and trends. Scott Phillips also mentioned about the recent effort to look at factors affecting changes in freshwater fish populations: https://www.usgs.gov/centers/cba/science/changing-freshwater-flows-affect-fish-populations-potomac-river?qt-science_center_objects=0#qt-science_center_objects

Peter Tango commented the fish diversity considerations may benefit from identifying native:nonnative proportions supporting integrity of watershed

conditions. Also, diversity is related in a bell-shaped manner to productivity of the system so there needs to be some standardization (e.g., Headwaters streams have naturally low diversity even with high integrity, it is natural. We do not want to penalize low diversity for example when it is a natural condition.)

Sally Claggett is glad to see Forest Health indicator will be included. She also suggested including other natural lands. Caroline said the idea is to cover forest lands, natural lands, agricultural lands, and urban lands. They just need the data to showcase these other lands and are open to discussion on where to find it. The soil health index is trying to get across those agricultural lands. The growth index is centered around urban landscapes, but they need help and expertise. Sally Claggett said she is happy to chat more about forest health. They can look at land use history, fragmentation, stream health under canopy, resilience/diversity, etc.

Loretta Collins said the soil health is definitely in the Agriculture Workgroup (AgWG) arena. That group has yet to figure out how to address soil health for many reasons (including the limitations of the model). This potential indicator may be a good mechanism for that. James Martin said soil health may be a good climate related indicator as soil health relates both to resilience (drought and heavy rainfall) and mitigation (carbon sequestration).

Tuana Phillips said she is happy to talk about the DEIJ Strategy and diversity indicators at some point. Sky Swanson recently joined the Diversity Workgroup, but they have not had the chance to talk to him yet. Also, the Bay Journal just released this article which is extremely thorough and explains the current status of diversity and DEIJ efforts in Bay organizations: https://www.bayjournal.com/news/people/chesapeake-restoration-under-scrutiny-for-lack-of-diversity/article_4054be30-cab1-11ea-906c-370e2458b13a.html

Bill said they could set up small workgroups or teams that are targeted to coming up with recommendations. CBP employees could provide a lot of input on directions for these indicators but wouldn't need to commit to staying on the team for the total duration of creating the indicator.

A link to the IAN report cards: https://ecoreportcard.org/report-cards/chesapeake-bay/

10:20 – 12:30 SRS Topic: Dry Runs of Clean Water Cohort Presentations

Materials: Forest Buffers SRS Dry Run Presentation, Toxic Contaminants Policy and Prevention SRS Dry Run Presentation, Toxic Contaminants Research SRS Dry Run Presentation, Water Quality Standards Attainment and Monitoring SRS Dry

Run Presentation, 2017 and 2025 Watershed Implementation Plans SRS Dry Run Presentation
There are 5 CBP outcomes, organized under the Clean Water Cohort, that will be reviewed by the Management Board (MB) on August 13, 2020. The dry run for STAR provides an opportunity for each outcome to provide their MB presentation and get suggestions for improvements. The presentations should follow the guidelines provided under the Strategy Review System and on Chesapeake Decisions.

10:20 **Forest Buffers – Sally Claggett** (USFS) **& Katherine Brownson** (USFS)

Outcome: *Restore 900 miles per year of riparian forest buffer (RFB)* and conserve existing buffers until at least 70 percent of riparian areas throughout the watershed are forested.

This outcome is way off track, but there are new opportunities in the future that may help including favorable language for the Conservation Reserve Enhancement Program (CREP) in the Farm Bill. A challenge includes needing technical assistance that goes beyond USDA support. They also need better data for geographic and demographic targeting and better programmatic coordination and prioritization with jurisdictions.

The goal of riparian buffers is 900 miles per year, but since 2002, what is needed to be planted in the watershed has gotten bigger and bigger. Last fall, the Forestry Workgroup received the WIP3 goals and the cumulative target jumped to 1719 miles per year from 2019 – 2025. The systems are not in place and the priority is not set to reach this goal within the watershed. For the expected and actual progress of their outcome, they are failing to reach their number of buffers. Negative progress is resulting from lack of verification. It is difficult to see because of the WIP3 goals throw off the scale, but as an example, between 2018 and 2019 Progress, they lost 8,640 acres of buffers in the model. Most of this probably doesn't represent an actual loss of buffers, but to the degree they are using CAST to evaluate progress, the verification issue isn't minor. They then discussed the value of riparian forest buffers which includes nutrient uptake, fish and wildlife habitat, canopy and shade, and more.

Some scientific, fiscal, and policy-related developments that will influence their work includes accessibility of public/private financing, climate change, COVID – 19 budget, and new provisions in the 2018 Farm Bill. They have made progress on CREP provisions in new Farm Bill, but how these provisions are ultimately interpreted will impact how the Farm Bill is enacted on the ground.

Meeting the buffer goals cannot be met by the Forestry Workgroup alone so they plan to work with other goal teams and CBP leadership to elevate and integrate forest buffers with other projects. Another big project is to develop and implement the Natural Filters Restoration Program to explore opportunities for public/private finance and provide stability needed to grow buffer workforce.

The help needed from the MB include:

- Support the new Natural Filters Restoration Program
    - Identify public funding that could be leveraged (e.g. SRF, 319)
    - Dedicate a staff person to help develop the Program and stay engaged

- Fully use existing programs to prioritize buffers
    - Identify 1-2 landowner assistance programs that could include or require buffers, amend the program, and pilot the improved program
    - Technical Assistance adjustments

- Water Quality Goal Implementation Team (WQGIT) will conduct gap analysis of current state buffer implementation trends and water quality implications and report out to MB

Comments from STAR:

Dave mentioned to touch on the new Forest Strategy because it is a topic of the EC meeting which is coming up soon. He was interested in the natural filter program. He suggests reaching out to two other organizations working on similar projects: Chesapeake Bay Trust (CBT) and Chesapeake Conservancy. He recommends talking to them before August 13th to make sure they are not duplicating efforts.

Scott suggested moving the slide about the value of riparian forest buffers to the front.

James stated the outcome includes 2 parts: 900ac/yr and 70% buffered. He asked if there has been any work to look at areas that meet the 70% because there is not much in the presentation referencing this part of the outcome. Sally commented that they should reference this, but it is a little conflicting because it is a minimum goal. When there is a minimum as a goal, it does not work. They are going to update the data when they get the new stream data.

Jeremy Hanson asked if the 70% is based on area within certain distance alongside streams (like 100 ft)? He is curious if/how that's defined for the outcome. Sally said it hasn't been specifically defined although she thinks they

need acres outside 100' width to reach WIP goals. When they get the new data, they will probably look at both the 300' and 100' widths. James stated if they use anything wider than 35' much of the RFB implementation may not count as "buffered." Sally stated all buffers 35' and greater still count as buffered, but they will not contribute as much to the 70% total. Loretta commented she is on the same page as James. Many buffers on agricultural land are less than 100'. She asked if they are counted. Jeremy said using the imagery to evaluate the 70% part of the outcome will be interesting to compare to the reported progress for the 900 miles/year part. They will have to sort out the rules thru WQGIT for the 70% minimum which makes it more complicated.

10:45 **Toxics Contaminants Policy and Prevention – Greg Allen (**EPA)

Outcome: Continually improve practices and controls that reduce and prevent the effects of toxic contaminants below levels that harm aquatic systems and humans. Build on existing programs to reduce the amount and effects of PCBs in the Bay and watershed. Use research findings to evaluate the implementation of additional policies, programs and practices for other contaminants that need to be further reduced or eliminated.

In the state of MD, there are at least 24 species of fish that have some level of fish consumption advisory associated with them across 172 different water bodies. In the James River basin alone in VA, there are 22 different species with fish consumption advisory, and in the Potomac River in VA there are 12 different species with fish consumption advisory. Most of those advisories are on PCB contamination so every day across the watershed people are eating fish contaminated with a carcinogen.

A success for this outcome includes the PCB story map which shows the widespread impairments and active Total Maximum Daily Loads (TMDLs) programs in the jurisdictions. It shows how some areas listed as impaired for PCBs have no TMDLs active or planned. Leveraging Clean Water Act TMDLs remains their major strategic approach. They also had a GIT Funding project that reported on the feasibility of reducing the number of PCBs in service across the watershed. It concluded that a greater mass of it exists in fluorescent light ballasts (FLBs) than in electrical transformers. This allowed the shift of focus to remove FLBs in schools in collaboration with the sustainable school's outcome. Challenges include implementation of management actions under established TMDLs and each jurisdiction follows unique paths in designing and implementing PCB TMDLS including modeling tools.

On the horizon, there is a settlement of a class-action lawsuit against Bayer (Monsanto) Corp. Some of the settlement funds will be directed to localities in the Chesapeake Bay watershed including Baltimore Back River and DC

Potomac/Anacostia. The question is how can the CBP partnership leverage the funds and help to ensure that the PCB remediation activities are efficient and informed by the partnership's agencies.

Based on what the Toxics Contaminants Workgroup learned from the last cycle, they do not envision adding new major element. They plan to work within the existing management approaches.

The help needed from the MB include:

- Allocate more staff and financial resources to move PCB TMDLs forward
- Use existing permit controls (MS4, wastewater) to gain more low-detection data
- Find co-benefits N/P/S
- Consider a stronger consortium

Comments from STAR:
Dave likes the way he approached the presentation and how they are adjusting based on what they have learned. For the consortium, he suggests thinking about a due date for the MB on when they will have something. He also thinks the MB would like Greg to report out when he knows more about the settlement.

Ed Dunne suggested subscribing to lower detection levels, non-detect analysis. Scott suggested putting this as a challenge in the beginning since it is mentioned as a need later in the presentation.

Bruce stated he may have missed it but just a table or list of top priorities based on all the teams work and findings and what the consortium would do to address those would be helpful. He was not clear on what the consortium would do. In addition to health, he asked if there is a point to be made that fishery value might be improved by prevention efforts? Greg said this is a good point, and he will add it to the presentation.
Bill Dennison said the settlement information is new to most people and this will encourage and enact people to step up their activity in the region to reduce PCBs.

Olivia stated the Education Workgroup is interested in highlighting Toxic Contaminant teaching resources on Bay Backpack. Does your team know of any resources that could be appropriate to feature?

11:10 **Toxics Contaminants Research – Scott Phillips** (USGS) **& Emily Majcher** (USGS)

Outcome: Continually increase our understanding of the impacts of and mitigation options for toxic contaminants through research.

They are making fair progress, but not having a numeric outcome makes it challenging to assess progress. Within each management approach, they have some successes and challenges. Some of the successes include a mercury story map and white paper, understanding the influence of contaminants in fish in urban areas, and progress on understanding removal of contaminants in BMPs through a Scientific Technical Advisory Committee (STAC) workshop and report. Challenges for these management strategies include not having participation in the workgroup connected to state wildlife agencies and assessing co-occurrence of toxic contaminants with nutrients and sediment.

They think they have done well to further characterize the occurrence, concentrations, sources and effects of mercury, PCBs and other contaminants, but only fair progress in identifying which BMPs might provide multiple benefits of reducing nutrient and sediment pollution as well as toxic contaminants.

They will in the next two years spend more time on understanding Per- and polyfluoroalkyl substances (PFAS) status and microplastics toxicity. In the future from a policy perspective, they see topics focusing on PFAS thresholds and microplastics regulations which will be moved forward with the new Action team. Fiscally, COVID-19 will impact funding for research.

Based on what they learned in the past two years, they plan to have a GIT Funding proposal to explore approaches to include toxic contaminants in Chesapeake Bay decision tools, support the microplastics action team, and expand focus on PFAS to better understand resource impacts.

The helped need from the MB include:

- Encourage jurisdictions and federal agencies to consider toxic contaminants in N, P, sediment management actions in Phase 3 WIPs (co-benefit or negative impacts) and two-year milestones
- Mercury: input on next steps for science given management approaches
- PFAS: Commitment from jurisdictions to support a more coordinated science approach

Comments from STAR:
Dave suggested to shorten the time by not going through the 5 management action successes/challenges individually but to condense the slides and not go into as much scientific details. He also said the MB will want more detail or will want the presenter to come back to MB later to talk about the PFAS commitment.

11:35 **Water Quality Standards Attainment and Monitoring – Peter Tango** (USGS) **& Breck Sullivan** (CRC)

Outcome: Continually improve the capacity to monitor and assess the effects of management actions being undertaken to implement the Bay TMDL and improve water quality. Use the monitoring results to report annually to the public on progress made in attaining established Bay water-quality standards and trends in reducing nutrients and sediment in the watershed.

There is fair progress with this outcome, but if some of the current methods don't change the monitoring program will lose capacity to assess and report water quality trends and water quality standards attainment.

Some of the success over the two years include new tools for analyzing monitoring data, communicating water quality trends and water quality standards attainment, development of the CBP's Strategic Science and Research Framework, and Maturation of the Chesapeake Monitoring Cooperative (CMC). There still needs to more explanation of water quality changes and their relationship to nutrient and sediment reduction efforts and improved analyses needed to assess water quality standards. While the CMC did expand, more engagement is needed between jurisdictions and CMC to support citizen science data.

The monitoring capacity of the outcome is at a fair progress because data collections remain marginal for Bay criteria assessment, adequate for the watershed loads, and capacity is highly stressed and declining. The Analysis of this outcome is progressing well because there are annual updates provided for estimates of water quality standards attainment and water quality trends and increased analysis supported the Mid-Point Assessment. The communication part of the outcome is also progressing well due to numerous publications, the creation of the Chesapeake Bay Watershed Data Dashboard and Chesapeake Progress for the water quality standards attainment indicator, and multiple visualizations and reports of the non-tidal and tidal trends.

Some fiscal developments that will influence the work over the next two years are fixed and reduced funding levels in conjunction with rising living and business costs and a global pandemic. It all will impact monitoring capacity. Fewer data are available to inform bay and watershed analyses leading to greater uncertainty toward evaluations of attainment of water quality standards. Less ability to detect changes in water quality response to nutrient reduction efforts results in greater management investments. For policy, there needs to be a discussion on changing EPA policy for allowable matching funds and a stronger connection between the use of monitoring results to inform implementation

practices for the Bay TMDL. Practices to restore the Chesapeake Bay are to be in place by 2025 so the message in the coming years needs to recognize that standards are not coincidentally attained. Science will focus on assessing water quality standards attainment and water quality trends with new data streams, updated interpretation, and interpolation approaches and defining linkages between living resources condition and water quality standards attainment.

Based on what they learned, they plan to work with financial professionals to explore options for financing monitoring and use new data streams from already funded programs on citizen science and other nontraditional partners. The policy front will work on engaging a larger breadth of science provider partners for meeting science needs and increase jurisdiction use of results in 2-year milestones. They will present explanation of the water quality standard attainment indicator and factors affecting water quality to more audiences to help them understand all the different aspects that go into it. To achieve this outcome, they will adopt new, freely available, data streams from satellite imagery and pursue technical analysis of additional water quality criteria.

The help needed from the MB include:

- Monitoring Support
    - Commit to assessing how their state, agency or institution uses matching funds to improve capacity in the program
    - MB should request WQGIT and Scientific, Technical Assessment and Reporting (STAR) team to formally incorporate available citizen science data from the CMC database into water quality standards attainment assessments
    - MB should request STAC and STAR to work with the Bay science and management community to commit to adopting nontraditional monitoring sources and technologies
- Jurisdictional Support
    - Commit to providing a list of essential jurisdictional participants for the Criteria Assessment Protocol Workgroup
    - Work with jurisdictions on making their technical staff available to help improve use of monitoring results to inform 2 – year milestones

Comments from STAR:
Dave doesn't really understand what the MB can contribute to the following ask, "MB should request WQGIT and STAR to formally incorporate available Citizen Science data from the CMC database into water quality standards attainment assessments." He also said to be prepared with details or to come back to the

MB to provide details on the type of participants they should provide for the Criteria Protocol Workgroup.

Bruce shared the June hypoxia monitoring results which are available at the following link: https://news.maryland.gov/dnr/2020/07/13/june-2020-hypoxia-report/ . June results indicate it was much below the long-term average hypoxia. The first July cruise also shows about average hypoxia compared to previous July cruises. These results confirm the 2020 Bay hypoxia forecast of slightly less hypoxia based on the January - May nutrient loads.

Denice liked the statement about the consequences of having fewer data available to inform bay and watershed analyses. Others agree and think the presentation should stress more about the consequences of not maintaining monitoring support.

Scott thinks the presentation is text heavy and should include more graphs/pictures.

Bill stated that the presentation shows the of decline for data, but he thinks the presentation should show how they have made an effort over the last two years to do more synthetic monitoring through SAV, STAC, and other systems to better utilize the data available. He agrees with the indication that in the time needed to get feedback on return of investment from our management actions, the monitoring programs are being compromised and paired down to the point of marginal at best.

12:00 **2017 – 2025 Watershed Implementation Plans – Lucinda Power** (EPA)**, James Martin** (VA DEQ)**, & Ed Dunne** (DOEE)

Outcome: By 2025, have all practices and controls installed to achieve the Bay's dissolved oxygen, water clarity/submerged aquatic vegetation and chlorophyll a standards as articulated in the Chesapeake Bay TMDL document.

For this outcome, many actions are either progressing nicely or have been completed. However, challenges remain with implementation and now COVID-19 presents uncertainty to future implementation efforts. A success though from their past two years includes a significant amount of technical and modeling analyses completed to support planning and implementation efforts.

For this outcome's progress, they are on target to achieve sediment targets, but further implementation is needed to achieve nitrogen and phosphorus targets by 2025. To reach their goal, they will need to address climate change and the Conowingo Dam effects on total nutrients into the Bay and understand the role of behavioral change in their implementation efforts. In the future, they would

like to incorporate DEIJ into their work and address BMP verification issues and concerns.

Based on what they learned, they plan to prioritize and narrow their list of actions for the 2020-2021 logic and action plan. They also want to work more closely across the GITs and workgroups to leverage resources and create innovative solutions and opportunities.

The help they need from the MB includes:

- Assistance with prioritizing list of actions for 2020-2021 logic and action plan
- Identify specific assistance needed to accelerate implementation to meet 2025 WIP Outcome, particularly in the agricultural sector

Comments from STAR:

Dave said the MB asks are good, but he is curious where they expect the discussion to go with the assistance of prioritizing actions. Do they already have a list? Ed said they will need to put more details into these asks. Dave said they don't need the list ready for August, but to be ready to talk about forming a list for the MB to review.

Kristin said this reminded her of the conversations that occurred about a year ago for updating the milestones and expectations around them. There was information collected from each jurisdiction on decision support tools or actions the partnership could take to meet the milestones and accelerate the implementation. This could be a starting place for the prioritization discussion.

Scott asked if there are some actions they could put in front of the MB and do a quick mentimeter exercise with them for some prioritization on Aug 13th.

Carin thinks the second MB ask is intriguing. She suggested to think about how the WQGIT would like to receive answers from the MB because she doesn't think they are going to be able to answer this ask at the August meeting.

Scott said they should connect with the Riparian Forest Buffer presentation. Scott suggested putting the WIP and RFB outcome presentations next to each other in the August meeting. Sally thinks it's helpful to make suggestions about priority workplan actions to the MB referring to RFB and also to lead them to ideas about specific assistance.

Scott asked if there was a graph/pic on the top 5 practices that are in the WIPs for agriculture and the current progress on those practices. Olivia said they did look at the BMP effectiveness.
https://cast.chesapeakebay.net/Documentation/wipbmpcharts

Olivia stated they also prepared graphs of BMP trends over time. Those are available here: https://cast.chesapeakebay.net/TrendsOverTime/BMPs

Carin said it will be hard for the MB to prioritize actions with no criteria so she suggested to come up with some criteria on how they should approach this ask.

12:30 Adjourn

Next Meeting Dates: August 27, 2020

Participants: Breck Sullivan, Cuiyin Wu, Julie Reichert – Nguyen, Amanda Doremus, Amy Handen, Annabelle Harvey, Anthony Johnson, Brooke Goggins, Bruce Michael, Bruce Vogt, Caroline Donovan, Sally Claggett, Denice W.., Doug Austin, Shalom Fadullon, Francesca King, Greg Allen, Greg Barranco, Isabel Layton, James Martin, Jennifer Starr, Jeremy Hanson, John Wolf, Julianna Greenberg, Katherine Brownson, Katheryn Barnhart, Kristin Saunders, Laura Cattell Noll, Liz Chudoba, Loretta Collins, Chantal Madray, Mandy Bromilow, Lee McDonnell, Meg Cole, Nora Jackson, Megan Ossmann, Qian Zhang, Rebecca Chillrud, Scott Phillips, Peter Tango, Tom Parham, Tuana Phillips, Vanessa Van Note, Whitney Ashead, William Dennison, Bo Williams, Olivia Wisner, Gina Hunt