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

Thursday, October 22, 2020
9:30 AM – 12:30 PM

Join by Webinar
Meeting Number: 120 164 2295 Password: **2PUi57DmPad**
Webinar*:
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Meeting Materials:
https://www.chesapeakebay.net/what/event/scientific_technical_assessment_and_reporting_star_team_meeting_october_202

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

Action Items:

✓ Greg Noe will present at STAR on the USGS sediment synthesis.

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-

- Chesapeake Watershed Forum, October 29 - October 30, 2020. Virtual.
- CitiesAlive Conference, November 15-18, 2020. Virtual.
- Behavior, Energy and Climate Change Conference, December 7 - 10, 2020, Washington, D.C. Virtual.
- American Geophysical Union Fall Meeting, December 7 - 11, 2020.
- Sustainable Agriculture Conference, February 3-6, 2021. Lancaster, PA. Virtual.
- CERF, November 7 – 11, 2021. Richmond, VA. Call for Session by October 21, 2020.
- A Community on Ecosystem Services (ACES), December 13 - 16, 2021. Bonita Springs, FL.

Bruce Michael gave an updated the hypoxia report for the summer. MDDNR and VIMS are working with the Chesapeake Bay Program (CBP) to develop a press release on the monitoring. They had the second least amount of hypoxia this summer on record, and only one cruise had above average hypoxia.

Scott Phillips announced USGS has completed the flow to the Bay for water year 2020. It was the first normal year in over two years because previous years was high above average.

Scott Phillips also announced that USGS put together a sediment synthesis. It covers sediment sources all the way from the headwaters to the estuary. Scott suggested having Greg Noe present this information to STAR. Here is a link to the synthesis and associated presentation.

Julie Reichert Nguyen gave an announcement about the Chesapeake Watershed Forum. The theme this year is Climate Resilience. Multiple CBP employees are presenting at this Forum. Julie will be presenting on resilient scorecards.

9:35 **CBP Communications Update – Jake Solyst** (Alliance for the Chesapeake Bay)
They are publishing an article about Pfas and how it is being tracked in the Bay which is written by Hilary Swartwood. They are also publishing a press release on the 2020 Summer Hypoxia. This month they also started working with a contract to update their website and make it more useful for external and internal users. In November, there are not many science heavy articles, but they are also always looking for articles to write especially if it can be traced back to a Goal Implementation Team (GIT).

Peter Tango commented the Chesapeake Monitoring Cooperative completed a Hack-a-thon which consisted of using the citizen monitoring data in conjunction with other data. There were hundreds of people involved around the world to look at gap analysis, developing scorecards, and more. Here is link to an overview of the crowd-sourcing event. There will be a presentation on this event at the November or December STAR meeting.

Scott Phillips mentioned The November 4th Toxic Contaminants Workgroup meeting has multiple presentations on the effects of toxics such as Pfas on shellfish.

9:45 **Hypoxia GIT Funding – Peter Tango**
Peter will provide more detail on the Hypoxia GIT Funding Project by showing preliminary results from the deployed vertical profile and discuss the needed protocol updates on analysis and reporting with new technology tools.

The long-term water quality monitoring program has been active since the 1980s to help understand the status of the Bay and assess annual and seasonal trends. Overtime, there has been interest incorporating new technologies to improve assessments, so a GIT Funded project was awarded to pilot a vertical profile to track hypoxia. Currently results are gathered once or twice a month, but new technologies can provide more data. There was study done that found estimating annual hypoxic volume for the Chesapeake Bay can be done with as few as 2 real time vertical profile stations in the open Bay. As a result, the GIT Funded Project as a proof of concept in testing a portable sensor array. It collects data at 10-minute intervals and sent through a cable. It is located at the mouth of the Choptank River. The first deployment was in June, and there has been a second deployment in September. The first output from the array looked at different depths at 10-minute intervals for over three weeks. With this type of technology, the monthly mean of dissolved oxygen is no longer estimated from two sample collections a month but known at real time.

Peter showed results from the June and September deployments. June showed a lot of low dissolved oxygen causing hypoxia, but in September with the turnover, there was a breakdown and the dissolved oxygen increased. This profile also looks at how the dissolved oxygen is related to temperature and salinity, collecting data all at the same depths and time.

This tool shows how to acquire the data needed throughout the water column in open Bay habitat. It helps advance our accounting of bay conditions relative to short and long duration dissolved oxygen criteria. Peter is talking to the Management Board and the Criteria Assessment Protocol Workgroup on how to expand the use of this technology and use it for resource and assessment gaps.

Sean Corson is glad a workgroup is looking into how to make this project operational. He encourages the group to consider looking at other available technology that may have more field testing behind it. For example, Sean was in contact with a company in New Zealand that has a similar technology that has been tested in the field more.

Sean Corson also highlighted Peter's comment on the use of continuous data. He would like to talk more with Peter about his indication to begin a discussion on the way the CBP can adjust from using the monthly samples. He is not sure if it is a part of this hypoxia project to discuss creating and updating a monitoring network in the Bay for this continuous data, but it is another area NOAA would be interested in discussing further.

Scott Phillips mentioned that the points Sean brought up will be incorporated into the updated Water Quality Standards Attainment and Monitoring Outcome Logic & Action Plan.

10:10 **Water Quality Standards Attainment and Monitoring Outcome Update – Peter Tango, Scott Phillips, & Breck Sullivan**

They will provide an update to STAR on the Management Strategy and Logic & Action Plan for the WQSAM Outcome.

In August, this outcome presented at the Management Board Quarterly Progress Meeting. This outcome is connected with the 2025 WIP Outcome so STAR and Water Quality Goal Implementation Team (WQGIT) leaders decided to keep the management strategy as one document and for the outcomes to have separate Logic & Action Plans. The monitoring team has been working on stating the factors that influence the success of the outcome and covering the entire process from monitoring, quality assurance, analyzing the data, and providing results for implications. The major approaches to address the factors include conducting monitoring of tidal and non-tidal water quality, and produce quality data, assess and report changes in nutrients and sediment in the Bay watershed, water quality trends in tidal waters, and attainment of water quality standards, and finally analyze and explain the factors affecting water quality response, including relation to nutrient and reduction efforts.

Bill Dennison agreed with this approach and thinks this document is a good way to strategize future work.

Julie commented on the "analyze and explain the factors" approach and asked if the Monitoring Team is working with the Modeling Team on this effort especially with the climate change model projections. Scott said yes, they are meeting with the Modeling Team to get their input on the Logic & Action Plan. Scott would like Julie's feedback on this document once they have met with the Modeling Team.

Scott Phillips also highlight that even though this outcome is centered around water quality, there will be a factor about capturing co-benefits between water quality and natural resources. Bruce Vogt said he would be happy to work with the team on the language and action items. Scott said that it would need to be a joint approach with other groups due to capacity issues.

Julianna mentioned the co-benefit factor could easily connect with the Stream Health Metrics.

Bill Jenkins and Chris Guy mentioned they are happy to help the Monitoring Team to enhance the use of co-benefits.

10:20 – 12:30 **SRS Topic: Dry Runs of Climate Change and Resiliency Cohort Presentations**

Materials: Black Duck SRS Dry Run Presentation, Wetlands SRS Dry Run Presentation, Climate Monitoring and Assessment and Climate Adaptation SRS Dry Run Presentation
There are 4 CBP outcomes, organized under the Climate Change and Resiliency Cohort, that will be reviewed by the Management Board (MB) on November 12, 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 available on Chesapeake Decisions.

10:20 **Black Duck – Ben Lewis** (VA Department of Wildlife Resources)

Management Board Asks:

- Support and coordination in tracking the acres of restored wetlands (both tidal and non-tidal habitat)
- Reaching out to partners individually to collect the last 5 years of wetland restoration data has had little success
- Management Board could help coordinate this data collection by instituting a formal data call or by encouraging the partners in their respective jurisdictions to provide their restoration numbers each year

Discussion:
Dave Goshorn asked for clarification that the need is less collecting the data but accessing the data that is collected. Ben Lewis said no, it is the collecting of the data. Carin said this issue will be coming up in the Wetland Outcome Presentation so this will be a cohort with outcomes asking for similar things. Scott Phillips commented since it is one of the biggest challenges, he suggested to add a slide that gives more detail on the issues behind trying to collect the data. Chris Guy suggested adding the slide Pam Mason has in her presentation since black duck habitat is a subset of wetland habitat.

Scott Phillips asked if the workgroup is concerned about the impact of climate change on the amount of habitat. Ben stated it is being incorporated in the Decision Support Tool, and he thinks the new NWI layer will help incorporate it too. Scott Phillips suggests putting a sub bullet about addressing climate change in their “on the horizon” slide.

Kathy Boomer asked if the Nature Conservancy work is integrated with this outcome. Ben said yes.

10:45 **Wetlands – Pam Mason** (VIMS)

Management Board Asks:

- Directed collaboration among the state agencies (reg and non-reg) on wetland data. If there is an annual data call, then there needs to be more support and collaboration to ensure accuracy.

Discussion:
Carin Bisland commented the goal of 83,000 acres for agriculture is an informal goal. She stated it should be 85,000 acres.

Dave Goshorn asked if the Water Monitoring Collaborative could help with their challenge on data collection. Pam stated that what she knows about the Collaborative is that they are mainly focused on water quality. The workgroup is not struggling with status and trends but on project creation and tracking. Pam emphasized that the only wetlands being tacked are those that are considered BMPs, and they are being tracked because they are BMPs and not because they are wetlands. She is going to modify her slide to highlight this point.

Bill Dennison said it would be beneficial to have one slide on the value of wetlands. Carin Bisland agrees with this and thinks they should highlight how it helps jurisdictions with their Watershed Implementation Plans (WIPs) and reaching water quality standards.

Sean Corson asked if the goal of 85,000 acres connected to the commitments jurisdictions have made with their WIPs. Pam said yes, it is the numbers added from WIPs I. Sean said if there are commitments that are not believed to be met, this is an issue beyond the Logic & Action Plan. The Management Board needs to consider why they think the 2025 TMDLs are going to be met if there is no indication that the jurisdictions are going to put the measures in place. He will bring this issue up at the Management Board.

Bruce Vogt mentioned he thinks this outcome is not able to get advantage of the work of other outcomes and integrating co-benefits due to the way the outcome is written. Carin Bisland disagrees with this statement because it was placed in the Habitat Goal section of the agreement so that it wouldn't focus solely on water quality. Scott suggested adding a bullet on co-benefits for their "on their horizon" slide.

11:10 **Climate Monitoring and Assessment and Climate Adaptation – Mark Bennett** (USGS)

Management Board Asks:
- Indicator guidance – identify utility behind indicators being selected
- Establish long-term funding for research agenda to improve understand of BMP performance under changing climate conditions – BMP uncertainties affect achievement of desired outcomes

- Engage managers and other CBP partners for us of Bay – Wide Climate Resilience Scorecard – provide a list of potential stakeholders
- Provide additional staff resources to support Climate Resiliency Workgroup (CRWG full-time staffer, technical analyst)

Discussion:
Dave Goshorn said for the second Management Board ask to be prepared to give suggestions on where to find this money and maybe have them provide letters of support for grants. Mark Bennett commented he understands that the Management Board doesn't really control funding, but this was a charge from the PSC for the Climate Resiliency Workgroup, so it is their job to help find those resources. Scott Phillips suggested to add a bullet to the ask that is for addressing the PSC request. He also said it might need to be rewritten into the Management Board agreeing to a finance plan.

12:00 Coordinator/Staffer Meeting

12:30 Adjourn

Next Meeting Dates: Joint STAR & C/S Meeting November 19th 9:30 – 12:30 (Combined meetings due to Thanksgiving.)

Participants: Garrett Stewart, Annabelle Harvey, Ben Lewis, Bill Jenkins, Bruce Vogt, Caitlyn Johnston, Carin Bisland, Jake Solyst, Chantal Madray, Chris Guy, Cindy Johnson, Doug Austin, Dave Goshorn, Drew Budelis, Greg Barranco, Gary Shenk, Jennifer Starr, Julianna Greenberg, Julie Reichert Nguyen, Justin Shapiro, Katheryn Barnhart, Ken Hyer, Kristin Saunders, Laura Cattell Noll, Lee McDonnel, Mandy Bromilow, Pam Mason, Meg Cole, Megan Ossmann, Michelle Guck, Peter Tango, Rebecca Murphy, Scott Phillips, Sean Corson, Hilary Swartwood, Whitney Ashead, William Dennison, Kathy Boomer, Tuna Phillips, Mark Bennett