



Habitat Goal Implementation Team Fall 2020 Meeting Minutes
November 16th-17th, 2019

Megan Ossmann	Julianna Greenberg	Amy Handen	Chris Guy
Alison Santoro	Bill Jenkins	Gina Hunt	Jeff Trollinger
Whitney Ashead	Dave Goshorn	Lisa Hav	Jennifer Starr
Mary Andrews	Will Parson	Denise Clearwater	Jess Blackburn
Kristin Saunders	Becky Golden	Lou Reynolds	Clint Morgenson
Carin Bisland	Loretta Collins	Margaret Zacharias	Scott Phillips
Christine Conn	Brooke Landry	Sara Weglein	Todd Lutte
Julie Devers	Rachel Felver	Katie Ombalski	Angie Sowers
Pam Mason	Steve Faulkner	Tuana Phillips	Ivan Hernandez
Rene Thompson	Bo Williams	Bill Slattery	Carrie Decker
Sally Claggett	Wendy O'Sullivan	Kevin Du Bois	Angel Valdez
Edna Stetzar	Kevin Barnes	Martha Strauss	Michael Slattery
Mike Bednarski	Amy Bergdale	Suzanne Skelley	Peter Tango
Donna Marie Bilkovic			

Monday, November 16th (1 – 5 pm)

1:00 pm Welcome, Introductions, Expectations

Bill Jenkins (EPA) and Christine Conn (MD DNR)

- Introduction of new Habitat GIT leadership
- Mentimeter Question: “What do you hope or expect to get out of this meeting?” See results in screenshots below.

WHAT DO YOU HOPE OR EXPECT TO GET OUT OF THIS MEETING?

Identify any communications needs/opportunities

Strategies to work collaboratively across GITs

How local governments can help

Updates on Chesapeake Bay habitat issues and opportunities across state lines

Understanding of what other teams are doing and where we can WORK WITH them on shared goals

Opportunities to collaborate

To get up to speed on all the fascinating stuff the Habitat GIT is doing to help move us forward on the Watershed Agreement

strategies for how the HGIT can help workgroup membership meet their individual mission in a collaborative way that also meets Bay Program Goals

What is on Bill Jenkins' Christmas list

17

WHAT DO YOU HOPE OR EXPECT TO GET OUT OF THIS MEETING?

Science!

Program updates and opportunities to collaborate

A coup for living resources, unity in purpose, aligned to receive same support as WQ

Several priorities to share with the new Administration that need resources

What is your favorite Holiday cookie

Connect and collaborate

Meaningful information exchange on living resources

Meet folks and open opportunities for collaboration.

17

1:20 pm

Update on Social Science in the Bay Program (*Amy Handen, EPA*)

- Scott Phillips: You have a lot to do, how do you prioritize in the near term?
 - Amy: I'm presenting to workgroups and goal teams to get a sense for all your priorities. Put it back to you, what resonates with you? The goal of this presentation was to give all the options and then have more detailed discussions.
- Chris Guy: We have the science. The other part of it we don't have is marketing. I see that as what the social science can help us with. Do you agree?
 - Amy: There are similarities and differences between social science and social marketing. It's really important in social marketing to identify your audience. The presentation here is broader, but that is a component of the larger strategy
- Jess Blackburn: Is the recent target to increase people of color in the CBP also considered a social indicator? I believe this was a PSC action in 2018.
 - Amy: Yes, it is considered a social indicator. It's on the forefront of our minds and we will be working with the diversity workgroup.
- Amy: What parts of the presentation resonated you? What seemed the most like a priority? What outcomes seem the best suited for social science engagement?
 - Scott Phillips: Integrate social science into outcome implementation and building capacity for social science in the watershed
 - Brooke Landry: The SAV Workgroup is working with CBP comm. on a social marketing project for SAV...trying to get people to understand the benefits of SAV and not destroy it.
 - Amy: SAV workgroup efforts are on my radar! Thank you for sharing that update. We would love to learn about your experiences as you are engaging in this effort.
 - Renee Thompson: For Example: The Healthy Watersheds GIT is exploring integrating citizen science stream temperature data into our watershed assessment.
- Amy: How can I help you succeed? Ultimately this is what this is about.
 - Kevin DuBois: I know the Wetland Workgroup proposed a social marketing project, but these seem to get assigned lower priority over "hard science". How do we successfully pursue these projects in the future?
 - Scott Phillips: Perhaps the Habitat Goal Team could suggest which of our outcomes could use SS in the short term
 - Sally Claggett: In the next year or two, how can we help our priority BMPs succeed?

Please contact Amy with any further questions or considerations at: handen.amy@epa.gov

1:40 pm

Update on Diversity, Equity, Inclusion, and Justice (DEIJ) in the Bay Program

(Tuana Phillips, EPA/ Wendy O'Sullivan)

- Britt Slattery: How does commitment 3 (implementation of DEIJ strategy through the workgroups) line up with the 2-year action plan development? We've just completed and submitted our plans.
 - Wendy: Some of the GITs and WGs have started to add them to their workplans. What the action team will be looking at is what the road map to updating the workplans will be. Try to stay on schedule but find a way to start incorporating into the documents.
- Kristin Saunders: Take heart: even if it not in your written logic and action plan, you can still make it happen with the people you invite to the table and the places where you work!
 - Wendy: S/O to Kristin because the area with the biggest impact will be figuring out how to engage with those currently excluded from the table. Make the table bigger. Doesn't need to be in the LA plan, it should be in how we operate. GIT funding plan to look at that specific issue and ID the community partners to help achieve that
- Sally Claggett: Do the statements or Strategy address how the new social vulnerability index of IAN and how it intersects with GITs?
 - Tuana: No, they don't speak to that specifically, but IAN has come to our workgroup meeting before, so we have been talking to them about that index and incorporating additional DEIJ index in their future report cards.
- Britt Slattery: Thanks, Wendy and Kristin. ELit folks have worked some to coordinate with the Diversity workgroup, but I'm sure there's more we can do. Guidance from this strategy will be very welcome.
- Kevin Du Bois: We are trying to incorporate a diversity component in our Wetlands Workgroup GIT funding project.
 - Bill Jenkins: The Goal Team has been reaching out and trying to figure out how to make the table bigger and bring new folks into our goal team and WGs.
- Tuana: In addition to thinking about who we invite to the table, think about how restoration projects are distributed equitably. Will share a study about this.
 - The authors "found disparities in programmatic wetlands projects by race and geography." and found "Disparities in distribution of funding by socioeconomic status."
- Wendy: I will make a plug for the Environmental Justice and Equity Dashboard that John Wolf has been developing. That would be a great presentation to check out as a team.
 - Link to the dashboard:
<https://gis.chesapeakebay.net/diversity/dashboard/>

Please contact Tuana Phillips (Phillips.tuana@epa.gov) or Wendy O'Sullivan (Wendy_O'Sullivan@nps.gov) with any further questions or comments.

1:55 pm Ecosystem Services in the Bay Program (*Bo Williams, EPA*)

- Steve Faulkner: Ecosystem services covers a range of both natural and social sciences components
- Kristin Saunders: The STAC report has been released for the partnership to use. In the small team we are convening with Bo, we are trying to figure out how to take the next steps to identify where we go next. The result of the report was "it's really hard to quantify in terms of monetization for CAST" but we are not giving up.
- Kevin Du Bois: The Wetlands Workgroup is collaborating with the Communication Work Group to develop an outreach document that details all the state programs that benefit from wetland protection/restoration: Outdoor Plan, Scenic Rivers, etc, etc.
- Christine Conn: Ecosystem services are a nexus for all our other discussions about social science and DEIJ. There are a lot of social marketing aspects but also a lot of ways to use ecosystem services to look at environmental equity.
- Pam Mason: We have moved toward using the term benefits rather than ES

Please Feel free to contact Bo Williams with further comments at williams.james@epa.gov

2:15 pm Break

2:25 pm eDNA: How can workgroups use it? (*Lou Reynold and Amy Bergdale, EPA*)

- Christine: Maybe this is a topic we can talk about in more detail later, but just listening to the social science, DEIJ, financing, etc. – ES are a nexus for a lot of those topics. I have used ES science for breaking out benefits and communicating why these values are important to the people making decisions. Delivery of services for EJ communities – are they getting their fair shake? Let's think about this throughout the rest of the presentations and how these ideas work together.
- Peter Tango: Can you scale the amount of sample to watershed size, filter more water or sample longer for a greater probability of encountering a larger proportion of the diversity?
- Peter Tango: Are estuarine mussels part of this work or are the 297 species just freshwater species?

Please follow up with Lou with any other questions at reynolds.louis@epa.gov or 412-956-5508

2:45 pm BMP Tracking/Living Resource Data Analyst Request (*Chris Guy, USFWS*)

- Carin Bisland: Chris, while you are right about NEIEN and CAST focusing on water quality goals, we do have a ChesapeakeProgress website that shows our progress such as we are able to determine on all our 31 outcomes from the

Agreement. We don't have a robust tracking mechanism other than NEIEN, but we do have a way of showing what we are able to determine.

<https://www.chesapeakeprogress.com/>

- Chris: thank you Carin, that is correct. Ultimately, we want the NEIEN system to be able to accurately report the status of these goals

2:55 pm

Shoreline Marketing to Improve Shoreline Management: Project Results

(Rachel Felver, Alliance for the Chesapeake Bay)

- Pam Mason: When is the second phase supposed to start?
 - Rachel: Hopefully we will be kicking off in early 2020

3:25 pm

A Framework for Comparing Landscape-scale conservation planning models and their key characteristics *(Kevin Barnes, USFWS)*

- Christine Conn: Some of our goals are set based on what jurisdictions commit to and some are based on the habitat needs of certain species. Do you have any reflections on this or examples of other partnerships using this method to set goals?
 - Kevin: I'm not entirely sure. Goals are often set based on if you can get landowner engagement or a variety of other external factors. There are merits to lots of different ways to set goals. You're the first group to see some of the models so time will tell! I know there are more models being built for saltmarsh sparrow that are management approach focused.
 - Chris Guy: The lack of external awareness is exactly why I wanted to bring this presentation here. Look for ways to apply it throughout the watershed
- Scott Phillips: Saltmarsh sparrow has similar habitat needs to black duck. Could be some collaboration between this work and the black duck decision support tool being developed.
- Kevin: A similar approach to what we have taken.... I would almost recommend just jumping to the supplemental information section.
<https://advances.sciencemag.org/content/5/1/eaat4858> (supplemental info: <http://advances.sciencemag.org/cgi/content/full/5/1/eaat4858/DC1>)

For additional comments and questions, please contact Kevin Barnes at kevin_barnes@fws.gov

3:45 pm

Break

4:00 pm

Facilitated discussion: How does this all relate to our work? *(Christine Conn, MD DNR)*

- Christine Conn: What are our overarching social science needs or focus areas from the workgroups? Do we need to do a deeper dive?
 - Amy Handen: One thing I didn't mention is that we got GIT funding to do an assessment of the different outcomes and their applicability to social science methods. There will be resources available to help in that space.

- Kevin Du Bois: We have a GIT funded project to look at marsh migration. Don't want to give too many details. We are trying to embody the goals of the bay program and see how we can support diversity goals through our RFP process for GIT funded projects.
 - Christine: Need to think more about who we bring to the table. Could be practitioners, consultants, landowners, etc. There are lots of different ways we can explore integrating DEIJ
- Katie Ombalski: Yes, I agree a deeper dive is necessary. I do feel like adding social science into our work is very important but I'm feeling like I don't know what I don't know.
- Kristin Saunders: CRC is trying to put together a list of webinars to do monthly. Part of the idea behind it is to give partners a better idea of work in the program that might desire input. Bring more people in to the social science arena. Not sure when that topic comes up, but we will make sure that when it is scheduled, we will circulate the info.
 - Christine: That would be very helpful. It starts to become so many options. So many projects that deal with dimensions of behavior and decision-making. Any of those projects all come back to social science. I've been doing regional partnership networking about how to create a better network of communication between technical service providers. Definite value from social science.
- Bill Jenkins: One area I would like to see some focus on is assessing organizational capacity across the landscape to get projects done, increase DEIJ work, monitoring, citizen engagement, etc. Why doesn't it exist in some places? Could we focus capacity building resources in areas where it doesn't exist? (Apologies to Amy, she's heard this from me already!).
 - Christine Conn: NFWF has been working with the Chesapeake Bay Trust to dive into organizational capacity. May have started to do some legwork there. Worth following up with Jake Reilly and NFWF.
 - Bill Jenkins: It would be great to have the information available to allow us to see what we want to protect and overlay the organizations in the area that could get the job done.
 - Kevin Du Bois: I think it's rooted in environmental literacy and the lack of local champions.
- Britt Slattery: I know the emphasis on social science is intended for more community-type audiences, but I'd urge you to remember that the environmental education community and the work under the Environmental Literacy goal / workgroup can be a resource as well. What students do in schools trickles into their homes and communities. And student stewardship efforts are often aimed at engaging the larger community. AND students would eat up some of the cool tools and data applications you've all presented here today.
 - Kevin Du Bois: I developed a "Wetlands 101" class and out of that sprang one of the most accomplished wetland restoration NGOs in Hampton Roads
- Christine Conn: We are going to have working DEIJ and social science in to our workplans. What more do you need to help with that? What are your thoughts there?

- Chris Guy: What are the expectations of the co-chairs for the workgroups on DEIJ and social science as the workgroups think about their presentations tomorrow?
- Christine Conn: I think we need to explore where some commonalities are and learn from each other's ideas. We have two very powerful initiatives that are starting to get interest. If we can figure out a good approach it could set us up for some potential GIT funding projects.
- Steve Faulkner: From a BT perspective, it's a little daunting. Our approach has traditionally been to engage the BT members and see how they are working towards the outcome. We will need to have a conversation with the workgroup members. More conversation and more support will be needed.
 - Katie Ombalski: I would agree with Steve. As a biologist, these are things I'm not trained in. I'm starting to work on it with NFWF, but we still need more guidance on what we can do and what would be most effective
 - Steve Faulkner: It seems like there's a prioritization approach – some of these goals are at a very high level at the CBP or GIT, as opposed to narrowly focused within the WG itself. It's new so it's not clear how we prioritize the scaling of these kinds of activities at those different levels.
 - Chris Guy: The underlying strategy here is infusion. We want to infuse this within each of the workgroups and the GIT and workgroup overall. It's going to be difficult and require explicit intent. But that's why we brought it up today, wanted to make you aware that there is something larger at the Bay Program that we're trying to infuse. We don't expect you to be able to go back tomorrow and immediately get it done. Look back at your workplan and recognize opportunities as they arise.
 - Bill Jenkins: There's the issue of levels. How do we work overarching ideas into workgroups and actually get things done? To me a big kind of initial practical question is figuring out where to start. Being scientists, figuring out where we start a process to meet the objectives is important and it would help if we got that guidance from the experts.
 - Britt Slattery: It's challenging to dissect how what has been done, how we have operated forever, needs to change to truly bring about effective outcomes. The consultation among the groups will be very helpful.
 - Christine Conn: It's continuing to talk about it and brainstorming and pulling in new ideas that will be the most helpful to us.
 - Chris Guy: As part of this, there was a data call that went out to the various agencies to assess what different states and agencies have already been doing in terms of DEIJ. That is being analyzed right now and that will be a helpful place to start.
- Christine Conn: We talked about Ecosystem Services which touches on a bunch of subjects. Was anyone specifically inspired by how they might be able to use ES in their work? If you come up with anything, be sure to contact Bo or Bill and me. I often talk about "Nature's Benefits" as a way to talk about ES with the public.

- Chris Guy: One of my thoughts was that I wish we had reorganized the agenda to have social science and ES next to each other. Would encourage the workgroup to keep looking at what they can do and how things can be integrated in.
 - Amy Handen: I agree Chris about linkage between social science and ecosystem services.
- Peter Tango: Some of us might remember a time when the environmental field was dominated by men. It has been decades in the making, but I am looking at a lot of women in this meeting. That has been a shift from a previously white male dominated conservation field. IF that shift took 50 years or so, perhaps you have a scale of time to consider the next major shift in representation for yet greater diversity around the table, manifesting itself in incremental steps with the momentum we are building in the conversations and actions of today for a new tomorrow.
- Gina Hunt: There is a new GIT funding project about Eco services connection with local government. Doing workshops in each jurisdiction to bring science to planners. Often spoken about what local government cares about. When I was listening to presentation on ES, I was trying to piece in my mind which of these would resonate with local government. Another opportunity to get our message out.
 - Bill: I agree wholeheartedly. I think there is a lot of potential in gearing project outputs for use by local governments. The EnviroAtlas project I described is supposed to look at that.
- Scott Phillips: I can envision table showing which outcomes have different ecosystem services in common. Could start to see which ones are more important to all outcomes and which are more discreet. How much something costs is always a very important consideration. ES and the relationship between cost of conservation and restoration is something we should continue to consider.
 - Kevin DuBois: You also have to assess the cost of not doing the restoration.
- Christine Conn: Interested in using eDNA more in your work? Also heard about species specific conservation and restoration models. Any thoughts on integrating that as well?

4:55 pm
5:00 pm

Closing Remarks (*Bill Jenkins and Christine Conn*)
Adjourn

Tuesday, November 17th (9 am – 1 pm)

Julianna Greenberg	Megan Ossmann	Chris Guy	Bill Jenkins
Kristin Saunders	Denise Clearwater	Peter Tango	Dana Reiss
Alison Santoro	Julie Devers	Christine Conn	Gabe Cohee
Jennifer Starr	Dave Goshorn	Greg Golden	Katie Ombalski
Mike Bednarski	Steve Faulkner	Britt Slattery	C Moore
Lou Reynold	Brooke Landry	Pam Mason	Amy Handen
Danielle Algazi	Justin Shapiro	Scott Phillips	Will Parson
Sarah Hilderbrand	Whitney Ashead	Brooke Landry	Angie Sowers
Clint Morgeson	Sara Weglein	Edna Stetzar	Lisa Havel
Martha Strauss	Kevin Du Bois		

9:00 am Setting the Stage: Recap from Yesterday and Today's Goal

Bill Jenkins (EPA) and Christine Conn (MD DNR)

9:10 am Priorities, Plans, and Collaboration Among Workgroups

A representative from each workgroup will each have 10 minutes to share the workgroup's top 1-2 priorities, plans for achieving outcomes, obstacles that are a barrier to progress, and potential for collaboration with other workgroups and/or goal teams.

1. Fish Passage— Julie Devers, USFWS

- a. Lou Reynolds: Are any of the states implementing a culvert/road crossing survey - evaluating culverts like the way that you are describing for dams?
 - i. Steve Faulkner: Lou - there are several efforts on this front including the NA Aquatic Connectivity Collaborative <https://streamcontinuity.org/naacc>
- b. Scott Phillips: Does the fish passage WG feel the monitoring is adequate to detect return of species (alewife, blueback herring, American shad, hickory shad, etc) to rivers opened for migration?

2. Wetlands— Pam Mason, Virginia Institute of Marine Science, Denise Clearwater, Maryland Dep., of the Environment

- a. Peter Tango: What data do you have confidence in the accounting of acres? What is the likely estimate of acreage by comparison for poorly accounted for acreage? Are we comfortable with perhaps 80% of the accounting and uncertain about 20% or some other ratio?
 - i. Pam Mason: We do not have any sense of certainty. But have identified several possible data in the NEIEN that are not getting pulled out for wetlands.
- b. Peter Tango: Shoreline BMPS also affect fish forage and black duck/wetland bird habitat use for cross goal interests here.

3. Stream Health – Alison Santoro, Maryland Dept. of Natural Resources

- a. Peter Tango: Fish Habitat had a workshop for developing the Fish Habitat Management tool. NOAA and USGS produced a database of

over 400 data layers that could be factors influencing condition. That might serve as a reference for your matrix exercise.

4. **Fish Habitat** – *Gina Hunt, Maryland Dept. of Natural Resources*
 - a. Steve Faulkner: We will also have the non-tidal fish habitat assessment at 1:100K finished in 2021.
 - b. Peter Tango: Citizen Science - Bay-related efforts should be directly applicable, watershed could yield benefits with targeted requests coupled with mining existing data which will be insightful but less efficient than a targeted ask of the Citizen Science community.
 - i. Also, let's talk about the Data dashboard as a resource (Emily Trentacoste helped develop with John Wolf and others) for CBP
5. **Brook Trout**– *Steve Faulkner, USGS Leetown Science Center*
6. **Black Duck** – *Megan Ossmann, Chesapeake Research Consortium*
 - a. Denise Clearwater: I track wetland gains for MD and can provide information to the Black Duck Workgroup. Will follow up.
7. **Submerged Aquatic Vegetation** – *Brooke Landry, Maryland Dept. of Natural Resources*

10:20 am **Break**

10:30 am **How Can We Move Forward Collectively?** (*Kristin Saunders, UMCES*)

We will have a facilitated discussion focused on the challenges and opportunities shared by each of the workgroups and will brainstorm ways to better achieve our Outcomes through cross-workgroup and cross-Goal Team collaboration.

- How do you change your life patterns?
- Themes
 - Climate and climate adaptation and climate impacts
 - Diversity Equity Inclusion and Justice – we are all challenged by not having good representation
 - Lack of funding and financing strategies
 - Monitoring
 - Local engagement
 - Science gaps and implementation gaps
- Did you hear a challenge today that you can help solve or that you would like more information about?
 - Brooke Landry: Shallow water use conflicts, including potential conflicts between SAV and aquaculture and living shorelines and navigational use. Came up during management strategy review. As we make progress towards the SAV goal, some of these other things will be impacted and SAV will be impacted by these other uses. Need to find a balance so that we can all reach our goals.
 - Kevin Du Bois: I would add oyster restoration to that list of potential shallow water use conflicts

- *For a historic discussion of water use conflicts, see: The Elizabeth River: Problems, Conflicts, and Solution: https://vtechworks.lib.vt.edu/bitstream/handle/10919/55213/VWRRRC_critwati.pdf?sequence=1&isAllowed=y*
- Kristin Saunders: This is the place where most people interact with the bay AND it's the place where we lack good models. There will be an effort to do some shallow water monitoring in coming years. So much of the bay is shallow water. Overlap with other goal teams too.
- Angie Sowers: From the Corps perspective, we talk about this kind of thing when we're looking at where restoration should go. I think of shallow down to about 8ft, seen conflicts with crabbing and oysters and recreational use.
 - *Here is the link to USACE's Chesapeake Bay Comprehensive Plan webpage. There is a link to a story map on this page. <https://www.nab.usace.army.mil/Missions/Civil-Works/Chesapeake-Bay-Comprehensive-Plan/>*
- Denise Clearwater: Nation-wide permits under review – SAV loss not addressed in aquaculture. Comment period closed yesterday. Submit comments ASAP
 - Brooke Landry: SAV WG did submit comments on this
- Martha Strauss: MES could help CBP or any of the groups with online training...
- Peter Tango: ON shallow water habitat there should be reference to NMFS critical fish habitat decisions as a reference
- Scott Phillips: Trying to assess water-quality standards in shallow water is an associate challenge. Need for improved use of shallow monitoring and improve modeling
- Chris Guy: Wetlands and climate change – not capturing wetlands loss to open water in tidal areas
 - Danielle Algazi: PADCNR is working on assessing headwater wetlands and climate change impacts. WV is also concerned with that.
- Pam Mason: This is definitely something we're interested in. There are lots of relationships between beaches and SAV and they're not all adverse. If you directly place a breakwater on SAV then its an impact, but if it's a high energy system it can allow the SAV to better serve that system. Turning non-vegetated bottom turning in to beach or marsh.
- How do we represent unintended consequences in positive and negative ways?
 - Pam Mason: Trade off between habitat and natural systems
 - Denise Clearwater: It would be helpful to be able to point out that you can get more credit by considering the habitat features that exist rather than just for water quality. That doesn't exist yet, but it would be really helpful as a regulator.

- Kristin Saunders: Great suggestion. One of the things that we're hoping is that we can establish a value that can be put in to CAST for different services. So as technical folks look at different scenarios, they can consider the value of habitat.
 - Alison Santoro: Talking about bringing in ecosystem benefits at DNR to look at it as a way to harvest the value when we look at the trust funds. Trying to bring in additional benefits not covered in nutrient and sediment removal as a way to justify expanding to more habitat beneficial practices. Still coming up against different negative impacts
 - Peter Tango: For monitoring - adding to Scott's notes, our traditional monitoring program tends to be limited in our ability to assess shallow water conditions in space and time. We have had many years of presentations on improved assessment options from the research world, e.g., satellite-based assessment of temperature, water clarity, SAV. The challenge is now to endorse, adopt and use techniques available that can assess bay-wide conditions multiple times per year for seasonal level tracking. It is getting to decisions on adapting our program that can be a challenge to improving our decision support in a timely manner.
 - Alison Santoro: I've been keeping an eye on thermal imagery advances with drones.
 - Peter Tango: There are a couple of places to plug in there - considerations for an established approach to temperature monitoring and reporting with an indicator, and further, the issue of temperature has a group working on a workshop next year. STAR will have a presentation Thursday about development directions on that workshop.
- Christine Conn – Stream restoration and thermal impacts. We have these SR practices that create more ponded, open, retention areas. Get credit for storm water, but the water is being warmed up in areas where it should not be. There's a lot of work going on in stressor assessment. Excited about the SHWG GIT funded project. Denise talked about ecological uplift. Heard another comment – so many assessments, so much information, its hard to put it all together. Also need to talk about how we set goals and outcomes. Are we setting our outcomes correctly, based on ecological criteria?
- Kristin – Worth considering if we would be interested in pursuing synthesis report via STAC. Very different info from stormwater WG about the ability of stream restoration to handle larger storm events. Are we pushing ourselves to do things that don't have the best impact bc they get us the crediting?
- Scott Phillips: We have two big bins of challenges: shallow waters and streams. Each WG just went through priorities and associated obstacles. Will this discussion go back to those and try to bring them all together?

- Kristin: That's one of the goals! We can bring back our discussion to those ideas, but we want to also focus on those bins.
- Gina Hunt: One of our challenges was not having a good understanding of all the analysis. Just this convo with everyone giving a brief update was helpful, but I still don't necessarily understand how things can synthesize together. And I have no idea outside our GIT. Push in FHAT to synthesize water quality with habitat parameter. Comes down to what is everyone doing and how do we fit in?
 - Kristin: How do we know what's going on in other places so that we don't duplicate it and can work to build off it? Working on trying to collate a list of decision support tools and that alone is difficult. Need to be an ongoing effort for collaboration. Are there specific places where people get a good amount of information?
 - Scott: Gina, to get a summary of analyses being done, a start would be examining the current efforts section in each management strategy of the outcomes important of to the Habitat Goal Team
 - Peter Tango – The goal of the data dashboard is to make a lot of this info available. Not synthesize on its own, but facilitate the practice
 - Scott: Worth checking management strategies bc they're updated every two years
 - Kristin: The strategic science framework is supposed to be updated pretty regularly. Trying to make it automated to some extent. Worth taking a look at. Could be very helpful to folks who are looking for science questions to be answered.
 - Project updates for the management board every month. Little snippets of what is happening. Worth checking out and seeing what's going on that might be relevant.
 - Brooke Landry: The workplans and MStrats are all here: https://www.chesapeakebay.net/what/what_guides_us/dashboard
 - Scott Phillips: We have the science needs in the Strategic Science Framework on the STAR page of CBP Website: Actually, you can now access the table of science needs here: <https://star.chesapeakebay.net>.
- Alison Santoro – Thinking back to our discussion on DEIJ. SHWG is very focused on science and mining data and metric. I'm not sure how to go about investing in to DEIJ in our data heavy plan. One approach I would like to see tackled, is linking ES benefits & management practices start to be quantified. Push practitioners to move towards equity in a healthy environment.
 - Peter Tango: As RFPs are put forward, some of the language about where/what gets done, involved requesting evidence of DEIJ as a metrics. Show how that work can benefits disadvantaged communities
 - Kristin: New action team to make sure that the WG are diverse, making sure that our work is not done FOR them but WITH them. Paradigm

shift. Notice that when you're in a meeting if everyone is like you or if they truly represent the communities we work in. Intentional recruitment. Chesapeake Conservation Partnership is currently talking about moving from landscape scale to narrow focus in specific areas and work in new geographies. EJ Screening tools being utilized in site selection.

- Sara Weglein: Often, when we go out and do pre-restoration monitoring and it's not that bad. A lot of places are being driven by convenience. Businesses doing this are often driven by where they have permission. How do we provide incentive for business to work in the areas that really need the restoration?
 - Kristin Saunders: When we started to look at GIS and mapping, it became easier to see where to work. Real vs Perceived barriers in urban communities. It's easier to work with one large landowner vs 10 small plots. Old paradigms and perceived challenges – people are working to move past them. Move contracts to businesses that are minority-owned in that community you want to work with. Actively work with people in the communities you're trying to serve.
 - Gabe Cohee: Work with groups and communities you might not be able to. Community groups that work to improve communities. Think about what partners are already doing the work we want to see. How can we better engage them? They will know the landowners and how to approach them, so it opens a whole new partnership. Instead of creating something new and starting new relationships, we should work with other organizations who already have these community relationships but not necessarily in a restoration capacity.
- Britt Slattery: Are there any opportunities to address needs in terms of providing more information to people about water quality and fish health for subsistence fishing (people health reasons)? And tapping the science data into the different mapping efforts like the EJ Screen - as a decision support tool, to identify communities where it's important to assure that residents are aware of health concerns. If that's not happening now.
 - Peter Tango: historically, fish consumption advisories have been published in states fishing related manuals. So, as a fisherperson, for decades, there is a place to find info on fish and consumption advisories. Does that information get communicated to all communities equally, what to eat, how much, how to minimize exposure, I believe those are challenges that have had some work done (e.g. Caitlyn Johnston Anacostia Festivals showing people how to clean and cook local fish), but I can't speak to a regional program like that.
 - Scott Phillips: The Toxic Contaminant WG has been mapping fish consumption advisories. We also developed an information product for

low income areas that depend on catching local fish so they better understand treats due to contaminants. See information (and communication products) under fish consumption advisory project https://www.chesapeakebay.net/who/group/toxic_contaminants_work_group

- Brooke Landry: Regarding organization and keeping track of who's doing what: One of our "'action items" in our current workplan is to create a database of all of our member's research so that we can all refer to it, see who's doing what and what still needs to be done. On top of that, I've started a Google Drive with all our projects, reports, presentations, etc. that'll be shared with our members once it's ready. Sort of a more expansive version of my first slide earlier summarizing what we've done over the last 5 years or so. Once I get that ready, I'd be happy to share it with other leads so they can see what we're up to. Maybe this is something each group could do. Maybe other groups have already done it?
 - Britt Slattery: Thanks Brooke. I assumed there were some means / efforts. Just wanted to encourage folks to think about new ways to reach more of the affected population. We heard from a Baltimore hospital last year that they provide very specific info to neighborhood folks who fish near the hospital. They apparently don't read the advisories... Also, there are lots of language barriers, as well as issues connecting to some of the channels where we have traditionally provided info.
- Kevin Du Bois: What about including capacity-building components in funded projects? Involving minorities or underserved communities in volunteer restoration components of projects builds environmental literacy, and support for individual actions.
- Kristin Saunders: Green schools, make school grounds the place for community members to learn about the outdoors. Do projects on the ground that benefit the community
 - Britt Slattery: Even though schools are virtual now, we're still trying to make it happen! We need science experts to plug in and work with us to get the science to the schools. They're looking for content and practitioners to talk to. Real data to use. Wanted to plant the seed of integrating these opportunities
- Kristin Saunders: Let's talk about places and placed-based work
- Pam Mason: Want to mention rural communities where the \$ are all linked to land, and folks are reluctant to convert to habitats that do not produce \$ and the result in loss of property value and tax dollars. Need additional incentives there.
- Scott Phillips: Cross Benefit mapping for conservation and restoration still exist.
 - Kristin Saunders: Cross-GIT mapping layers were handed over to the Chesapeake Conservancy. Being used for several things. Finally, all using

the same data and information. Can give you a sense of where other people are working in the watershed.

- Scott Phillips: conservation based on selected outcomes prioritized by the GITs. Being updated by the Chesapeake Conservancy as Kristin shared. Here is background on cross-goal team mapping https://www.chesapeakebay.net/channel_files/24906/cross_git_collaboration_mapping_project_2017_update_jan_18.pdf
- Katie Ombalski: would be interesting to see where these priority restoration areas overlap with EJ areas.
 - Kristin: Will try and get that back at to you!
 - Britt Slattery: I love the suggestion about overlaying priority restoration areas w/ EJ - thought that was happening. AND we'd use that to help identify where to focus funding priorities (for education and other goals).
- Kevin Du Bois: Farmers get subsidies for a variety of activities. Can we subsidize farmers to grow a "crop of wetlands" to meet our goals with the money coming from a locality/State as part of their TMDL goals? This appeals to a farmer's sense of pride in maintaining productivity that benefits the public. It's just a paradigm shift from food commodities to water quality/habitat commodities.
- Kristin: What things are we thinking about?
- Bill Jenkins: Love the idea of looking at management strategies and figuring out where there is potential for collaboration. Love the idea at looking at spatial data analysis products through the lens of synthesis. Maybe looking at management strategies would raise ideas for STAC workshops that could fill in the gaps about what is available. Work with DEIJ action team. Where can we start to think about how to incorporate DEIJ into the work that we're doing.
- Martha Strauss: interactive online mapping tool that prioritizes areas for preservation and restoration of wetlands, riparian zones, terrestrial areas, and stormwater management control across an entire state - <https://watershedresourcesregistry.org/>
- Peter Tango: Citizen Science and SV monitoring program. If there is a need for a particular item to fulfill outcome needs, we can help to develop that into a targeted request to fill in data gaps. Look for opportunities for crowd sourced data and work to put it forward as a specific request
- Steve Faulkner: I can envision looking at the FP culvert analysis with BT and climate change. A "easy" opportunity to collaborate and coordinate information to meet all those goals. Breakout session at the next HGIT meeting? There are generally not other coordinated efforts to bring everyone together at a specific time.
- Kristin: HGIT meets twice a year, but there's nothing that says you can't carve out time for more working sessions. Encourage chairs to look back at these ideas and figure out which ideas have some good energy behind them and set up additional sessions to encourage collaboration. There's also a bunch of other

Goal Teams that are doing really great work too! I will continue to look for opportunities to encourage this too.

- Martha Strauss – I see a lot of groups that have restoration needs but they can't find funding. Would be great if there was a tool where people who need restoration done could list what they need, and people who need mitigation credit could look and hook up with people who need restoration.
 - Kristin: There's project review piece, and almost like a mitigation broker piece
 - Gina Hunt: I also see a lot of those opportunities. Want to point out that the shoreline and behavior change project starting in January does include a contractor summarizing funding opportunities for living shoreline. Big obstacle for landowners and community.
- Steve Faulkner: Bring it back to lack of staff support. Living Resource analyst?
 - Chris Guy: Evolving process. Listening to what will work best from everyone. What are our needs, what are their needs, what will be the priorities? Want our needs to be high priority from MB. MB has no budget; EPA is the funding mechanism. MB's main function is to set priorities to give to EPA to suggest for funding. Still have some more work to do. When BT brought this forward, it was in the perspective of helping BT. No funding associated with analyst. Trying to get this through Bay Program's existing staff or through a short-term contract. Formed a small group planning to meet in early December to meet and come up with a proposal.
 - Scott Phillips: For a data analyst, agree with Chris, need to provide a proposal to Lee McDonnell and CBP leadership so EPA would consider funding
 - Chris Guy: One of the challenges I wanted to bring up was communication between workgroups. Don't want to overwhelm people but want to communicate beyond twice a year meeting.
- Pam Mason: I don't need any more meetings. Something that Gina and I talked about was having a joint meeting. We have HGIT meeting and workgroup meetings. Nothing in the middle. Is there a way to better to communicate? In the quarters where we don't meet, come up with a list of updates to send out to each other. Something is missing.
 - Chris Guy: Stacking of outcomes with priorities in social science. Come up with a matrix. Engaging workgroups as an online exercise after there is a draft of that done. Monthly, we submit program updates to the management board. In the interim, between meetings send out program updates. Have the workgroup chairs provide input into the program updates?
 - Kristin Saunders: Fisheries has an executive committee meeting that includes workgroup chairs and leadership monthly - quick call to go over what is happening and when they need to know what each other are doing. Maybe a call with chairs and workgroup chairs monthly would

help? Try it out and focus on one of the ideas brought up today and see how it works.

- Brooke Landry: quickly circling back to shallow water use conflicts, I wanted to assure everyone that the SAV workgroup is not anti-aquaculture or anti-living shorelines. We're a fan of both.... just want to make sure that we're taking the appropriate steps to make sure that we're not impacting each other's progress. There's a general recognition that a lot more research is necessary to fully understand the impacts to SAV. And we also recognize the potential benefits of each (aquaculture and LS) to SAV. With aquaculture, we're mainly trying to stay out of each other's way for now (it's also regulated to do so...). With living shorelines, we're try to work with the LS folks at DNR to incorporate SAV restoration in their design if feasible and generally always support conversion of hardened shoreline to living shorelines. At our next SAV workgroup meeting, we're planning a conversation on standardizing impact and trade-off assessment. Just FYI.... :)
- Scott Phillips: Here is link to story map for the cross-GIT mapping project. Renee Thompson and John Wolf are primary contacts.
<https://epa.maps.arcgis.com/apps/MapJournal/index.html?appid=0cb774bdaa324f7da8440979a8595a7b>

12:30 pm

Closing Remarks (*Bill Jenkins and Christine Conn*)