



Habitat Goal Team Spring Meeting

May 6th and 7th, 2020

All presentations are posted on our [calendar page](#).

Day 1 Participants:

Christine Conn	Bill Jenkins	Jennifer Greiner	Megan Ossmann
Julianna Greenberg	Amy Handen	Becky Golden	Briana Yancy
Brooke Landry	Carl Friedrichs	D. Koubsky	Genevieve LaRouche
Jeff Trollinger	Jennifer Starr	Joe Wood	Katheryn Barnhart
Kristen Wolf	Kristin Saunders	Marry Gattis	Neely Law
Pam Mason	Rachel Felver	Renee Thompson	Scott Phillips
Stephen Faulkner	Tony Watkinson	Tuana Phillips	Will Parson
Andrew B VMRC	Angie Sowers	Denise Clearwater	

DAY 1

Welcome, Introductions, Expectations (*Bill Jenkins and Christine Conn, HGIT Chairs*)

- Importance of public access to nature
- How can we take advantage of social science and incorporate it into our work?
- Setting the stage: The Nature of Americans PowerPoint

Social Science and the Bay Program Partnership (*Amy Handen (EPA) and Genevieve LaRouche (USFWS)*)

Amy Handen: Social Science and the Bay Program Partnership

- 2014 Watershed Agreement commits to exploring using social science to better understand human behavior in relation to our goals
- Examples related to the HGIT:
 - Stewardship Behavior Change Assessment
 - Community-Based Social Marketing Behavior Change Training
 - https://www.chesapeakebay.net/who/group/communications_workgroup
 - SAV Workgroup GIT Funded Project
 - Wetlands Workgroup GIT Funded Project
- Next Steps: Model social science within the partnership
 - Function as a catalyst for social science frameworks

Genevieve LaRouche: Social Science in Action: Informing Conservation

- Human Dimensions and planning monarch conservation
 - Open Standards for the Practice of Conservation
 - Using a results chain to address monarch conservation
 - indirect threat -> direct threat -> conservation target
- Urban Wildlife Conservation Program
 - Standards of excellence
 - Baltimore Urban Refuge Program

- Masonville Cove
 - USFWS Tools for Engagement
 - <https://naaee.org/sites/default/files/toolsofengagement.pdf>
- Questions/comments:
 - **Kristen Wolf (PA DEP):** I agree, we're looking at this with the WIPS in PA. We use the Three Is - Invest, Integrate, Identify your audience. It's working well for us to look at things this way. I absolutely agree that bringing social scientists to the table will be essential. We are investing in local county coordinators here in PA and remembering that people who are at our "usual table" don't always have the answers.
 - **Neely Law (Fairfax County):** The social dimensions of ecological work are central to success. Stream Health WG will be looking at how to broaden the suite of metrics to evaluate what we mean by "stream health" - usually biologists measure the success, but people can't always see those metrics they choose (N, P, invertebrates, etc.). As I'm working to piece together a group to look at evaluating a broader suite of metrics, it will be central to not only look at the data availability but to also look at what resonates with the public. From a regulatory perspective, we don't always use the metrics that people are concerned about.
 - **Kristin Saunders (UMCES):** People tend to react saying they don't have enough time to do the research and to figure out how to target the behaviors. AS we move forward integrating this across the program it will be important to hone in on the durability and impact of the programming moving forward. It will be much more successful if we spend the time on the front end. If we think about the programs we have executed in the past, the more time we spend on the front end, the more efficient the projects are as they move forward.
 - **Scott Phillips (USGS):** Didn't hear much about economic analysis - important factor in decision-making. Funders want to see a return on investment. In our strategy, how much do you envision incorporating economic analysis, Amy?
 - **Amy:** You're right it will be very important, I didn't include it here because we are just beginning to develop process, but plan on bringing economic factors into process later.
 - **Genevieve:** Too many times on the regulatory side we look at the costs but don't look at the benefits. I think looking at the economic impact on communities will be very important to help make our cases moving forward.

Maryland's Ecological Effect of Sea Level Rise Project (*Nicole Carlozo, Maryland Department of Natural Resources*)

- EESLR informs coastal managers of local coastal vulnerability, flood risk, flood mitigation solutions etc
 - Integrates stakeholder input to ensure relevancy, applicability and value to coastal managers
- Quantifying the benefits of natural and nature-based features in Maryland

- Inform conservation and management under different sea level rise scenarios
- Scenario based simulations of different management actions
- Questions/comments:
- **Kevin DuBois (US ACOE):** How variable is the marsh widths? Are any of the sites urban?
 - **Nicole Carlozo (MD DNR):** Depending on the site, there is variation. We did have a specific threshold for some consistency and then we can evaluate how the water moves from the marsh edge inland. I think it was a minimum of 100 feet but some sites were wider. North Point State Park Site is the most urban location.
- **Scott Phillips (USGS):** Opportunities to work with CBP Climate Resiliency WG. They're doing sea level rise projections and marsh modeling. Addressing some similar issues, you might have some good collaboration.
 - **Nicole:** I'm on the workgroup so I agree, there is a very strong connection for sure. My hope is that this could transition into some sort of indicator for them.
- **Matt Robinson (DC DOEE):** Interested in learning more about the SAV and living shoreline components!
- **Kevin DuBois (US ACOE):** The Wetlands WG would be interested in this research, especially the communication/outreach work products.
- **Pam Mason (VIMS):** Lots of crosswalk with the Wetlands Workgroup – CCRM and VIMS is working on an NNBF priority and targeting project with a modeling approach. Geospatial using inundation pathways, so it's a different approach. Would be interesting if we were able to put these two approaches together! Let's set up a call offline.
- **Bill Jenkins (EPA):** Have you all begun talking to stakeholders about the specific indicators to see what will resonate with the different constituencies/interests?
 - **Nicole:** Right now, we are just starting with MTAG, we're also working with UMD Sea Grant, MDEP, our thought right now is that based on MTAG, once we have initial modeling results, we want to do some initial outreach to see what would resonate. Local communities are most concerned with 10-30-year time frame. Learning some basic factors to take into consideration. There is interest in that outreach once we have initial results.
 - **Bill:** I think that outreach is an important piece. You want it to resonate with folks who are out there at different levels of government. Everyone has a different perspective.

Habitat Restoration on the Urban Elizabeth River- The use of collective impact and changing human behavior (*Dave Koubsky, Elizabeth River Project*)

- Elizabeth River Project is a "Backbone Organization"
- Restoration began in early 2000s
- Elizabeth River is in a very urban area
 - Highest PAH concentrations in the Chesapeake Bay
- Money Point Revitalization Project - sediment contamination a top priority

- Phase 1 (living cap and wetland restoration) and Phase 2 (placing clean sand) completed over 6 years
 - River responding to healthier sediment with decreased cancer in fish, increased fish populations and improved benthic index scoring
- City of Chesapeake Stormwater projects
- “The Goo Must Go”
- Questions:
- **Matt Robinson (DC DOEE):** Do you think there was a significant cost savings in conducting marsh restoration with other remediation efforts (e.g. dredging, capping)? We are looking to tack habitat restoration work onto PCB remediation projects in the Anacostia River
 - **Dave Koubsky (Elizabeth River Project):** We found it was much more efficient, especially using the same contractor for multiple parts of the project.
- **Neely Law (Fairfax County):** How deep was the sand cap?
 - **Dave:** Stratigraphy of the area was silty – like mayonnaise. We were able to get it out, but some always falls back on the surface. We figured out that the depth of sand cap varied from 1.5 to 2 ft across the site to meet our cleanup goals.
- **Renee Thompson (USGS):** Have any public access or recreation opportunities been integrated into this project? Any permanently protected lands conserved?
 - **Dave:** There was a little bit of land conservation, but no official easement. Signed an agreement that was not legally binding to conserve wetland areas and acres behind the property. There is now a lot of crabbing and fishing in the area. No public access except from the water.
- **Bill Jenkins (EPA):** Can you talk about the measures of success the group developed - how did you do that and how have you used them to communicate to the public about your success?
 - **Dave:** We started out with something that was easy for people to understand. The fish have cancer. Our goal was to reduce something people could see and understand. The scientists worked behind the scenes to figure out what the metrics needed to be to measure our progress towards the goal.

Oyster Restoration and the Oyster Fishery in Virginia: Past and Present (*Andrew Button, Virginia Marine Resources Commission*)

- Oyster restoration has been occurring in VA for almost 90 years
- Oyster Leasing in VA - \$1.50/year/acre for private grounds
 - Around 130,000 acres of private oyster land in VA
- The Chesapeake Bay watershed as a septic system
 - Oysters grow in the drain field
- Oyster harvest accounted for back to 1880 by the Baylor survey
 - 1928 was when large scale replenishment restoration efforts started

- Changes in gear lead to increased harvest
- Co-benefits of oyster restoration

Questions:

- **Denise Clearwater (MD DNR):** Are there restrictions on private access (e.g. Boating, fishing over private lease areas)?
 - **Andrew Button (VA MRC):** No, there are not many restrictions. You can't impact the bottom, but you can fish over them, use crab pots, etc. If you are deploying structures, you need to mark where they are.
- **Kevin DuBois (US ACE):** Appreciates comment that planning for wetland restoration and oyster restoration should happen in concert. I've seen oyster restoration projects that have been installed that have limited the potential for wetland restoration (expanding the wetland footprint seaward)
 - **Andrew:** If Oyster reefs are doing what they're supposed to be doing, they can often actually expand the wetlands. We've seen that in some of our older, 10-15-year-old, projects. Coordination of restoration projects can be helpful in general, but some times the oyster reef expands the wetland without additional effort.
- **Angie Sowers (US ACE):** (In chat) Can you elaborate a bit further on sanctuaries? Is the 1000 acres you mentioned maintained as permanent sanctuaries or do the locations rotate over the years? Have you done any work to understand the relationship between sanctuaries and export to harvest areas?

Wrap-up Discussion (*Christine Conn (MD DNR) and Bill Jenkins (EPA)*)

- Many WG work plans have significant social science components.
- Are there social science aspects that you didn't hear about today, but you think would be relevant to discuss?
- Should also start to think about potential GIT funding projects going forward.
- **Amy Handen (EPA):** We need to better understand which outcomes and WGs need to leverage social science, and specifically which social science practices are best suited for which outcomes - overarching assessment of what would be a good fit and where. Optimistic that something like this would really help us with somewhat limited resources.
 - **Renee Thompson (USGS):** It would be helpful to know what social science work has already been completed.
 - STAR and Climate Resiliency WG both support this idea
- **Kevin DuBois (USACE):** WWG is interested in using social science to address wetland mowing on private property to address the wetland enhancement goal.
- **Brooke Landry (MD DNR):** Communications and SAV WG are working with Action Research on a CBSM project for SAV
- **Renee:** Healthy Watersheds is interested in landowner engagement and how best to provide resources related to land use policies that are good for our outcomes
- **Sally Claggett (USFS):** Forestry is thinking about social research on what partners need re: communications on forestry projects

- **Neely Law (Fairfax County):** CBT has a grant program in support of social marketing. The program is currently open. More info found at <https://cbtrust.org/grants/outreach-and-restoration/>
- **GIT-funding programs: Ideas due by May 20th so staffers/coordinators can discuss. Proposals are due June 15th**
 - **Jennifer Greiner (USFWS):** Table 1's due June 15, so drafts by June 5 to give our Chairs time to review and prioritize
- **Kristin Saunders (UMCES):** We have been discussing the “over-correction” that we’ve seen in terms of the cross-GIT focus of the GIT funding project. Part of our discussion at the next GIT chairs meeting will be to discuss how to address.
- **Kristin:** GIT Chairs meeting will focus on sharing shallow-water areas - huge social science component
- **Bill Jenkins (EPA):** The presentations today focused on the coastal/tidal areas of the bay. One of the things I was wondering about, is if there is interest within the goal team to work with other GITs as well to look at non-tidal areas, farther up in the watershed, to look at social science needs.
- **Bill:** Has anyone done any quantitative work on assessing organizational capacity? What parts of the watershed have an abundance of organizations, and where are there none? How do we assess this, and create better networks?
 - **Renee:** Earlier research on this was related to landscape capacity. Mostly related to land trust capacity. I think we are lacking the full ability to assess service area of organizations. Haven’t seen much other research on this and support this idea because we need it. Are we talking about land trusts, watershed orgs, regional orgs? May be a good GIT project idea
 - **Kristin:** Choose Clean Water coalition has mapped their network - John Wolf might have that. I remember the Bay Funder’s Network was working on an organizational capacity analysis, but it may not have ever been published. Follow up with them before we try to invent something like this on our own.
 - **Amy:** I will commit to checking in with Jamie and Casey from the Chesapeake Bay Trust who work with the Funder’s Network. I will see what they might have to share on this.

DAY 2

Participants:

Megan Ossmann	Julianna Greenberg	Jennifer Greiner	Christine Conn
Bill Jenkins	Jeff Trollinger	Scott Phillips	Amy Handen
Angie Sowers	Briana Yancy	Brooke Landry	Clint Morgeson
Katheryn Barnhart	Kevin DuBois	Mark Hoffman	Mike Bednarski
Pam Mason	Rebecca Chillrud	Renee Thompson	Stephen Faulkner
Ben Lewis	Tony Watkinson	Carl Friedrichs	Kristin Saunders
Peter Claggett	Julie Reichert-Nguyen	Katie Brownson	

Setting the stage and discussion of yesterday's meeting (*Bill Jenkins (EPA) and Christine Conn (MD DNR)*)

- **Jennifer Greiner (USFWS):** Idea for future agenda item: discussing funding and finance discussions
 - Get people involved, get them involved early and they take ownership
 - Tuana sent a bunch of good information on mapping organizations across the watershed – work already done by Choose Clean Water
 - Durability and impact of our work is much stronger if we consider social science in the beginning
- **Bill Jenkins (EPA):** It would be interesting to hear about impediments to this kind of work (social science). There is always a cost to any method or additional outreach, or education and it would be interesting to know what those impediments are.
- **Christine Conn (MD DNR):** That reminds me of our discussion on organizational capacity. Organizational capacity is a large factor in achieving collective impact.
- **Pam Mason (VIMS):** It's understandable that much of this conversation is around areas where its able to build capacity. But it's challenging when projects need to go through a regulatory review or need to reflect state priorities - barriers outside of NGOs. Some of the solution might be to expand capacity in NGOs, but sooner or later they will have to get outside funding.
- **Kevin DuBois (US ACE):** Many people support the approach, but impediments are capacity to do the extra work, determining the most impactful issue, determining how to quantify the impact of a social marketing campaign
 - **Jennifer:** The Local engagement workgroup has been working with us to figure out where we can have the biggest impact
- **Bill:** Does anyone have ideas for potential opportunities in work that the HGIT is involved in?
 - **Pam:** Looking at co-benefits of projects has been brought up several times, but HGIT should have a larger discussion. We consider so many habitats within the working groups, sometimes the creation or restoration of one may have temporary negative impacts on another.
 - **Jennifer:** Yesterday when we discussed Elizabeth River Project this made me think, it would be interesting to use GIS and information about our partners to learn how we can scale up activity. Where are the "pockets of partnerships"?
 - **Bill:** One of the things we've been working on at EPA is taking the assessment work being done that maps important features and overlay the organizations and find out where there are important features that do or don't have groups doing relevant work. Figure out how to do restoration and how to build capacity when necessary.
 - **Kevin:** The Wetland WG is interested in trying to address wetland mowing. Ceasing wetland mowing would result in addressing the wetland enhancement goal. How would we quantify success?

- **Steve Faulkner (USGS):** Have we put thought into NFWF and leveraging their grant money for on the ground restoration projects, and bringing them into the conversation?
- **Jennifer:** NFWF Chesapeake Small Watershed grants will fund capacity building and planning.
- **Amy:** I am a project officer for NFWF grants - happy to take feedback that HGIT has. EPA has expressed interest in doing this kind of work.
- **Jennifer:** CBT has a grant for local capacity building as well.
- **Pam:** Thinking about prioritization as well as capacity building means that things aren't just a "drop in the bucket". Help to direct effort to places where we get the biggest impact.

Black Duck Action Team Baseline and Progress Tracking (*Ben Lewis, Virginia Department of Game and Inland Fisheries*)

- Black Duck Action Team has changed their metric from one based on the Mid-Winter waterfowl survey to a habitat availability-based metric.

Questions:

- **Renee Thompson (USGS):** What does the decision support tool (DST) mean by "priority"? As I understand it, it is the amount of food available. Is the "food" wetlands? Could you break that down a little bit.
 - **Ben Lewis (VA DGIF):** DST outlines energy surplus or deficit and considers waterfowl use in those areas. Areas identified as having an energy deficit are considered a priority for habitat restoration and areas that are identified as having an energy surplus are identified for land conservation.
- **Renee:** I think there is some opportunity with the next update to marry some of the Bay Program specific lingo for priority areas to limit confusion with other Bay Program goals and datasets. How do these areas intersect with other restoration and conservation areas? How are wetlands are being characterized and defined across the BP? Are these wetlands in the DST defined the same as the wetland workgroup, as the protected lands outcome, as the land use workgroup, etc.? I see this as an opportunity to add some more cohesion across the Bay Program in how we categorize, utilize, and communicate this information.
 - **Jennifer Greiner (USFWS):** This Friday there are some folks are getting together about a potential cross-GIT project on marsh migration that would benefit black ducks and other marsh dependent species.
 - **Renee:** John Griffin and I were planning to get together and discuss a potential GIT funding project related to getting at how we define and track wetlands – getting at the second part of the land conservation goal. Would love to be looped into your discussions, I'm not a wetlands expert.
 - **Pam Mason (VIMS):** It is helpful to have people who do other things than wetlands talk about this issue. Wetlands are tough because they are critical habitat, a habitat type, and land use, a land cover, etc.

- **Scott Phillips (USGS):** Alicia Berlin has been working on a similar energetics tool to apply to local refuges - is that getting integrated into this larger analysis?
 - Ben: The work that Alicia has done was considered when the DST was created and when it is updated.
- **Bill Jenkins (EPA):** Is there a time frame for when the DST is updated?
 - **Megan Ossmann (CRC):** It will likely not be updated until sometime in 2021
- **Stephen Faulkner (USGS):** Is this the right time for the goal team to talk about changing outcomes? Similar changes have occurred with brook trout, there have been changes in the understanding of Brook Trout science and stressors and drivers and we might need to request change in outcome as well.
 - **Jennifer:** Changes to an outcome require Principal Staff Committee approval - if a workgroup wants to take that on, they can take it to management board and then to the principal staff committee but the group needs to back it up with specific science to justify the change. Let's talk before you next go up before the management board for SRS.

Showcase of Updated Work Planned for SAV Workgroup (*Brooke Landry, Maryland Department of Natural Resources*)

- Questions/comments:
- **Scott Phillips (USGS):** what is the difference between the research in management approach 1 and later mentions of research going on? Where does climate change fit in, you mention some climate impacts of SAV?
 - **Brooke Landry (MD DNR):** Management approach 1 is less about research and is more just about acknowledging that climate change is a factor.
- **Scott:** We'll work with you to update overall science needs list through STAR - should run SAV research needs through STAR to get some feedback from other GITs. Might be helpful for making connections.
- **Renee Thompson (USGS):** SAV fact sheets could be a good model for how to characterize other outcomes and metrics - what was the process like working with Emily to decide what to put in the fact sheets? A few years ago, SAV was looking into land use upland of SAV - what came out of that? Is Greenfin going to be implementing any policy planning tools?
 - **Brooke:** Fact sheets were a part of our SAV synthesis effort and long-term trends analysis - determining what was included was a very involved process. Emily worked with us to determine what would be the most useful, we decided to keep it short. We are still talking about putting additional data on the SAV dashboard. Had staffer support in putting together diagrams.
 - **Renee:** Fact sheets are static, and not updating on their own, right?
 - **Brooke:** Yes, that's correct. It took us so long to finish, we had two more years of data by the time we were done. Would love to make them live in the future.
 - **Brooke:** We had a long-term project with NOAA on shoreline impacts on SAV with analysis of lots of other projects. The project is completed, I will send Renee

the link. Greenfin is putting together a restoration protocol for small scale restoration.

- **Renee:** Is there any guidance being put into those manuals about identifying areas that would be appropriate for the restoration? Something to facilitate small scale restoration projects. Will follow up offline.
- **Brooke:** In 2018, we were only able to map about 70% of the Bay using fixed wing aircraft, VIMS and EPA and Old Dominion University helped fill in majority of gaps with satellite imagery. Showed the potential of using satellite imagery for the whole survey.
- **Angie Sowers (US ACE):** Mid- Chesapeake Bay Islands Ecosystem Project is moving forward - next generation of Poplar Island. It's going to be at James Island and Barren Island. Lots of SAV habitat at James Island, we're hoping to restore a little over 2,000 acres. We are incorporating work at Barren island, looking to do shoreline stabilization and wetland restoration. Just wanted to put in a plug and bring it to people's attention!
 - Reach out to Angie for more information and to get involved.
- **SAV MS and WP: Approved by HGIT**

Updates from the Wetland Workgroup (*Pam Mason, Virginia Institute of Marine Science*)

- Questions:
- **Scott Phillips (USGS):** Marsh migration due to SLR and associated forecasting of resiliency is also a priority of the CRWG. has there been collaboration between the two WGs and ideas to enhance joint work on the topic?
 - **Jennifer Greiner (USFWS):** Yes - currently under discussion as a GIT-funded project between both groups and the Fisheries GIT.
- **Jennifer:** We should identify a new USGS rep for the WWG
 - **Scott:** We've been mostly interacting with the Climate Resiliency Workgroup on marsh migration topics. It would be helpful to identify someone for WWG as well.
- **Jennifer:** Are there aspects of your workplan where you need help from other components of the partnership, on the social science side of things, I would like to work with you to get that done!
 - **Pam Mason (VIMS):** I'll review our workplan more to get specifics, but I know the wetland mowing project, the wetlands community based social marketing project, and I think there are more.
- **Renee Thompson (USGS):** I have been working with John Griffin and the Chesapeake Conservation Partnership. We are working to figure out how best to report out on our tracking and how best to report out on our land conservation. Especially priority wetland and forested lands, tracking. I know that tracking acreages has been a burden, but we have some resources with the Chesapeake Conservancy that may help. Keep a look out for more information from me.
- **Peter Claggett (USGS):** Following up on non-tidal BMP and mapping - trying to use 1m lidar data to look at connection between floodplain and streams. Any non-tidal wetland restoration project in proximity to a stream would make it a floodplain wetland, is that correct?
 - **Pam:** I think that was the original ideal, its all about connectivity.

- **Peter:** We are trying to look at Lidar data to figure out how far up stream there is a connection between the floodplain and the stream. Often in these headwaters there is no stream. Do you agree that this is still the direction that we should of it?
 - **Pam:** If you use elevation to define the headwaters, that should still work fine. We're trying to talk about wetlands that are connected at the surface. So, any body of water that touches a tidal wetland.
 - **Peter:** I think we will try to present to the WWG later this summer to talk more about this.

Updates from Brook Trout Workgroup (*Steve Faulkner, USGS*)

- Submitted STAC proposal on genetics which was successfully funded
- Julianna and Emily Trentacoste have been working with EPA scientists on setting up an eDNA webinar to explore collaborative opportunities between our workgroup and EPA
- **Jennifer Greiner (USFWS):** Has there been any interaction with the freshwater mussel community? Right before the lockdown, there was a STAC workshop on freshwater mussels.
 - **Steve Faulkner (USGS):** Not aware of any overlap, we do have some mussel researchers at USGS. Most of the mussels that we have been focused on have been in larger river systems. There has been some overlap with the American Eel groups.

Wrap-up

- Reminder about a call for a Stream Health co-chair
 - Opportunity for incorporating DEIJ strategy into our leadership
 - "Increase DEIJ in appointee and volunteer bodies"
- Requesting a co-chair for the Wetland Workgroup as well
- Fall meeting may focus more on non-tidal outcomes
 - Will likely take place in Annapolis