**Chesapeake Bay Program Stream Health Workgroup meeting**

**May 15, 2020 10am-12:00pm**

Microsoft Teams Meeting

All meeting materials are available [here](https://www.chesapeakebay.net/what/event/stream_health_workgroup_meeting8).

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| Julianna Greenberg | Neely Law | Alana Hartman | Rosemary Fanelli |
| Greg Noe | Nancy Roth | Sadie Drescher | Matthew Cashman |
| Kip Mumaw | Ana Maria Garcia | Renee Thompson | Sandra Davis |
| Katie Brownson | Denise Clearwater | Chris Spaur | Claire Buchanan |
| Scott Phillips | Anne Hairston-Strang | Bhanu Paudel | Emily Zollweg-Horan |
| Mike Lovegreen | Aaron Porter | Amy Williams | Nora Jackson |
| Leah Ettma | Rikke Jepsen | Emily Bialowas | Kelly Maloney |
| Rich Walker |  |  |  |

**Action Items**

* Group will shift to meeting every other month
* Members will continue to send Julianna relevant contacts within their jurisdiction for stream permitting surveys
* Stream Health Workgroup will put forward Phase 2 of the Factors Affecting Stream Health proposal for the 2020 GIT funding cycle
* Stream Health Workgroup supports the Stream Health and Riparian Forests proposal being put forth by the Water Quality Goal Implementation Team.

**Introductions and announcements – Neely Law (Fairfax County)**

* Vacant Co-chair position
* Consider meeting more frequently
  + Group agreed to meet every other month for 1-1.5 hours rather than every third month for 2 hours

**Chessie BIBI Updates and Action Team - Claire Buchanan (Interstate Commission on the Potomac River Basin)**

* Still seeking data from multiple jurisdictions
* Working to update 2011-2017 data
* Objective of QA/QC for current data and then transferring to CEDR format

**Stream Permitting Survey Updates – Julianna Greenberg (Chesapeake Research Consortium)**

* Review listed contacts for stream health surveys
* Send Julianna your jurisdictions contacts for both stream restoration practioners and regulators

**USGS Stressor Update – Rosemary Fanelli (USGS), Matthew Cashman (USGS)**

* Literature review
  + Extracting key information
  + Summarizing results
    - 41% of papers analyzed 3 or more stressors
    - 13% analyzed flow, salinity, or sediment individually
    - Urbanization identified as the largest source of stressors
* EPA ATTAINS
  + Lots of differences between states
  + Parameter networks identify correlated sources
  + Top stressors:
    - Sediment/turbidity
    - Salinity
    - Nutrients
    - Habitat Alterations

**Discussion**

* Scott Phillips: Was discharge from point sources addressed as a stressor in any of the studies? Have you looked in to PCBs, they are a main stressor in Bay.
  + Rosemary Fanelli: We do have several point source papers that we looked at, I just did not list them here. PCBs, I believe, are one of the toxics we are looking at. We are focusing our work on stressors that have a documented effect on biological communities.
    - Scott Phillips: Depending on what you find with respect to PCBs, it may be worthwhile to reach out the to the Bay Program’s Toxic Contaminant Workgroup
* Denise Clearwater: How are you finding site characteristics (i.e. riparian buffers) in the papers you have reviewed so far?
  + Rosemary Fanelli: We can only report out on it if the study included it and only a few studies have described on site characteristics. In the Schmidt paper we reviewed, however, we found that riparian forest buffer was modulating the effects of other negative factors.
* Anne Hairston-Strang: For urban sites, do studies assess a correlation of impervious cover with the dominant stressors of hydrology and toxics?
  + Rosemary Fanelli: Frequently, yes. They often pick sites along an impervious gradient and start by determining if they see an expected result given the driver. I’m not sure if I’ve seen it with hydrologic flow studies specifically.
* Sadie Drescher: It’s interesting that Salt and Chlorides is identified as the second most common stressor.
  + Matthew Cashman: The scale of assessment taking place in Maryland is very important for that. Maryland counts salt and chlorides as a stressor at a higher rate than other states and they also have surveyed more intensively. May be overweighting this as a factor.
* Neely Law: When you’re going through the literature, are you going through and separating out Urban and Agricultural streams or is it naturally coming out? Same with ATTAINS?
  + Rosemary Fanelli: If a study explicitly listed agricultural or urban land use as a source of the stressor, I categorized it as such. A lot of studies focused on general stressors that could result from multiple origins, for example, just “sedimentation”.
  + Matthew Cashman: For the ATTAINS database, it’s all together as well. Even with the stressor clustering, a lot of the stressors are occurring in both agricultural and urban areas. In the future I’m hoping to separate them in to a more generic grouping of urban vs agricultural .
* Neely Law: Can you provide an update on the timeline for completion of the literature review?
  + Rosemary Fanelli: Aiming to have a good draft later this calendar year
* Renee Thompson: Based on some of the very initial findings you presented today, impervious cover in riparian zone seems to be coming up as a stressor. This and some of the others identified are also metrics that we have in Healthy Watershed Assessment. You might want to take some time to play with the initial metrics in terms of landscape and in-stream metrics. Do we have capacity to do that?
  + Rosemary Fanelli: Can you clarify what you mean by in stream metrics? Are you talking about USGS metrics?
  + Renee Thompson: Yes, but also some of the FACET model results. ATTAINS compared with Healthy Watersheds Assessment using the high stressor metrics. We should play with some of the exiting data that we already have.

**GIT Funding**

**Factors Affecting Stream Health and Implications for Management Decisions – Neely Law (Fairfax County)**

* Support Phase 2 of the Factors Affecting Stream Health and Implications for Management Decisions project with USGS
  + Which stressors and drivers can be affected through management actions, especially those activities that align with actions identified in jurisdictions Watershed Implementation Plans (WIP) to reduce nutrient and sediment input into the Bay?
    - Direct action from our 2-year workplan
    - Start March 2021

**Discussion**

* Renee Thompson – The Healthy Watersheds GIT absolutely supports this idea. Make sure to add the cross-GIT component when filling out proposal. There is also an opportunity to work with land policy BMPS.
  + Matt Meyers: All of these discussions will take us farther in to considering “good” land use decisions as we are working on stream health issues. We need to continue working with each other across the Bay. We should look at critical areas in MD, resource protection in VA, at how these effect the outcomes biologically
* Sadie Drescher – The Pooled Monitoring Initiative is a part of the group’s workplan. The Workgroup should look at the latest pooled monitoring RFP because some of these ideas would relate to the RFP for that too.
* Neely Law: If there are no objections, I am going to take this as general support
  + No objections were raised, the group supports this proposal.

**Stream Restoration and Riparian Corridors - Katie Brownson (US Forest Service)**

* Quantifying effects of stream restoration on riparian forest cover (both during and after restoration)
  + Guidance on best practices is used inconstantly and can result in healthy buffers being removed
  + Hydrological changes can result in tree mortality
* Assess how forests are currently being accounted for in different jurisdictions

**Discussion**

* Chris Spaur –We try not to have any work done in streams where there is a healthy biological community. We are not as concerned about the riparian area but we do consider it a little. That could be something important missing from the permitting side
* Neely Law: What do you envision as the role for the SHWG as a part of this work?
  + Katie Brownson: We would need at least one of your members to join our advisory team/committee to make sure your perspective was represented. More is welcome, especially since we’re trying to better quantify the impact on streams.
* Neely Law: These projects are generally funded for a year.
* Denise Clearwater: I think this would yield very important information that would be very useful for management. I recommend the workgroup support it
* Matt Cashman: I think this is interesting and would be a good project. I’m doing a project in Maryland on the coastal plain to establish historical context of vegetation and what forests looked like before disturbance. I think compositional changes, based on what has been planted recently, are important to take in to account too. We might have loss of trees, but they weren’t good trees for the area.
  + Katie Brownson: Good point. I think looking back to more historic vegetation will be important. The concern we’ve heard from the Habitat GIT is about losing the canopy cover and the effects of climate change and temperature change on streams.
* Chris Spaur – This proposal seems very timely. There is lots of controversy over unintended consequences of stream geomorphic restoration projects.
* Neely Law: Is there any opposition to moving forward to support this project? Please send a message in the chat or send an email
  + Renee Thompson- Healthy Watershed supports this project as well
  + Sadie Drescher– Two projects have been funded on tree tradeoffs and stream restoration
    - See Sujay Kushal's 2019 forum presentation (he's almost done with the study now) at <https://cbtrust.org/wp-content/uploads/Kaushal-and-Wood_UMD_061219.pdf> and see the final report from Versar <https://cbtrust.org/wp-content/uploads/Award14833_RestoResearch2017_FinalReport_Versar.pdf> to build on the ongoing research on tree-trade off and stream restoration work ongoing through the Pooled Monitoring Initiative (main website link is at <https://cbtrust.org/grants/restoration-research/>). Also, monitoring might put the cost over what is available, so perhaps a scaled back version might be needed.
* Matt Meyers – building off of Matthew Cashman, I think its important to look at the quality of vegetative community and where it is successionaly in addition to just canopy cover. What is the quality of the forested riparian corridor that is there now and how do we protect the good aspects when doing restoration?
* NL: I think also focusing on urban vs agricultural stream restoration would ensure there is a representation of both, unless you intend to focus on just one or the other
  + Katie: I think we’re learning towards focusing on urban stream restorations. There is a lot going on with agricultural stream restoration right now. At this stage, we are intentionally leaving things a little vague so we have more options as we move along.
* Renee Thompson- Could you give a quick plug for the report you just finished? It’s really great and I want to make sure people want to hear about it .
  + Katie Brownson – We don’t have a link yet. We’re working on an update to the 2012 report and its pretty much done. Still needs forest service final approval. Stay tuned! Will share a link when it’s all final.
* Neely Law: Any proposal that is moving forward will be shared via email for any draft comments. There will be opportunities with various draft versions.
* No objections raised, group supports proposal.

**Stream Health Metric Discussion – Neely Law (Fairfax County)**

* Investigating a multi-metric approach to track and report stream health
  + Broaden use of metrics
  + Better understand current use of metrics
  + Collaborate with the Healthy Watershed GIT
* Stream health encompasses more than just the stream corridor but boundaries are ill-defined
* Work with the Healthy Watershed Assessment to look at health at a new scale

**Discussion**

* Renee Thomspon: I’m excited about this, it is the nexus that we have been waiting for to connect Stream Health and the Healthy Watersheds GIT. Espcieally the scale issue and looking across outcomes and goals. We should look at how we are complimenting each other and informing each other’s efforts. Appreciate you taking the time to make these connections. It might be nice to get this presentation at the Healthy Watersheds Goal Team Meeting on May 27.
  + Neely Law: I agree! Please send me more information about the meeting.
* Denise Clearwater: I suggest that the Work Group further highlight that Stream Health does not only refer to the channel but also should encompass the associated riparian area. Neely mentioned this but I think it’s important to emphasize.

**Meeting Adjourned**