



Stream Health Workgroup – October Meeting

Friday, October 15th, 2021; 10:00-12:00 ET

Participants

Neely Law, Fairfax County	Alison Santoro, MD DNR	Sara Weiglein, MD DNR	Katlyn Fuentes, CRC
Alana Hartman, WV DEP	Amy Williams, PA DEP	Ann Hairston-Strang, MD DNR	Brittney Flaten, DNREC
Brock Reggi, VA DEQ	Chris Spaur, USACE	Claire Buchanan, ICPRB	Denise Clearwater, MDE
Emily Bialowas, Izaak Walton League	Gregory Noe, USGS	Julie Devers, NRCS	Katherine Brownson, USFS
Kelly Maloney, USGS	Kenneth Hyer, USGS	Kevin Krause, USGS	Kip Mumaw, Ecosystem Services
Lydia Brinkley, Upper Susquehanna Coalition	Matt Cashman, USGS	Mike Mallonee, ICPRB	Nancy Roth, Tetra Tech
Nat Gillespie, USFS	Renee Thompson, USGS	Rich Starr, Ecosystem Planning and Restoration, LLC	Rich Walker, USGS
Rikke Jepsen, ICPRB	Rosemary Fanelli, USGS	Sadie Drescher, Chesapeake Bay Trust	Sandie Davis, USFWS

Meeting Notes

[*Link to Meeting Materials*](#)

Changes to the 2022-2024 Stream Health Workgroup Work Plan: for additional information, please see *Stream Health Workgroup 2022-2024 Work Plan* ([link](#))

- *The Stream Health Workgroup is currently updating its two-year workplan as part of the Bay Program Partnership. The workplan was revised based on comments received at the June and August meetings. The Workgroup Chairs are specifically requesting feedback on Action #3 (Stream Restoration permitting) and Action #5 (Enhancing Partnering, Leadership, and Management).*
- **The below changes to the action items – as well as those noted in the Work Plan – were approved by all voting-members present at this meeting.**
- **ACTION 3.1:**
 - Those interested in assisting with the Permitting Committee:
 - **Denise Clearwater** (MDE)
 - **Kip Mumaw** (Ecosystem Services)
 - **Erin Knauer – colleague of Rich Starr** (Ecosystem Planning and Restoration, LLC). Erin has permitting experience in PA, MD, VA, etc.
 - **ACTION: Workgroup chairs will follow-up with Rich and Erin to coordinate collaboration on Permitting Committee.**

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- **ACTION: Brock Reggi is no longer involved with permitting, but will contact workgroup chairs with colleague recommendations.**
- **ACTION: Chris Spaur will contact regulatory personnel in Baltimore and Norfolk to inquire if any would be willing to participate in the permitting committee and will forward any information to the workgroup chairs.**
- **If you would like to be involved with the permitting committee, please contact the workgroup chairs.**
- **ACTION 3.2:**
 - **Renee Thompson:** Tuanna Phillips (former Diversity Workgroup Coordinator) drafted a two-page DEIJ Guidance on Action Plans document. One of the recommendations was to develop a one-page plain-language summary that could assist in communicating with those communities. It may be beneficial to create a one-page document on stream health and communities, written specifically for the targeted audience (can collaborate on this document with Rachel Felver/the Communications Team).
 - **ACTION: Renee will send this document to the workgroup chairs.**
 - **Emily Bialowas:** The Chesapeake Monitoring Cooperative just started a new 6-year grant with the CBP with a goal of engaging with underserved communities in relation to stream health. Eventually, there will be a survey to engage with these communities, to address these needs.
 - **Neely Law:** The workgroup may benefit from a future discussion on how the CMC identified these communities, so that both the CMC and Workgroup communications are in support of one another.
 - **Sadie Drescher:** CBT has started asking the question “how have you been engaged with underserved communities?” in grant programs, and some programs (e.g., Montgomery County Department of Protection – EPA Region 3) have identified the use of mapping tools.
 - **Kip Mumaw:** Perhaps the first step would be to send a survey to those participating in different workgroups, to ask what sort of feedback that they are receiving from underserved communities in their various DEIJ-related projects.
 - **Sadie Drescher:** Rather than initially sending out a survey to the other workgroups, I suggest asking those within the Stream Health workgroup: what are you and your organizations doing on this topic?
 - **Nany Roth:** An early step could be identifying groups that are already working in these communities (local government efforts, etc.).
 - **Neely Law:** Perhaps we can host a meeting dedicated to this topic and invite other organizations to talk to us about these issues as they relate to stream health.
 - **Nat Gillespie:** The US Forest Service is engaging more on DEIJ-related issues, and through the funding available from the Great American Outdoors Act, have begun ranking projects to fund based on their identification of socially vulnerable communities. This national dataset is now available for others to use.
- **ACTION 4.2:** Develop report and recommendations on the State of Science for Stream Restoration and impacts on stream health. → **this is a new action item**
 - The Stream Health Workgroup is moving ahead with a STAC Workshop proposal. Over the next month, the workgroup will be forming a planning committee, so additional information on this is forthcoming.

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- There is interest from the Maryland Water Monitoring Committee, the Maryland Stream Restoration Association, and we are requesting a representative from the Forestry Workgroup.
- **ACTION 5.2:**
 - Moving forward, workgroup members/interested parties who are involved with other workgroups, will share updates during the Stream Health Workgroup Meetings on any relevant projects/activities being done by said workgroups, to assure shared resources and information. Time for these updates will be a regular standing item on our Workgroup Meeting agendas starting in December of this year.
 - The following people will provide updates on various workgroups moving forward:
 - **Sandie Davis** (Fish Passage Workgroup)
 - **Renee Thompson** (Healthy Watersheds GIT)
 - **Kelly Maloney and Stephen Faulkner** (Fish Habitat Action Team)
 - **Greg Noa and Denise Clearwater** (Wetlands Workgroup)
 - **Lydia Brinkley** (Riparian Forest Buffer Workgroup)
- **Any additional “red-flag” edits to the workplan, must be sent to workgroup chairs Alison Santoro (alisona.santoro@maryland.gov), Neely Law (neely.law@fairfaxcounty.gov), Sara Weglein (sara.weglein@maryland.gov), and staffer Katlyn Fuentes (fuentesk@chesapeake.org) by COB 10/26.**

Assessing Physical Habitat & Geomorphology: Metrics, Status, & Trends

- **PRESENTER:** Matthew Cashman (USGS)
- **AN IMPORTANT NOTE ON THE INFORMATION PROVIDED IN THE PRESENTATION:** *This information is preliminary and is subject to revision. It is being provided to meet the need for timely best science. The information is provided on the condition that neither the U.S. Geological Survey nor the U.S. Government shall be held liable for any damages resulting from the authorized or unauthorized use of the information.*
- **BACKGROUND:**
 - Sediment and habitat degradation are the number one cause of ecological impairment in the Chesapeake Watershed
 - Preliminary results from an ongoing multiple-stressor literature review shows that physical habitat & geomorphology are important for determining biological outcomes
- **POTENTIAL METRICS:**
 - Rapid Habitat Assessment Data (CBP DataHub): Standard protocols with familiar metrics that ranks metrics from “poor” to “optimal” on a numerical scale of 0-20.
 - USGS Gage Analyses: Looks at long-term repeat data for trends (>100+ years). Examples of trend observations include: change in bed elevation, channel dimensions, deposition, and hydraulics.
 - Lidar-derived Channel Dimensions w/FACET: Available where Lidar is.
- **HABITAT DATA:**
 - Multi-jurisdictional habitat data → recent DataHub updates added data through 2018
 - 24 total metrics, 10 most frequent.

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- **PREDICTING HABITAT METRICS WATERSHED-WIDE** (analogous to Kelly Maloney's ChessieBiBi work)
 - Relating metrics to local and upstream landscape data
 - Producing:
 1. Watershed-wide predictions for 2001 & 2016
 2. Maps of spatially-explicit model uncertainty
 3. Change due to land-use from 2001-2016
- **USGS GAGE ANALYSES:**
 - Leveraging routine USGS surface water gage data and field measurements to track:
 - Change in depth, bed elevation, width, channel area, near-channel deposition
 - Change in local hydraulics, flow energy, and normalized velocities
 - Change in channel-driven flood risk ([Cashman et al. 2021](#))
 - Routine maintenance of USGS gages requires field measurements.
 - We can track changes through time, derive other data, and examine trends.
- **REGIONAL GAGE TRENDS:**
 - Working on trend method
 - Distilling plots to single trend
 - Several decision points:
 - What sites are most appropriate?
 - What metrics are most useful?
 - What time-windows of change?
- **CONCLUSION:**
 - There are multiple ways to approach habitat and geomorphology metrics
 - Using multiple data sources:
 - Multi-jurisdictional rapid-habitat assessment data
 - USGS gage data
 - Others?
 - Calculating a variety of products, including current status and trends
 - Some trends may only manifest across decades or longer
- **COMMENTS:**
 - **Neely Law:** are you using the same criteria for the predictive random forest model of a minimum of 3 data points per catchment? And are you working at the HUC 12 level?
 - **Matt:** I am working at the individual catchment, much smaller than the HUC 12, and not having 3 points per catchment. The predictive modeling is similar to that of Kelly Maloney's work.
 - **Neely Law:** What is the time frame for this project?
 - **Matt:** Different components of this work are at slightly different time frames. The predictions for the watershed-wide maps of the various metrics (similar to the Chessie BiBi) are close to being completed. The trend analysis is further back – the methodology is being developed through the remainder of this fiscal year and will perhaps be looking at products this time next year.
- **For more information on topics discussed in this presentation, please contact Matt Cashman (mcashman@usgs.gov).**

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ADDITIONAL NOTES:

- Before the next workgroup meeting, a final draft of the work plan will be sent out for final approval. This final draft will be presented at the final SRS Management Board meeting on 12/09.
- **A new meeting link will be sent out prior to the next meeting on 12/10.**