Stream Health Workgroup
Minutes
February 14, 2014
9:00AM-12:00PM

Participants:
Rich Starr, Acting Chair (USFWS)
Neely Law, (CWP/CBPO)
Hannah Martin, Staffer (CRC)
Alana Hartman (WV DEP)
Steve Strano (NRCS)
Kristen Saacke Blunk (Headwaters LLC)
Scott Phillips (USGS)
Pete Hill (DC DOE)
Denise Clearwater (MDE)
Derrick McDonald (PA DEP)
Anne Hairston-Strang (MDNR)
Claire Buchanan (ICPRB)
Joe Berg (Biohabitats)
Ron Klauda (MDNR)
Larry Lubbers
Rob Shreeve (MD State Highway)
Todd Petty (WVU)
Mark Secrist (FWS)
Jennifer Greiner (FWS)
Bill Stack (CWP)
Than Hitt (USGS)

Action Items

- Contact Rich Starr if you are interested in playing a more active role in co-leading the stream health workgroup.
- Talk to Healthy Watersheds GIT about defining healthy watersheds and how the stream health workgroup could be involved. Request to share Stream Health Workgroup scope and purpose at their next meeting.
- Add member updates to future meeting agendas.
- Hannah will share link to Stream Expert Panel Report and the BMP verification guidance document.
- Claire will contact Jennifer about support for updating BIBI
- If you want feedback or review on anything, send to Hannah or Neely or Rich and it can be sent around to group

Decisions

- Workgroup to meet quarterly. Next Meeting-First week in June

Workgroup Logistics Update

- Mark Secrist and Ron Klauda were co-chairs of the stream health workgroup, however Rich Starr will co-chair the workgroup now with Neely Law as a workgroup coordinator role with the Chesapeake Bay Program.
- Action: If anyone is interested in being chair/co-chair, wants to have a more active role in leading the workgroup, or knows of someone who would be qualified for this role contact Rich Starr.

Overview of Scope and Purpose

- Overall goal of the workgroup is to see streams improved and maintained and this workgroup can serve as a forum to coordinate input and make recommendations that advance a holistic approach to stream projects. Provide forum for information exchange and potentially work together to share ideas on how streams are being managed within bay states and provide expert recommendations to Chesapeake Bay Program and other policy and regulation makers.
- Discussion
    - There seems to be an overlap on goals with trying to protect streams (Healthy Watersheds GIT) and stream health workgroup (Habitat GIT). What is the distinction between the two? How are we going to be working together?
        - This would be an opportunity for collaboration across GITs. Need to discuss this with other GITs and workgroups in order not to duplicate efforts.
        - Mark Bryer (TNC) is the Chair for the Maintain Healthy Watersheds GIT. The GIT uses state criteria on what is deemed "the best" and healthy streams would be important to them.
        - Healthy Watersheds GIT may be interested in input from stream health workgroup because of the difficulty to define a healthy watershed.
        - Action: Talk to Healthy Watersheds GIT about defining healthy watersheds and how the stream health workgroup could be involved. Request to share Stream Health Workgroup scope and purpose at their next meeting.
    - Kristen Saacke Blunk-works with the Ag workgroup. Is Stream Health WG where some BMP guidance will come from? Will this be a place where review and update of best practices of stream restoration happen? If we as a group want to get involved in that-yes we can and should coordinate with the Ag workgroup.
        - Verification guidance for urban stream restoration under development though Chesapeake Bay Program Sediment/Stream Coordinator (Bill Stack, Neely Law, Lisa Fraley McNeal). See below for more information.
        - The value of this group is the habitat perspective that might otherwise be lost in these types of review processes. Physical and biological

perspective vs the chemical (water quality) focus. Exploit diversity and expertise of this group so that streams are seen from habitat perspective

- Pete Hill: one of the things I would love to see is documenting habitat improvements with water quality (urban is hard to with IBI)
- The group can provide feedback to each other. We have projects going on that would benefit from review from workgroup members. Action: Focus Area-add member updates on a regular basis in order to know what other states are working on and implementing.

Scheduled Updates:

1. Stream Restoration BMP Verification Guidance (Bill Stack)
    a. Charged in May 2013 by Urban Stormwater Workgroup to develop principles/guidance for BMPs associated with specific practices, including crediting stream restoration practices for sediment and nutrient reduction. WIPs indicate around 700 miles planned between now and 2025 in order to meet reduction goals. Need to verify that these practices are functioning—hence, the need for verification guidance.
    b. Discussion:
        i. Clarification on permit reporting requirements
            1. We described those permits and the MS4 requires annual reports and don't want to duplicate what they require. But we tried to describe each of the permits.
        ii. Pete: what kind of assessment?
            1. These guidelines are associated with stream restoration protocols developed for nutrient and sediment reduction—first and foremost. However, in the stream restoration protocols we recommended that assessments should not be done solely with goal of water quality targets; rather, they should take a big picture-holistic approach that is inclusive of other values, such as habitat. Used the framework developed by Rich Starr and Will Harmon (i.e stream functions pyramid. The protocols developed recommend that projects be inspected every 5 years and a determination made if they are still functioning as designed. If not, credit goes away until repairs are made.
        iii. Rich: these came out just a few weeks ago. Are they a draft? Are they open for comments?
            1. Document went through numerous reviews, including by members of Habitat GIT, and next process is to go through BMP Verification Committee (March) so any input would need to be put forward through that group. Action: Hannah and Jennifer will share with the group. (same as next item below)
2. Expert Panel Report Recommendations (Bill Stack)
    a. This set of recommendations was what set the stage for the verification guidance. The expert panel report was released Spring 2013, however there is an

updated stream restoration report that was finalized two weeks ago to address the application of the protocols 'in practice'. The Stream Expert Panel developed 3 protocols for crediting stream projects for nutrient and sediment reduction. An appendix will be added in the near future to explain how the stream restoration protocols work with the Chesapeake scenario builder and model. There is an opportunity to provide high load reductions based on documented monitoring results.

   b. This report has been posted on Bay Program website: Action: Hannah and Jennifer will share with the group. And verification guidance document.
   c. Link to Report: http://stat.chesapeakebay.net/?q=node/130&quicktabs_10=3
   d. Link to Verification Guidance: (Streams starts on page 80) http://www.chesapeakebay.net/channel_files/18764/appendix_k--workgroups_verification_guidance_2_11_14.pdf

3. STAC Workshop (Bill Stack/Rich Starr)
   a. A Steering committee formed for the workgroup and it is being chaired by Bill Stack and Rich Starr. The workshop, "Designing sustainable stream restoration projects in the Chesapeke Bay Watershed," is scheduled for two days between May 6 and 8. The purpose of the workshop is to reach consensus among practitioners on common language and assessment practices and to make recommendations on how guidelines could be developed. There will not be guidelines developed as a final end product of the workshop; however feedback will be gathered as well as recommendations on how they may be developed (i.e. a framework).
      i. Claire: There were a number of us urging that attention be paid to correctly identifying what is impacting the streams. Identify the major stressors.
4. Brook Trout Work in Shenandoah National Park (Than Hitt)
   a. Than works on fish population and ecology at the Leetown Science Center, USGS.
   b. Shenandoah Brook Trout work—how will air temperature change translate into water temperature change? We need spatial modeling at relatively fine grain in order to forecast future change. Investigate drivers of ground water and surface water in relation to Brook trout habitat and linking to biological influence. Population modeling based on long term time series record from Shenandoah National Park. Looking at last 20 years of climate records and understand how the time series is predicted. Modeling across the National Park is the first step. Dataset 1996-2013. See important seasonal pattern that predict next year young of the year crop and recruitment into adult size classes. Use the model to determine what this means for climate forecasting and do some simulation work.
   c. If you want more information, https://profile.usgs.gov/nhitt
   d. Discussion
      i. Denise: what does seasonal flow indicate~~s~~ for next season?
         1. Patterns we are seeing relate to fall flow and winter flow in prior year. Higher fall flow=greater young of year in next year.

Modeling mean across seasonal data, not capturing variability. Winter flow higher=decreased YOY in next year. Capturing variation moving forward would be interesting and include peak events. Looking for advice on spatial scale. Reach scale is where we see sensitivity. HUC 12 scale not so much.

5. Brook Trout Prioritization Tool (Todd Petty)
    a. https://dl.dropboxusercontent.com/u/36523834/brooktrout_petty_14Feb2o14.ppt
    b. Decision support GIS based customized tool that allow user to examine conditions at multiple scales and priorities for restoration and protection and run specific future scenarios. Pulls in information and data (species presence/absence data and stream and land use GIS layers) into modeling process imbedded within GIS. There are various tool components; Visualization, prioritization, alternative futures, conservation strategy tools. You can get ranking and relative influence of different variables—anthro and natural habitat variables. Modeling output and response functions.
    c. Building a specific model for Brook Trout in the Chesapeake Bay Watershed
    d. Discussion
        i. Understanding that EBTJV is working with Todd and LCCs to develop tool. Technical group put together that Todd needs info to develop tool. If you have interest in participating if you want to use this tool to do BT work, send email to Rich or Jennifer and make sure it gets to appropriate folks.
        ii. Ron: Thanks for making the statement that BT restoration projects can be used to have downstream benefits for other species.
6. Chesapeake Bay Program's New Watershed Agreement and MGMT Strategies
    a. New Agreement crafted over past year. Contains goals and associated outcomes what by when) and MGMT strategies will be crafted by GITs and WGs that will detail who, where, and how of the outcomes. Habitat GIT is responsible for the developing a management strategy for the stream outcome with black duck sub-outcome. The PSC on Feb 28th will set wheels in motion for spring adoption and signing event of the new agreement.
    b. Opportunity exists for the stream health workgroup to influence and inform the management strategy for the stream health outcome.
    c. Discussion
        i. Claire: will be soon sending data request letter to monitoring programs collecting benthic data and submit data to Chesapeake Bay Program. CBP has been shrinking and the person that processed the data is no longer available. Need help from the workgroup and feedback and direction and guidance on improving IBI. Thinking of taking it down to genus level and verification.
            1. Few sources of support available to GITs and WGs being funded by EPA through CBPO. One is the Center for Watershed Protection and role as stream and sediment coordinator. Huge help and are entering year 3 of contract. Two new ones. 1. Tetra Tech available

to support us if we have specific tasks we need help with, we can enter a request2. VA Tech-contracted to provide assistance for BMPs and largely devoted to Ag BMPs but if we have specific need that WG or GIT would like to have assistance with, we can detail out and submit request. Action: Claire will contact Jennifer about support for updating BIBI. Jennifer will follow up with Lucinda Power to advance Habitat GIT requests.

Member Updates

1. Scott Phillips (USGS) chairs the non tidal workgroup (responsible for generating Chessie BIBI). BIBI and stream outcome will be in bay agreement and BIBI needs to be updated and improved. Would like future discussion on how workgroup can enhance this. Chessie BIBI is stream health outcome and how the health is measured. Would like the group to provide guidance on what BIBI would look like.
    a. Pete Hill DC: urban streams impacted by stormwater—evolution but looking at subwatersheds to maximize stormwater retrofits and measure control. Also planning stream restoration projects and monitoring projects with expertise to do this and answer realistic retrofit scenario in urban area and we have funding to do it. Maximizing BMPs within area and monitoring and providing data to folks on what to expect in urban situation and will also do in stream work in order to figure out impacts of retrofits. Monitoring sediments and nutrients as well
    b. Scott: non tidal workgroup has some information on this.
2. Anne Hairston Strang: UFS-partners working on project at TNC and UMCES Appalachian lab working on tarping project and identify ecohydrological areas and biological monitoring. Using brook trout and stream layers with restoration targeting.
3. Alana Hartman: WV-erosion in streams leading into Potomac from streams. Data collected by volunteers and partners and stream walks and useful to share with other agencies and load reductions for next phase of WIPs. Would like to share a draft around and get feedback from people. Action: if you want feedback, send anything to Hannah or Neely or Rich and it can be sent around to group
4. Ron Klauda: outcomes in new bay agreement is to increase stream health by 10%. Looking at question of change over time with MBSS and look at how survey has changed since 1995. We are going to resample sites that were collected in earlier rounds to detect changes. Geomorphology measurement increase. Looking for input from members on how to deal with some of these datasets. Stream salamander IBI developing
5. Joe Berg: woody large engineer structure design manual guidelines with USACE prepared. Review and comment period. You can get access to draft at the end of March.
6. Scott Phillips: Peter Claggett (USGS) is starting to initiate plan for floodplain mapping trapping capacity for nutrient and sediment.

Next Steps for the Workgroup:

- STAC Workshop—if you are interested in participating, email Rich or Bill.
- BT Tools—interest, contact Than or Todd/Rich/Jennifer
- CBP Agreement—might be of interest to the group, agreement will be signed soon and once that is done, MGMT strategies will be developed and influence how stream work is

done and prioritized. This would be of interest to the workgroup to influence how streams are managed. These could influence how we get work done. We can put together what these strategies could look like.
    - Priority item for workgroup to make sure are involved in development of strategies? If so, whats the best way to be involved?
        - Rob Shreeve: it is a priority if we can make leap from TMDL focus to how that affects local stream health (hard link to make). If we believe the strategy that come out will be more than sediment and nutrient reduction. Strategy needs to look ecological health and we need to be able to show how we relate into the nutrient and sediment removal that have strategies that promote fish and habitat.
        - Scott: habitat to support freshwater fisheries is a factor that needs to be included. Discussion with Peyton and GIT 1.
        - Jennifer: outcomes from STAC workshop would lend themselves to developing strategy for watershed.
        - Rich: general vs prescriptive. Allow for flexibility and innovation to occur and keep that in mind about mgmt strategies.
- On call contractors: if you have idea how we can use those resources, contact Jennifer.
- Current need on Chessie BIBI. Could benefit with working on Ron and looking at change over time.
    - Claire: Will follow up with Jennifer about this need and submit to Tetratech. After that—ask interested members to be adhoc group to help step through refinement possible development of genus level indicator and 2008 base outcome goal. All depends on getting data incorporated into database.
- Next hot topics: discuss how we might deal with involvement in MGMT strategies. Next meeting June 1 time span. Get information on management strategies out to group in advance. Send out doodle poll mid-May.