Maintain Healthy Watersheds GIT Meeting Minutes
October 12, 2021
Meeting Materials

Attendees:

- Ben Coverdale: Delaware DNREC, Nonpoint Source Program
- Jason Dubow, MD Planning
- Lee Epstein CBF
- Jeff Lerner: New HWGIT Chair, Healthy Watersheds
- John Wolf: GIS
- Nancy Roth missed affiliation
- Renee Thompson: HWGIT Coordinator
- Adrienne Kotula, CBC
- Debbie Herr Cornwell, MDP
- Scott Stranko MDNR
- Laura Cattell Noll: Alliance for the Chesapeake Bay LGAC
- Kristin Saunders: UMCES, Cross Program Coordinator
- Tim Craddock: WVDEP nonpoint source program
- Angel Valdez: MDE Anti degradation

Agenda:

- Welcome and Introductions- Renee Thompson, USGS Chesapeake Bay Program

Renee started the meeting by explaining what each hour of the meeting will contain. In the first hour John Wolfe will be speaking about the Story Map work he has done on behalf of the HWGIT team.

In the second hour, the final portion of the SRS review will be discussed, we are now in the adaptive management portion and are now trying to determine what changes we might need to make to our management strategies.

New chair Nomination
Jason Dubow nominated Jeff Lerner of the Healthy Watersheds Grant Consortium. Jeff has accepted pending formal acceptance by the GIT. Jason Dubow gave an overview on Jeff noting his project management of strategy for marsh migration and sea level rise around Blackwater NWR, and his experience in conservation planning and scientific background. Jason also noted that Jeff's experience will help to make HW goals successful region wide. Anne Hairston- Strang made the comment that Jeff is uniquely situated to lead this kind of effort. Kristen noted that "He is perfectly suited for this role! Let's embrace his skills and get to work!"

Jeff then took the floor and thanked HWGIT for the opportunity. He noted that excited to be involved because what HWGIT is doing in the region complements to nationwide restoration work. Jeff stated that he can advocate on HWGIT's behalf for the protection of healthy

watersheds and would be happy to make sure we're connecting with other teams. Jeff is interested in the development of tools, financing, and funding options with local governments. Jeff has experience working with state and local governments on SRF and other grants and funds that can advance healthy watershed goals.

Barring any concerns Renne will advance our recommendation for Jeff to the Management Board.

Draft Healthy Watersheds Story Map – John Wolf, USGS Chesapeake Bay Program

John Has been working on a story Map for the HWGIT. John started by giving some background on the project and stated that he hoped to get some feedback on the Story Map. USGS was given some funds to develop some geo-narratives (another name for Story Maps) of the Chesapeake region. There are 4 story maps that have been created, but they all live within in one giant Story Map. The Story Map gives a background and overview of the HWGIT (this one is the mostly populated with information that can be found on Chesapeakebay.net and through Chesapeake Bay Decisions). The second Story Map is on adaptive management and the Strategy Review System (There are some gaps in content on this Story Map). The third Story Map is on Chesapeake Healthy Watershed Assessment. The fourth is on co-benefits and collaboration.

John then went through and showed each Story Map, he noted that the first one is very straight forward and direct.
 The Adaptive management Story Map includes Adaptive Management, Management Approaches, Potential Interim Indicators, Administrative Priorities. John noted that there are green lines in this presentation that are comments or questions posed to the HWGIT (these will NOT be in the final project). There were several maps in this presentation that visualize some of the indicators of healthy watersheds.

Chesapeake Healthy Watershed Assessment Story Map consists of a background on methods and sample results. The Story map then moves into a map on the composite watershed health index. The Story map then gives background on the watershed health indices, it identifies and explains each of these indices and the sub-indices. Maps of these health indies are included. Vulnerability is the next portion and the Story Map, and it looks at example metrics of vulnerability, followed by maps of each metric this story map ends with references.

The Co-Benefits and Collaboration Story Map is the fourth and final Story Map. It gives Application Examples, which allows users to puzzle out management questions, find areas where efforts would have highest impact. The Chesapeake Healthy Watersheds Assessment has over 40 metrics of watershed health and vulnerability, so it is impossible to make one map with all that information. So, it is important to have a multi-criteria decisions tool, the filter function on the watershed map allows for a user to pick and choose multiple criteria that they may want to examine. The Story Map ends with references.

Renee sent out a form following the meeting to gather feedback on story maps to refine their design.

Discussion
- Ann Hairston-Strang: Powerful to bring mapping to people so they can look at issues in their community with a local perspective
  - Locals may be able to pose questions for locally relevant answers
- Jason Dubow: Is it possible to show on maps how state identified healthy watersheds have changed over time?
  - John Wolf: Yes, has it changed?
  - Renee: we could build an indicator showing kinds of changes in designated healthy watersheds over time.
- Kristin Saunders: how are actors at state and local level making their decisions and how can we help inform them and our team. Can we make these applications useful across the partnership?
- John Wolf: for 2.0, we could deliberately target maps to cross-GIT utility
- Jason Dubow: It'd be great to clarify the various audiences who will use the story map tools and what they will use them for.

Review of CBP SRS and GIT funding status and next steps - Renee Thompson
The purpose of this prestation is to update get goal team members to give feedback. This is a "where we are at, what we need to do, and where we are going" logistical presentation to help guide the next steps

In August the biennial SRS review with the management board occurred. There has been lots of behind the scenes work that has occurred since then. On 10/28 Near Final Materials are due. Between 11/1 and 11/26 during this time there will be public signatory feedback happening. On 12/8 final materials are due.

Renee has gone through the management strategy and logistic and action plan and has identified specific areas that augment or improve. General themes are well established in excising materials, but there is only a small list of factors that are listed as things affecting our ability to sustain 100% of the state identified healthy watershed.
Factors:
- Human and natural factors: population growth
- Federal, state, and local regulatory framework (Engagement)
  - Information about the status of healthy waters
  - Cumulative action, with a focus on local, state, and federal engagement.

(Renee noted that there are more factors out there that could be added to this list)
  - Our Management Approaches:
    - Tracking:
      - Inventory healthy watersheds
      - Assess vulnerability
      - Prioritize protection efforts

- - - Local Leadership: Local commitment and capacity to protect their healthy watershed
    - Federal and State Leadership: Increase communication within the federal family, so that federal programs and agency decision-making are more protective of state-identified healthy watersheds
    - Support state-based efforts: Encourage and recognize important activities within states.
    - Cross-outcome collaboration: cooperation and integration to work towards achieving multiple benefit.

  - Our Current efforts and gaps
    - Inventory healthy watersheds (new data needed for some jurisdictions)
      - Utilize CHWA 2.0
        - GAP: identify new areas for consideration
    - Assess vulnerability
      - Interim indicators aimed at informing vulnerability to development as well as potential threatened high cold-water habitat.
      - Metrics related to land use conversion
      - GAPs:
        - What is the management response?
        - Need to continually synthesize information on proposed projects to more accurately assess near-term vulnerabilities.
    - Support state-based efforts
      - State led and state-based activities
      - GAPs
    - Cross-outcome collaboration cooperation and integration to work towards achieving multiple benefits
      - The HWGIT is committed to coordination
    - Prioritize protection efforts
      - Demonstrate CHWA 2.0 to inform prioritization
        - Gap (s): Communication to stakeholders and end users
        - Some local jurisdictions may have significant resources and policy tools to address watershed risks, while others may not.
    - Local Leadership: Local commitment and capacity to protect their healthy watersheds to local communities particularly local decision makers
      - Communicate values associated with maintaining healthy watersheds to local communities, particularly to local decisions makers.
      - Gap(s): addressing core functions including education, public safety, land use decision making and complying with a variety of water quality requirements leave little for water shed protection.

- ■ Federal and State Leadership: Increase communication within the federal family, so that federal programs and agency decision-making are more protective of state-identified healthy watersheds
  - ● Scientific, technical, and policy tools, such as watershed assessment methodologies, vulnerability analysis
  - ● GAP (s): some tools are underdeveloped, poorly supported and unsuited for widespread sharing and or integration.
- ■ Support state-based efforts: Encourage and recognize important activities within states
  - ● State led and state-based activities to identify assess and monitor healthy watershed play critical role in achieving the outcome.
  - ● GAP(s): lack of regulatory "teeth", need to better tie to water quality outcomes.
- ■ Cross-outcome collaboration: cooperation and integration to work towards achieving multiple benefit.
  - ● The HWGIT is committed to coordiantion and cooperation with key CBP workgroups to assure shared resources, information and priorities while reducing duplication of efforts.
  - ● GAP(s): staff capacity
- ○ Science Needs
  - ■ Indicator Development
    - ● Interim indicator investigations: Impervious surface, protected lands and habitat suitability are under investigation to use as interim measures until the completion of a Healthy Watersheds Assessment 2.0 tool in 2022-2023

- ○ Monitoring Needs- What metrics rely on monitoring data?
  - ■ MBSS (Maryland Biological Stream Survey)
  - ■ Chessie BIBI (Chesapeake Basin-wide Index of Biotic Integrity)
  - ■ 6 candidate geomorphic metrics:
    - ● Streambank lateral erosion
    - ● Streambank change (m2)
    - ● Streambank sediment flux (incorporates bank height, lateral erosion, and bulk density)
    - ● Streambed D50
    - ● Streambed fine sediment cover
    - ● Streambed fine sediment + sand cover
  - ■ MBSS Stronghold Watersheds
  - ■ Conductivity (developed from field data and modeling)
  - ■ Recent forest loss (Hansen data, remote sensing imagery)
  - ■ Land Use Metrics
    - ● Long term monitoring and evaluation
    - ● Short term metrics and vulnerability
    - ● Land policy BMP

- - - ● Understanding "threshold" from a scientific and local perspective.
      - ● USGS Land Change Monitoring Assessment and Projection (LCMAP 1985-2019)
      - ● COVID??
    - ■ DEIJ, public health and communities
      - ● HWGIT Staff sits on the DEIJ Action Team and is utilizing the CBP guidance and other resources as available to incorporate equity considerations in logic action plan, use DEIJ data layers as overlays to inform watershed health, resilience, and vulnerability of underserved communities.
  - ○ Narrative Analysis. Based on the information provided we plan to:
    - ■ Renewed GIT Input
    - ■ Monitoring needs
    - ■ DEIJ Needs
    - ■ Climate considerations
    - ■ Indicator development
    - ■ Refine tools and communication based on social science
  - ○ Incorporate DEIJ into Work Plans
    - ■ Use SPURR (Scientific, Programmatic partners, Urgency of needed action, Risk of not acting, Resources Required)
    - ■ Investigate further and develop communication resources
    - ■ How to incorporate DEIJ into our work?
  - ○ GIT Funding 2021
    - ■ Chesapeake Healthy Watersheds Assessment 2.0
      - ● Table 1 has been submitted, not approved yet
      - ● will improve, refine, and finalize the Chesapeake healthy watersheds Assessment
    - ■ Working with stewardship on Chesapeake Conservation Atlas

Discussion

  - ■ Anne: might not be able to work with factors, there might only be a management solution. Invasive species should be added
  - ■ Jason: we should include climate as a factor
  - ■ Nancy: not everything will fit into bay or statewide assessments (patchy data), but it doesn't mean that things that can not get mapped are not important. There are other ways to get messages out there.
  - ■ Jeff: Factors seem like challenges to meeting our goals,
    - ● Needs to be acknowledged even if we can't measure them
  - ■ Anne: Do we need to call out impervious surfaces as a factor
    - ● Renee: Yes
    - ● Anne: But do we need to emphasize impervious conductivity.
    - ● Jeff Lerner: Could be seen as an opportunity. Fish passage projects could be an avenue to upgrade infrastructure and improve habitat in stream watersheds

- Anne: how do we create opportunities for green infrastructure improvements
    - How can we make it part of the design instead of an afterthought?
- Jeff: Is this something that can be addressed by finding the right audience?
- Renee: Who is that audience? How do I access them?
    - Anne: those who fund the projects
    - Nancy: Transportation agencies
    - Jason: Fed, state, and local BMP implementers. One bullet on regulatory framework and one on implementers
- Renee: factors are looking more conclusive if not complete.
- Jason: Suggested Actions:
    - Can we develop a CHWA update and maintenance plan that can spell out data needs and a proposed approach for obtaining necessary data perhaps on every other year basis?
    - Obtain update state-identified healthy watersheds from each agreement signatory

- SRS Materials: Working on adaptive management, assessing actions in LAP, and working to refine LAP for later SRS submission