



Meeting Minutes

Healthy Watersheds and Land Use Outcomes of the Chesapeake
Bay Watershed Agreement:
Work Session for Management Strategy Development

Joe Macknis Memorial Conference Room (Fish Shack)
410 Severn Avenue, Annapolis, MD 21403
October 30th, 2014 10:00 A.M. – 3:00 P.M.

Meeting Summary/Purpose:

The 2014 Chesapeake Bay Watershed Agreement states that by June 2015 the Chesapeake Bay Program's Goal Implementation Teams will develop Management Strategies for the Outcomes that support the Agreement's Goals. These Management Strategies are multiyear plans to address, implement, and measure the Outcomes in the Agreement. The Healthy Watersheds GIT is responsible for the development of three management strategies: one for the **Healthy Watersheds Outcome**, and two for the **Land Use Outcomes**. This meeting served as a brainstorming work session for these three management strategies.

Healthy Watersheds Goal: Sustain state-identified healthy waters and watersheds recognized for their high quality and/or high ecological value.

- **Healthy Watersheds Outcome:** 100 percent of state-identified currently healthy waters and watersheds remain healthy.

Land Conservation Goal: Conserve landscapes treasured by citizens in order to maintain water quality and habitat; sustain working forests, farms and maritime communities; and conserve lands of cultural, indigenous and community value.

- **Land Use Methods and Metrics Development Outcome:** Continually improve the knowledge of land conversion and the associated impacts throughout the watershed. By 2016, develop a Chesapeake Bay watershed-wide methodology and local level metrics for characterizing the rate of farmland, forest and wetland conversion, measuring the extent and rate of change in impervious surface coverage and quantifying the potential impacts of land conversion to water quality, healthy watersheds and communities. Launch a public awareness campaign to share this information with citizens, local governments, elected officials and stakeholders.
- **Land Use Options Evaluation Outcome:** By the end of 2017, with the direct involvement of local governments or their representatives, evaluate policy options, incentives and planning tools that could assist them in continually improving their capacity to reduce the rate of conversion of agricultural lands, forests and wetlands as well as the rate of changing landscapes from more natural lands that soak up pollutants to those that are paved over, hardscaped or otherwise impervious. Strategies should be developed for supporting local governments' and others' efforts in reducing these rates by 2025 and beyond.

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Meeting Participants:

Mark Bryer (TNC), *Chair*
Jason Dubow (MDP), *Vice-Chair*
Amy Handen (NPS CBPO), *Coordinator*
Tuana Phillips (Chesapeake Research Consortium), *Staff*
Ben Sears (NYSDEC)
Jason Keppler (MDA)
Anne Hairston-Strang (MD DNR)
Helen Stewart (MD DNR)
Stephanie Martins (MDP)
Daniel Rosen (MDP)
John Schneider (DE DNREC)
Tish Robertson (VA DEQ)
Todd Janeski (VA DCR)
Greg Evans (VA DOF)
Judy Okay (VA DOF)
Nesha McRae (VADEQ)
Nicole Sandberg (VADEQ)
Tim Craddock (WV DEP)
Diane Wilson (PA DEP)
Kevin Anderson (TU)
Mary Gattis (Alliance for the Chesapeake Bay, Local Government Advisory Committee)
Lee Epstein (CBF)
Gene Yagow (VA Tech, Scientific and Technical Advisory Committee)
John Wolf (USGS CBPO)
Bevin Buchheister (Chesapeake Bay Commission)
Chuck Hunt (NPS)
Peter Claggett (USGS CBPO)
Jeff Reagan (Stormwater Maintenance & Consulting)
Julie Walker (Chesapeake Research Consortium)
Adam Ridley (USGS CBPO)
Suzanne Copping (NPS CBPO)
Jack Frye (Chesapeake Bay Commission)
LJ Ingram (Chart, LLC)
Julie Winters (Environmental Protection Agency)
Donnelle Keech (TNC)
Wink Hastings (NPS CBPO)
Josh Burch (DC DOE)
Quentin Stubbs (USGS CBPO)

Review of Our Task: Management Strategy Development

Mark Bryer welcomed everybody to the meeting and gave an overview of the day's agenda. For more information, please see slides 1- 10 on Mark's PowerPoint presentation at the following link: http://www.chesapeakebay.net/channel_files/22134/overview_10-30-14_mark_bryer.pdf

Comments and other discussion points:

- The actual management strategies – the singular document that summarizes the partnership's actions – is not being developed at today's meeting.
 - To learn about the content of the management strategy "Key Elements" document: http://www.chesapeakebay.net/channel_files/22134/key_elements_document_10-23-14.pdf
- Management Strategy development "partners" encompass more than just the Agreement signatories.
- Need to think collectively about what to focus on in the next three months: e.g., gaps, who is missing from the discussion, and leading groups for management strategy development.
- In 2015, the Citizen's Advisory Committee (CAC) is creating a subgroup in 2015 to focus on natural lands and land use issues. There will be overlap between this group's focus and other GITs' work. Greg Evans volunteered to act as a liaison between CAC and the Healthy Watersheds Goal Team's management strategy discussions.

Healthy Watersheds Outcome Management Strategy Discussion

Mark Bryer and John Wolf led this discussion. For more information please see slides 11 – 15 on Mark's PowerPoint presentation:

http://www.chesapeakebay.net/channel_files/22134/overview_10-30-14_mark_bryer.pdf

In addition, please see John's PowerPoint presentation on the status of the tracking work and other issues/questions regarding the tracking and action efforts that are required to achieve our Outcome:

http://www.chesapeakebay.net/channel_files/22134/healthy_watersheds_slides_10-30-14_john_wolf.pdf

Comments and other discussion points:

- Because of the work the Healthy Watersheds Goal Team has done in the past, we already have the beginnings of a management strategy.
- On monitoring the outcome: how often should we report the status of healthy watersheds, and who are the decision-makers that will be involved with reviewing the data? We will have to consider these questions.
- Policy and action are just as important as the tracking component. Policy and action will help make sure healthy watersheds are maintained.
 - We will have to track both health status and protection; tracking protection is needed to see whether the investments we are making are actually effective.
 - Tracking protection will involve more than just whether or not the land is protected.
- In the management strategy, we will define what it means for a healthy watershed to be "protected." We acknowledge that we will have to work to continually improve this definition over time as we learn. Some considerations discussed:
 - How much land do we need to protect to maintain the health? Are certain portions of a watershed more critical to its health?

- Surface and mineral rights are often separated, so traditional land protection needs to be considered an important tool for healthy watershed protection, but it alone may not confer “protected” status..
- Similarly, land use policies, in-stream flow policies, and community engagement are important factors to consider in assessing the level of protection.
- Knowing where healthy watersheds are can be used to inform conservation priorities, and see how much that conservation is benefiting healthy watersheds.
- In Maryland, there are no Tier III waters designated at this time; under COMAR 26.08.02.04-2 such waters must have high water quality, exceptional biological resources and be fully protected.
- Do we have a role to play in trying to harmonize the different state approaches?
 - The GIT has been talking about a unified, consistent definition for a long time. We agreed that states would identify healthy watersheds differently.
 - Our collective effort is better put toward how we can maintain healthy watersheds rather than coming up with a harmonized definition. More put toward action.
 - EPA Healthy Watersheds Program used an integrated assessment approach with states across the country. Could this be an opportunity to help states that have not completed a statewide assessment?
 - Another advantage to using state-specific criteria is that it is already linked into legal regulatory mechanisms. These assessments have an interval that is repeatable.
- A vulnerability analysis is needed to prioritize efforts in certain areas.
 - USGS employees at CPBO have done urban lands change models over the years which could be useful for vulnerability. A new model version is coming out later this year.
- It will be challenging to simply communicate the level of protection. For example, we might report that 30% of a healthy watershed was protected in a year, but during the next year land use change and development affected the remaining 70% of the watershed. How can we simply integrate this information and communicate it?
- As we build our management strategy, we will ask “are our actions truly addressing the most important factors affecting healthy watersheds? Are there critical gaps in our actions that inhibit our ability to achieve our outcome?”
- There are other numerical assessments of health that we can draw from. E.g., brook trout and other goal teams’ work. We will integrate this information as best as possible.
- Challenge: the TMDL has been so successful that all money goes towards that.
 - We need to consider this as a factors influencing. The TMDL will affect our ability to do this. E.g., funding – there will be a need to justify and show nutrient/sediment reduction to get funding.
- Policy incentives will be a part of the management strategy. CBC and partners are working on crediting land conservation in the Chesapeake Model.
- It was pointed out that a healthy watersheds element is required for the updated 319 management plans.
- What does local engagement look like?
 - Capacity building for groups.
- Input from federal level is important as well; we need to evaluate how federal policy actions can support the maintenance of healthy watersheds.

- There is no single formula for healthy watershed protection.
- Todd Janeski offered to share with the group the VA A-I Approach by late November.
- Idea: have protection incorporated in WIPs.
- Bring landowners/homeowners into the strategy.
 - Use healthy watersheds as a marketing tool. Engage with realtors.
 - Ongoing efforts: Stormwater BMP projects; River Smart Home; CBT, NFWF, and STAC report on behavioral change and economics; Local Leadership Outcome.
- Suggestion: pull away from “local engagement” focus and approach it as action. There are actions other than local engagement that we need to consider. Local engagement is a component of action.
- Who are we missing from the table?
 - Local government. Not a monolith – we need to be thoughtful about what elements of local government we are trying to reach out to.
 - Professional planners in the planning field.
 - USFS, NRCS
 - Learn from LTA about capacity building.
 - EPA, Region 3 Regulators – MS4, 404, antidegradation.
 - Alliance for the Chesapeake Bay (they do a lot of work with landowners and forestry).
 - Local land use advocacy groups.
 - DOT (for mitigation of transportation)
 - FERC
- How can we make sure the “people missing from the table” aren’t stretched thin with other CBP efforts and management strategies?
- Case study: Protected lands surrounding New York City help maintain drinking water quality.
- Given that the outcome has "tracking" and "action" elements, the lead authors of the management strategy should include more than those in the tracking workgroup.

Next step for this management strategy:

- Reconvene in early to mid- December to continue the conversation.

Land Use Metrics and Methods Outcome Management Strategy Discussion

New Meeting Participants:

Bryan Bloch (DE DNREC)

Laura Muhs (Navy)

Emma Giese (CRC)

David Newburn (University of Maryland)

Jeff White (MDE)

Jennifer Walls (DE DNREC)

Al Todd (Alliance for Chesapeake Bay)

Peter Claggett led this discussion. Peter reviewed the outcome and its intent, utility, specific elements, technical issues, approaches for monitoring, and our roles/charge. For more

information and details, please see Peter's PowerPoint presentation at the following link:
http://www.chesapeakebay.net/channel_files/22134/lu_metric_outcome_103014_peter_claggett.pdf

Comments and other discussion points:

- Could this assessment be a portion of threat/vulnerability of healthy watersheds?
 - Could be, but this is an assessment of what has occurred and not what could happen.
- Question to consider: are we doing separate assessments for forests, wetlands, and farmland? Or one assessment for natural lands?
- Who is going to do the communication? Will it be the signatories?
 - The messenger should be selected for the particular audience.
 - First we need a theory of change framework.
- We need some sort of scientific basis, or solid science that would be communicated to everybody. We do not have strong enough science now: e.g., for quantifying impacts of land conversion on healthy watersheds and water quality. Percentage impervious is not enough.
 - Part of the communications strategy has to be the effects of land conversion.
 - Better science is needed to affect change.
- One assessment is economic/financial. This is especially needed at the local level.
- LGAC may be able to drive the utility of metric.
 - Local governments have their one foot in the air and are ready to take the next step. We need to provide them with enough information to be confident that they are moving in the right direction.
 - What kind of guidance would be most helpful for this next step – economical, scientific? LGAC could answer this question, but an economic assessment would probably be most helpful.
- We need to think about informing local leaders' constituency (citizens) on watershed management ramifications and impact to healthy watersheds, not just informing local officials.
- Coordinate with the Integrated Trends Analysis Workgroup that STAR has created.
- Lesson learned: communication can get derailed. Can't communicate one time and be done, it is an adaptive process.
- There are two types of approaches: use LandSat for a comprehensive assessment (no level of confidence) or stratified sampling technique (which includes level of confidence). Sampling is also an opportunity to incorporate citizen science and communicate/educate.
 - Another option is to use both approaches. We might need two types of scales: one high resolution for local level, one more comprehensive for decisions made at larger scales.
 - Need to figure out our goal before retrieving datasets.
- Peter asked the group: what are relevant ongoing or anticipated activities?
 - MS4 program.
 - Use census urbanized areas as places where changes are more likely to occur.
 - EPA RPF for citizen monitoring. A lot of datasets out there that could be used.
 - Forest Cover land data by UMD.
 - USDA cropland layer for agriculture
 - Patuxent River, VA using LiDAR technologies to look at trees, erosion.

- UMD evaluation of effectiveness after MD Forest Conservation Act.
- Questions to consider: Is our role, our charge to assess rate of conversion of forests, wetlands, and farmland or just monitor changes in impervious surfaces knowing that conversion and loss will occur? Are we tracking land cover, or just change?
 - The Wetland Workgroup is interested in conversion of wetlands.
- What other groups do we need at the table?
 - LGAC
 - STAC
 - Water Quality GIT
 - Wetland, urban tree canopy, forest buffer Outcome lead groups.
 - Communities developing stormwater fees.
 - Federal actors who are making land use decisions or decisions that affect land use (e.g. FERC, DoD, DoT)
 - Land conservation community also a consumer: e.g., LTA
 - Who are our communicators? We need to be talking to them too. E.g., Communications Team at Chesapeake Bay Program.
- We need to coordinate with other groups who are looking at similar data (e.g. climate and forestry data) so that we don't reinvent the wheel.
- There is a difference between interpretation and communication. Who is going to interpret the results?
- This assessment is more complicated than we think. Impervious areas in Delaware drain water into a stormwater facilities and wastewater treatment plants. This is a good thing, but does not mean we want impervious surfaces to become a BMP. Also, type of crop is important: turf land is better than corn plants.
- This management strategy will be more like a proposal, a plan for a plan.

Next Step for this management strategy:

- Peter Claggett and the Land Use Workgroup (LUWG) will work together on this strategy at the LUWG's monthly meetings. The next meeting is November 20th. They will also target outreach to the people who are missing from the table.

Land Use Options Evaluation Outcome Management Strategy

Jason Dubow led this discussion. Jason gave an overview of the Outcome and broke down the language. For the first "evaluation" component, he reviewed the types of policy options, incentives and planning tools that should be evaluated and options for actually completing this evaluation. For more information, please see Jason's PowerPoint presentation at:

http://www.chesapeakebay.net/channel_files/22134/land_use_options_evaluation_outcome_oct_30_2014_jason_dubow.pdf

Comments and other discussion points:

- Jason opened the floor up to ask the group, how will we get this done? Who will be the body to complete this evaluation?
 - To get support from people, it has to come from the people. It becomes something they own.

- Include stakeholders other than local government and signatories. Groups like CBF, or other third parties.
- Master's thesis project idea.
- Education about tools (traditional land preservation, planning/zoning, rural economic development, financial incentives, methods to facilitate growth in towns and cities) is important. This should be incorporated into the evaluation.
- Important to coordinate with others who have questions and want to engage with local jurisdictions. LGAC may be a venue to do that. There needs to be at least concerted effort to not send out too many surveys to the same audience, for instance.
 - Other groups we want to coordinate with include those involved with the local leadership outcome and citizen stewardship outcome.
 - This should be elevated to Management Board.
 - We should also coordinate with Water Quality folks because they are already connected to local governments through TMDL policy.
 - Elevate to the Management Board about the need of local government input.
- We should be careful about information overload.
 - Providing people with information does not increase their capacity. If our goal is capacity building, we need to go beyond communication. The word "capacity" in the Outcome is intentional.
 - The NPS Rivers, Trails, and Conservation Assistance Program assists with locals on projects, but also works through it with them so that they can do it again. It is very important to engage with local actors from the beginning.
 - Also important that we are thoughtful about differences between communities when thinking about capacity building.
- Engaging with 7,000+ communities is a challenge. We can start in certain areas that can serve as case studies.
 - EPA has had to do that before with EFC. Also through the NFWF grants program.
- Consider the due date for this outcome versus the other land use outcome.
 - We can outline a compilation of things to get to that point, things we can do before the metric and after. An incremental process.
 - We can at least proceed with evaluation of options for now.
- Defining success will be very important, if not crucial. It will need to be realistic and focused.
- Social science research and evaluation needs to be integrated.
- Can we agree that we are not doing another manual? Instead, make it a learning experience – focus groups and trainings. Different types of communities: townships, cities, etc. and work collectively with a handful of those types. See what they are doing already first.
 - In these focus groups, be sure to include citizens. It never goes anywhere if you are just talking to the politicians.
- The next step would be to talk to some social science researcher for a plan on how to go ahead.
- Important to capitalize on what is already happening, build on what you are already doing (e.g., by LTA) and lessons we have learned. Which places are already being engaged?
 - Expand on William & Mary study.

- This is the same problem as the healthy watersheds component of local engagement; as well as the local leadership outcome, which is being led by the Leadership GIT.
 - Idea: lesson plan.
 - When considering the new Chesapeake Bay Watershed Agreement and the various overlapping outcomes, we need to find the double bang for the same buck. We need to work with the Management Board to not duplicate efforts and see where we can work together.
- Bring this to CAC as well.
- Who is going to lead this management strategy?
 - Local Engagement Workgroup might make sense.
 - A group of people in the room volunteered to participate in the development of this strategy: Jason Dubow, Donnelle Keech, Greg Evans, Wink Hastings, Mary Gattis, Julie Winters, and Bevin Buchheister.

Next step for this management strategy:

- A small group of people will meet over the phone in December to continue the conversation.