**[Wetland Workgroup Meeting](http://www.chesapeakebay.net/calendar/event/23923/) Minutes**

Maryland DNR

Thursday, May 26th, 2016

1:00-3:00 PM

**Participants:**

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| --- | --- |
| Amy Jacobs, TNC (Co-Chair) | Eileen Shader, American Rivers |
| Erin McLaughlin, MD DNR (Co-Chair) | Denise Clearwater, MDE |
| Kyle Runion, CRC (Staff) | Greg Noe, USGS |
| Zoe Johnson, NOAA | Pam Mason, VIMS |
| Jeremy Hanson, VT | Alison Rogerson, DNREC |
| Jill Whitcomb, PA DEP | Alana Hartman, WV |
| Kevin Compton, NFWF | Jeff Sweeney, EPA |
| Quentin Stubbs, USGS | Anna Hamilton, Tetra Tech |
| Alicia Berlin, USGS | Jennie Hoffman, Tetra Tech |
| Ralph Spagnolo, EPA | Steve Raabe, OpinionWorks |

**Actions and Decisions:**

**Action**: Workgroup members should review the acreage numbers and check for errors. Please report any inaccuracies to Jacobs.

**Action**: Workgroup members who are interested in serving on a steering group for the Climate Resiliency Analysis project should contact [Anna Hamilton](mailto:Anna.Hamilton@tetratech.com) and [Zoe Johnson](mailto:zoe.johnson@noaa.gov). Details of commitment available below.

**Welcome and Updates**

* 2015 progress toward the wetland outcome goals have been updated ([see powerpoint](http://www.chesapeakebay.net/channel_files/23923/jacobs_wetland_workgroup_meeting___may16.pptx), [website to be updated](http://www.chesapeakebay.net/indicators/indicator/restoring_wetlands)). We saw a slight but not significant increase in the acres in the past year.
  + **Action**: Workgroup members should review the acreage numbers and check for errors. Please report any inaccuracies to Jacobs.
    - Clearwater and Mason will check the numbers for MD and VA.
* Pennsylvania Wetland Mapping Update: The Upper Susquehanna Coalition has processed about 90% of the soils data and geological features and acquired all wetland data from Penn State Riparia and Pennsylvania Natural Heritage required for model training and validation. The University of Vermont has nearly completed preprocessing of LiDAR data. A more thorough update will be provided closer to the project completion date of September 1, 2016.
  + Reminder that the workgroup is supporting this mapping effort in Pennsylvania with an interest in expanding this process to other watershed states if successful.
* The Habitat GIT met on May 3-4 in Front Royal, Virginia. State Wildlife Action Plan updates were presented from each state with a focus on how to involve the Habitat GIT in shared priorities and key resources. The GIT has two new Co-Chairs: Christine Conn, MD DNR and David Whitehurst, VA DGIF.
* Cross-Goal Climate Resiliency Analysis project: The Climate Resiliency Workgroup has been awarded EPA GIT funds to conduct this project. Goals are to develop a structured, science-based framework to apply climate-smart adaptation planning to all other CBP outcomes.
  + The Wetland Workgroup has been chosen as a pilot to develop the approach. **Action**: Workgroup members who are interested in serving on a steering group for the Climate Resiliency Analysis project should contact [Anna Hamilton](mailto:Anna.Hamilton@tetratech.com) and [Zoe Johnson](mailto:zoe.johnson@noaa.gov). Steering committee members should be able to help with:
    - Clarify CBP wetland related management/restoration actions of importance (note: these may be within the scope of the wetland management strategy or a cross related goal/outcome such as climate resiliency or fish/wildlife habitat)
    - Identify and gather relevant Chesapeake Bay climate change vulnerability research/data
    - Identify strategies, actions, restoration/enhancement techniques that are envisioned to achieve wetland goals/outcomes
    - Provide input on selection of structured decision-making workshop dates (fall/spring) and advise on list of workshop invitees.
    - It is envisioned that steering committee members would be asked to participate in 2-3 conference calls, not more than 1.5-2 hours in duration and if interested, invited to attend the fall and spring structured decision-making workshops.

**Landowner Attitudes toward Wetland Restoration,** Steve Raabe of OpinionWorks

* OpinionWorks is an Annapolis based technical assistance provider who focuses on individual stewardship and behavior change.
* This project was completed through EPA CBP GIT funding. A predecessor study was undertaken by TNC and DU which focused on practitioners who are engaged with encouraging wetland restoration on rural lands. A recommendation of the study was to develop a better, more coordinated marketing strategy.
  + Community based social marketing shows that there are a small number of receptive and resistant within the population. These are the “show me” and “make me” crowds. In-between these two is the “help me” crowd, which is the majority. This crowd requires the lowest investment to change behavior and provide results.
* The project purpose and focus is to increase the adoption of wetlands restoration on agricultural lands in keeping the Chesapeake Bay Agreement. The “downstream” target audience was agricultural landowners with >40 acres who are not already enrolled in a wetlands restoration program. Target counties include Juniata, York, and Lancaster in Pennsylvania and Caroline, Kent, Talbot, Dorchester, Somerset, Wicomico, and Worchester in Maryland. These landowners look towards our “midstream” audience of service providers such as the NRCS, FSA, and cooperative extensions.
  + Surveys by mail and phone were conducted in August 2015 (409 responses). Four 2-hour long focus groups were later administered.
  + Barriers to adopting wetland programs exist in five categories: lack of information, privacy and trust concerns, financial uncertainty, need for flexibility, and difficult audience to reach. One simple finding was that the term “wetland” has a negative connotation. Although this cannot be changed in regulation and legislation, the midstream staff can use more favorable titles such as “wildlife pond” to generate interest.
  + Underlying concerns of the downstream audience include water impairment (mainly MD), erosion/flash flooding (mainly PA), and encroaching development.
  + 60% of those surveyed were not aware of wetland programs. 31% of those not currently in a program are definitely or probably interested in participating, so there is some potential for an increase in participation with improved marketing.
* Recommendations from this study: focus on the core benefits, mitigate the key barriers, rely on the most trusted messengers, and prompt and support this conversation.
* [The full report is available online.](http://www.chesapeakebay.net/channel_files/23923/landowner_attitudes_towards_wetland_restoration_final_report_4_30_16.pdf)

**Wetland Expert Panel Update,** Jeremy Hanson

* *Disclaimer: Anything presented today is representative of the DRAFT report. The panel is still in its final stages and has some critical decisions left to make.*
* Recap and timeline forward: The panel convened in fall 2014. In fall 2015, CBP approved two nontidal wetland land uses for the Phase 6 watershed model: Floodplain and Other. The panel hopes to release the final draft report in mid-June, which will kick start a 30 day comment period. A Wetland WG call will be scheduled in late June or early July to discuss the report in more detail. Webinars will be held for various groups, which all are welcome to attend. The panel will seek approval from the wetland workgroup in mid-August. September 30, 2016 is the deadline for BMP panel recommendations for input into the Phase 6 watershed model.
  + Jacobs: Requests that a representative from the modeling group be present at the WWG brief to provide information on how reporting and tracking may change.
* Wetland BMP category definitions proposed are the same as the current definitions. There is a hope to improve reporting into correct categories.
* Tidal restoration practices will be credited in the estuarine model. Tidal re-establishment TN, TP, and TSS reductions will be based on the Shoreline Management panel’s protocols 2, 3, and 4:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **TN (lbs/ac)** | **TP (lbs/ac)** | **TSS (lbs/ac)** |
| **Protocol 2 – Denitrification** | Acres of re-vegetation | 85 | NA | NA |
| **Protocol 3 - Sedimentation** | Acres of re-vegetation | NA | 5.289 | 6,959 |
| **Protocol 4 – Marsh Redfield Ratio** | Acres of re-vegetation | 6.83 | 0.3 | NA |
| **Proposed credit for Phase 6 tidal wetland re-establishment BMP** | **Acres** | **91.83** | **5.589** | **6,959** |

* The panel has a framework to credit reestablishment practices based on characteristics of non-tidal wetlands in 6 hydrogeomorphic subregions:
  + Coastal Plain West dissected
  + Coastal Plain East well drained
  + Coastal Plain East poorly drained
  + Coastal Plain lowland
  + Piedmont
  + Plateau, Ridge & Valley

**Tentative** efficiencies (High/Medium/Low to be defined) and upland acres treated.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Retention Efficiency | | | Acres Treated | | |
| **Physiographic Subregion** | **Other** | **TN** | **TP** | **TSS** | **TN** | **TP** | **TSS** |
| **CP West incised** | Y (Headwaters) | H | M | M | 4 | 2 | 2 |
| **CP East well drained** | Y (Headwaters) | L | M | M | 2 | 2 | 2 |
| **CP East poorly drained** | Y (Delmarva Bays) | M | M | M | 1 | 1 | 1 |
| **CP lowland** | Y (Flats) | M/H | M | M | 1 | 1 | 1 |
| **Piedmont** | ? (Headwaters) | M | M | M | 4 | 4 | 4 |
| **Plateau, R&V** | ? (Headwaters) | H | M | M | 8 | 8 | 8 |
|  |  |  |  |  |  |  |  |
| **Physiographic Subregion** | **Floodplain** | **TN** | **TP** | **TSS** | **TN** | **TP** | **TSS** |
| **CP West incised** | Y (Overbank) | M | H | H | 8 | 4 | 4 |
| **CP East well drained** | Y (Overbank) | M | H | H | 4 | 4 | 4 |
| **CP East poorly drained** | Y (Overbank) | M | H | H | 2 | 2 | 2 |
| **CP lowland** | Y (Backwater) | M | H | H | 2 | 2 | 2 |
| **Piedmont** | Y (Overbank) | M | H | H | 8 | 8 | 8 |
| **Plateau, R&V** | Y (Overbank) | M | H | H | 16 | 16 | 16 |

* Such high variability in literature makes defining removal efficiencies difficult. Average TN removal is ~20-25% at the low end and 40-44% at the high end. TP is roughly similar, and TSS is around the high 20s and low 30%s. Acres treated (used when watershed acres are not reported) are taken initially from a review of reported watershed:wetland ratio and tweaked based on the best professional judgement of the science experts on the panel. Floodplain acres are doubled based on the two flowpaths (surface and groundwater).
* Wetland enhancement and rehabilitation will need to be addressed by a future BMP panel.
* Questions about the report should be directed to Jeremy at [jchanson@vt.edu](mailto:jchanson@vt.edu), 410-267-5753.