Wetland Workgroup February Meeting Minutes

February 16, 2021

Conference Call

Pam Mason (VIMS)	Megan Ossmann (CRC)	Chris Guy (USFWS)	Alison Santoro (MD DNR)
Sarah Hilderbrand (MD DNR)	Michelle Campbell (DC DOEE)	Chris Spaur (USACE)	Kevin Du Bois (DoD CBP)
Amy Jacobs (TNC)	Dave Goerman (PA DEP)	Todd Lutte (EPA)	Peter Claggett (USGS)
Elizabeth Byers (WV DEP)	Michelle Henicheck (VA DEQ)	Mark Biddle (DE DNREC)	Alana Hartman (WV DEP)
Greg Noe (USGS)	Melissa Yearick (USC)	Jeff Hartranft (PA DEP)	Joel Carr (USGS)
Danielle Algazi (EPA)	Greg Podniesinski (PA DCNR)	Jen Dietzen (DC DOEE)	Denise Clearwater (MDE)
Jake McPherson (Ducks Unlimited)	Carin Bisland (EPA CBPO)	Julie Reichert-Nguyen (NOAA)	Leah Franzluebbers (USFWS)
Ann Wakeford (WV DNR)	Amanda Atwell (WSSI)	Madison Fink (EPA)	Margaret Zacharias (EPA)
Rich Mason (USFWS)	Scott Lowe (McCormick Taylor)	BeKura Shabazz (First Alliance Consulting)	Jaclyn Woollard (EPA)
Jessica Rodriguez (DoD CBP)	Neely Law (Fairfax County)	Scott Phillips (USGS)	William Bennet

Action Items:

- Reach out to Megan if you are interested in joining the steering committee for the "Synthesis of Shoreline, Sea Level Rise, and Marsh Migration Data for Wetland Restoration Targeting" GIT-funding project.
- Reach out to Pam and Megan with ideas for future meeting topics.
- Running list of future meeting topics/presentations:
    - Joint meeting with Forestry Workgroup
    - Wetland mowing
    - Restore America's Estuaries coastal restoration toolkit (https://restoreyourcoast.org/)
    - Tidal marsh loss in coastal bays due to grid ditching
    - Chesapeake sediment synthesis synopsis

Wetland Classification and Mapping Efforts

Peter Claggett, USGS

As a follow-up from the presentation at the December meeting, Peter provided an update on the CBP's wetland classification and mapping efforts.

Questions/comments:

- Pam: Don't care for the term terrene – there's no such thing as an "upland" wetland. In VA, we do have isolated wetlands in the coastal plain, they are not connected by any surface water. Every physiographic province likely has some.
    - Jen D: DC has plenty of isolated wetlands
    - Chris G: There's been a point of contention whether isolated wetlands are regulated by the federal government, they are regulated by the states, so it is important to keep them in the classification and make sure they are recognized. They are counted towards our goals. State-listed species rely on ephemeral wetlands.
- Jeff H: Why are there different classifications for riverine? What was the original rationale for this distinction?
    - Peter: Headwater riverine wetlands play an unappreciated and uncredited role in moderating and improving water quality. In the future, with better modeling we may be able to credit them and reflecting them now in the classification is an important first step.
    - Dave G: That's correct. PA has been pursuing recognizing headwater wetlands role in geochemistry and nutrient dynamics.
- Peter: It would be helpful to determine how you distinguish between these categories – where do you draw the line? Is it drainage area, and if so what is the threshold? Are they different for different geographic provinces? Separate from this classification do we come up with a catchment classification of abiotic factors that influence the quality of the stream?
    - Carin: Want to make sure that the classification you have now can differentiate enough that if you have overlays later on they work together.
    - Peter: If there's no TMDL significance why bother putting it in the classification, but if these areas are going to play a unique role in the next generation of models, then we need a way to determine how to draw the line between what's headwater and what's not.
    - Pam: The classification scheme used for LULC analyses should be informed by other attributes of wetlands other than water quality. Hard to predict what we will need to know in the future. We only got our first wetlands classification a few years ago. Now that the potential for more is opening up, we need to really focus on this as a workgroup more.
    - Carin: Would also add climate resiliency as an important attribute.
    - Peter: UVM develops topographic wetness index areas (depressions on the landscape) that have no attributes whatsoever. Having ancillary data that we can overlay to

determine if the depressions are in a floodplain or wetland-headwater complex allows us to determine potential wetlands.
    - Pam: I know you like to use the term floodplain and headwater, but we're talking about riverine and isolated. Three big buckets – headwater, floodplain, isolated. What you want feedback on is how do we define headwater?
- Peter: Last time, we only included TWI wetlands in forested landscapes as wetlands, not anything on farms. But there is an abundance of wet depressions in farm fields that we will be mapping.
    - Todd L: That's a layer of data we've been looking for and we're going to need it sooner rather than later.
    - Elizabeth B: We just had the NWI updated for the eastern panhandle of WV and they are now mapping the farmed wetlands with a two-letter code of PF (palustrine farm). I think the three buckets for wetlands are not bad and we also struggled a lot with what to call our wetlands – ended up using floodplain and non-floodplain. It matters whether it is mainly groundwater or intercepting surface water.
    - Amy J: I would second that and leaning away towards using the word isolated.
- Peter: What categories of the hydrogeomorphic position do you want pulled out in this classification?
    - Elizabeth: Floodplain and non-floodplain is our first break and we found that to be the most powerful.
    - Mark B: That's a good place to start. I agree with Amy – landscape position is important, but which ones are more important is going to change based on geomorphic setting.
    - Pam: Right now, the first break is basically floodplain and non-floodplain – we can change the term isolated to non-floodplain. We should explore the possibility of differentiating the beginning of the stream system vs. downstream. The precision will depend on the need of the jurisdictions – want to be mindful of that.
    - Elizabeth: Didn't explain myself correctly – floodplain and non-floodplain is both parts of the riverine system. They can both be along a stream.
- Pam: Sounds like everyone is happy with the three buckets, we can revisit terminology. We can commit some time on the next agenda to do a deeper dive on further classification.

Stream Restoration Protocol 5

Scott Lowe, McCormick Taylor

Scott provided an overview of the recent changes to stream restoration crediting protocols and how they may affect wetland restoration projects.

Questions/comments:

- Jeff H: In PA, we attribute the majority of wetland losses from valley infilling, i.e. legacy sediment, whereas wetland losses from stream incision/headcutting resulted in losses to a much lesser degree. Wetland losses from incision/headcutting is mostly attributed to the wee headwaters, very small drainages.

- Kevin D: The DoD put together a fact sheet on the new Protocol 5. If there's interest I could seek permission for distribution outside of DoD.
- Pam: It's interesting how the protocols build upon each other spatially – was this anticipated early on?
    - Scott: There wasn't a great method to analyze sediment production from incision. We found that the incision produces a lot of long-term sediment. We saw over and over again that these smaller drainages were producing tremendous amounts of erosion, following on the work done at DNR.
    - Pam: Years ago there was a STAC workshop on sediment contribution. Wondering if some of the work you're doing will result in a reassessment of that research?
        - Scott: Evidence shows that floodplains have stored sediment from deforestation practices and the addition of dams. Greg's work shows that it can continue to store material that erodes. In some cases there is no erosion in upland areas where water is directed differently than in the past.
        - Dave G: We've seen in the ridge and valley the disconnection of fluvial fans and their functions – they no longer act as storage systems, instead they act as a sediment source.
        - Greg N: The emerging sediment science is showing that within the stream network most headwater channels are where the net erosion is happening. Areas of incision are the primary sediment source in urban systems. USGS just completed a Chesapeake sediment synthesis – at future meeting I can give a 15 min presentation of a synopsis of that synthesis.

Synthesis of Shoreline, Sea Level Rise, and Marsh Migration Data for Wetland Restoration Targeting
Megan Ossmann (CRC), Workgroup Staffer
Megan provided a summary of the FY20 GIT-funding project that is being led by the Wetland and Climate Resiliency Workgroups. The project team is seeking volunteers for the steering committee to help with project planning and implementation, scheduled to begin in March 2021.

Questions/comments:

- Pam: Who is on the steering committee?
    - Megan: From the Wetland Workgroup – Joel Carr, Kevin, Emily, and myself.
    - Kevin: From the CRWG, Taryn Sudol and Nicole Carlozo
    - Julie: Jackie Specht is also interested in being on the steering committee. We also have Peter and Labeeb from the GIS team.
    - Pam: In our coastal zone, Shep Moon might be a good choice.
- Dave G: As part of the migration, are you going to consider the areas of the Bay that were infilled as a result of colonial erosion and sedimentation processes?
    - Megan: Not too familiar with this topic – I don't think we specified anything about this
    - Pam: Most of the marsh migration work is based on current land use and land cover and wouldn't pick out previous landfill.

    - Julie: Is there any data that shows areas that have been infilled?
    - Dave: There have been some geomorphologists that have done a few small studies in the northeast. Greg Pasternik did some work in the Chesapeake.
    - Pam: The city of Norfolk has mapping of historic infill.
    - Kevin: Some of the soil maps may show this information.
- Chris G: Please add me to the steering committee
- Chris: Soil maps generally show up as unconsolidated fill. Not sure if it's relevant anymore.
- Danielle A: I will get back to you about someone from our wetlands branch to be involved! Please keep me on your list for now.

Project Updates

- Wetland Fact Sheets – *Kevin DuBois, DoD*
    - We've submitted the final comments to the Communications team to incorporate into the final version.
    - We added some photographs, tightened up the language
    - Pam: What is the best way to distribute this? Do we have to come up with a plan? Something to talk about.
    - Kevin: There was a lot of interest among other workgroups – opportunities to give a quick presentation to LGAC and other groups. There's a Virginia Chesapeake Bay stakeholders group and other potential avenues and groups of interest. Also need to determine which jurisdiction to do next.
    - Chris: We encourage every member to share this among their organizations and share on social media, emails, listservs, etc.
    - Dave G: I am inquiring for PA. We are supposed to update our factsheets this spring so may be good timing.
    - Kevin: We are looking for jurisdictional champions to lead the effort in the other states. Now that the template is done, it should go a lot quicker and easier.

- Living Resource Data Manager – *Chris Guy, USFWS/HGIT Coordinator*
    - Went to the Management Board with this need for a deeper dive into the wetland tracking data – need a data analyst who understands the NEIEN system and can work with the workgroups to improve the data collection process.
    - Got consensus at the MB to move forward with the Living Resource Data Manager position we requested. However, the MB cannot fund the position, it gets funded by EPA. The next hurdle is EPA's budget, so we will see if it gets approved.
    - Denise C: Part of the problem is the reliance on NEIEN for the data. For example, in MD there is enhancement data we didn't input because we couldn't. There are hundreds of acres of enhancement from nutria eradication that doesn't count as a BMP. We need another category for this type of work – not necessarily a BMP but still contributes toward our goal.

- STAC Workshop Proposal – *Pam Mason*
    - Unintended consequences among habitat types when it comes to choosing restoration projects, and not enough emphasis on habitat benefits due to focus on water quality.
    - We submitted an application for a STAC workshop to explore these issues.

The Way Forward

- The next meeting: April 20th, 2021 2-4 pm