

SUMMARY OF DISCUSSION

Nontidal Wetland Rehabilitation, Enhancement and Creation BMP Panel – Open Session

Wednesday, February 28, 2018 10:00AM – 12:00PM

USGS Water Science Center (Catonsville, MD)

CBP calendar entry and materials:

https://www.chesapeakebay.net/what/event/open_session_nontidal_wetland_rehabilitation_enhancement_and_creation_bmp_e

Archived webinar recording: <http://epawebconferencing.acms.com/p1m4y8qiaah/>

Welcome and Introductions

- Jeremy Hanson (Virginia Tech, Chesapeake Bay Program Office) welcomed participants. His [presentation slides](#) provided background and context about the BMP expert panel process and the charge for the current panel.
- BMP Panel Background:
 - o Best Management Practices = practices that reduce pollution loads when implemented
 - o Panels use best information to evaluate current practices
 - Produce write up a report of recommendations
 - Goal of adding specific BMP to the modeling tools for next 2-year milestones
- Wetlands in the Phase 6 Watershed Model
 - o Previous wetland expert panel convened late 2014 – late 2016 with goal of land use classifications for wetlands and specific BMPs
 - Two land uses were accepted for nontidal wetlands in the Phase 6 Watershed Model (floodplain, other)
 - 4 BMP categories accepted: restoration, creation, enhancement, rehabilitation
 - The previous panel defined reductions for restoration – other 3 categories to be defined by the current panel
 - o See previous report posted on the 2/28/18 CBP calendar entry or under BMP expert panel publications:
https://www.chesapeakebay.net/documents/Wetland_Expert_Panel_Report_WQGIT_approved_December_2016.pdf
- Current Panel aiming to evaluate three remaining BMPs for rehabilitated, created or enhanced wetlands
 - o **Not** “constructed wetlands” as described by the previous expert panel, which are designed and engineered for specific treatment of wastewater or other similar sources; urban stormwater wetlands; floating treatment wetlands; stream restoration; shoreline management; or forest buffers
 - o Goal to deliver draft report within 12 months after panel’s first conference call (November 2017), followed by 3+ months for partnership review and comment process

Panelist Introductions

Stakeholder Presentation and Discussion

- Steve Strano slideshow, “[Wetland BMPs within Agricultural Landscape on the Maryland Coastal Plain](#)” provided pictures and overviews of several example wetland projects in Maryland.

- With artificial drainage features that drain agricultural lands, water may still run through wetlands but limited storage or treatment in some cases.
 - Reestablish wetland with berm – previous ag land converted back into wetlands
 - Small wetland features at outlets of drainage ditches can provide some treatment
 - Rehabilitation – often uses techniques to encourage water to slow down through wetlands near agricultural areas (weirs, ditch plugs)
- Floodplain disconnection from dredging and channelization
 - Levee breach projects allows for water to access floodplain and associated wetlands
- Questions:
 - Solange Filoso: does spoilage levee removal impact infiltration?
 - Response: the impacted spoil piles are not the wetland areas – wetlands behind spoil piles. And the soils are very sandy which fosters infiltration
 - Denice Wardrop: define differences between reestablishment, rehabilitation, reconnection?
 - Strano explained typical projects and the NRCS definitions for each category:
 - if have ag field, with no wetland functions / OR restoration of prior converted wetlands = **reestablishment**.
 - Wooded wetlands that have drainage through (i.e. have hydrology and natural plant community) = **rehabilitation** to help alter drainage flows.
 - Taking a wetland and doing something to change function OR changing plant communities (removing invasives) = **enhancement**.
 - Creating a wetland in non-hydric soils = **creation**.
 - Kathy Boomer: in literature, are the researchers' definitions consistent with each other and/or federal definitions?
 - Strano responded that the scientific community doesn't always connect with implementers, so language are often different.
 - Ralph Spagnolo – the previous panel decided to go with EPA and Army Corps definitions, and the literature often doesn't reflect the 4th category of enhancement
 - Solange Filoso – in situations when stream restoration is combined with wetlands, line is especially unclear
 - Steve Strano – NRCS has some specific practices that include wetland work but is reported with stream restoration
 - Neely Law: when doing work, are there multiple types of practices happening at one project site?
 - Strano: yes – often
 - Neely Law: in ag fields where there was a preexisting wetland, is lowering of groundwater table an issue and is this investigated in these practices?
 - Strano: groundwater is hard to monitor, and we focus on structural and vegetation success. Often, can infer the groundwater behavior based on topography and soils. Also, important to rely on adaptive management – continually adjust.

- Kathy Boomer: groundwater studies often are short term and seasonal, so it is hard to translate that into long term
- Jeremy Hanson: how was the two-stage ditch funded or designed under NRCS standards? As an NRCS 658 practice for wetland creation?
 - Strano responded it was lumped into wetland restoration because some areas had hydric soils. Could also potentially be considered as “constructed” – treating agricultural runoff.
 - Kathy Boomer: with this kind of ditch restoration we are seeing additional water quality benefits due to shallow groundwater interactions with plant communities in the ditch benches.
 - Jeremy Hanson: There is an ongoing panel for agricultural ditch BMPs – will follow up with them regarding two stage ditches and potential overlap.
 - Steve Strano – get into increasing wetland functions due to water manipulation structures – ex: partial flooding of farm fields
- Solange Filoso: cost of different BMPs and difference in effectiveness?
 - Strano noted that ditch pugs are cheapest, but if able to do field restoration should take advantage of that.
 - Solange Filoso: at some point, a cost benefit analysis might be useful?
 - Strano: not enough people for that to be useful, try to be opportunistic and act when possible

Closing Thoughts and Discussion

- Contact Jeremy Hanson with any further questions:
 - JCHanson@vt.edu
 - (410)267-5753

Adjourned

Participants

Name	Affiliation
<i>In-person</i>	
Jeremy Hanson	Virginia Tech, CBPO
Ralph Spagnolo	EPA Region 3
Neely Law	Center for Watershed Protection
Steve Strano	USDA NRCS, Maryland
Erin McLaughlin	MD Dept. of Natural Resources (DNR)
Margot Cumming	Chesapeake Research Consortium, Habitat GIT
Kathy Boomer	The Nature Conservancy (TNC)
Solange Filoso	UMCES Chesapeake Biological Laboratory
Carrie Traver	EPA Region 3
Bruce Michael	MD DNR
Rebecca Cope	EPA Region 3
<i>Remotely</i>	
Denice Wardrop	Penn State
Amy Jacobs	TNC
Jeff Sweeney	EPA, CBPO
Melissa Yearick	Upper Susquehanna Coalition
Alana Hartman	WV Dept. of Environmental Protection
Jim Bays	JACOBS
Loretta Collins	Univ. of MD
Stephen Reiling	DC Dept. of Environment and Energy (DOEE)
Jennifer Dietzen	DC DOEE
Karen Coffman	Maryland Dept. of Transportation State Highway Admin. (MDOT SHA)
Ryan Cole	MDOT SHA
Kristen Saacke-Blunk	HeadWaters LLC