

Animal Waste Subcommittee
July 25, 2022
Department of Forestry, Charlottesville, Virginia
10:00 a.m.

Voting members present:

Amanda Pennington, DCR, Chair
Allen Jackson, Blue Ridge SWCD
Darrell Marshall, VDACS
Elizabeth Dellinger VACDE
John Kaylor, Headwaters SWCD
Kevin Dunn, Peter Francisco SWCD
Megen Dalton, Shenandoah Valley SWCD
Nick Livesay, Lord Fairfax SWCD
Phil David, DEQ
Steve Escobar, VA Horse Council
Zach Jacobs, VA Farm Bureau

Non-voting members present:

Ben Chester, DCR
Jason Wilfong, DCR
Sara Bottenfield, DCR
Mark Holberg, DCR

Voting members not present:

Eric Paulson

The subcommittee had quorum.

Amanda opened the meeting with introductions and review of the matrix. Kevin asked about the policy of not considering same/similar suggestions for 3 years when the SWCB did not accept the TAC recommendation – will discuss internally in context of TAC rules. Allen raised issue of DCR TAC vote and ability to make recommendation directly to SWCB. Amanda reminded him that anyone can make a recommendation to the Board and encouraged the subcommittee to do defensible work for presentation to Board.

Matrix item 1A [The Virginia Soil and Water Conservation Board directs the Animal Waste Subcommittee (Subcommittee) of the AgBMP Technical Advisory Committee (TAC) to review and examine the water quality impacts of livestock manure, specifically the differences between the impact of poultry litter and livestock manures. The Subcommittee shall review the existing WP-4 standards and specifications, in addition to the Animal Waste Control Facility Needs Determination Worksheet for Livestock Waste Storage Facilities (Worksheet) provided by the Shenandoah Valley Soil and Water Conservation District, to determine the most appropriate method to evaluate the impacts of the manure. The Subcommittee shall provide their recommendation, including the standard and specification and the method used to evaluate the impacts, to the full AgBMP TAC for review and approval; the Subcommittee shall also make a recommendation on whether the revised specification and standard should be implemented during

FY2023. The action and recommendation taken by the AgBMP TAC shall be presented to the Board at their December meeting]:

- Amanda reviewed the breakdown of components of the item, including that the Board's directive is for WP-4 only.
- Chris Hamilton walked through the Risk Assessment and how NRCS uses it/intends it.
 - NRCS contract review found questionable animal waste projects funded so they wanted an objective way to evaluate water quality concerns. Began as a planning tool to rank projects and morphed into a scoring tool with a threshold score.
 - NRCS has not had internal complaints about how the form is working.
 - Targeted to animal feeding facilities (primarily) with a water resource concern identified. Waste storage is a separate resource concern for NRCS. For storage needs, NRCS has a point system in their planning tool.
- Allen: there is an argument to be made that lack of storage will cause a water quality issue... potential issue but could vary greatly.
- Concentrated flow/overland flow distinction. Elizabeth says it doesn't matter, nutrients are still reaching the stream. Chris points out the NRCS form addresses both. Overland flow isn't maintained beyond 300' (one of the NRCS criteria), it would become concentrated.
- Allen: question about pasture/buffer function regarding concentrated flow outlet in pasture.
- Megen thinks it would be helpful to have a supplemental document for reference in completing the NRCS form. There needs to be a way to evaluate waste storage separate from the NRCS tool while being good stewards of taxpayer dollars.
- What about using the NRCS tool for waste storage with a lower threshold for storage only? Allen requested the NRCS worksheet be reviewed to identify subjective inputs.
- Ben notes the need for consistency across the state, which is part of the reason for DCR review.
- Allen asks for a tool that can be used with "minimal training" – disagreement with this, it should be somewhat difficult and require training/knowledge.
- For completion of #1 (manure estimator) the concentrated area is the area of the manure pile.
- Megen brought up nutrient management/utilization of manure, inability to capture/store manure means it gets land applied.
- Chris says the NRCS perspective was to have an objective evaluation/score, but a lower score doesn't mean there are no issues at the site.
- SVSWCD's intent with their suggestion was not to change the use of NRCS form for anything other than storage-only. They tried to incorporate into their version of the form whether a NM issue was being created by application.
- Phil thinks a different form should be used for storage-only. Amanda asked what is the difference in water quality impacts from the manure? Elizabeth says it's concentration; stacking means more concentrated nutrients. Kevin points out piled poultry litter crusts and resists runoff. Management choice vs. need for cost share to address problems. Megen says SVSWCD tried to incorporate those considerations into their tool, ensuring alternative options were considered.
- John – there are 3 sources of liquid/slurry manure that the NRCS tool does not adequately address (liquid dairy, beef, and hog). He likes SVSWCD's proposed sheet for liquid/slurry and thinks Amanda's suggestion to adjust the threshold is workable. Acknowledging that the NRCS sheet may not work for all operations, maybe add X points for each month they have to apply during blackout dates?

- Chris agrees the NRCS tool was not developed for liquid manure.
- Nutrient management planning may call for export or spreading at non-ideal time, so even if the NMP is followed there could still be a resource concern due to non-ideal management.
- Identification of 3-4 types of manure: liquid, slurry, dry (including poultry?). SVSWCD thinks the NRCS form works for the drier types of manure. Why is poultry handled differently?
- Allen: this form/evaluation is establishing eligibility to be considered for funding, secondary considerations then come in. Important to consider the process for OCB and in times of less funding.
- Is nutrient management a water quality concern?
- Need to avoid reverse-engineering to a desired outcome.
- Kevin asks how many applications don't get funded. Elizabeth says half of their non-poultry structures have not qualified based on this sheet. Karst is an issue, shallow bedrock and connection to groundwater. Need more ability to consider karst features. Amanda: if that's an issue there will be at least one rock outcrop.
- Nick points out that an alternative location may be the solution – piling manure next to a rock outcrop vs. 500' away with no outcrop.
- Amanda proposes that liquid and dry stack likely need to be handled separately – general agreement. Also general agreement on the need for a supplementary form.

Break for lunch

- Review of SVSWCD proposed form:
 - Top part for questions has some of the same questions as NRCS and the Needs Determination. Ben asked about the 5 year timeframe – comes from the Needs Determination sheet.
 - Questions are intended to document the situation. Possible differences of opinion on reasonable alternatives for location, etc.
 - Kevin questioned the need for page 1 questions as part of the evaluation tool. The questions are not necessarily completed as intended.
 - Loading table is similar to the NRCS form but removed the size of the concentrated area. How does scoring work without size? Does not divide by area for concentration, just total nutrients (NRCS tool gives tons/acre).
 - Ranks on same criteria as NRCS. Hydrologic Unit ranking is assessed for storage location and application area (if applicable).
 - Kevin was concerned that spending money in watersheds lowers the priority, and his area has few high priority watersheds.
 - Point threshold is set so that excessive or extreme loading will qualify, lower loading will need additional factors.
 - Table 2 is still referencing a rate per acre... dealing with small areas will lower the score.
 - Kevin is concerned that as-is, a certain number of animals will guarantee approval regardless of any water quality issue.
 - SVSWCD tool addresses land/NM, NRCS tool does not. Should the focus be on water quality only or also on NM issue? NM as component or stand-alone concern?
 - Nick: are we taking the producer at their word on spreading out of season, or is it based on calculation of existing storage?
 - Current evaluation of poultry operations doesn't take WQ concerns into account.

- Need to deal with dry and liquid separately. Dry = stackable, stays in a pile (equine, pairs, some stockers, poultry)... how should that be scored? Lots of concentrated nutrients. Kevin: can it get to water? Original assessment addresses that best, it can't go anywhere unless water takes it there.
- Megen has concerns with messaging if it becomes more difficult to qualify for cost share while there is emphasis on record funding, WIP, etc.
- For dairy and other liquid/semi-solid the risk assessment doesn't really work.
- Amanda: for dry, stackable manure there should be no need to spread out of season.
- Nick asked if stack height could be planned lower than 6' for semi-solid manure – yes, discuss with the farmer during the planning process.
- Semi-solid manure can be made stackable by adding bedding. Elizabeth: some manures mix better with organic matter, some stay more water soluble and will be transported more easily.
- Kevin: if bedding can be added/absorbed before being rained on, it should be able to be stacked if enough/appropriate bedding is added. Enough/appropriate bedding may be cost prohibitive. Elizabeth: should it be treated more like liquid but with a higher point threshold?
- Is the distinction between liquid, solid, and semi-solid going to create complications/questions?
 - Chris: how would you justify different forms for addressing the same/similar resource concern?
 - Amanda: it doesn't make sense for a farmer to say he can't mix bedding into the manure to stack it currently, but will be able to add bedding and stack if he has a building.
 - Allen points out that the storage area can be planned with more of a sloped floor to contain semi-solid manure.
- Lots of middle ground between poultry/horse dry manure and liquid dairy. Lots of discussion about different feeding systems, management, storage options. Steve: what is the percent of stocker operations with more liquid manure? Unaware of any pits for stockers so they are all stacking? Every operation is different.
- Megen suggested playing out the proposal to keep the NRCS worksheet to see where adjustments could be made. Stackable and non-stackable categories with a first question to split off non-stackable to separate evaluation process. If in between dry and liquid, the producer decides how they want to manage it.
- Kevin: for dry stacks, overland flow or buffer width needs to have some number of points generated.
- Amanda feels it's more appropriate to use the risk assessment and lower the qualifying threshold (and make the points make sense) than to look for a new tool. A majority of subcommittee members support exploring lowering the point threshold for dry stack only rather than changing the risk assessment.
- What should the threshold be and why? Ben: some locations will exceed current threshold just with slope and TMDL points, plus the 80 all operations get (regardless of proximity to water).
- Kevin: sections A1 and A2 should be required to have points for approval so that there is proximity to water.

Amanda adjourned the meeting and requested that in preparation for the next meeting members think about lowering the point threshold for dry stack only – what value makes sense, and why.