

Technical Appendix for Animal Mortality BMPs

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Agriculture Workgroup,
Chesapeake Bay Partnership

Proposed BMP Adjustment

- The previously existing Mortality Composters BMP will be replaced with the new Animal Mortality Disposal by Composting practice.
- The current planning-only BMP for broiler mortality freezers will be eliminated and replaced in favor of the rendering BMP, which includes the use of freezers or refrigeration units to store mortalities prior to transfer to the rendering facility.

Summary of Received Feedback

- One of the premises of the Expert Panel was to identify a baseline condition from which to measure the nutrient reduction effectiveness values for each of the defined BMPs.
- The current technical appendix draft includes language which includes burial as a BMP, as well as a baseline practice. The practice can only serve as one or the other, and in this case it should only be reflected as a baseline condition. It is recommended that this change be reflected in a revised document for review.
- Burial is a baseline practice so as such, it should not be reported.

Detailed Definitions of Mortality Practices

Practices below will replace previous practices with respective efficiency values. Efficiency values on next slide.

- **BASELINE:**

- **Animal mortality disposal by burial** is the handling and disposal of poultry, livestock, or other routine animal mortalities by placing the carcass or carcasses below ground into an excavated pit, hole, or trench, which is then covered or capped. -baseline practice

- **Recommended BMPS:**

- **Animal mortality disposal by landfill or rendering** is the handling, storage and disposal of poultry, livestock, or other routine animal mortalities by internment in a landfill or processing at a rendering facility.
- **Animal mortality disposal by incineration** is the handling, storage and disposal of poultry, livestock or other routine animal mortalities by thermochemical conversion using combustion, gasification, pyrolysis, or some combination of those methods. The methods result in gaseous and solid byproducts. It is expected that most nitrogen is transformed and lost to the atmosphere, while all phosphorus remains available for land application or transport.
- **Animal mortality disposal by composting** is the handling, storage and disposal of poultry, livestock or other routine animal mortalities by composting including one or more of the following, alone or in combination: static piles and windrows (a.k.a. passive piles), turned windrows, static aerated windrows, a bin system, a tunnel composter, or in-vessel composter such as a rotating drum.
 - Units: Report units of animal units or tons of carcasses of dead animal for an annual practice or in units of systems for a structural system.

Efficiency Values for Practices

Pollutant	Burial	Compost	Incineration	Rendering
TN	0	0.124%	0.372%	0.372%
TP	0	0.059%	0.059%	0.059%
TSS	N/A	N/A	N/A	N/A

Manure Transport Comparison

EOT AU=200 or 100 dry carcass	TN	TP
Progress	4,139,094.20	31,401.58
Mortality as an efficiency (compost)	4,139,079.00	31,394.34
Mortality as an efficiency (Incinerate)	4,139,048.60	31,394.34
Mortality as an efficiency (Render)	4,139,048.60	31,394.34
Mortality as part of the implicit manure load, Manure Transport	4,139,114.78	31,395.69

What types of projects are eligible to receive future credit?

- Any mortality management practice or method mentioned that meets the definitions above in Q1/A1 and treats routine animal mortalities from one of the animal groups listed in Table B.2 above **are eligible**.
- Practices or methods used for catastrophic mortality events **are not eligible** under this set of practices. Practices or methods that are also used to treat manure **should not be reported twice**, i.e., they should not be reported as both mortality and manure treatment practices.

Phase 7 Considerations

- Currently in Phase 6, there is no separate load for mortality so this nutrient shift must be applied to the existing manure nutrients. This cannot be treated as a load source, but rather must be treated as an efficiency.
- This can change for Phase 7, but it is not feasible currently with the absence of an explicit mortality load source being modeled.
- With better data sources on animal loads, the full recommendation by the panel can be applied to Phase 7. With Expert Panel Report released back in 2021, we would be in the position to take their suggested approach.

Approval Timeline

- **TBD, these dates are subject to change*****
 - WTWG July for approval
 - ***WQGIT July review, August for approval
 - ***Late September inclusion into new model.

Further Feedback?