

## Appendix: Technical Requirements for Entering the Agricultural Stormwater Management Practices into Scenario Builder and the Watershed Model

**Background:** In June, 2013 the Water Quality Goal Implementation Team (WQGIT) agreed that each BMP expert panel would work with CBPO staff and the Watershed Technical Workgroup (WTWG) to develop a technical appendix for each expert panel report. The purpose of this technical appendix is to describe the Agriculture Workgroup's recommendation to credit agricultural stormwater management practices using the Urban Stormwater Workgroup's Expert Panel recommendations for defining removal rates for new state stormwater performance standards. The information below explains how agricultural stormwater management will be integrated into the modeling tools including NEIEN, Scenario Builder and the Watershed Model.

### **Q1. What are the reductions a jurisdiction can claim for planning and progress purposes under Agricultural Stormwater Management Practices in the Phase 6 Watershed Model?**

**A1.** All post-construction animal housing facilities that comply with state-specific stormwater management regulations will receive credit for reducing nutrients and sediment based on performance curves calculated by the Urban Stormwater Expert Panel to Define Removal Rates for New State Stormwater Performance Standards. The Agriculture Workgroup agreed to use these curves to estimate nutrient reduction for facilities that meet a one-inch per impervious acre performance standard. Efficiencies for nutrients and sediment are based on runoff depth captured by feed space acres. A one-inch performance standard would reduce nitrogen, phosphorus, and sediment runoff from confined livestock production by 35%, 55%, 70%, respectively.

States can request an alternate average performance standard for their state, through an approval process within the AgWG.

### **Q2. What types of projects are eligible to receive credit in the Phase 6.0 Watershed Model?**

**A2.** Management practices that are designed, constructed, and maintained to treat stormwater from confined animal production facilities such as dairy facilities, poultry houses, hog raising facilities, and similar areas. These include practices such as ponds, constructed wetlands and grass swales, often configured in a treatment train. In most cases, these agricultural stormwater management practices are designed and constructed according to engineering criteria and specifications outlined in state urban stormwater design manuals, although some states allow employment of standardized plans to address agricultural stormwater for poultry houses and similar facilities. For Chesapeake Bay Program purposes, this does not include any practices that fall under existing feeding space BMPs nor any practices applied to cropland or pasture sources.

### **Q3. What do jurisdictions need to submit to NEIEN in order to qualify for reductions?**

**A3.** Below is a complete list of the parameters that should be submitted to NEIEN for each project.

- BMP Name: Agricultural Stormwater Management
- Measurement Name and associated unit amount: acres treated by BMP
- Land Use: Feeding Space

- Location: Approved NEIEN geographies: Latitude/Longitude (preferred); County; County (CBWS Only); Hydrologic Unit Code (HUC12, HUC10, HUC8, HUC6, HUC4), State (CBWS Only)
- Date of Implementation: year the project was completed

**Q4: How will the modeling tools simulate reductions from agricultural stormwater management practices?**

**A4:** Reductions from ASPs will be credited as efficiency reductions to the edge-of-stream feed space pollution loads after Animal Waste Management Systems are accounted for. These efficiency reductions can be combined with efficiency reductions from other practices, such as barnyard runoff control.

**Q5. Is this BMP an annual or cumulative practice?**

**A5.** The BMP is a cumulative practice. Jurisdictions should report all measurement names only at the time of installation. The practice will continue to receive credit in the model in future years, based on a 10 year credit duration.

**Q6. How will the existing Agricultural Stormwater Management practices be accommodated?**

**A6.** To date, no jurisdiction has submitted Agricultural Stormwater Management in a progress or planning scenario, however, such practices may have been reported under Urban Stormwater Management in states that do not distinguish stormwater management practices by sector. It is up to each state to determine how to report Agricultural Stormwater Management, taking care not to double-count a practice across both sectors.

**Q7. Is there a cap on the potential reductions from agricultural stormwater management practices?**

**A7.** Reductions from all feed space BMPs, including agricultural stormwater management cannot exceed the existing load from feed space (i.e., feed space loads cannot drop below zero due to agricultural stormwater management practices).

**Q8. Where do projects need to be located to receive credit for this BMP?**

**A8.** Jurisdictions can submit projects for newly constructed or existing animal housing facilities that qualify under the feed space acres land use definition throughout the watershed. Care must be taken to assure that the practices are not double-counted under both urban and agriculture sectors.

**Q9. Can jurisdictions submit historic agricultural stormwater management practices for credit?**

**A9.** Yes. Jurisdictions may update their historical record of all approved BMPs in the Phase 6.0 Model at any time.