

Chesapeake Bay Watershed Model Phase 6 Proposal

Swine Industry Population Distribution Model Inputs

May 5, 2017

Project Proposal

To work cooperatively with the National Pork Producers Council and its partner swine integrators and state associations to collect and publish county-scale aggregated commercial swine population data for the period between 2012 and 2016 for the six Bay states. The commercial swine population data is proposed to serve as a new independent swine data reference to more accurately distribute annual USDA National Agricultural Statistics Service state-scale swine populations to the county-scale. The proposed swine data reference would be completed by July 1, 2017 for partnership review and approval for potential use in the Final Phase 6 agricultural model inputs.

Project Data

The project would collect and publish aggregated county-scale annualized swine population data for the following swine production groups in the Chesapeake Bay watershed.

- Sows/Gilts: all Chesapeake Bay states with exception of Virginia
- Nursery: all Chesapeake Bay states with exception of Virginia
- Finishers: all Chesapeake Bay states with exception of Virginia

The goal of the project is to collect swine population data at the county-scale for counties in the six Bay states:

1. First Option - Collect data for all counties in the six Bay states.
2. Second Option – Collect data for all Bay Watershed counties in the six Bay states.
3. Third Option – Collect data for partial swine production types in the six Bay states.

The goal of the project is to collect swine population data for multiple years in the six Bay states:

1. First Option – Collect annual data for all years between 2012 to 2016.
2. Second Option – Collect annual data for as many years as possible between 2012 to 2016.
3. Third Option – Collect annual data for 2012.

Commercial swine population data for Virginia at a county-scale was previously collected and aggregated in 2016 for the proposed historic data period and will not need to be collected as part of this project. The data collected by Virginia Tech will be provided to the Chesapeake Bay Program Office in the requested format.

Project Partners

The project partners would involve the following entities:

- National Pork Producers Council (NPPC) – Lead swine industry partner that will provide project staff to cooperate with commercial swine industry and state associations to identify integrators for the collection and aggregation of commercial swine populations at the county-scale.

- Delaware Pork Producers Association (DPPA) – Supporting swine industry partner that will assist with identifying commercial swine integrators in Delaware to collect swine populations at the county-scale.
- Maryland Pork Producers Association (MPPA) – Supporting swine industry partner that will assist with identifying commercial swine integrators in Maryland to collect swine populations at the county-scale.
- Pennsylvania Pork Producers Council (PPPC) – Supporting swine industry partner that will assist with identifying commercial swine integrators in Pennsylvania to collect swine populations at the county-scale.
- Virginia Tech (VT) – Commercial swine population data at the county-scale was previously collected and aggregated in 2016 for use in development of swine nutrient generation for the Phase 6 modeling inputs, and will be provided to the CBPO in the requested format for the purpose of population distribution in Virginia.
- Chesapeake Bay Program Office (CBPO) – Lead CBP partner that will cooperate with the NPPC to develop a standard commercial swine data template, and identify Chesapeake Bay county base data as needed (e.g. CB watershed boundaries, etc.). The CBPO will create an independent analysis of the swine poultry population data with the USDA-NASS county and state-scale population data for the period of time addressed by the project.

Phase 6 Model Inputs

The project data is proposed to be used to inform the redistribution of state-scale USDA-NASS annual swine population data to the county-scale for representation in the Phase 6 modeling tools on an annual basis. The project data collected for 2012 will be used to form a county-scale comparison to the USDA-NASS Agriculture Census report for swine production types to address historic “D” county non-reported population data for the Phase 6 model calibration period. If the project data is complete, the CBPO will utilize the project data to provide a county-by-county and state-scale population comparison with the USDA-NASS annual and 2012 Agriculture Census population data.

Project Timeline

The proposed project will be initiated by CBP partnership approval and completed on or before July 1, 2017. The CBP partnership will review and approve of the use of the project data in July of 2017, for proposed incorporation into the final version of the Phase 6 modeling tools in August of 2017.