USDA Agricultural Conservation Practice Data

Opportunities for Improved Data Sharing

March 30, 2013

Summary

In preparation for discussions between USDA and the Chesapeake Bay Program (CBP) on the possible development and implementation of a regional 1619 data sharing agreement with the jurisdictions, the Agriculture Workgroup (AgWG) has been requested to provide a summary list of opportunities to enhance USDA data attributes for representation in the CBP models.

Suggested USDA Data Enhancements

- Cover Crops
  USDA-NRCS currently defines, tracks, and reports cover crops under a single Conservation Practice code (340) and standard. The CBP defines cover crops by four attributes (species, planting method, timing of planting, and nutrient applications) to determine the effectiveness of reducing the loss of nutrients and sediments to the environment. Enhancements to the USDA CP code that could identify all elements or even single elements such as species would allow for improved utilization within the CBP models. Default values can be assigned to non-reportable elements where required, using very conservative effectiveness values.
- Fencing
  USDA-NRCS and FSA currently define, track, and reports livestock fencing under a single Conservation Practice code (382) and standard. The CBP defines livestock fencing as a component of the management change it creates. Examples include the establishment of riparian buffers or rotational grazing. Enhancements to the USDA CP code that could identify the location and use of the fencing, or the associated components of the management system would allow for utilization within the CBP models. One example would be to link riparian forest buffers (391), riparian herbaceous cover (390), or stream crossings (578) to the fencing code for representing riparian fencing. For grazing and pasture management improvements, the fencing code could be linked with prescribed grazing (528) or animal trails and walkways (575) for example.
- Nutrient Management
  USDA-NRCS currently defines, tracks, and reports nutrient management planning under a single Conservation Practice code (590) and standard. The CBP defines nutrient management under multiple management levels including N-based NM, P-based NM, Enhanced NM and Precision/Decision NM with variations in management levels and effectiveness values for reducing nutrient losses to the environment. Enhancements to the USDA CP code that could identify differences in NM planning and implementation would allow for improved utilization within the CBP models. An example of CP code enhancements was developed by the Maryland

State Office of USDA-NRCS for tracking and reporting multiple NM categories through the use of a letter suffix to the CP code.

- Feed Management
  USDA-NRCS currently tracks and reports feed management under a single Conservation Practice code (592) and standard for multiple livestock species, but does not typically track and report the type and amount of excess nutrients reduced in the manure due to the management system. Feed management systems can focus on N and P individually or in combination, leading differences in results. The CBP BMP defines feed management as the change of pound of N and P reduced in the livestock manure as a result of the reduction or enhancement of feed nutritional components. Enhancements for the USDA CP code and standard could identify differences in feed management focused on N and P separately or in combination. In addition, tracking and reporting of the change in manure nutrient concentrations as a result of the practice would allow for utilization within the CBP models.