LEGISLATIVE BUDGET AND FINANCE COMMITTEE

Report Highlights
Update of Cost Estimates for an Alternative Approach to Meeting PA's Chesapeake Bay Nutrient Reduction Targets

The Committee officers directed the Committee staff to update the relative cost advantage of the alternative approach to meeting Pennsylvania's Chesapeake Bay nutrient reduction targets as outlined in our 2013 report entitled *A Cost Effective Alternative Approach to Meeting PA's Chesapeake Bay Nutrient Reduction Targets*. The update is to reflect the 3:1 "uncertainty factor" DEP implemented in 2016 for nutrient reduction credits generated by agricultural best management practices (BMPs).

We found:

- **By 2025, PA is required to reduce nitrogen delivered to the Chesapeake Bay by 30 percent over 2016 levels.** As called for under the current Watershed Improvement Plan (WIP), most of these reductions (about 80%) are to come from agriculture. PA is also required to reduce phosphorus delivered to the bay by 16% and sediment by 20%.
- **Although good progress has been made by wastewater facilities, less progress has been made by agriculture and urban stormwater.** Most public wastewater facilities are near, or have already achieved, their 2025 reduction targets. The EPA has, however, expressed concerns over the agriculture and urban stormwater sectors. A recent analysis suggests that the nitrogen targets set for agriculture, in particular, will not be met under the current plan.
- **DEP has agreed to implement a 3:1 uncertainty factor for tradable credits generated by agricultural BMPs.** DEP took this action in response to EPA concerns regarding PA's trading program and various factors that may reduce the effectiveness of agricultural BMPs. As a consequence, 3 lbs. of nitrogen reduction generated through an agricultural BMP is equivalent to 1 lb. of nitrogen pollution reduction credit. A key exception is for technologies where actual reductions can be measured and verified; no additional adjustment is necessary.
- **It is unclear what will happen if PA fails to meet its nutrient reduction targets.** The EPA has indicated it might impose additional reductions on wastewater treatment plants as a way to compensate for the failure to achieve targets in other sectors.
- **If allowed by EPA, a competitive RFP program could help achieve PA's nitrogen reduction targets.** Nitrogen, a pollutant that is more readily carried downstream than phosphorous or sediment, is key to PA meeting its CB nutrient reduction targets. Under a competitive RFP (Request for Proposal) program, eligible credit generators would be able to sell tradable credits to point sources (such as municipal separate storm sewer systems, known as MS4s) or other eligible entities who could then use those credits to help meet their nitrogen reduction targets. Phosphorous credits can also be traded, but sediment, a pollutant of particular importance to locally-impaired streams, is not included in the trading program.
- **A competitive RFP program could lower overall compliance costs by 90% or more for nitrogen reductions for agriculture and urban stormwater.** We estimate achieving the required nitrogen reductions for agriculture and urban runoff through BMPs, after applying a 3:1 ratio for agricultural BMPs, would cost about $6.5 billion by 2025. We estimate a competitive RFP program could achieve these same levels of reductions at a cost of about $340 million in 2025. These estimates do not, however, attempt to adjust for how BMPs designed to satisfy sediment or phosphorus reductions might also impact nitrogen reductions. This adjustment could be significant, as often efforts to reduce sediment also serve to reduce phosphorus and nitrogen.
- **The cost estimates assume a fundamental restructuring of DEP's current Watershed Improvement Plan (WIP).** A competitive RFP program of the magnitude contemplated in this report would require a fundamental restructuring of Pennsylvania's current WIP. In particular, the current WIP has a cap on the number of credits that can be traded annually and does not provide for MS4s in its nutrient credit trading program. These and other issues would need to be addressed for the plan to be viable.

For a full copy of the report, please call 717-783-1600 or e-mail us at info@lbfc.legis.state.pa.us or download at http://lbfc.legis.state.pa.us.

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