

Department of Legislative Services
Maryland General Assembly
2010 Session

FISCAL AND POLICY NOTE

House Bill 813

(Delegate O'Donnell, *et al.*)

Environmental Matters

Agriculture - Sludge - Timing of Winter Application

This bill requires that Maryland Department of Agriculture (MDA) regulations that, under current law, must prescribe the criteria, form, and content for certified nutrient management plans, establish criteria for the timing of the winter application of sludge that are the same as or substantially similar to the criteria adopted for the timing of the winter application of animal manure.

Fiscal Summary

State Effect: The bill is not expected to significantly affect State finances.

Local Effect: Certain local governments may incur increased costs to dispose of or store sewage sludge to the extent criteria established by MDA as a result of this bill limit the amount of sludge that can be disposed of through land application during the winter. However, because MDA is already in the process of developing requirements for the timing of winter nutrient application, such impacts may occur even in the absence of this bill.

Small Business Effect: Potential meaningful.

Analysis

Current Law:

Nutrient Management Plans

Pursuant to the Water Quality Improvement Act of 1998 (Chapters 324 and 325), agricultural operations with \$2,500 or more in gross annual income and livestock operations with 8,000 pounds or more of live animal weight must have and comply with a nutrient management plan for nitrogen and phosphorus. Different implementation dates applied to operations using chemical fertilizers and operations using sludge or animal manure. Operations using sludge or animal manure have been required to comply with a nutrient management plan for nitrogen and phosphorus since July 1, 2005.

MDA certifies and licenses nutrient management consultants and businesses to prepare nutrient management plans for farm operations and also issues certificates to farm operators to develop their own plans. In consultation with the Nutrient Management Advisory Committee (NMAC), MDA is required, by regulation, to prescribe the criteria, form, and content for certified nutrient management plans applicable to licensees and certificate holders and also establish specified continuing education, recordkeeping, and reporting requirements.

Under MDA regulations, timing of nutrient application is one of the elements required to be addressed in determining a nutrient management plan's recommendations. Those recommendations must be consistent with specified guidelines within the Maryland Nutrient Management Manual. The manual does not specifically address timing of the winter application of sludge, but it contains specific restrictions on the winter application of manure, specifying that manure may be applied in the winter (November 16 through February 28) only if the farm operation has inadequate storage, a nonstackable manure, and no other reasonable option to manage it. Specified guidelines must be followed if winter application is necessary because of inadequate storage.

MDE Regulation of Sewage Sludge

The Maryland Department of the Environment (MDE) regulates the land application of sewage sludge, with any applicable regulations adopted by MDE requiring the approval of MDA. A person must have an MDE sewage sludge utilization permit, for each utilization site, in order to utilize (including land application) sewage sludge in the State.

Various requirements are specified in MDE regulations for the application of sewage sludge to agricultural land. Relevant to the winter application of sewage sludge, the regulations prohibit, subject to certain exceptions, application to agricultural land under

certain adverse weather conditions; specifically, when the soil is saturated, the ground is covered with snow, or when weather conditions prevent adherence to a requirement to incorporate the sludge into the soil. Under the exceptions, sewage sludge may be injected into soil through up to six inches of snow and may be surface applied to frozen ground under certain circumstances.

Use and disposal of sewage sludge is also regulated by the federal government under 40 CFR 503.

Background: Sewage sludge is one of the final products of the treatment of sewage at a wastewater treatment plant, after treatment has broken down the organic matter and killed disease-causing organisms. According to MDE, more than 700,000 wet tons of sewage sludge is generated in Maryland each year. MDE indicates that the application of sewage sludge to agricultural land recycles nutrients, saves landfill space and money, and helps reduce nutrient pollution to the Chesapeake Bay.

In 2008, 30% of the utilized sewage sludge was applied to agricultural land, 47% was hauled out of State, and the remainder went to other uses, including 6% to landfill utilization/disposal. At the end of 2008, there were 701 active sewage sludge permits. Of those permits, 316 were for land application, the vast majority of which appear to be for agricultural land application.

MDA and MDE advise that the departments have been discussing draft requirements for the timing of nutrient application (including chemical fertilizer, animal manure, and sewage sludge) in the winter, to be included in the Maryland Nutrient Management Manual (which is incorporated by reference in MDA regulations). NMAC will need to review any such requirements, however. MDA advises that the requirements will be more stringent than MDE's current regulations relevant to the winter application of sewage sludge.

Local Fiscal Effect: Local governments may be affected to the extent the criteria established by MDA under the bill limit the land application of sewage sludge during the winter. MDE indicates that local government-owned/operated wastewater treatment plants that currently rely on land application to dispose of sewage sludge may be required to find other means to dispose of the sludge or store it, which could result in an increase in costs. MDE indicates there are roughly 43 publicly owned wastewater treatment plants in the State that are authorized for land application of sewage sludge.

Legislative Services notes, however, that while the bill requires MDA to establish specified criteria for the timing of winter application of sludge, MDA is already in the process of developing requirements more stringent than current MDE regulations, which

could be adopted even in the absence of this bill. Thus, the impacts discussed here may occur even in the absence of the bill.

Small Business Effect: Small businesses involved in the generation or management/disposal of sewage sludge may be affected to the extent that the land application of sewage sludge in the winter is limited by criteria established by MDA as a result of the bill. The magnitude of any impact is uncertain. Presumably a change in the means of disposing (or storing) of a significant percentage of the sewage sludge generated in the State during the winter may be detrimental to certain small businesses involved with or using land application but possibly beneficial to others that may generate business from other means of disposal or storage.

Farmers (most of whom are small businesses) may also be affected by the criteria established by MDA for the timing of winter application of sewage sludge. MDA indicates that some farmers depend on sludge for their land's nutrient value, but that any effect on farmers of limits on winter application of sludge may not be significant and may possibly be beneficial. MDA indicates that the nutrient value of sewage sludge and animal manure begins to decrease once they are applied and, therefore, application closer to the time of crop production, rather than over the winter, could have greater nutrient value for crop production.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Maryland Department of Agriculture; Maryland Department of the Environment; Carroll, Cecil, Howard, and Montgomery counties; Department of Legislative Services

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