

Department of Legislative Services
 Maryland General Assembly
 2017 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 773 (Senator Madaleno, *et al.*)
 Education, Health, and Environmental Affairs

Community Healthy Air Act

This bill requires the Maryland Department of the Environment (MDE), by July 1, 2018, to conduct an environmental assessment of its compliance, and the compliance of concentrated animal feeding operations (CAFO) in the State, with State and federal air quality laws and regulations related to emissions of air pollutants from CAFOs that (1) identifies all air pollutants emitted from Maryland CAFOs; (2) includes air quality monitoring data from Maryland CAFOs in accordance with an air monitoring program implemented by MDE; and (3) identifies all applicable State or federal laws and regulations, including any exemptions or exceptions from those laws and regulations. MDE must report its findings to the General Assembly by October 1, 2018.

Fiscal Summary

State Effect: General fund expenditures for MDE increase by at least \$300,000 in FY 2018 only for contractual assistance to conduct the required environmental assessment. Revenues are not affected.

(in dollars)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	300,000	0	0	0	0
Net Effect	(\$300,000)	\$0	\$0	\$0	\$0

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: The bill does not directly affect local government operations or finances.

Small Business Effect: Minimal.

Analysis

Current Law/Background:

Federal Clean Air Act

The federal Clean Air Act (CAA) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, the law authorizes the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards to limit levels of “criteria pollutants” to protect public health and public welfare and to regulate emissions of hazardous pollutants. A geographic area that meets or exceeds the primary standard is an “attainment area”; those that do not are “nonattainment areas.” A single geographic area may have acceptable levels of one criteria air pollutant but unacceptable levels of one or more other criteria air pollutants.

Under § 110 of CAA, each state must develop a State Implementation Plan (SIP) to identify the sources of air pollution and determine what reductions are required to meet federal air quality standards. The degree to which ambient air emissions from farming practices are allowed are location-specific within each SIP.

Maryland Regulation of Animal Feeding Operations

Currently, agricultural operations (including CAFOs) in Maryland are not subject to air quality permits issued by MDE. CAFOs are subject to federal and State regulations relating to water quality, however. The federal Clean Water Act (CWA) establishes the National Pollutant Discharge Elimination System (NPDES) permit program to authorize and regulate the discharge of pollutants from point sources to waters of the United States. CAFOs are specifically included under CWA in the definition of the term “point source” and are required to obtain a NPDES permit to discharge under certain circumstances.

In Maryland, all CAFOs and Maryland Animal Feeding Operations (MAFOs) must apply for coverage under the General Discharge Permit for animal feeding operations (AFOs). The general discharge permit includes standardized conditions that have been established to protect surface and groundwater from the impacts of discharges from CAFOs and MAFOs. To be considered an AFO, the operation must confine its livestock for at least 45 days per year and not grow crops or forward where the animals are confined. Regulation defines whether an operation is considered small, medium, or large based on the number of animals per AFO, as shown in **Exhibit 1**.

A facility or farm is a CAFO if it is designed, constructed, operated, or maintained, such that a discharge of manure, litter, or process wastewater could or does occur to surface waters of the State during wet weather events. MDE advises that there are 613 CAFOs in the State. A MAFO is an AFO that is designed, constructed, operated, or maintained such

that the discharge of manure, litter, or process wastewater will *not* occur to surface waters of the State during wet weather events. A large AFO that does not discharge to surface waters of the State, but discharges to ground waters of the State, is considered a MAFO.

Exhibit 1
Animal Feeding Operation Size Categories

<u>Animal Type</u>	Large – Operations with Greater Than or Equal to the Number of Animals Listed	Medium – Within the Range of Animals Listed	Small – Less than the Number of Animals Listed
Cattle (includes heifers)	1,000	300-999	300
Dairy cattle	700	200-699	200
Horses	500	150-499	150
Veal	1,000	300-999	300
Swine greater than 55 pounds	2,500	750-2499	750
Swine less than 55 pounds	10,000	3,000-9,999	3,000
Sheep/lambs	10,000	30,009,999	3,000
Ducks with liquid manure handling	5,000	1,500-4,999	1,500
Chickens with liquid manure handling	30,000	9,000-29,999	9,000
Ducks with dry manure handling	30,000	10,000-29,999	10,000
Laying hens with dry manure handling	82,000	25,000-81,999	25,000
Chickens (other than laying hens) with dry manure handling	125,000 animals or 100,000 sq. ft.	37,500-124,999 animals and less than 100,000 sq. ft.	37,500
Turkeys	55,000	16,500-54,999	16,500

Source: Code of Maryland Regulations 29.08.03.09

Concentrated Animal Feeding Operations and Air Emissions

According to the Environmental Integrity Project, in addition to having water quality impacts, CAFOs can be significant sources of air emissions, such as particulate matter, ammonia, and hydrogen sulfide. The Environmental Integrity Project reports that although EPA and states authorized to implement CAA have the authority to require that CAFOs measure and control their air emissions, they have exercised that authority on a limited basis. However, the Environmental Integrity Project advises that some states have recognized the need to regulate air emissions from CAFOs. For example, Minnesota has established an ambient air quality standard for hydrogen sulfide at the property line of operations larger than 1,000 animal units, and Nebraska has implemented an ambient air quality standard for total reduced sulfur, which includes hydrogen sulfide, for CAFOs.

State Expenditures: General fund expenditures increase by at least \$300,000 in fiscal 2018 only for MDE to hire a contractor to conduct the required environmental assessment. Costs could be higher depending on the total number of CAFOs that are monitored, the number of monitoring sites per farm, and the duration and monitoring of each site. MDE advises that a comprehensive air quality monitoring study must:

- require testing of multiple CAFOs to capture variability in the number of buildings, their orientation and distances relative to residences, and their type of operation;
- include multiple monitoring locations for each CAFO (at varying distances from the CAFO);
- cover at least one complete growth cycle of the particular animal in each operation;
- cover at least a portion of each season of the year;
- include measurements of meteorological variables (wind speed and direction, temperature, humidity, and pressure); and
- monitor for particulate matter, volatile organic compounds, hydrogen sulfide, and ammonia.

The estimate assumes that MDE can report its findings to the General Assembly by October 1, 2018, using existing budgeted resources. Thus, because the bill requires that the study be completed by July 1, 2018, no costs are incurred after fiscal 2018.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Maryland Department of Agriculture; Maryland Department of the Environment; U.S. Environmental Protection Agency; Environmental Integrity Project; Department of Legislative Services

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