

Department of Legislative Services
Maryland General Assembly
2026 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 911 (Senator Mautz)
Education, Energy, and the Environment

Environment - Weather Engineering - Prohibition

This bill prohibits a person from injecting, releasing, or dispersing (by any means) a chemical compound, substance, or apparatus into the atmosphere within the State for the purpose of affecting the temperature, weather, climate, or intensity of the sunlight. These prohibited activities are defined as “weather engineering activity.” A person who observes a weather engineering activity may report the activity to the Maryland Department of the Environment (MDE), as specified, and MDE must make available on its website an email address and online form for making such a report. Additionally, MDE, in consultation with the Maryland Department of Emergency Management (MDEM), must (1) establish a method for evaluating reports made under the bill and (2) investigate any reports that MDE deems in need of further review. The bill establishes related criminal penalty provisions; fines collected under the bill must be paid into the Bay Restoration Fund (BRF).

Fiscal Summary

State Effect: MDE general fund expenditures increase, and MDEM general fund expenditures may increase, beginning in FY 2027, as discussed below. The bill’s criminal penalty provisions are not anticipated to materially affect State expenditures or special fund revenues for BRF, as discussed below.

Local Effect: The bill is not anticipated to materially affect local government finances or operations, as discussed below.

Small Business Effect: Minimal or none.

Analysis

Bill Summary: Except as specified, a person who violates the bill's prohibition is guilty of a felony and upon conviction, is subject to a fine of up to \$100,000. An aircraft operator or controller who participates in a weather engineering activity is guilty of a felony, and upon conviction is subject to a fine of up to \$5,000 and/or imprisonment for up to five years. Each violation is a separate offense.

Current Law:

Weather Engineering

Maryland statute and regulations are silent with regard to weather engineering. According to the U.S. Environmental Protection Agency, the U.S. government is not engaged in any form of outdoor solar geoengineering testing or large-scale deployment. However, several western states have engaged in cloud seeding operations, which is considered a weather modification activity. Cloud seeding involves introducing artificial particles into clouds with the objective of increasing rain or snow or modifying regional and local weather patterns. The federal Weather Modification Reporting Act requires any person engaged or intending to engage in weather modification activity in the United States to report the activity to the National Oceanic and Atmospheric Administration at least 10 days before undertaking the activities. Violators are subject to fines of up to \$10,000.

Bay Restoration Fund

Chapter 428 of 2004 established BRF. The primary purpose of the fund is to support upgrades to Maryland's 67 major publicly owned wastewater treatment plants with enhanced nutrient removal technology; funds are also used for septic system upgrade grants, among other things, and the Cover Crop Program within the Maryland Department of Agriculture.

State Fiscal Effect:

Maryland Department of the Environment Administrative Costs

General fund expenditures for MDE increase beginning in fiscal 2027 to hire staff with weather engineering subject matter expertise to (1) establish an online form and email address for individuals to report weather engineering activity; (2) conduct related research; (3) consult with MDEM to establish a method for evaluating reports submitted under the bill; and (4) investigate any report that MDE deems in need of further review, which could involve conducting field investigations and gathering admissible evidence for possible legal action. MDE advises that it lacks the necessary expertise in weather engineering to

be able to provide a specific estimate of the number of staff it may need to implement the bill. Even so, MDE anticipates that it needs additional, dedicated staff with scientific and investigative backgrounds, such as atmospheric scientists and environmental law enforcement officers.

Maryland Department of Emergency Management Administrative Costs

MDEM similarly does not have sufficient technical expertise or experience in the area of weather engineering to provide a reliable estimate of any increase in expenditures it may incur to consult with MDE as required by the bill. Even so, general fund expenditures for MDEM may increase beginning in fiscal 2027 to implement the bill.

Criminal Penalty Provisions

Because it is anticipated that the bill's criminal penalty provisions are applied in only a limited number of cases, these provisions are not anticipated to materially affect State incarceration expenditures or the finances or operations of the Judiciary. Likewise, the bill's monetary penalty provisions are not anticipated to materially affect special fund revenues for BRF.

Local Expenditures: The Department of Legislative Services is unaware of any local jurisdictions that engage in weather engineering activities. None of the counties that responded to a request for information regarding the fiscal effect of the bill anticipate any impact. Therefore, the bill's prohibition is not anticipated to directly affect local government activities.

The bill's criminal penalty provisions are not anticipated to materially affect local incarceration expenditures or the workload of the circuit courts.

Additional Information

Recent Prior Introductions: Similar legislation has not been introduced within the last three years.

Designated Cross File: None.

Information Source(s): Maryland Department of the Environment; Maryland Department of Emergency Management; Judiciary (Administrative Office of the Courts); Department of Public Safety and Correctional Services; Maryland State Commission on Criminal Sentencing Policy; Office of the Public Defender; Anne Arundel, Baltimore, Cecil, Frederick, and Harford counties; National Oceanic and Atmospheric

Administration; U.S. Environmental Protection Agency; Department of Legislative Services

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