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Environment and Transportation  
Committee

The Maryland House of  
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## THE MARYLAND HOUSE OF DELEGATES

ANNAPOLIS, MARYLAND 21401

**Testimony:** HB701 - Gasoline-Powered Leaf Blowers - Purchase, Use, and Sale - Prohibitions  
(Clean Air Quiet Communities Act)

**Committee:** Economic Matters

**Hearing Date:** February 11, 2025

**Position:** Favorable

I am Delegate Linda Foley and I am presenting HB701, Gasoline-Powered Leaf Blowers – Purchase, Use, and Sale – Prohibitions (Clean Air Quiet Communities Act).

HB701 slowly phases out the use of gas-powered leaf blowers on state property by state agencies and state contractors. This bill has the state leading by example.

The bill would require the state government to transition to electric leaf-blowers as current devices are replaced. State agencies must convert all blowers to electric by January 1, 2030, with some phase out checkpoints along the way. The bill also requires the State to comply with local gas leaf blower ordinances in place across the state.

To be clear, this bill is not a statewide ban of use of gas-powered leaf blowers, nor would it directly affect individual consumers or homeowners. It also would not affect farmers.

In addition, HB701 makes several exemptions for state agencies, including for wildland fire suppression activities, prescribed burn management activities, fire-fighting activities carried out by authorized personnel, and emergency response activities.

I have worked with various state agencies on this bill and have tried to address their concerns. I will continue to work with them if needed.

Statewide, this bill does not prohibit the general public from using gas blowers, but it does put in place a ban on the retail sale of gas-powered leaf blowers beginning January 1, 2027.

The Climate Solutions Now Act, passed by the General Assembly in 2022, one of the most consequential laws in the country on the effects of climate change, sets ambitious goals to reduce greenhouse gas emissions. The act calls for a 60% reduction below 2006 levels of fossil-fuel emissions by 2031 and a further goal of net-zero emissions by 2045.

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To accomplish this, the climate law includes measures regarding building energy standards, state passenger fleet electrification and a pilot electric school bus program, among many other initiatives. But we will need more emission-reducing measures to reach these goals.

In Maryland, gas-powered lawn care equipment puts out smog-forming pollutants equivalent to that of 6.4 million cars. There are 5 million cars and light duty vehicles registered in Maryland. Eighty-five percent of the pollution from lawn care equipment comes from devices with 2-cycle engines, like leaf blowers. A gas leaf blower running for one hour emits smog-forming pollution comparable to driving a Toyota Camry 1,100 miles -- about the distance from D.C. to Miami. A gas leaf blower engine emits nearly 300 times the hydrocarbons of a pickup truck and releases excessive carbon monoxide and nitrous oxides.

If Marylanders were to electrify all their two-cycle lawn care devices it would be equivalent to taking more than 5 million cars off the road. This would markedly improve the health of Marylanders and reduce health-care costs.

Fortunately, electric and battery-powered leaf blowers are widely available. They are powerful but much quieter than gasoline-powered ones. They are comparable in purchase price and have far lower operating costs. They are essentially maintenance-free. More important, a transition to electric-powered leaf blowers will improve the health and safety of the state workers who regularly use these devices and regularly breathe in these harmful pollutants.

Gas leaf blowers are also a source of dangerous levels of noise for users or anyone else near them. Decibels are on a logarithmic scale, so every increase of 10 decibels is a 10-fold increase in noise. Electric leaf blowers typically emit well under 75 decibels. In comparison, gas leaf blowers emit 90-112 decibels, roughly a 100-fold increase, which damages hearing, impacts sleep, creates tension, increases blood pressure and affects human hearts. Just two hours of noise at 85 decibels, or 15 minutes at 100 decibels, exceeds NIOSH (National Institute for Occupational Safety and Health) standards and can cause hearing damage, especially for those operating the devices.

This damaging level of noise also affects countless species of wildlife, like birds, and even pets.

The state already budgets to replace the leaf blowers at the end of their useful life. While extra batteries needed for some professional users can be expensive, significant fuel savings are expected to more than offset any upfront costs.

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Switching to electric leaf blowers is better for state employees, will make many of our state-owned public spaces more enjoyable and give us all a little more peace and quiet..

This is a fact that many jurisdictions in the state have recognized, including Chevy Chase, Somerset, Takoma Park, University Park, Hyattsville, Annapolis, Baltimore City, Anne Arundel County and Montgomery County. Each of these have limited the use of gas-powered leaf blowers. Washington, D.C. has had a ban in place for several years. Other jurisdictions around Maryland are considering limitations.

HB701 is the first step in the right direction to reduce the environmental impact of gas-powered leaf blowers. It will help put Maryland on the right path toward quieter communities and cleaner air.

I urge a favorable report. Thank you.

## **Some of the harmful pollutants from gas-powered leaf blowers:**

The pollutants emitted by gas-powered lawn equipment include fine particulates (PM<sub>2.5</sub>), ozone-forming nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs), and air toxics such as [benzene](#), [1,3-butadiene](#) and [formaldehyde](#). Exposure to these pollutants in our air is linked to health problems including asthma attacks, reproductive ailments, mental health challenges, cancer, and even premature deaths.

### **Nitrogen Oxides**

Nitrogen oxides are a mixture of gasses that are composed of nitrogen and oxygen. Two of the most toxicologically significant nitrogen oxides are nitric oxide and nitrogen dioxide. Nitrogen oxides are released to the air from the exhaust of motor vehicles, the burning of coal, oil, or natural gas (and other sources).

Low levels of nitrogen oxides in the air can irritate your eyes, nose, throat, and lungs, possibly causing you to cough and experience shortness of breath, tiredness, and nausea. Exposure to low levels can also result in fluid build-up in the lungs 1 or 2 days after exposure.

Breathing high levels of nitrogen oxides can cause rapid burning, spasms, and swelling of tissues in the throat and upper respiratory tract, reduced oxygenation of body tissues, a build-up of fluid in your lungs, and death.

Exposure of pregnant animals to nitrogen oxides has resulted in toxic effects in developing fetuses. Nitrogen oxides have also caused changes in the genetic material of animal cells.

**Primary source: C.D.C. <https://www.atsdr.cdc.gov/toxfaqs/tfacts175.pdf>**

### **Is Ozone (O<sub>3</sub>) harmful to humans?**

While high level ozone is beneficial, preventing damaging UV light from reaching the Earth's surface. Low-level ozone is formed by the reaction of sunlight on air containing [hydrocarbons](#) and [nitrogen oxides](#) that react to form ozone directly at the source of the pollution or many kilometers downwind.

When inhaled, ozone can damage the lungs. Relatively low amounts can cause chest pain, coughing, shortness of breath and throat irritation. Ozone may also worsen chronic respiratory diseases such as asthma and compromise the ability of the body to fight respiratory infections.

The American Lung Association has identified five populations who are especially vulnerable to the effects of breathing ozone:

1. Children and teens

2. People 65 years old and older
3. People who work or exercise outdoors
4. People with existing lung diseases, such as asthma and chronic obstructive pulmonary disease (also known as COPD, which includes emphysema and chronic bronchitis)
5. People with [cardiovascular disease](#)

Additional evidence suggests that women, those with obesity and low-income populations may also face higher risk from ozone, although more research is needed.

Chronic ozone has detrimental effects on children, especially those with asthma. The risk for hospitalization in children with asthma increases with chronic exposure to ozone; younger children and those with low-income status are even at greater risk.

Adults suffering from respiratory diseases (asthma, COPD, lung cancer) are at a higher risk of mortality and morbidity and critically ill patients have an increased risk of developing acute respiratory distress syndrome with chronic ozone exposure as well.

**Source:** U.S. EPA.GOV and American Lung Association

## **Fine Particulate Matter (PM2.5)**

Emissions from combustion of gasoline, oil, diesel fuel or wood produce much of the PM2.5 pollution found in outdoor air, as well as a significant proportion of PM10.

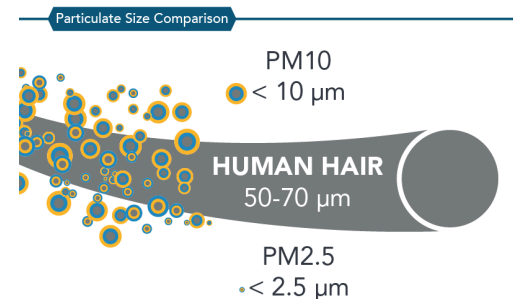
For PM2.5, short-term exposures (up to 24-hours duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days.

Research points to older adults with chronic heart or lung disease, children and asthmatics as the groups most likely to experience adverse health effects with exposure to PM10 and PM2.5. Also, children and infants are susceptible to harm from inhaling pollutants such as PM because they inhale more air per pound of body weight than do adults - they breathe faster, spend more time outdoors and have smaller body sizes.

In addition, of all of the common air pollutants, ***PM2.5 is associated with the greatest proportion of adverse health effects related to air pollution***, both in the United States and world-wide based on the World Health Organization's [Global Burden of Disease Project](#).

**Source:** California Air Resources Board (CARB)

[https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health#:~:text=Long%2Dterm%20\(months%20to%20years,lung%20function%20growth%20in%20children.](https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health#:~:text=Long%2Dterm%20(months%20to%20years,lung%20function%20growth%20in%20children.)



## **Benzene**

The Department of Health and Human Services (DHHS) has determined that benzene causes cancer in humans. Long-term exposure to high levels of benzene in the air can cause leukemia, cancer of the blood-forming organs. Benzene is a known carcinogen with no safe levels of exposure.

**Source:** C.D.C.

<https://emergency.cdc.gov/agent/benzene/basics/facts.asp#:~:text=The%20Department%20of%20Health%20and,of%20the%20blood%2Dforming%20organs.>

## **1, 3 Butadiene**

1,3-butadiene is a carcinogen with no safe levels of exposure. Breathing high levels of 1,3-butadiene for a short time may cause nausea, dry mouth and nose, headache, and decreased blood pressure and pulse rate.

Breathing high levels of 1,3-butadiene for a short time may cause nausea, dry mouth and nose, headache, and decreased blood pressure and pulse rate.

**Source:** C.D.C.

<https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=458&toxid=81>

and California Air Resources Board, Operator Exposure to Emissions Lawn and Garden Equipment, Oct. 12, 2018



## HB 701 Clean Air Quiet Communities Act

**Bill sponsors: Delegates Foley, Guyton, Lehman, Ruth, Spiegel, and Terrasa**

### Gas-Powered Leaf Blowers Are Stunning Sources of Pollution!

Gas lawn equipment puts out more fine particulate (PM2.5) air pollution in Maryland than 6.4 million cars, far more than all cars and light-duty vehicles registered. Most of this pollution (85%) comes from devices using two-stroke engines (e.g. leaf blowers, push mowers, chain saws, string trimmers).<sup>1</sup>

**Did you know that using a gas-powered leaf blower for about 12½ hours produces as much air pollution as the average Marylander driving 13,500 miles in one year?<sup>2</sup>**



One Hour of Use



Driving 1,100 Miles  
Baltimore to Miami, FL

The air pollution from these devices is most harmful to those nearest, especially the operators, but the pollutants spread far and wide impacting everyone, especially the most vulnerable including children, seniors, and people in poor health, but ultimately everyone is impacted. Most Marylanders would be surprised to learn that our state fails to meet federally mandated air quality; it's rated as serious nonattainment by the EPA.

Air pollutants like ground-level ozone and PM2.5, even at low levels, cause or contribute to many different health effects including cardiovascular events, cancer, chronic respiratory diseases, such as asthma and COPD, and compromise the ability of the body to fight respiratory infections and result in higher morbidity and mortality.

**There is no safe threshold for tiny particulate air pollution! *PM2.5 is associated with the greatest proportion of adverse health effects related to air pollution.***<sup>3</sup> Long-term (months to years) exposure to PM2.5 has been linked to reduced lung function growth in children, premature death, particularly in people who have chronic heart or lung diseases, and more.<sup>4</sup>

### Noise Pollution

<sup>1</sup> [Lawn Care Goes Electric, Oct 2023](#)

<sup>2</sup> California Air Resources Board, CARB SORE Fact Sheet

<sup>3</sup> World Health Organization's [Global Burden of Disease Project](#).

<sup>4</sup> [American Lung Association](#)

***"Calling noise a nuisance is like calling smog an inconvenience. Noise must be considered a hazard to the health of people everywhere."***

**Former U.S. Surgeon General William H. Stewart.**

Noise levels from gasoline-powered leaf blowers can reach 90 to 110 decibels at the user's ears. Two hours at 85 dBA or just 15 minutes of daily exposure at 100 dBA can cause permanent hearing damage. Landscape worker noise exposures have been shown to exceed both OSHA standards and construction industry exposures, where half of workers exposed to loud noise have material hearing impairment that impacts their daily life.<sup>5</sup>

Noise pollution also can affect mental health, increase cardiovascular disease, cause sleep disruption, and more, and hearing damage has other health effects including reduced cognitive ability, increased dementia and affects balance and walking. It even shortens lifespans in birds!<sup>6</sup>

**Did you know gas leaf blowers sound four times louder than electric leaf blowers to people inside their homes, schools and workplaces? *Roughly ¾ of Marylanders complain about gas leaf blower noise, saying it impacts their ability to concentrate, work, learn, and sleep and even affects physical and mental health for some, according to a Maryland Sierra Club survey.***

### **Electric Leaf Blowers are Better and Have a Quick Payout on Investment!**

***"Cordless leaf blowers are more convenient and quieter than gas, and the best ones are every bit as powerful"*** says David Trezza [Consumer Reports](#) leaf blower testing engineer.

Manufacturers say professionals will save roughly \$2,000 annually in fuel and maintenance by switching to battery and electric handheld equipment. Powering with electricity is far less expensive than fuel, and batteries can be used across multiple devices. While batteries can be expensive, they cost less than the fuel used over the product life, making electric devices less expensive overall. Furthermore, they're more reliable and don't need maintenance.

### **Most importantly, they are better for worker health!**

Electric leaf blowers don't put out ANY air pollution at the source. They are much quieter too, and operate well below 85 dBA, reducing harm to employees and others who are nearby. No one wants to hear a gas leaf blower or breathe in the toxins. **Using a gas leaf blower is like smoking in a restaurant, it doesn't just cause harm to the smoker, everyone is harmed.**

### **Clean Air Quiet Communities Act Proposes:**

- \* The State will not purchase gas leaf blowers after July 1, 2025, except for a few exceptions.
- \* The State and its contractors will phase-out use on State-owned property by January 1, 2030.
- \* Gas leaf blowers will no longer be sold in Maryland after January 1, 2027.
- \* **This bill will not prevent anyone from using gas leaf blowers on any private or county property, except where local ordinances apply.**

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<sup>5</sup> [CDC.gov](#) :

<sup>6</sup> ["Timing Matters: Traffic Noise Accelerates Telomere Loss Rate Differently Across Developmental Stages,"](#) Frontiers in Zoology,