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Committee: Economic Matters

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

Position: Support

Hearing Date: February 11, 2025

The Maryland Chapter of the Sierra Club supports HB701 Gasoline-Powered Leaf Blowers – Purchase, Use, and Sale – Prohibitions (Clean Air Quiet Communities Act). This bill will phase out gas leaf blower usage on State property by January 1, 2030 making our state parks, universities, and other State-owned public spaces quieter and healthier, while protecting employees and providing significant operating savings to the State. This bill will also prohibit the sale of gas-powered leaf blowers within the state by 2027; however, it will not prohibit use of gas leaf blowers on private property or interfere with existing local ordinances.

Gas-powered leaf blowers harm the individual user and everyone around them. Unfortunately, it can be difficult to escape the harm of gas-powered leaf blowers in our homes, workplaces, institutions of learning, or even outdoors. Their air and noise pollution causes physical and mental harm, and Marylanders are seeking relief, as evidenced by the numerous local ordinances banning these gas-powered leaf blowers.

Electric leaf blowers are as powerful as gas models, produce no source emissions and much less noise, require no maintenance, and generally have longer warranties. For most consumers, electric leaf blowers are comparably priced or less expensive than gas-powered models. While professionals may need additional batteries for electric leaf blowers, the significant fuel and maintenance savings can generate a positive return on investment (ROI) within two years for most professional users.

Gas-powered Leaf Blowers Produce a Stunning Amount of Harmful Air Pollution

Gas-powered leaf blowers produce unsafe levels of noise and air pollution. With powerful, cleaner, quieter electric leaf blowers widely available, the State can manage its properties without using gas. As Maryland is under serious nonattainment of mandatory Federal standards on air quality, affecting 82% of Marylanders¹, the State must lead the way to change.

The chemicals emitted from gas leaf blowers (e.g. PM2.5, PM10, hydrocarbons, nitrogen oxides, benzene, butadiene, formaldehyde) have been linked to adverse health effects such as cardiovascular disease, strokes, respiratory disease, lymphoma, leukemia, and other cancers, neurological disorders (e.g. autism), premature death, and effects on prenatal development.

Exposure is particularly harmful for workers and others near the equipment. Professional workers routinely breathe in these toxins for hours a day, and the pollutants impact air quality far from the source. Our state employees and others deserve better.

Founded in 1892, the Sierra Club is America's oldest and largest grassroots environmental organization. The Maryland Chapter has over 70,000 members and supporters, and the Sierra Club nationwide has over 800,000 members and nearly four million supporters.

Using a gas-powered leaf blower for just one hour produces smog-forming air pollution equivalent to driving a Toyota Camry 1,100 miles.² Or, stated alternatively, using a gas leaf blower for just 12 1/2 hours produces as much air pollution as the average Marylander driving a car for a year (13,500 miles).



One Hour of Use

Driving 1,100 Miles

Furthermore, a gas leaf blower engine emits nearly 300 times the hydrocarbons of an F-150 Raptor pickup truck and many times as much carbon monoxide and nitrogen oxides.³

Collectively, gas-powered lawn and garden equipment in Maryland produces air pollution equivalent to 6.4 million cars,⁴ more than the approximately five million cars and light-duty vehicles actually registered in the state. Gas leaf blowers and other two-stroke engine devices are notorious for their PM2.5 emissions, which is the air pollutant associated with the greatest proportion of adverse health effects.⁵ Long-term (months to years) exposure to PM2.5 has been linked to reduced lung-function growth in children, impaired immunity, premature death (particularly in people with chronic heart or lung diseases), and other serious health effects.

Asthma is one example of an adverse health effect frequently triggered by air pollution. Asthma is a serious and complex chronic respiratory disease with no known cure that affects an estimated 823,000 Maryland adults and children. In a Maryland government study, asthma in the state resulted in 11,474 hospitalizations, 39,834 visits to hospital emergency departments, and thousands of hours of lost school and work days.⁶ These events, lost productivity, and resulting healthcare costs have a considerable economic drain on residents, companies, and our government.

Noise Pollution Harms Physical and Mental Health

Gas leaf blowers typically generate 90-112 decibels of sound. According to the Centers for Disease Control and Prevention, hearing damage begins at 85 decibels for extended exposure (2 or more hours) and **exposure to 100 decibels for just 15 minutes a day can cause hearing loss.**⁷ At the ear of the operator, gas leaf blower sound can exceed the 85 dBA occupational safety standard set by NIOSH (National Institute of Occupational Safety and Health) by 10-to 100-fold.⁸ Additionally, these devices exceed noise standards of the World Health Organization up to 800 feet from the source,⁹ exposing children and others who are not wearing hearing protection while outdoors to hearing damage and other noise related health effects.

Noise from gas leaf blowers is perceived to be four times louder than electric leaf blowers while indoors.¹⁰ The sound penetrates into our homes, schools and workplaces disrupting the ability to work, learn, and sleep and causes adverse impacts to physical and mental health.

Noise pollution affects nearly every species of wildlife studied. Studies of birds compiled over 3 million observations of 140 different species across North America showed that noise pollution:

- Impedes finding a mate, delays nesting and can lead to nest abandonment
- Impacts birds' ability to listen for predators
- Results in smaller chicks with reduced feather growth, which indicates poorer health
- Causes changes in chromosomes (telomeres) associated with reduced lifespan!¹¹

Alternatives Are Readily Available

"Cordless leaf blowers are more convenient and quieter than gas, and the best ones are every bit as powerful" says David Trezza, <u>Consumer Reports</u> engineer in charge of leaf blower testing.¹²

Electric and battery-operated leaf blowers are widely available, much quieter, comparable in device cost, with far lower operating costs, and free from maintenance. Given the longer warranties of most electric models, the manufacturers expect them to outlast their gas-powered counterparts. For most residential consumer needs, electric models are less expensive to buy and operate than gas-powered leaf blowers.

Battery operated leaf blowers use long lasting, 95% recyclable lithium batteries similar to those used in phones, laptops, and other equipment, plus batteries are frequently useable in similar devices (e.g., string trimmers). While professionals require additional batteries, which increase upfront costs, manufacturers and independent studies have shown electric models generate significant fuel and maintenance savings that more than offset the cost of extra batteries. Greenworks, a manufacturer, estimates landscape professionals could save \$3.5K over two years by purchasing and operating a professional electric leaf blower, even with multiple batteries.¹³ The manufacturer Stihl estimates similar savings. Studies by municipalities are also compelling in their ROI.¹⁴ Investing in electric generates a positive return on investment!

Major retailers are also supporting the transition from gas to electric lawn care. Home Depot has a stated goal of selling 85% electric lawn care equipment, excluding tractors, by 2028.¹⁵ Furthermore, approximately three-fourths of all leaf blowers offered by Home Depot and Lowe's are electric (battery or corded) models.

Over 200 cities and counties have passed restrictions or full bans on gas-powered leaf blowers in 26 states and Washington, D.C. California has passed bans affecting all gaspowered lawn equipment to drive improvement of air quality for their residents. Colorado has mandated state agencies to transition all push mowers and handheld lawncare devices to electric.

Using a gas leaf blower today is a harmful choice that adversely affects the health and freedoms of others. It's time to phase out these harmful polluters and restore some peace to our open spaces, workplaces, and homes. We urge a favorable report on HB701, Clean Air, Quiet Communities Act.

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- ³ Kavanagh, Jason. December 5, 2011, Emissions Test: Car vs. Truck vs. Leaf Blower.
- https://www.edmunds.com/car-reviews/features/emissions-test-car-vs-truck-vs-leaf-blower.html

⁵ World Health Organization's <u>Global Burden of Disease Project</u>.

⁶ Maryland Asthma Control Program,

https://health.maryland.gov/phpa/mch/documents/asthma_control/Profile_BaltimoreCity.pdf

⁷ CDC, <u>https://www.cdc.gov/nceh/hearing loss/what noises cause hearing loss.html</u>

⁹ Ibid

¹⁰ Ibid

¹² Hope, Paul. Best Cordless Leaf Blowers of 2025: The best handheld and backpack electric leaf blowers from CR's tests include models from Ego and Ryobi, *Consumer Reports* January 1, 2025

¹³Greenworks https://www.greenworkscommercial.com/products/82v-755-cfm-dual-port-backpack-blower-with-2-8ah-batteries-and-dual-port-charger-bb361-82dp

¹⁴Stihl Fuel Savings Calculator: Battery-Powered Tools, https://www.stihlusa.com/tools-calculators/fuel-savings-calculator/

¹⁵ The Home Depot Sets Goal for Battery Powered Products to Drive over 85% of Outdoor Lawn Equipment Sales by 2028 June 22, 2023. <u>https://corporate.homedepot.com/news/sustainability/home-depot-sets-goal-battery-powered-products-drive-over-85-outdoor-lawn</u>

¹ December 31, 2024 <u>8-Hour Ozone (2015) Designated Area/State Information | Green Book | US EPA</u>

² California Air Resources Board, CARB SORE Fact Sheet, <u>https://ww2.arb.ca.gov/resources/fact-sheets/sore-small-engine-fact-sheet</u>

⁴ Dutzik, Sokolow, Metzger, Schatz, Lawn Care Goes Electric: Why it's time to switch to a new generation of clean, quiet electric lawn equipment, Oct. 2023

⁸ Walker E, Banks JL. Characteristics of lawn and garden equipment sound: A community pilot study. <u>J Environ</u> <u>Toxicol Stud 2017</u>

¹¹ Dorrado-Correa et al., <u>"Timing Matters: Traffic Noise Accelerates Telomere Loss Rate Differently Across</u> <u>Developmental Stages,</u>" Frontiers in Zoology, 15:20 (2018)