



## Quiet Clean PDX FAQs ABOUT OREGON HB 3023 February 2021

### About the Act

HB 3023 would prohibit the sale or use of gas-powered leaf blowers in an area within an Urban Growth Boundary with a population greater than 300,000. As currently written, it would apply to Oregon's largest urbanized area - the area inside the Portland metro Urban Growth Boundary – where the greatest number of Oregonians are affected by the use of gas-powered leaf blowers (GLBs) throughout the year. The goal is to protect people from the harms of GLB use.

This campaign is part of a national movement to ban or restrict the use of GLBs. There are more than 170 town & city bans & restrictions, and legislative efforts at the state level are underway in New York, Illinois, Hawaii, and California.

### Rationale for State-level Legislation

The increasing incidence of noise emissions at unreasonable levels is a threat to the the health, safety and welfare of the people of Oregon. The State has an interest in the control of noise pollution, as made clear in the Oregon Revised Statutes (ORS):

*The Legislative Assembly finds that the increasing incidence of noise emissions in this state at unreasonable levels is as much a threat to the environmental quality of life in this state and the health, safety and welfare of the people of this state... To provide protection of the health, safety and welfare of Oregon citizens from the hazards and deterioration of the quality of life imposed by excessive noise emissions, it is hereby declared that the State of Oregon has an interest in the control of such pollution...* [ORS 2019 Edition, Vol. 13, Ch 467 (Noise Control), Sec. 467.010]

Ad hoc, city-by-city regulation is not working.

Several cities in Oregon, especially in the Portland metro area, have established noise ordinances that restrict the use of GLBs to certain days, times and seasons, and set maximum decibel levels. Nearly all GLBs exceed these limits and the rules are not enforced. A ban on use and sales of GLBs is needed, and a state ban will be easier to enforce.

The City of Portland and State of Oregon are transitioning away from GLBs in their own operations

1. *Oregon* – the State's Department of Administrative Services is implementing a procurement measure to transition state agencies to battery-powered blowers.
2. *Portland* - The City has committed to transitioning away from GLBs to battery electric for its fleet of leaf blowers.

### Common Questions

Why focus on the Portland metro Urban Growth Boundary (UGB) area?

1. Well over half of all GLB usage in Oregon occurs within the Portland metro UGB.<sup>1</sup>
2. The detrimental effects of GLBs are highest in densely populated areas such as Portland.

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<sup>1</sup> DEQ data show that 59% of statewide emissions from GLBs come from Multnomah, Clackamas and Washington counties. Since Portland's Urban Growth Boundary (UGB) encompasses about 92% of the population of those 3 counties (1.67 million of 1.81 million people), it can be safely assumed that well over half of GLB usage in the state occurs within the Portland UGB area.

3. The bill is not Portland-specific; it applies to any UGB area in Oregon with a population over 300,000; so as other cities grow to meet that threshold, they will be included.

#### Why deal with this issue now, during the pandemic?

1. The dangers of GLB emissions, including noise and toxic pollutants, have actually been heightened during the pandemic. Moratoriums on these machines have already been enacted in various cities. GLBs present three specific problems during the current outbreak (which also apply to future, similar outbreaks):
  - (a) An increased risk of complications and death from COVID-19 due to the fine particulate matter generated by GLBs<sup>2</sup>
  - (b) Disproportionate risks of COVID-19-related illness faced by landscape workers as a result of working with GLBs.
  - (c) Sleep, concentration, and other health problems caused by GLB noise interferes with the ability of the growing number of adults and children trying to work, learn, and rest at home.
2. GLB noise is an urgent and timely problem that is likely to impact greater numbers of people. After the pandemic (and given an aging population), we can expect a higher percentage of Oregonians to be working & learning at home. Noise complaints are already rising.

#### Why ban only GLBs, rather than all leaf blowers?

Electric and battery-powered leaf blowers are quieter. Unlike GLBs, they rarely exceed dangerous levels of noise; and they operate at a higher frequency that doesn't travel as far or penetrate walls as easily. Ideally, manual tools would replace all leaf blowers, but electric and battery-powered leaf blowers are a compromise between the ideal and the status quo.

#### Why focus on noise as the reason to ban GLBs, as opposed to their many other health and environmental hazards?

1. While toxic emissions and climate impacts are a significant impact of GLBs, the Clean Air Act<sup>3</sup> prohibits states and local governments from controlling small engine emissions or setting air pollution emission standards. Banning devices such as GLBs based on the toxic air pollution they generate from fuel combustion and airborne debris might be considered a way of controlling such emissions, so HB 3023 avoids such arguments.
2. But since you asked, here's a list of other dangers and harms caused by GLBs (besides their loud, penetrating noise):
  - (a) Toxic air pollution from fuel combustion and airborne debris such as mold, pesticides and animal feces from the high-velocity air blasting of GLBs.
  - (b) Climate impacts from burning fossil fuel (compounded many times over by the inefficient, obsolete, 2-stroke engines used by most GLBs)

**Note:** Gas-powered leaf blowers produce approximately 15 times more carbon pollution than battery-powered leaf blowers<sup>4</sup>. The savings in carbon emissions from

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<sup>2</sup> A recent Harvard study found that a one microgram increase in concentration of fine particulates was associated with an 8% increase in risk of COVID-19 related death. Long-term exposure to the type of pollution GLBs produce may significantly raise the risk of death from COVID-19 ([Wu](#), as of 4/24/20).

<sup>3</sup> The Clean Air Act states: "No state or any political subdivision shall adopt or enforce any standard or other requirement related to the control of emissions" from non-road small engines.

<sup>4</sup> According to DEQ, carbon emissions from residential and commercial GPLBs in Oregon was estimated at 10,149 tons of CO<sub>2</sub>e in 2017 - roughly equivalent to the annual emissions from 1,750 gas-powered automobiles. The vast majority of these emissions could be avoided by simply replacing GPLBs with battery-powered leaf blowers.

shifting to battery-powered blowers will only increase as Oregon's electricity grid gets cleaner<sup>5</sup>

- (c) Damage and destruction to plants, insects and soils from the powerful blast of GLBs.
- (d) Toxic landfill waste generated by GLB air and fuel filters (both of which require frequent changing) and oil-based fuel additives.

Won't the cost of switching to other equipment put small firms out of business?

1. *Lower operating costs means a return on investment* - The cost of transitioning to electric battery-powered blowers (BLBs) (including the batteries themselves) can be recovered within 1-2 years due to the dramatically lower operating costs of BLBs.
  - (a) It has been estimated that **gas blowers cost at least 25 times more to operate than electric/battery blowers** in terms of fuel consumption alone; and when you add parts & maintenance the difference is even greater. (GLBs require fuel and air filters, fuel additives, and regular maintenance). Fuel for GLBs is one of the largest expenses of landscaping contractors.
  - (b) BLBs require no costly maintenance and no replacement filters, oil additives or gasoline. The electricity needed to charge their batteries costs pennies per hour.

**Conclusion:** When used instead of GLBs, BLBs can dramatically reduce emissions while lowering operating costs, in large part due to the relatively clean and low-cost electricity available in Oregon.
2. It's true a ban would require businesses to purchase electric/battery-powered blowers or use alternatives such as rakes and brooms (which a number of businesses have elected to do). However, it is less onerous than it might sound since:
  - (a) The bill has a phase-in period of 1.5 years, during which some GLBs would need to be replaced anyway.
  - (b) A variety of **transition programs** can help small firms. Buy-back programs, for example, can offer deep discounts to people who bring GLBs in to be replaced with electric alternatives. California has such a program that could be replicated in Oregon. And it's worth remembering that new blowers can be written off under Section 179 of the IRS tax code, which allows businesses to deduct the full price of equipment they use.

## The Noise Argument

(See also "The Dangers of Gas-powered Leaf Blower Noise" in [HB 3023 Bill Packet](#).)

Noise alone is a good reason to ban GLBs.

- (a) GLBs produce noise that exceeds internationally recognized thresholds for damage to the human ear (70 decibels). Most GLBs produce noise 2 to 8 times louder than the level considered dangerous (80 to 100 decibels).
- (b) The particular low frequency of sound produced by GLBs travels greater distances and penetrates walls and windows more easily than other sounds at the same decibel level.
- (c) The extremely loud and penetrating noise produced by GLBs disturbs the peace, damages human ears, and can cause irreversible hearing loss.

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<sup>5</sup> As mandated by Senate Bill 1547 requiring Oregon to achieve 50% of its electricity from renewable resources by 2040.

- (d) GLB noise assaults human nervous systems, causing stress, sleeplessness, and hypertension. The World Health Organization warns that “continual noise sets off the body’s acute stress response, which raises blood pressure and heart rate,” and that this response:
- can lead to cardiovascular disease and other health problems ranging from stress, poor concentration, productivity losses in the workplace, and communication difficulties and fatigue from lack of sleep, to more serious issues such as cardiovascular disease, and cognitive impairment.*
- (e) The CDC identifies noise pollution as the third most common chronic health condition in the US, and warns that being around too much loud noise, like that generated by leaf blowers, can cause permanent hearing loss.

#### Special groups affected by GLB noise

- (a) *People with auditory disorders* - high noise levels pose an access barrier for people with auditory disorders, who avoid places with loud noise, including public spaces. The Americans with Disabilities Act guarantees people with disabilities full enjoyment of public places.
- (b) *Children* - Adverse health effects of noise pose a serious threat to a child’s physical and psychological health, including learning and behavior. Children with language or attention disorders struggle even more with the effects of noise pollution. A 2018 World Health Organization analysis linked noise exposure to “poor reading comprehension, standardized test scores and long-term memory.”
- (c) *Workers* - GLB noise impacts everyone in the vicinity, but especially the workers who operate these machines several hours a day. The noise from many GLBs exceeds decibel levels known to cause damage to the ear. Since workers are closer to the noise source than typical distances used to set hazardous decibel levels, they are at even greater risk of harm.

#### Environmental/social justice implications

Occupational hearing loss is one of the most common work-related illnesses in the United States, according to NIOSH (National Institute for Occupational Safety and Health). As mentioned above, GLB noise particularly impacts those who operate these machines daily, many of whom are low-wage workers from BIPOC communities. Low-wage workers often do not have a choice over the tools they use and do not have the proper protective gear or knowledge of and training around the dangers of GLBs. A healthier work environment for these employees is essential. There are safe, affordable, and effective alternatives readily available that do not endanger workers.

### **Take Action!**

Download the bill packet for HB 3023 at [Quiet Clean PDX](#). Request support for the bill from your representatives.

### **More Information**

Quiet Clean PDX offers the following resources to help understand the seriousness of the problem:

- [Summary of dangers](#)
- [Common myths and credible facts](#)
- [Authoritative resources for each issue area](#)
- [How GLBs help increase risk of COVID-19 complications](#) (with social justice implications)
- [Environmental justice implications](#)