MEDINA, WASHINGTON

AGENDA BILL

Monday, October 27, 2025

Subject: Discussion re: Legislative Direction on Phasing-Out Gas-Powered Leaf Blowers

Category: City Business

Staff Contacts: Jeff Swanson, City Manager; Ryan Osada, Public Works Director; Jennifer Robertson and Randi Shaffer, City Attorney's Office

1. Executive Summary.

Gas-powered leaf blowers (GPLBs) have become a standard tool for landscapers in recent decades, yet they pose several significant issues related to public health and safety, including emission of toxic chemicals and noise. They are a nuisance to residents and pose a danger to operators. Many municipalities and larger regions, including Seattle, Portland, Multnomah County (Oregon), and the State of California, have begun the process to phase out or completely ban the use of GPLBs. Medina wishes to consider moving forward with legislation that will reduce or eliminate GPLB use within the city. Multiple policy options are available to accomplish this goal which the City Council will consider, discuss, and provide direction to staff.

One options that some jurisdictions have implemented is a seasonal ban on the use of GPLBs, disallowing use in warmer months when landscaping debris is dry and easily cleared by electric leaf blowers, before moving to a full ban on use. Other jurisdictions have relied on noise ordinances to curb the use of GPLBs, which are louder than their electric counterparts; while many jurisdictions use both methods to control daily and seasonal use.

The City also has options for enforcement of any legislation that curbs or eliminates the use of GPLBs ranging from notices of violations of the noise code, which is already available in the Medina Municipal Code , to operators of GPLBs to issuance of violations to property owners who hire the operators. However, enforcement could be a challenge as the nature of landscaping businesses is to move from property to property.

In 2023, the Medina City Council adopted Resolution No. 435, expressly stating the City's intent to fully phase out the use of gas-powered leaf blowers ("GPLBs") in the city limits by 2028.

This evening, the City Council is invited to discuss this topic and provide staff with further direction to staff on next steps, including:

(1) proposed legislation; and

(2) an associated outreach plan.

Following the direction, staff will prepare the relevant legislation and submit for Council review and approval.

2. Resolution No. 435 – Phasing out of GPLBs.

As this is a Council-driven initiative, staff has no suggested method for implementation. However, in order to facilitate the Council's discussion, staff offer the following suggested parameters as part of implementing Resolution No. 435:

a. Conduct community outreach, including educating residents about the dangers of emissions from GPLBs and inviting public input on proposed regulations and proposed deadlines for compliance;

b. Utilize a phased implementation approach to allow time for the City, residents, and local landscaping companies to replace equipment with a full phase-out by 2028; and

c. Incorporate the prohibition into the City's existing complaint-driven code enforcement model, focusing enforcement efforts in response to received complaints.

3. General information about GPLBs.

a. *Comparison and Use of Leaf Blowers*:

Leaf blowers have been widely available since the 1950s and have gained popularity with residential and commercial users since the 1970s. Leaf blowers make up approximately 10% of the gas-powered lawn and garden equipment in use today.

i. Availability and Styles.

Leaf blowers are available to commercial and residential users in a variety of forms, including gas-powered two-stroke and four-stroke engine versions, GPLBs with noise reduction technology, and corded or cordless electric leaf blowers (ELBs). Styles for both GPLBs and ELBs primarily consist of handheld, backpack, and wheeled types. Handheld and backpack versions are more widely used as they are lighter and easier to maneuver than wheeled leaf blowers; backpack versions are seen more often in commercial use because they are more comfortable for extended use in larger areas.

ii. Typical Use of GPLBs in Residential and Commercial Settings.

GPLBs are used in both residential and commercial settings by both individual residents and landscaping companies. A study conducted in 2015 showed annual residential use of GPLBs was around 10 hours per individual per year. Commercial users, including

employees of landscaping companies, averaged approximately 280 hours per year, equivalent to over 7 weeks of full-time (40 hours/week) work spent using GPLBs.

iii. Effectiveness by type.

The overall effectiveness of leaf blowers depends on their air velocity output, which is measured in cubic feet per minute (CFM). Higher airflow equates to a better ability to move leaves and debris. Handheld and backpack GPLBs move 400-900 CFM, at speeds of 150-250 miles per hour. In comparison, ELBs 200-600 CFM, at speeds of 100-270 miles per hour. The higher airflow provided by GPLBs comes at the cost of heavier equipment and a higher price. Additionally, the health risks posed by emissions from GPLBs are not present in ELBs, which have little to no emission effects. Further, some cordless ELBs are nearly as effective as GPLBs in terms of air velocity and most models are less costly than gas-powered versions. The technology is also changing quickly for ELBs and improvements in battery life and capacity are aiding in improving air speeds, power (in CFM), and price for ELBs. However, ELBs also require additional infrastructure for battery charging, including stations.

Table 1. Comparison of Gas vs. Electric Leaf Blowers

Type	***Airflow***	***Speed***	***Weight***	***Price***	***Coverage Area***
Gas – Handheld	400-600 CFM	150-230 MPH	8-12 lbs.	$100 - $300	Small - Medium (<1/4 acre)
Gas – Backpack	500-900 CFM	180-250 MPH	15-25 lbs.	$200-$600	Medium – Large (>1/4 acre)
Electric – Corded Handheld	200-700 CFM	100-270 MPH	4-12 lbs.	$75-$200	Small - Medium (<1/4 acre)*
Electric – Cordless Handheld	250-450 CFM	120-200 MPH	5-10 lbs.	$100-$300	Small - Medium (<1/4 acre)
Electric – Cordless Backpack	400-600 CFM	150-200 MPH	10-15 lbs.	$200-$500	Medium – Large (>1/4 acre)

*limited by cord length

b. ***Health & Environmental Concerns****:*

i. Noise Pollution.

The two-stroke engines used in most GPLBs emit a sound that often exceeds the acceptable decibel (dB) levels set by the World Health Organization (WHO), CDC, EPA, and the State of Washington, with WHO and EPA cautioning that consistent environmental noise above 70 dB could lead to hearing loss. Additionally, the Washington State Legislature has established maximum sound levels that are appropriate for different localities. Residential areas have a maximum of 60 dB, while commercial dining, retail, business, and other areas have a limit of 65 dB. Industrial, manufacturing, and agricultural areas have a maximum of 70 dB. Medina has established maximum levels of 55 dB for residential areas and 60 dB for commercial areas which are reduced to 45 dB and 50 dB between 10 PM and 7 AM. *However*, the current noise code specifically permits the use of GPLBs between 7 AM and 7 PM on weekdays and between 9 AM and 7 PM on weekends, exempting them from the noise code requirements. GPLBs produce sound at an average level for the operator between 85 and 100 dBs, with higher quality machines using noise reduction closer to 85 dBs, and mid- to low-quality devices emitting sound up to 110 dBs for the operator. For comparison, a household vacuum cleaner emits levels of 60 to 80 dBs. Even at ranges of 50 feet, GPLBs emit sound at levels between 70-80 dBs.

Therefore, while these machines exceed current noise limitations, the Medina Municipal Code contains a noise exemption applicable to GPLBs and other similar powered equipment, therefore, any legislation will also need to amend the City's noise code to remove this exemption.[1] The Medina noise code provides, in pertinent part:

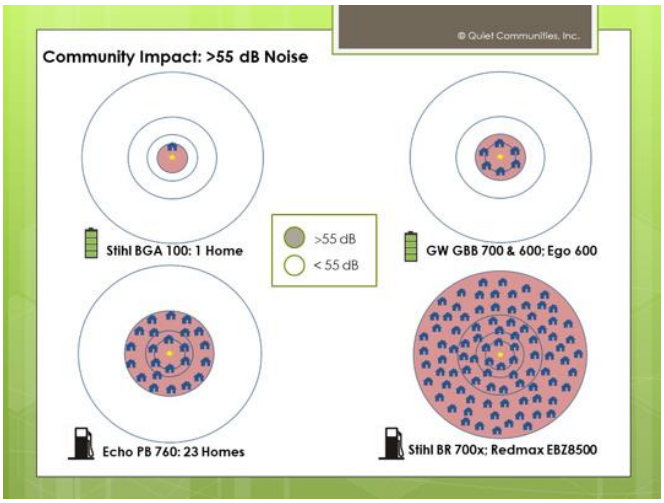
> **8.06.140. - Exemptions—Sounds exempt during daylight hours.**
>
> The following sounds are exempt from this chapter between 7:00 a.m. and 10:00 p.m. on weekdays, and between 9:00 a.m. and 10:00 p.m. on weekends, unless different hours are specified:
>
> . . .
>
> D. Sounds created by powered equipment when used by a resident or by the Overlake Golf and Country Club for the temporary or periodic maintenance or repair of their property or its appurtenances, including lawnmowers, leaf blowers, powered hand tools, and snow-removal equipment, provided such use is between 7:00 a.m. and 7:00 p.m. on weekdays and between 9:00 a.m. and 7:00 p.m. on weekends;
>
> . . .

[1] Amending the City noise code will require SEPA processing and a 90-day review/comment period from the Department of Ecology prior to passage. RCW 70A.20.060(3).

The potential health effects from the high-decibel output of GPLBs range from mild to serious. Longer exposure to high-decibel noise increases the likelihood of hearing damage and hearing loss for operators. On average, landscapers use GPLBs for 2.1 hours per day, which equates to long exposure. Further, sound at 85dBs or higher can cause irreversible damage to the inner ear. Finally, exposure to continued high-decibel noise by operators and nearby residents can also cause stress, anxiety, depression, high blood pressure, sleep disturbances, and other behavioral changes.

In addition to the high decibel levels, GPLBs produce low-frequency sound waves that travel far and permeate barriers, walls, and many types of hearing protection, affecting both operators and residents inside neighboring homes. One study illustrated the different impact to the community from the noise of GPLBs against ELBs. The ELBs had manufacturer decibel ratings of 56 dB and 70 dB, while the GPLBs had ratings of 65 dB and 75 dB. The ELBs affected up to 6 homes, with a smaller noise radius, compared to the GPLBs which affected more than 23 homes over a much larger area.

Image 1. Community Impact of Electric and Gas Leaf Blowers



ELBs, on average, are quieter than GPLBs, emitting sounds between 40-75 dB, and have frequencies that are less penetrative, travel shorter distances, and blend in better with ambient noise. Increased use of ELBs may reduce the harmful effects of high-decibel noise for operators and residents alike.

ii. Environmental Pollutants.

In addition to noise pollution, GPLBs emit high levels of localized chemical pollutants during use. GPLB engines operate on a mixture of gasoline and oil of which only two-thirds are combusted during operation. The other third of the fuel is emitted directly into the air surrounding the operator; these emissions contain high levels of carbon monoxide (CO), nitrogen oxides (NOx), and volatile organic compounds (VOC) and other carcinogenic substances which pose health risks to the public, including cardiovascular

disease, stroke, respiratory disease, cancer, neurological conditions, premature death, and effects on prenatal development.[2]

These emissions also create ground-level ozone which contributes to the creation of smog in urban areas. One study conducted in 2010 equated emissions from one hour of GPLB use to the same level of smog-forming pollutants as driving from Los Angeles to Denver, approximately 1,100 miles. Another estimate was conducted by an engineer editor at Edmunds.com who compared emissions of GPLBs to vehicles, finding that idling the two-stroke GPLB engine for 10 minutes produced the same emissions as driving a Ford Raptor 235 miles.[3] The localized nature of the emissions creates an increased risk not only to the operators but also to people in the area where the use occurs, which can include public schools and parks where larger backpack equipment is used.

There is also research related to increased levels of particulate matter that is 'kicked up' during use. This particulate matter can contain pesticides, pollen, animal dander, and other substances that settle on sidewalks and roadways. These particles are lifted off the ground and can remain suspended in the air for several days.

d. *Equity considerations.*

Many of the health and environmental risks associated with the use of GPLBs directly impact the operators of the equipment. Demographic surveys from 2021 indicate that 49% of landscaping services workers are between the ages of 22-44; 61% are of Hispanic, Latin, or Spanish origin, and 92% are men. Compared to the workforce at large, landscapers are slightly younger and are predominantly Hispanic and male. However, while the landscapers would likely see the health benefits from lower emissions and sound risks more directly, there has historically been pushback from this group based on concerns that removal of GPLBs will lead to even lower wages and longer hours for landscaping workers. In areas where bans have been adopted, landscapers have been the primary source of opposition against such policies, arguing that less effective tools make it more challenging to get the same amount of work done in a day, leading to lower profits and possibly closure of some businesses. Little data is available to show whether these negative effects have occurred.

4. Approaches of other jurisdictions in regulating GPLBs.

As summarized below, various agencies have utilized a myriad of approaches to address this issue. Over 170 jurisdictions in 26 states and the District of Columbia have instituted policies restricting or banning them from use. Policies vary by municipality and include different enforcement mechanisms, and a review of the policies in nearby jurisdictions is included here.

[2] Environmental Protection Agency, National Emissions from Lawn and Garden Equipment; 2015.
[3] Edmunds, Emissions Test: Car vs. Truck vs. Leaf Blower, last accessed March 30, 2025.

a. *City of Kirkland.*

The City of Kirkland has created an "Electric Leaf Blower Initiative" that aims to have a three-year approach to eliminate GPLBs, including extensive community engagement, public town hall discussions, trade-in events and vouchers for electric leaf blowers, and targeted outreach to landscapers.[4] The City of Kirkland is currently evaluating an implementation plan that may include (1) seasonal / time-of-day restrictions (rather than a total prohibition); and/or (2) electric-only pilot zones / geographic restrictions.

b. *City of Seattle.*

In 2022, the Seattle City Council unanimously adopted a resolution to eliminate the use of GPLBs by city departments and contractors by 2025, and for businesses and residents by 2027.[5] A directive issued by the mayor in May 2023 also required that all new leaf blower purchases by city departments be electric, with the goal of transitioning half of the city's leaf blowers to electric models by 2025, 75% by 2026, and achieving full electrification by 2027. The city council has not moved forward with any other legislation limiting GPLBs to seasonal use or implementing a phase-out plan for use by the city or its residents. It is also unclear how the city plans to enforce the restrictions on use of GPLBs once the phasing out plan is completed; for now, it appears the city is focusing on education and incentives to facilitate the transition to ELBs.

c. *City of Portland and Multnomah County, Oregon.*

In 2021 and 2022, Multnomah County and the City of Portland, respectively, passed resolutions declaring an intent to phase out the use of GPLBs.[6] The resolutions require a transition to ELBs by county-owned facilities by 2025, call for expanded charging infrastructure throughout the county, require community outreach to educate citizens about the harms of GPLBs and the phase out process, and mandate the creation of a workgroup that includes the Oregon Landscape Contractors Association to discuss, plan, and implement the countywide phase-out. The city and county also agreed to create incentives to offset costs for small businesses through rebates or reimbursements.

In March 2024, the city and county co-authored an ordinance which limits GPLB use to October-December, beginning January 1, 2026, with a year-round ban to begin in 2028.[7,8] The ordinance prohibits property owners from allowing the operation of GPLBs on the owner's property from January – September, with use allowed during the wet leaf season between October and December. A full prohibition will take effect January 1, 2028. Enforcement will be complaint-based, and violations include a code enforcement warning

[4] See Kirkland webpage: The Electric Leaf Blower Initiative – City of Kirkland
[5] City of Seattle, Resolution No. 32064, September 6, 2022.
[6] Portland City Council, Resolution No. 37463, December 5, 2019; Multnomah County, Resolution No. 2021-094, December 16, 2021.
[7] Portland City Council, Ordinance No. 191653, April 12, 2024.
[8] Portland Municipal Code (PMC) 17.101, Leaf Blowers (formerly at Chapter 8.80 PMC).

for the first violation, followed by increasing fines beginning at $250 up to $1,000 for subsequent violations.

Multnomah County agreed to support the transition by providing funding for education and community outreach, implementing a pilot program to reimburse or provide rebates to landscaping businesses for the cost of ELBs, and funding enforcement measures. However, last month it was announced that the county is currently facing a $15.5 million budget shortfall, and it is not clear whether there will be adequate funding for educational outreach and rebate programs.

d. *State of California and multiple California municipalities.*

In 2021, the State of California passed legislation requiring the California Air Resources Board to phase out the sale of new gas-powered small off-road engines, requiring them to be zero-emission by 2024.[9] Notably, the legislation does not prohibit the use of *existing* gas-powered engines in the state, and California has set aside $30 million to support the transition to electric alternatives for landscaping businesses.

In addition to the statewide prohibition on the sale of small engines, dozens of California municipalities have adopted ordinances limiting or prohibiting the use of GPLBs.[10] Some cities have extended regulations to electric leaf blowers, limiting the use of any type of blower to certain periods of the day, for specific lengths of time, or at a decibel level lower than 65 dB.[11]

5. <u>Enforcement Options.</u>

Two primary mechanisms for enforcement of municipal codes are through civil infraction tickets, issued by city police officers, or through use of civil code enforcement. Civil infractions require a higher standard of proof and officers would either need to be present to witness the GPLB use and/or have a noise meter to test the decibel level of the equipment before issuing an infraction (and would need training on use and regular calibration of this equipment). The transient nature of the use of GPLBs will make enforcement by infraction difficult. In contrast, enforcement through code violations requires a less stringent standard of proof and may provide opportunities for enforcement after the use occurs. Seattle's Department of Construction and Inspections operates in this manner and the department will enforce a code violation based on evidence of use that includes a time stamp (e.g., a photo of the alleged violation from a resident, city employee, or other citizen.) Civil violations can also be set up to include a warning for a first violation, with fines levied for subsequent violations.

The City also has the option of enforcing violations against the users of GPLBs or against the property owner using or allowing the use on the property. As discussed below, considerations of equity suggest that levying a penalty against a property owner who uses

[9] California AB 1346, October 19, 2021.
[10] *See*, Coronado, CA Municipal Code § 36.24.020; Calistoga, CA Municipal Code § 8.21.020.
[11] *See,* Pasadena, CA Municipal Code § 9.37.030.

or hires a company to use GPLBs may be more effective and reduce claims of bias or discrimination in enforcement.

6. Direction requested.

Council is invited to share feedback to direct staff with the requested elements for a potential ordinance to be presented to Council. If Council desires to regulate or to disallow the use of GPLBs going forward, please give direction to staff on the following:

a. *Scope of Legislation considerations.*

i. Whether to disallow the use of GPLBs seasonally (i.e., ban during dry season, but allow during the wet and winter season when leaves are heavier and harder to move) or year-round;

ii. The timing for when compliance with any complete or seasonal ban would take effect and whether there is a period of education or warning before enforcement begins;

iii. Whether the enforcement is against the party using the GPLBs, the property owner, or both;

iv. Whether you want to modify hours of operation for GPLBs or other small gas-powered equipment; and

v. If the city operations will have a different (earlier) deadline than the rest of the city, what that deadline will be.

b. *Procedure; Community Outreach.*

Please provide direction to staff on the process you would like to use on this legislation and the timing, including:

i. Community outreach in relation to timing of enacting legislation, including educating residents about the dangers of emissions from GPLBs and accepting public comments in support of and in opposition to the proposed regulations;

ii. Whether the Council wants to direct additional outreach to landscaping companies, larger property owners, etc.;

iii. Whether the Council wants to hold a public hearing on the ordinance; and

iv. Whether an educational campaign should be undertaken prior to or after passage of legislation to make residents and landscaping companies aware of the legislation and the deadlines for compliance.

Attachment(s)

The materials cited above are attached.

Budget/Fiscal Impacts The cost of legislation prohibiting the use of GPLBs include cost of enforcement and the costs converting the Medina equipment from GPLBs to electric. The cost of an electric leaf blower with 1 hour of batteries is ~$5,000. The City would need to purchase four of the electric leaf blowers to replace the GPLBs in stock. Operational changes will be necessary to accommodate efficiently loss.

Costs associated with enforcement would be a general fund expense, and as code enforcement is complaint-driven, the expenditures would vary based on the volume of complaints/calls.

Staff Recommendation: Engage in Council discussion and provide staff with additional direction on drafting legislation.

City Manager Approval: 

Proposed Council Motion: I move to direct staff to bring forward legislation regarding gas powered leaf blowers, to include [describe legislative desired].

Time Estimate: 60 minutes