TOWNSHIP OF LOWER MERION

Sustainability Committee

Issue Briefing

Topic: Restrictions on the Use of Gas Powered Leaf Blowers

Prepared By: Paloma Vila, PE, Sustainability Manager

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I. Action To Be Considered by The Board: Authorize the Township Secretary to advertise notice of intent to adopt an ordinance amending the code of the Township of Lower Merion, Chapter 92, entitled Property Maintenance, to add formatting of the chapter into articles, and to add a new Article III, Gas Powered Leaf Blowers; to provide definitions for terms used; to prohibit the use of gas powered leaf blowers during the period May 1 to October 1 and January 1 to March 1 annually; to prohibit the use of portable generators to directly power electric leaf blowers or to charge the electric batteries thereof; to require that notice of the prohibition of the use of gas powered leaf blowers be posted at establishments in the Township that sell them; and to provide violations and penalties for the enforcement hereof.

II. Why This Issue Requires Board Consideration: Code amendments require the approval of the Board of Commissioners.

III. Current Policy or Practice (If Applicable): There is no prohibition on the use of gas powered leaf blowers in the Township Code other than some time-based restrictions on noise levels from all types of landscaping and construction equipment.

IV. Other Relevant Background Information:

The Sustainability Plan was received by the Board of Commissioners on June 7, 2023. Strategy ET6 of the Sustainability Plan, Energy Transition Initiatives and Incentives, recommends that the Township design and implement a program to accelerate electrification and transition to clean energy throughout the Township.

Township residents regularly express their objections to the noise and environmental pollution caused by gas powered leaf blowers. Restricting the use of gas-powered leaf blowers aligns with the aforementioned strategy. Township staff, as a Board of Commissioner priority, have evaluated the feasibility of imposing restrictions on the use of gas powered leaf blowers. This evaluation included:

- A review of the environmental and health effects literature associated with gas powered leaf blowers.
- Interviews with commercial landscaping companies that operate with gas powered equipment, as well as those that offer electric-only services.
- A review of enforcement feasibility and needs with Township staff.

- A review of operational feasibility and use-case needs with Township equipment operators.
- Purchasing and testing electric leaf blowers in Township Parks & Recreation operations throughout various use cases and seasons.
- A review of existing restrictions on gas-powered leaf blowers in other U.S. municipalities.
- Identification of near-peer communities with leaf blower restrictions, including Concord, MA, White Plains, NY, Southampton, NY, and Montclair, NJ.
- Interviews with operational and enforcement staff in communities with active restrictions on gas powered leaf blowers, including Washington, D.C., Montgomery County, MD, Concord, MA, White Plains, NY, Southampton, NY and Montclair, NJ.
- Hosting a landscaping equipment electrification workshop and demonstration facilitated by the American Green Zone Alliance.

Following is a summary of information gathered during the evaluation period.

Environmental and Human Health Impacts of Gas Powered Leaf Blowers

Multiple reports indicate that the use of landscaping equipment emits quantities of carbon dioxide (CO_2), nitrogen oxides (NOx), fine particulates, benzene, and formaldehyde into the air that are equivalent to thousands of cars. Research links air pollutants to climate change and specific negative impacts to the environment, such as ground-level ozone, acid rain, smog, eutrophication, and poor soil health.

Additionally, research suggests that air pollutants are also linked to negative impacts to human health, such as increased exposure to extreme weather events, cardiovascular disease, asthma attacks, respiratory ailments, reproductive and mental health issues, and cancer.

Published studies indicate chronic exposure to the noise can lead to hearing loss, and that rising levels of ambient urban noise is linked to range of disorders. The use of leaf blowers of any kind also harms beneficial insects, through the removal of leaf litter in which they overwinter.

Township Operator Experience

While a majority of the landscaping equipment used by the Township's Parks & Recreation and Public Works Departments is currently gas powered, township staff have already begun integrating electric landscaping equipment into their daily operations. For example:

- Mowing and landscape tools at Township-owned pools have been all electric since 2020;
- Hedge trimmers and chainsaws for routine work by maintenance crews are all electric;
- Smaller saws and pruners for township crews are all electric;
- Township started utilizing its first electric zero-turn riding lawn mower in 2023;
- The first electric walk-behind lawn mower was purchased and put in use in 2024;
- A second electric zero-turn riding lawn mower was purchased in 2025 with the goal of equipping one parks crew with all electric equipment (making 33% of mowing operations all electric);

- Two electric weed whackers and one electric metal cut-off saw were purchased and integrated into operations in 2025; and
- Three electric backpack leaf blowers and associated batteries, charging equipment, and storage cases were purchased and integrated into operations in 2025.

In addition to equipment electrification, staff have taken measures in recent years to reduce the overall use of landscaping equipment, including implementing mulch-in-place, low-mow and no-mow protocols where feasible. However, in many instances such as maintaining active park areas, walking paths, sidewalks, ball fields, and tennis courts, gas-powered landscaping tools are still needed to achieve results that align with public safety best practices and residents' expectations.

During 2025 spring cleanup and summer maintenance in Township parks, staff conducted a pilot in which they attempted to utilize only electric leaf blowers at both large and small Township properties. The qualitative and quantitative information collected during this pilot helped inform the following sections.

Based on their experience using the all-electric equipment, Township staff anticipates the continued need for gas powered chainsaws, leaf vacuums and leaf blowers for storm cleanup, heavy woodland work, and spring and fall cleanup in active sections of Township parks for the foreseeable future. The electric equipment that is currently available on the market is not suitable to meet the needs of Township equipment operators while providing the level of service that is required to meet public safety needs and community expectations. Additionally, work using electric leaf blowers requires significant additional investment and labor-hours to complete. Staff anticipate that supplying electric leaf blowers and batteries to support year-round work could cost up to $20,000 per crew, and slightly less to transition to electric only for summer and winter operations. Staff are currently fine-tuning electrification costs and researching the additional costs for solar panels, inverters, and battery banks for on-the-job charging.

Electric Alternatives to Gas Powered Leaf Blowers

The most energy-efficient, healthy and ecosystem friendly alternative to the use of gas powered leaf blowers is a shift to manual leaf management tools such as rakes or to implement mulch-in-place protocols. The next best alternative is the use of electric leaf blowers. Electric alternatives are commercially available to replace gas powered blowers in residential, municipal, institutional and commercial applications.

The positive attributes of electric leaf blowers compared to conventional gas powered leaf blowers are that they:

- Generate less noise.
- Require minimal maintenance.
- Are cleaner to operate and maintain.
- Have lower long-term operating costs.
- Do not release odors, air pollution, or carbon emissions.
- Contribute to better human health and environmental outcomes.

The negative attributes of electric leaf blowers are that they:

- Require higher initial investment, including the cost of multiple batteries, charging stations, and appropriate storage systems.
- Are heavier and may contribute to increased operator fatigue, particularly during prolonged use.
- Are less powerful, potentially increasing the time required for certain tasks.
- Require numerous batteries to operate continuously for a full day.
- May require changes in facilities and operations to ensure charged batteries are available for the day's work, and that charging is done safely.
- Use lithium-ion batteries, which are resource and carbon-intensive to produce, are hazardous to transport, and challenging to dispose of or recycle.

In essence, while there are many demonstrated benefits to electric leaf blowers, the higher cost and reduced performance pose barriers to full-scale adoption. Industry professionals that were interviewed reported that the challenges with electric leaf blowers are virtually the same whether servicing institutional properties, large residential properties, or multiple smaller properties in a workday. For residential users, smaller properties may be easier to service with electric leaf blowers than large properties, but they may have more high-traffic hard surfaces to clear of wet, heavy leaves.

Seasonal Use-Cases

In winter, leaf blowers are primarily used for clearing light, powdery snow from hard surfaces and streetlights, and clearing accumulated water or small puddles to prevent ice buildup. These materials are generally lighter, requiring less powerful leaf blowers.

In spring, leaf blowers are primarily used for removing debris, leaves, twigs, fallen nuts and seeds, and other plant matter that may have accumulated over the winter. These materials are generally heavier or more densely packed, requiring more powerful leaf blowers.

In summer, leaf blowers are primarily used for removing grass clippings from hard surfaces after mowing, removing light branches and leaves after hedge trimming, clearing dirt and debris around pool areas, and clearing garages and outdoor spaces for gatherings. These materials are generally lighter, requiring less powerful leaf blowers.

In fall, leaf blowers are primarily used to clear yards, garden beds, and hard surfaces of fallen leaves and debris. They may also be used for clearing gutters and cleaning up after mowing. The rapid accumulation of fallen leaves and their increased weight and potential slipping hazards when wet necessitates more powerful leaf blowers.

Year-round, leaf blowers are used for cleaning up after storms and blowing away water during sewer repair work. Heavy or large piles of small branches and water require more powerful leaf blowers.

Based on staff equipment operator experience and interviews with industry professionals, staff have determined that a transition to electric leaf blowers is the most feasible for summer and

winter use cases, but that the battery life and power of electric leaf blowers is not yet sufficient for certain seasonal (spring and fall) use cases.

Existing Ordinances

Ordinances that have been enacted by U.S. municipalities restricting the use of gas powered leaf blowers typically fall into the category of either a year-round restriction or seasonal restrictions. Most seasonal restrictions allow for the use of gas powered leaf blowers during fall cleanup season, while several allow their use during spring cleanup season as well.

Few municipalities have imposed year-round restrictions on the use of gas powered leaf blowers. This is especially true in the northeast, where fall leaf season is a significant driver of leaf blower use. Of those municipalities in the northeast that have enacted year-round bans, very few are similar in size, population, municipal operations and land use patterns as Lower Merion Township. Seasonal restrictions are much more common - there are at least 35 municipalities with seasonal restrictions, most of which are nearby in New York and New Jersey.

White Plains, NY has a similar population size (60,000), land use patterns and municipal operations as Lower Merion, but a smaller area (9.86 sq. mi). White Plains imposed seasonal restrictions on the use of gas powered leaf blowers effective October 15, 2023, followed by a year-round restriction effective December 15, 2024. White Plains enforces their ordinance based on complaints from residents as well as some proactive enforcement from code enforcers within their public works, building and planning, police, and parking enforcement departments. Municipal staff reported that imposing seasonal restrictions was workable but required adjustments to their operations. Staff described challenges to maintaining the same level of service with electric equipment, including the need for many batteries, on-the-go charging solutions, and additional staff and labor hours, plus the physical toll on laborers using the heavier electric equipment. This fall will be the first leaf cleanup season with restrictions in place, therefore additional evaluation will need to be conducted.

Concord, MA has a similar area (25.9 sq. mi), land use patterns and municipal operations as Lower Merion, but a smaller population (18,000). Concord imposed seasonal restrictions on the use of gas powered leaf blowers effective June 1, 2024. A year-round restriction will be effective for commercial landscapers on March 15, 2028, and for residents on March 15, 2030. Concord enforces their ordinance based on complaints from residents. Properties larger than 1.5 acres and activities of the Concord Public Works Department are exempt from the restrictions. Municipal staff shared that they have been using electric leaf blowers where feasible for around 5 years. They reported that the electric blowers work well for summer cleaning of grass clippings and debris off hard surfaces, but such equipment has not been feasible to use for fall leaf cleanup. While it is feasible for residents to maintain properties smaller than 1.5 acres with manual methods or electric leaf blowers, landscaping companies that serve multiple properties in a day face similar challenges as municipal staff and large property owners.

Montclair, NJ has similar land use patterns and municipal operations as Lower Merion, a population size of 41,000, and a smaller area (6.3 sq. mi). Montclair imposed seasonal

restrictions on the use of gas powered leaf blowers effective in 2021 and a year-round restriction effective October 15, 2023. Montclair enforces their ordinance based on complaints from residents. Several schools, institutions, and county parks in Montclair are exempt from the ordinance. Municipal staff reported that the use of electric equipment during spring and fall cleanup seasons has been challenging, citing difficulties with charging, service interruptions to change batteries, longer time periods to maintain the same level of service, and equipment not performing like the gas counterparts. Staff also shared that a request for proposals to service parks with electric equipment resulted in no bid responses. They highlighted the importance of conveying to the public that they should not expect the same level of service with electric equipment as with gas powered equipment, and that municipalities and landscapers should expect and budget for additional time it takes to perform the service with electric equipment.

Washington, D.C., imposed a year-round restriction on the use of gas powered leaf blowers effective January 1, 2022. Washington, D.C.'s ordinance permits the use of gas powered leaf blowers on property owned by the Federal government, which accounts for nearly 25% of the city's total acreage. This includes over 90% of park land and many of the city's monuments, memorials, and other institutional properties, where removal of leaf litter is most desired. Even with the addition of two new full-time staff to enforce the ordinance, municipal staff reported challenges in responding to complaints. They shared that smaller landscaping businesses experienced significant challenges adhering to the ordinance and even years after the ordinance took effect, many regularly run afoul of the restrictions.

Other Considerations

1. A year-round restriction that would prohibit use of gas powered leaf blowers in spring and fall is not recommended because it would likely:
    - Create significant operational challenges, service delays, and increased costs for municipal equipment operators, caretakers of institutional properties, and landscaping professionals serving both large and small residential properties.
    - Create pass-through cost increases to Township residents, including vulnerable populations that do not have the means to absorb the additional costs.
    - Be less accepted and followed, decreasing the overall effectiveness of the initiative.
    - Cause quality reductions that could result in resident complaints, unsafe conditions, and accessibility issues.
    - Require significant additional staff resources to effectively enforce, including responding to complaints and attending court hearings.
    - Cause additional electric leaf blowers to be used for longer periods of time in order to complete the work which may, counterintuitively, result in an increase in noise complaints.

2. Exempting large residential properties from restrictions is not recommended because it:
    - Would likely lead to confusion and frustration amongst residents.
    - Would likely result in significant staff resources being used to follow up on numerous non-enforceable complaints.
    - Would likely result in the need for enforcement staff to verify property size prior to issuing citations, making enforcement both more cumbersome and less successful.

- Does not align with the Township's mission to serve all Township constituents equally.
- Is not justified when the challenges with using electric leaf blowers are the same whether serving one large property or multiple small properties in a day.

3. Exempting the Township or other institutional properties from the restrictions is not recommended because:
   - The operational issues and financial constraints faced by municipal equipment operators are likely to be the same if not greater for caretakers of large properties and landscaping professionals.
   - The Township should not impose restrictions on the community which the organization itself would not or could not follow.

Recommended Approach

Township staff expended considerable time, effort, and funds to explore the feasibility of imposing restrictions on the use of gas powered leaf blowers. Based on their extensive evaluation, staff have concluded that the optimal approach would be to recommend seasonal restrictions uniformly across all equipment users, property types, and property sizes. This seasonal recommendation would prohibit the use of gas powered leaf blowers from May 1 to October 1 ("Summer") and from January 1 to March 1 ("Winter") each year. This approach would allow for the use of gas-powered leaf blowers from March 1 to May 1 ("Spring") and October 1 to January 1 ("Fall") each year.

The rationale for this approach includes:

- Enforcement is more practical and feasible, which is likely to improve the overall success of the initiative.
- Electric leaf blowers available for both residential and commercial use are sufficient for most common summer and winter use cases, therefore the use of gas powered leaf blowers not considered essential during these seasons.
- Limiting the use of gas powered leaf blowers to only five months out of the year significantly reduces the overall pollutant load.
- Restricting the use of gas powered leaf blowers in the summer reduces noise and pollution when most people are enjoying the outdoors.
- Permitting continued use of gas powered leaf blowers in spring and fall is expected to minimize the financial and operational hardship of use restrictions and ensure that the same level of service can be maintained.
- Permitting gas powered leaf blowers in spring and fall allows equipment operators to have adequate equipment available when they need it most while gradually acquiring and familiarizing themselves with electric equipment.
- Allowing equipment replacements to occur at end of life as opposed to an arbitrary deadline reduces financial burden and operational constraints.
- Restricting the use of gas powered leaf blowers in summer provides an opportunity for Township staff and volunteers to educate residents and landscaping professionals about more eco-friendly methods of lawn maintenance.

- If the ordinance is adopted in the fall of 2025, imposing restrictions starting May 2026 gives users of landscaping equipment approximately six months to prepare for the first seasonal restriction.
- The recommended lead time provides time for staff to begin an education and outreach campaign which could include a training workshop and equipment demonstration, press releases, distributing information through civic associations and community organizations, and direct communication with users of landscaping equipment in the area.

This recommendation would result in a primarily complaint-based enforcement approach, with complaints submitted to Building and Planning staff Monday through Friday from 8:15 am to 4:30 pm, and to police after hours and on weekends. Based on initial experience with enforcement, staff would evaluate whether additional personnel may be needed to handle complaints and court proceedings effectively over the course of 2026 with any additional recommendations being presented for consideration in 2027.

If the recommended approach is adopted, staff would re-evaluate the costs and performance of electric leaf blowers after two full years of seasonal restrictions. Should additional restrictions be more technically and financially feasible at that time, staff would explore amending the Township code accordingly.

Complimentary Measures to Support Transition

Staff recommends exploring implementation of the following measures alongside the proposed ordinance:

- Increased opportunities for lithium-ion battery recycling in the Township
- Ongoing educational campaigns for residents, institutional property managers, and commercial landscaper;s
- Compile a list of landscaping companies that offer electric services in the Township and provide the list to interested residents;
- Include funding for promotions and educational events in the 2026 Township operating budget and beyond;
- Identify any additional funding needs for the Parks and Recreation, Public Works, and Parking Enforcement to continue and accelerate the purchase of electric equipment to comply with the ordinance.

V. Impact On Township Finances:

Should the ordinance be adopted in the fall of 2025, additional funds will be needed in the 2026 and 2027 Operating Budgets to accelerate the purchase of electric equipment, batteries, charging devices, and equipment transport and storage so that the Public Works, Parks and Recreation, and Parking Enforcement departments are able to comply with seasonal restrictions. Additional staff time in these departments will also be needed to support equipment training, developing standard operating procedures for equipment use, charging and storage, establishing stationary and mobile charging stations, additional field time to maintain the same level of service, and additional shop time for battery management.

Funds have been proposed in the 2026 Township Budget but would also be needed in 2027 Operating Budget to support educational events and outreach materials managed by sustainability staff (Township Manager's Office). Additional staff time may be needed for sustainability and Building and Planning department staff to develop and implement educational materials and events and conduct outreach.

Employment of additional enforcement personnel may be required to respond to complaints and enforce the ordinance. Any identified needs would be evaluated after initial implementation and considered if necessary as part of the 2027 Budget Cycle.

VI. Staff Recommendation: Staff recommends authorizing advertisement of the proposed ordinance.