Leaf-Blower Ordinance Implementation Options

November 7, 2022



Agenda

- I. Background Information and Research Findings
- II. Recommended Program Framework Options
- III. Questions and Discussion

Background Information and Research Findings

Background Information & Research Findings

- Reviewed past Village materials & the current noise ordinance referencing leaf blowers
- Researched 15 national case studies on gas-powered leaf blower partial or full bans
- 10 interviews with key stakeholders

Ten Stakeholder Interviews

- Village of Oak Park Departments (Public Works, Development and Customer Services and Health)
- Park District of Oak Park
- 2 larger landscape businesses
- 1 small independent landscape contractor
- Illinois Landscape Contractors Association
- Village Board members
- Leaf Blower Regional Working Group (north shore communities)

Health & Safety Impacts of Gas-Powered Blowers

- Generate high levels of localized pollutants
 - Landscape equipment generates disproportionately higher levels of volatile organic compounds (VOCs) and fine particulate matter (PM) emissions
 - Almost 90% of PM emissions attributed to 2-stroke engines (e.g., leaf blowers, trimmers)
- Health risks related to noise exposure
 - Centers for Disease Control (CDC): Gas-powered leaf blowers at 80-85 dB may damage hearing after 2 hours of exposure
 - Average noise from a gas-powered leaf blower: 90 dB in the ear & 65-80 dB 50 ft away
 - Gas-powered blowers generate low frequency sounds (which transmits over greater distances and across walls) compared to electric blowers

Routine use and exposure is a health risk for workers and others

Findings from Stakeholder Interviews

- Challenges with current ordinance and its enforcement
- Equity impacts are important to address
 - Impacts to smaller landscape contractors
 - Impacts to residents/tenants
- Impacts to landscape companies
 - Challenges with available technology
 - Transition costs
- Enforcement is needed to be successful
- Education and outreach are key

Municipal Research Findings

- Simplifying ordinances and establishing separate leaf blower regulations
- Engagement and education efforts span several years
- Compliance and enforcement is a challenge for most communities
- Establishing financial assistance, incentive and/or exchange programs funded through state grants or collaboration with other entities
- Phased-in transition and implementation timelines range from 1 to 5 years

Impacts to Commercial Landscape Businesses

There are substantial initial transition costs for landscape companies

- Gas-powered leaf blowers are currently more powerful than electric blowers, and comparable electric blowers are more expensive
- Electric blowers may take longer than gas-powered blowers to complete the job
- Battery run time and charging in the field are identified as major challenges
- Battery costs may be prohibitively expensive for smaller contractors
- Battery disposal would need to be addressed
- Costs could be passed down to users. This could especially be an issue for tenants of multi-family buildings.

Cumulative Cost Comparisons

Electric blower/1 battery: \$1,500-\$2,200

Electric blower/3-5 batteries: \$3,200-\$6,000

Gas-powered blower replacement cost: \$450-\$600

Assuming additional battery needs and a higher initial investment and potentially lower fuel prices in the future may be a 2 -3 year ROI timeline for <u>1 blower/spare</u> <u>batteries</u>. Initial capital costs will be higher for most companies.

Potentially a 2-5 year timeframe to recover initial investment costs.



Includes up-front cost of battery leaf blower, backpack battery, high-speed charger, and accessories, plus tax. Gas costs include 2-stroke engine oil and recommended yearly maintenance. This scenario: gas blower is **Stihl BR 500**, battery blower is **Stihl BGA 200** with AR 3000 L battery, and runtime is **5 hours/day**, 281 days/year. Battery replacement not required as lifetime is ≥1,500 cycles (>5 years). At time of calculation (June, 2022), local gas price is \$6.49 (source: AAA) and electricity cost is \$0.27/kWh (source: U.S. Energy Information Administration). Energy consumption data provided by Stihl.

Source: The Economics of Switching to Battery-Powered Leaf Blowers: A Cost Comparison, Santa Cruz Coalition for a Healthy & Safe Environment, June 2022. Note, the above graph is based on CA fuel costs.

Recommended Program Framework

Recommended Program Framework

- Potential ordinance updates
- Timelines for implementation
- Administration & enforcement
- Potential incentive or mitigation programs
- Education and outreach

Potential Ordinance Updates – Key Elements

- Establish stand alone leaf blower ordinance
- Phased-in timeline to a full ban
- Restrict hours of use for all leaf blowers
- Separate enforcement timelines for residents/property owners vs businesses
- No exemptions except emergency operations or natural disasters
- Penalties could be applied to property owners and landscape owners (not operators) with tiered penalties
- Establish administrative infrastructure for successful enforcement
- Robust education and outreach program

Potential Ordinance Updates – Addressing Noise

- Through Restricted Hours of Use (e.g., only allowed 9-6 weekdays and 10-5 weekends)
- Leaf blower must be on an approved equipment list or meet a maximum noise rating as specified by the manufacturer

Timeline Options

Full Ban within 3 years

- Provides more time for transitioning
- Time to build out and implement education and engagement efforts to build support and gain compliance
- Sufficient time to set up successful program administration and enforcement
- More time for technology advancements and decreasing costs for commercial electric equipment

Full Ban within 2 years

- Compressed transition timeline
- More incentive programs to support transition within two years
- Buyback program likely needed
- More intensive educational programs needed to build support and compliance
- Less time to set up and refine administration and enforcement procedures

Timeline Options

Full ban within 3 years

- Year 1 (2023) ordinance passes
 - Restricted hours of use
 - Focus on outreach/education
 - Warnings
- Year 2 (2024) spring & fall 6-week window
 - Continued outreach/education
 - Escalating/tiered penalties
- Year 3 (2025) spring 6-week window & full ban by fall
 - Continued outreach/education
 - Scale up enforcement efforts

Full ban within 2 years

- Year 1 (2023) ordinance passes
 - Restricted hours of use
 - Robust outreach/education
 - Warnings
- Year 2 (2024) spring 6-week window and full ban by fall
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Administration: Business Registration

- Annual registration for landscape service providers
- Approved equipment list of allowable (rated) machines pre and post ban
- Administered by Development Customer Services Department (DCSD)
- Fee waived if landscape company uses 100% electric blowers

Administration: Options for Enforcement

- Enhance existing online reporting system for resident complaints and monitoring violations
- Additional staff support for enforcement during 'non-traditional' hours (weekends and outside business hours on weekdays)
- Add establish procedures for licensing, monitoring and responding to complaints
- Provide training to staff

Administration: Options for Enforcement

- Caught in the act by an enforcement officer (based on complaints about times of days/weeks violations occurring)
- Documented evidence submitted by community members
- Patrols by dedicated staff a few days a week and weekends

Education and Outreach

Residents/Other Property Owners

- Outreach Related to Updated Regulations
 - Community Survey
 - Targeted larger property owner outreach
 - Community Meetings (potentially 2 related to ordinance updates)
 - Dedicated webpage and FAQ
 - Dedicated Point of Contact
- Ongoing Outreach and Education
 - Electric leaf blower demonstrations
 - Sustainable landscaping workshops/ presentations
 - Resident letters, flyers & door tags
 - Bilingual/multilingual materials
 - E-news articles

Commercial Landscape Businesses

- Outreach to additional companies to better understand transition needs
- Targeted engagement of smaller companies and independent contractors to better understand the impact of transition costs
- Electric leaf blower demonstrations
- Informational materials on program requirements and regulations
- Dedicated webpage and FAQ
- Bilingual/multilingual materials

Potential Incentive or Mitigation Programs

- Rebates for residents
- Rebates for businesses
 - Waiver of license/registration fees
- Explore buyback or exchanges for residents and businesses
 - AGZA regional coordination
 - Local hardware store
 - Neighboring communities
 - Metropolitan Mayors Caucus for partner or grant program
- Village grant program
- Village compile funding resources for businesses/residents
- Negotiate group discounts
- Incentivize sustainable landscaping

Additional Recommendations

- Establish equity task force/committee for incentive programs
- Identify lead group for educational campaign
- Establish commercial landscape working group
- Partner with neighboring communities & collaborate regionally on best practices, lessons learned and exchange programs

Fiscal Impacts

- Potential Budget Impacts
 - \$10,000-\$25,000: Implementation of outreach and education campaign (production, printing, and/or mailing of informational materials; community meetings/workshops expenses; newspaper notices)
 - \$83,500: 1 FTE enforcement officer for non-traditional hours
 - Residential and/or commercial rebate program
- Current Staff/Department Impacts
 - Time for establishing procedures/protocols (business licensing, monitoring, enforcement)
 - Time for coordinating outreach/education efforts
 - Training staff for program administration/enforcement

Questions & Discussion