Request for Action to Address Noise and other Impacts from Gas-Powered Leaf Blowers

SUMMARY OF REQUEST

The Town of Chevy Chase Landscaping Noise Reduction Task Force (Task Force) respectfully proposes that the Town Council amend the Town noise ordinance to **incrementally ban gas-powered leaf blowers** as follows:

- Effective September 1, 2020 - the use of gas-powered leaf blowers be **prohibited on Sundays**.
- Effective January 1, 2021 - the use of gas-powered leaf blowers be **prohibited on weekends and federal holidays.**
- Effective January 1, 2022 - the use of gas-powered leaf blowers be **prohibited throughout the year**, in line with the D.C. Council and Chevy Chase Village Board

During this progression toward an eventual ban on gas-powered leaf blowers, the Task Force proposes that the Town Council support the following Task Force initiatives to:

- Continue to conduct educational and outreach campaigns directed toward Town residents and landscape companies that facilitate a shift to battery-powered or electric-powered equipment.
- Continue to identify and publicize landscape companies that offer "quiet & clean" services
- Continue to cooperate with Chevy Chase Village, Somerset, and other communities on this issue.
- Prepare enforcement procedures to implement these requirements.

THE CASE FOR A BAN

- **Introduction**

Negative impacts of the use of gas-powered leaf blowers (GPLB) have increasingly become an issue across the country, including the DC Metro area. Town of Chevy Chase residents regularly complain to Town Council members and via the Town listserv about noise from GPLBs. Many landscape maintenance service providers in our area continue to use two-stroke GPLBs that generate high levels of noise and harmful pollutants. This practice comes with high costs for the health and safety of Town residents, landscape workers and the environment, as well as general quality of life. These non-economic or qualitative justifications for a ban, also known as externalities, are explained below:

- **Negative Impacts of GPLBs**

--**Excessive Noise:** GPLBs produce noise levels that greatly exceed those recommended by the World Health Organization. Noise from leaf blowers ranges from 102−115 decibels ("dBs") at the ear of the operator. The Environmental Protection Agency and the National Institute for Occupational Safety and Health have declared noise levels above 85 dBs to be harmful. This level of noise can damage hearing, interfere with sleep, and increase blood pressure, adrenaline, and heart rates. This excessive noise affects both residents and workers. GPLBs typically produce noise levels several times that from battery-powered blowers, and the lower frequency character of GPLB noise makes it travel farther and penetrate indoors more than battery blower noise.

--**Pollution Impacts:** GPLBs emit large quantities of harmful air pollutants that could affect landscape workers as well as Town residents and the environment. The two-stroke engines used in GPLBs burn their fuel less completely than the four-stroke engines typically used in cars and other larger equipment. As a result, GPLBs emit significant quantities of ozone-forming chemicals, fine particulate matter, carbon monoxide and a variety of other toxic air pollutants. Battery-powered leaf blowers are responsible for much lower quantities of most of these air pollutants, and their

emissions occur mostly at power plants rather than in neighborhoods. Notably, GPLBs generate CO_2 at a rate per hour of use some 3 to 9 times higher than electric-powered blowers. **So, while the environmental impacts may be more difficult to perceive, they may be as or more deleterious than the noise created by GPLBs.**

--Harmful health impacts: Pollutants emitted by GPLBs are well-known causes of a number of adverse health impacts. The generated chemicals and particulates can be inhaled by equipment operators and nearby residents, as well as contributing to air pollution. Even short-term exposure can be harmful. Children, seniors, people with chronic illness, and certainly landscape workers are at greatest risk.

--**Impact on Wildlife**: Studies show that birds, frogs, and other wildlife will move to avoid loud noises, reducing the abundance of wildlife in the ecosystem. Like humans, wildlife is also adversely impacted by the pollution and greenhouse gases generated by GPLBs.

- **Additional Factors Supporting a Ban**

--Both the District of Columbia and Chevy Chase Village have enacted a ban on GPLBs, effective January 1, 2022. Therefore, landscape maintenance companies which work in those jurisdictions in addition to the TOCC are aware that change is coming and that they will have to make a switch to quieter equipment.

--During this unusual period in which neighbors are home, and many are working or participating in distance learning or meetings, the noise of GPLB can be highly disruptive. Thus more residents are have become aware of the impact of GPLB that normally occurs when they are away at work, and this increased awareness has led to greater support for a ban.

BACKGROUND AND ACTIONS TO DATE

Formation of the Task Force. The Landscape Noise Reduction Task Force was formed in late 2018 in response to numerous expressions of support for a ban on GPLBs on the Town listserv. It was placed under the leadership of the Town Climate and Environment Committee and has met regularly since then.

Initial Proposal to Council. At the June 2019 Town Council meeting, the Task Force proposed that the Town: 1) match the District of Columbia in banning all use of gas-powered blowers effective January 1, 2022; and 2) in the interim, establish one additional quiet hour in the mornings during which time gas-powered leaf blowers would be prohibited.

At the meeting, the Town Council indicated that it wanted to learn more about the issue before moving toward a ban, and Council members suggested that educational sessions for both Council members and Town residents would be useful. Mayor Rush also expressed interest in the Task Force preparing an analysis comparing the costs of gas-powered and battery- or electric-powered blowers. (A copy of our resulting analysis is provided in Attachment 2)

In September 2019, the Town Council voted to amend the Town's noise ordinance to prohibit the use of gas-powered leaf-blowers for an additional hour every morning. It was recognized that this is a very small step that does not really address the issue of the noise the GPLB generate.

Educational Events Held. In response to the recommendations of Council members, the Task Force worked with the Chevy Chase Village Environment & Energy Committee to organize two educational events. The Task Force invited Town Council members and residents to attend these events.

- On September 28, 2019 the Town and Chevy Chase Village co-hosted two experts at the Chevy Chase Village Hall who discussed the harms caused by gas-powered leaf blowers and legislative and regulatory efforts across the country to address these negative impacts. The Town Council provided up to $500 that we used to defray one speaker's travel expenses and to provide a small stipend. Approximately fifty people attended, including several elected public officials, including Marc Elrich, Jeff Waldstreicher and Will Jawando (each of whom expressed interest in the "ban" initiative) and members of the Town and Village governing bodies.

- In November, 2019 the Task Force coordinated with the Chevy Chase Village Environment & Energy Committee to organize three demonstrations of battery-powered leaf-blowers and other battery-powered landscaping equipment by commercial landscapers, including a demonstration outside of the Lawton Center on November 23, with a lottery prize of a battery-powered leaf blower donated by Strosnider's Hardware Store.

Chevy Chase Village Ban. In December 2019, the Chevy Chase Village Board of Managers voted to adopt a ban on gas-powered leaf-blowers parallel to the DC ban. The Board cited as particularly persuasive the findings of the Chevy Chase Village Chief of Police that nearly every gas-powered leaf-blower that he assessed exceeded Montgomery County's noise ordinance decibel limitations.

As a general indication of support for a ban after learning about the Chevy Chase Village vote, numerous Town residents have contacted Town Council members and the Town listserv expressing strong support for a ban on GPLB.

List of Quiet/Clean Landscapers. The Task Force has assembled a list of lawn maintenance contractors that are active in either the Town or Chevy Chase Village so that they can be apprised of changes in leaf-blowing policy. **Importantly, a list of Quiet/Clean landscapers was compiled.** The Town and Village and Somerset will publicize the quiet and clean list to our residents in various ways, including our websites. A contractor may join this list if it: 1) Offers homeowners an option to have lawn maintenance service provided without using gas-powered leaf blowers; and 2) Meets all applicable Federal, State and local requirements, including equipment noise limitations and quiet hours.

We expect this list will encourage residents to choose quiet and clean landscape maintenance contractors and to shift the market in this direction.

Cost Analysis: In the winter and spring of 2020, at the request of Mayor Rush, the Task Force conducted an analysis comparing the costs (quantified) and benefits (qualitative) of gas-powered and battery-powered leaf blowers. The cost analysis finds:

- Many landscapers contend that a more powerful blower is needed for fall leaf removal -- often involving a large quantity of heavy, wet leaves -- than for routine cosmetic blowing throughout the growing season. In our analysis, we compare the costs to a contractor of using battery-powered vs. gas-powered blower models in these two differing circumstances -- first a small-to-medium blower used for routine cosmetic purposes, and then a large, powerful blower used for fall leaf removal and perhaps some spring cleanups.

- We estimate that battery-powered blowers (and corded electric blowers in the limited circumstances where they might be feasible) are nearly 40% less costly than gas-powered blowers for routine clean-up blowing ($427/yr vs. $669/yr).

- However, for a more powerful blower if needed for fall leaf removal and perhaps some spring cleanups, we estimate that a battery-powered blower would be about 80% more costly than a gas blower ($1,466/yr vs. $810/yr).

- The capital cost for a contractor to switch to battery blowers for both cosmetic and more demanding uses would be substantial. This cost burden could be lessened if the changeover were spread over several years.

- The analysis is based on current 2020 performance and costs of leaf blowers. An analysis that reflects the expected continuing future improvements in battery performance and cost would likely show battery-powered blowers to be more cost-competitive with gas-powered blowers for both cosmetic and more demanding uses. *(For example, the cost per kWh for battery packs used for electric vehicles and home energy storage is projected to decline by about 2/3 between 2017 and 2024.)*

- **Non-cost benefits.** It is important to keep in mind that this cost analysis quantifies only the differential costs of gas- and battery-powered blowers to landscapers. The attached qualitative benefits analysis shows that battery-powered blowers offer very significant benefits over gas-powered blowers in terms of both noise and pollution. Moreover, electric motors and their parts wear out much less quickly than combustion engines. And they do not require gas, oil, or engine maintenance, just charged batteries. As additional benefits for workers, electric (battery or plug in) leaf blowers, are lighter and do not require ear protection.

SUMMARY OF BENEFITS

These are the benefits of switching from GPLBs to corded electric or battery-powered leaf blowers: (More details about the non-economic or qualitative negatives of GPLBs are found under Negative Impacts above.)

- **Less Noise and its attendant negative impacts**
- **Significantly Reduced Adverse Affects on Physical and Mental Health**
- **Considerable Reduction in local Air Pollution and Greenhouse Gases**
- **Protection of Wildlife**
- **Improved landscape worker health and safety**
- **General improvement in Quality of Life**
- **Happy Town Residents!**

Summary of Findings

Having conducted the educational efforts and analyses that the Town Council recommended in 2019 (a description of which can be found in the following pages), the Task Force respectfully requests that the Town Council move to adopt our proposed phased program to ban the use of gas-powered leaf blowers.

We also request that the Council endorse the accompanying informational initiatives.

- Graphical depiction of proposal (see addendum 1)
- Potential enforcement protocols (see addendum 2)
- Responses to questions raised at April Town Council meeting (see addendum 3)
- June 2019 Proposal to the Town Council (see addendum 4)
- List of Task Force members (see addendum 5)
- Cost analysis spreadsheets (see Excel spreadsheet attachment)

Addendum 1 – Graphical Depiction of Proposal

	Phase I - 2019	Phase II – 2020	Phase III - 2021	Phase IV - 2022
Results (hours when GPBLs prohibited)				
Percent of hours when GPLBs cannot be used	5%	15%	43%	100%
Number of companies offering *Quiet & Clean* services	2	5 → 10	10 → 35	35 → 45
Actions	♦ Formed Landscape Noise Task Force ♦ Created Links with Chevy Chase Village & Somerset ♦ Adjusted Noise Ordinance to Reduce Allowable GPLB Use Hours ♦ Promoted Bi-lingual Schedule to Industry & Residents	♦ Conducted Educational Seminar with Chevy Chase Village & Somerset ♦ Demonstrated BLB with Giveaway ♦ Created & Promoted *Quiet & Clean* Landscape Company List ♦ Completed Cost Benefit & Sensitivity Analyses ♦ Amend Noise Ordinance to Prohibit GPLB Use on Sundays Effective 9/1/2020	♦ Continue Conducting Educational & Promotional Efforts ♦ Begin Efforts to Reduce GP Lawn Mowers and Other Landscape Equipment on *Quiet & Clean* List ♦ Amend Noise Ordinance to Prohibit GPLB Use on Weekends & Maryland Public Holidays Effective 1/1/2021	♦ Continue Conducting Educational & Promotional Efforts ♦ Develop Enforcement Protocols ♦ Complete Ban on GPLB in Conjunction with Other Communities* Effective 1/1/2022 ♦ *Chevy Chase Village, Somerset & DC Bans are Scheduled to Take Effect at the Same Time

Addendum 2 – Potential Enforcement Protocols

The following is a proposed enforcement policy for consideration by the Town Council.

If a neighbor is using or has employed a company that is using gas-powered equipment or using their own gas-powered equipment, a resident can photograph the usage, and submit the photo along with the name/phone number of the company (usually found on the truck) and address/date/time where gas-powered leaf blower is being used and send it to the Town Office for follow up.

If there isn't a name/phone number on the truck, the Town resident can ask the equipment user for his/her name or card and follow steps as above.

- 1st offense: Town sends a warning/educational letter to company and property owner (possibly with copy of quiet companies list).
- 2nd offense (if it is within 15 business days of 1st offense): Town sends a citation letter to company ($250 fine) and notification letter to property owner (possibly with copy of quiet companies list).
- 3rd offense (if within 15 business days of 2nd offense): Town sends a 2nd citation letter to company ($500 fine), a letter to the county, and a strong notification letter to property owner.

Addendum 3 – Responses to questions raised at April Town Council meeting

Question 1. What would a shift from GPLBs to battery-powered blowers mean in terms of carbon dioxide emissions?

Answer: Emissions from gas-blowers are substantially higher.

- Among large, powerful blowers suitable for fall leaf removal -- about 3 ½ x higher
- Among small/medium blowers suitable for routine cosmetic blowing -- about 9 x higher

Question 2: Battery prices are expected to continue to fall in the future. What might this mean for our cost comparison of gas vs. battery blowers, which is based on current (not future) prices to contractors?

Answer: Not much. Battery prices are projected to decline (per Bloomberg) by just short of 10% per year. But our proposal for a ban beginning January 2022 gives only 2 years for battery prices to decline, so the impact is not great. Our projections given this rate of improvement in batteries are as follows:

- As of 2022, the cost for a contractor to use a battery-powered blower for routine cosmetic blowing will be 38% below that to use a gas-powered blower (vs. 36% below that based on current prices).
- As of 2022, the cost for a contractor to use a battery-powered blower for routine cosmetic blowing will be 37% higher than that to use a gas-powered blower (vs. 81% higher than that based on current prices).

Question 3. What capital cost might a small or medium-sized landscape maintenance contractor have to incur to switch over from gas blowers currently to battery blowers?

Answer:

- By January 2022, a very small landscaper doing only cosmetic blowing with 1 blower would need to purchase battery equipment costing about $400.
- By September 2022, a very small landscaper doing only fall leaf service with 1 powerful blower able to perform for most of a work day would need to purchase battery equipment costing about $4,500.
- By September 2022, a very small landscaper performing a full book of year-round landscape maintenance service (both cosmetic blowing during the growing season and fall leaf removal) with 2 blowers would need to purchase battery equipment costing nearly $5,000.
- For small-to-medium landscapers (2 crews, 8 blowers, 4 large/powerful, 4 small-to-medium) with a full book of both sorts of work would need to purchase battery equipment costing nearly $20,000.
- Large landscapers would need to spend proportionally more.

Question 4. What is the impact of the current pandemic on landscapers' ability to make these capital investments over this time frame?

Answer: The pandemic makes such investments difficult. Landscapers' business now is down. They will defer making any non-urgent capital investments. While according to the calendar they would have roughly two years from now until when a ban could come into effect to make the necessary capital investments, in practice they will have only next year to make these investments, and in a weakened financial position.

Addendum 4 – June 2019 Proposal to the Town Council

Summary of Problem:

Town residents regularly complain to Town Council members and via our Town listserv about the noise from gas-powered leaf blowers. Many landscape maintenance service providers in our area continue to use two-stroke gas powered leaf blowers that generate noise and harmful pollutants. This practice comes with high costs for our health, environment, and enjoyment of the benefits of living in our Town.

Noise: Gas leaf blowers produce noise levels that greatly exceed those recommended by the World Health Organization. Noise from leaf blowers ranges from 102−115 decibels ("dBs") at the ear of the operator. The Environmental Protection Agency and the National Institute for Occupational Safety and Health have declared noise levels above 85 dBs to be harmful. Because dBs are measured on a logarithmic scale, a difference on the order of 17 or more dBs represents a large change in the intensity of noise and in the potential damage to a person's hearing. This level of noise can damage hearing, interfere with sleep, and increase blood pressure, adrenaline, and heart rates, violating the peace of neighborhoods.

Toxic air pollution: Gas-powered leaf blowers emit large quantities of harmful air pollutants that can affect landscaping company workers as well as Town residents. The two-stroke engines used in gas-powered leaf blowers burn their fuel less completely than the four-stroke engines typically used in cars and other larger equipment. Gas-powered leaf blowers emit relatively large quantities of ozone-forming chemicals, fine particulate matter, carbon monoxide and a variety of other toxic air pollutants. These chemicals can be inhaled by equipment operators and nearby residents, as well as contributing meaningfully to regional air pollution problems. When compared to an average car, one hour of gas leaf blower use emits 498 times as many hydrocarbons, 49 times as much particulate matter, and 26 times as much carbon monoxide. Gas-powered leaf blowers also emit a larger quantity of greenhouse gases than battery-powered blowers.

Harmful health impacts: Air pollutants emitted by gas-powered blowers are well known causes of, or contributors to, premature mortality, cardiovascular disease, asthma, chronic obstructive pulmonary disease, lung cancer, premature births, and other adverse health impacts. Even short-term exposure can be harmful. Workers, children, seniors, and people with chronic illness are at greatest risk.

Existing enforcement: Currently the County regulates noise from landscaping equipment through its general decibel-level noise restrictions. Decibel-based regulations are difficult to enforce, in part because most potential citizen complainants lack the ability or knowledge to accurately measure and record noise levels. The impracticability of its existing decibel-based noise regulations was a driving factor in the enactment of DC's ban on gas-powered leaf blowers.

Proposal

The Subcommittee on Landscaping Noise recommends that the Town follow in the footsteps of the District of Columbia, as well as Southampton, NY; Sonoma, CA; and other communities to ban gas-powered leaf blowers.

In the two and a half years before the ban would go into effect, the Town should also conduct an informational and outreach campaign to both homeowners and contractors to encourage the use of much quieter battery-powered or corded electric-powered landscape equipment or manual landscape equipment in preference to gas-powered equipment.

Our outreach effort could potentially ride the coattails of the campaign that DC will be conducting, and utilize the resources that they will be developing. The Town could also phase in the ban, and provide near-term noise relief, by increasing "quiet hours" at some point prior to 2022.

While gas-powered *lawn mowers* also create substantial noise and pollution, the committee is recommending that the ban specifically address gas-powered *leaf blowers*.

We think addressing leaf blowers will encounter less public resistance than tightening restrictions on lawn mowers because we will be following the path that Washington, DC has already taken and because many view gas-powered leaf blowers as less necessary (and therefore more bothersome) than lawn mowers, particularly in the spring and summer.

Nonetheless, we think our proposed initiative will address noise from gas-powered lawn mowers in a significant way. First, the educational campaigns we propose could highlight the benefits and effectiveness of a variety of types of electric and battery-powered landscape equipment, not only leaf blowers. Second, when landscapers and homeowners become familiar with battery-powered blowers through quiet hours or the ban, they will likely also become more interested in and comfortable with other electric or battery-powered landscape equipment and the companies that sell that equipment.

The environment committees of Chevy Chase Village and Somerset are considering presenting a proposal similar to this one to their governing bodies and have expressed interest in coordinating on educational initiatives mentioned below.

Our proposal would look like the following:

a. Town Council enacts **ban on gas-powered leaf-blowers to go into effect in on January 1, 2022**, mirroring the DC ban. Prior to the ban going into effect, we could take the actions listed below.
b. Phase in the ban by expanding quiet periods prior to January 1, 2022. For example, in the fall of 2020 battery-powered leaf blowers could be banned prior to noon. The goal would be that landscapers who wanted to work during the quiet hours would be motivated to purchase a battery-powered leaf blower for use during that time, thereby encouraging gradual transitions to battery-powered equipment.
c. Educational campaign for residents about the environmental and quality of life-related implications of landscape choices, including landscape equipment. The campaign could include workshops and handouts or mailings for residents, including a list of "quiet landscape contractors." (Could coordinate with neighboring jurisdictions.)
d. Educational campaign for landscapers about battery-powered equipment. (Could coordinate with neighboring jurisdictions.)
e. Help the Town contract with quiet landscaping companies. (Could coordinate with neighboring jurisdictions.)
f. Explore group purchase discounts for quiet landscaping equipment. (Could coordinate with neighboring jurisdictions.)
g. Design enforcement protocols for the ban.

Addendum 5 – Task Force Member List

Simma Kupchan (Chair)

Kirk Renaud (Town Council Liaison)

Irene Lane (Chair, Climate and Environment Committee)

Christina Files

George Schu

Jennifer Cockburn

Julie Trocchio

Marcie Meditch

Mike Kelleher

Paul Magnusson

Rolf Sinclair

Ronni Jolles

Sheila Blum

Stuart Sessions

*Robin Barr (Liaison from Somerset Environment Committee; participates in advisory role only)

*Marilyn Bracken (Liaison from Chevy Chase Village Environment Committee; participates in advisory role only)

*Jonathan Lyons (Liaison from Chevy Chase Village Environment Committee; participates in advisory role only)

*Marea Hatziolos (Liaison from Chevy Chase Village Environment Committee; participates in advisory role only)