




OFFICE OF THE COUNTY EXECUTIVE

Marc Elrich
County Executive

MEMORANDUM

March 15, 2022

TO: Gabe Albornoz, President
Montgomery County Council

FROM: Marc Elrich, County Executive 

SUBJECT: Introduction of Bill XX-21, Amendments to Chapter 31B

I am transmitting the attached proposed legislation, which amends Chapter 31B in response to significant noise complaints and research on the noise impacts of gasoline or combustion engine-powered leaf blowers. This legislation will phase out the sale of handheld and backpack combustion engine-powered leaf blowers and vacuums beginning six months from enactment, and their use twelve months from enactment.

Combustion engine-powered leaf blowers are known to exceed World Health Organization and the National Institute of Occupational Safety and Health standards for daytime noise and occupational safety noise standards, respectively. Although efforts have been made to regulate the overall noise volume of such leaf blowers in recent years, the Department of Environmental Protection (DEP) still receives significant complaints from residents across the County. Research shows combustion engine-powered leaf blowers have specific low and mid-frequency noise qualities or tones that are highly penetrative and result in noise being two to four times louder than electric plug in or battery powered options at the unit and up to 400 feet away. The low frequency noise is particularly penetrative of non-heavy building materials and easily carries through windows and doors. Beyond being distracting, this noise can have adverse health effects, both auditory, such as hearing loss and tinnitus, systemic vascular disease and mental illness.

With cost effective alternative equipment available as electric options, this prohibition will phase out combustion engine-powered equipment and phase in much less noisy electric plug in and battery powered equipment. To assist in this phase-in, the legislation also authorizes a grant

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program for DEP to ease the transition for residents and companies in the County. The legislation also allows a citation to be issued from one witness complaint, rather than the two required for other noise ordinance issues.

I appreciate your prompt consideration of this action.

ME:ah

Attachments

cc: Richard S. Madaleno, Chief Administrative Officer, Office of the County Executive
Debbie Spielberg, Special Assistant to the County Executive
Adriana Hochberg, Acting Director, Department of Environmental Protection
Ken Hartman, Director of Strategic Partnerships, Office of the County Executive
Patty Bubar, Deputy Director, Department of Environmental Protection
Jason Mathias, Legislative Manager, Department of Environmental Protection

Bill No. XX-21
Concerning: Noise Control – Leaf
Removal Equipment
Revised: [date] Draft No. 1
Introduced: [date]
Expires: [18 mos. after intro]
Enacted: [date]
Executive: [date signed]
Effective: [date takes effect]
Sunset Date: [date expires]
Ch. [#], Laws of Mont. Co. [year]

COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND

By: Transportation & Environment Committee

AN ACT to:

- (1) prohibit the sale and use of combustion engine-powered leaf blowers and leaf vacuums;
- (2) authorize a grant program to partially offset the cost of replacing a combustion engine-powered leaf blower or leaf vacuum with an electric leaf blower or leaf vacuum; and
- (3) generally revise County law regarding noise control.

By adding

Montgomery County Code
Chapter 31B, Noise Control
Section 31B-9

Boldface	<i>Heading or defined term.</i>
<u>Underlining</u>	<i>Added to existing law by original bill.</i>
[Single boldface brackets]	<i>Deleted from existing law by original bill.</i>
<u>Double underlining</u>	<i>Added by amendment.</i>
[[Double boldface brackets]]	<i>Deleted from existing law or the bill by amendment.</i>
* * *	<i>Existing law unaffected by bill.</i>

The County Council for Montgomery County, Maryland approves the following Act:

1 **Sec. 1. Sections 31B-9 and 31B-12 are amended as follows:**

2 **31B-9. [Leaf blowers] Leaf removal equipment.**

3 * * *

4 (e) Effective [insert a specific date that is six months after this act becomes law], a
5 person must not sell a combustion engine-powered handheld, backpack, or walk-
6 behind leaf blower or leaf vacuum.

7 (f) Effective [insert a specific date that is one year after this act becomes law], a person
8 must not use a combustion engine-powered handheld, backpack, or walk-behind leaf
9 blower or leaf vacuum.

10 (g) The Director may establish a time-limited program based on criteria set by
11 regulation to partially reimburse County residents and businesses that purchase
12 electric leaf blowers or leaf vacuums to replace combustion engine-powered leaf
13 blowers or leaf vacuums that were purchased before [insert the date that this act
14 becomes law]. To receive the reimbursement, an owner of a combustion engine-
15 powered leaf blower or leaf vacuum must apply to the Director in a form prescribed
16 by the Director and deliver the combustion engine-powered leaf blower or leaf
17 vacuum to the County.

18 (h) An enforcement officer may issue a civil citation under this Section if the Director
19 receives a complaint of a noise disturbance supported by photographic evidence of a
20 violation of subsection (f).

21 **31B-12. Enforcement and penalties.**

22 * * *

23 (f) Except as provided in Section 31B-9(h), [An] an enforcement officer may issue a
24 civil citation for any violation of this Chapter if the enforcement officer:

- 25 (1) witnesses the violation; or
- 26 (2) receives complaints from at least 2 witnesses of a noise disturbance.

27 Complaints by 2 witnesses are required to issue a citation under paragraph (2), but
28 are not required to prove that a person violated this Chapter.

29 * * *

30
31 Approved:

32

Gabe Albornoz, President, County Council

Date

33 *Approved:*

34

Marc Elrich, County Executive

Date

35 *This is a correct copy of Council action.*

36

Selena Mendy Singleton, Clerk of the Council

Date

Approved as to form and legality:



Office of the County Attorney
Walter E. Wilson

Fiscal Impact Statement
Introduction of Bill XX-21, Amendment to Chapter 31B

1. Legislative Summary.

Bill XX-21 prohibits the sale and use of hand-held and backpack combustion engine-powered leaf blowers and vacuums in the County. It further establishes a grant program to offset the cost of replacing the equipment and revises the law regarding noise control.

2. An estimate of changes in County revenues and expenditures regardless of whether the revenues or expenditures are assumed in the recommended or approved budget. Includes source of information, assumptions, and methodologies used.

Bill XX-21 is not expected to have an impact on County revenues.

As shown in Tables 1 and 2, over a six-year period, Bill XX-21 could increase expenditures by up to \$1,489,546.

Table 1							
Implementation Cost Summary							
	FY22	FY23	FY24	FY25	FY26	FY27	Total
Outreach and Education (DEP)	\$420,000	\$120,000	\$0	\$0	\$0	\$0	\$540,000
Equipment Replacement	\$907,023	\$907,023	\$0	\$0	\$0	\$248,250	\$2,062,296
Contractual Changes	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$90,000
Transition Grants	\$110,000	\$100,000	\$100,000	\$0	\$0	\$0	\$310,000
Personnel Costs	\$75,000	\$75,000	\$75,000	\$0	\$0	\$0	\$225,000
Operational Cost Avoidance	\$0	(\$347,550)	(\$347,550)	(\$347,550)	(\$347,550)	(\$347,550)	(\$1,737,750)
Total	\$1,527,023	\$869,473	(\$157,550)	(\$332,550)	(\$332,550)	(\$84,300)	\$1,489,546

**Table 2
Implementation Cost Summary Description**

Item	Expected Cost	Details
<u>Education and Outreach</u>		
Mailers	\$240,000	Based on costs from mailers from the pesticide ban, to every resident and business in the County. This would be for two mailers. Reducing to one mailer saves \$120,000 or one full mailer with an additional just to single family homes would save \$57,000.
Advertisements	\$300,000	Radio, television, and internet ad campaigns, based on costs from implementing the pesticide ban.
Subtotal	\$540,000	
<u>Equipment Replacement</u>		
DGS Replacements	\$14,000	Equipment replacements for Department of General Services (DGS), including gasoline handheld, backpack, and walk behind blowers.
DOT Replacements	\$28,000	Equipment replacements for Department of Transportation (DOT), including gasoline handheld, backpack, and walk behind blowers.
Year 5+ DOT and DGS Battery Replacements	\$7,500	Batteries require replacements after enough use, expected in year five (5) or six (6) for many pieces of equipment.
Subtotal	\$49,500	
<u>Non-County Equipment Replacement - These are State entities that the County cannot enforce the legislation for, but may still want to support in replacing equipment.</u>		
MNCPPC Replacements	\$473,710	The Bill isn't enforceable to MNCPPC but is recommended for MNCPPC to replace equipment if possible.
MNCPPC Year 5+ Battery Replacements	\$66,750	The Bill isn't enforceable to MNCPPC but if MNCPPC is able to replace equipment, battery replacements are needed as well.
MCPS Replacements	\$1,298,336	The Bill isn't enforceable to MCPS but is recommended for MCPS to replace equipment if possible.
MCPS Year 5+ Battery Replacements	\$174,000	The Bill isn't enforceable to MCPS but if MCPS is able to replace equipment, battery replacements are needed as well.
Subtotal	\$2,012,796	
<u>Contractual Changes</u>		
DGS Contract Increases	\$90,000	DGS notes that County contracts for lawn care and landscaping are unpredictable, due to the complexity of required replacements and operational savings, but this estimate accounts for doubling the leaf management cost portion of its contracts due to the cost of equipment switching incurred to contractors.
<u>Transition Grants</u>		
Equipment Turn-in Rebates/Grants for Individuals and Small Businesses	\$300,000	Three-year program offering \$100 rebates for 1,000 applicants per year. The legislation gives DEP the authority for grants, but it is not a requirement. Prohibiting use of equipment still in useful life without offering a grant or rebate is not recommended.
Grant Management Software	\$10,000	Software to manage turn-in rebates/grants (first year cost only)
Subtotal	\$310,000	
<u>Personnel Costs</u>		
Grant Management	\$225,000	Term-limited staff member for 3 years. Alternatively, if the Septic legislation is approved and a position added for that workload, that position can handle these responsibilities.
<u>Operational Cost Avoidance</u>		
Operational Cost Avoidance	(\$1,737,750)	Assuming an average of \$350 in cost avoidance per piece of equipment per year for fuel and maintenance.
Total	\$1,489,546	

Assumptions included in this cost estimate are detailed below.

A. Education and Outreach.

A 2015 EPA study estimates that there are 11 million leaf blowers in the United States.¹ Using this nationwide information and extrapolating using County population estimates, there could be more than 35,000 leaf blowers in Montgomery County. Montgomery County is also home to one of the largest landscaping companies in the region, Ruppert, which employs nearly 2,000 employees.² To succeed in having 35,000 leaf blowers retired or replaced with electric alternatives, this legislation will require a robust education campaign of the phase out and alternatives. The Montgomery County Pesticide Ban featured a similar rollout and education campaign. In that campaign, DEP spent \$120,000 in a single direct mailing to each household and business in Montgomery County, and an additional \$300,000 in advertising on radio, television, and internet ads. This campaign will be similar in order to ensure awareness of the legislation, timeline, rationale, and alternatives. Additional mailings, if needed, would cost \$120,000 to every address or \$63,000 to single family households owned over two years. A follow up mailing to single family households owned over two years at a later point is recommended.

B. Equipment Replacement.

Bill XX-21 will require direct replacement of leaf blowers that are owned and operated by the County government, namely DGS and DOT. To abide by the 12-month implementation timeline of the legislation, replacements will need to take place in FY22 and FY23 for all leaf blowers.

MNCPPC and MCPS have a significant quantity of leaf blowers in the County, but as State entities, MNCPPC and MCPS are not required to comply with this legislation. If the County wishes to support MNCPPC and MCPS in switching to electric leaf blowers, estimates for MNCPPC and MCPS are included as well.

The estimated replacement unit costs for leaf blowers are shown in Table 2.

<u>Equipment Type</u>	<u>Unit Cost</u>	<u>Notes</u>
Handheld	\$ 200	
Backpack	\$ 715	
Walk Behind	\$ 715	These are uncommon and expected to be replaced with backpack options
Battery Only	\$ 250	Extra or replacement batteries. Batteries are typically replaced after five years for frequently used equipment.

Leaf blowers vary in costs, from \$100 to \$1,100, for electric, battery operated plus additional battery costs, with handheld being on the lower end of costs and backpack more expensive. Additional batteries may cost \$150 to \$700 as well, and are needed for when leaf blowers are used for extended periods and not able to be plugged in. MNCPPC made purchases in 2021 that were roughly \$200 each per handheld blower, but with backpack models being \$325 and \$1,100. These vary based on strength, in air blown and time each lasts on a charge. A variety of backpack selections will likely be made at an average cost of \$715. MNCPPC, MCPS, DOT, and DGS assisted in calculating these estimates.

¹ <https://www.epa.gov/sites/production/files/2015-09/documents/banks.pdf>

² <https://www.lawnandlandscape.com/page/top-100/>

C. Contractual Changes.

Indirect costs will include increased costs for County contracts for lawn care and landscaping services. DGS is the main contract holder for these services and noted that it cannot predict how bids will come through. This is likely due to the complexity of increased capital costs required by contractors to abide with this legislation; however, the contractors are expected to see savings over the lifetime of the equipment. Based on a DGS contract for service in 2016 for 22 facilities, the cost per year for leaf removal is slightly more than \$5,000. This is one of three contracts that DGS has for lawn services; estimation of doubling all contracts for leaf blowing service will result in about \$15,000 per year.

D. Transition Grants – Grants/Rebates for Individuals and Small Businesses.

Bill XX-21 includes enabling legislation to offer a grant or rebate program for upfront costs of the electric leaf blowers or leaf vacuums for private residents and commercial entities. Such a grant program would require expenditures for both staff/stand up of establishing the grant program and the grants themselves, including an estimated \$10,000 for software management of grants. Staffing needs are noted below.

Grants would be designed to incentivize trade in, and potentially additional battery costs, especially for small and minority businesses. Such a grant could look like \$100 per piece of equipment for the first 1,000 applicants per year. This would total \$100,000, annually, for the first three years, or \$300,000 in total.

E. Personnel Costs.

There is currently leaf blower legislation that requires enforcement of the decibel level, not to exceed 70 dBA at 50 feet. To enforce the current law, DEP responded to 38 cases in FY19 and FY20. This responsibility falls to the Environmental Compliance group within DEP which has staff that responds to noise code violations. For enforcement, there is no additional staffing requests to comply with this legislation, as this Bill will be easier to enforce than the current legislation on decibel level.

One term staff member to coordinate or manage the grant/rebate program and education and outreach is expected to cost \$75,000 annually for three years, or \$225,000 in total.

F. Operational Cost Avoidance.

Based on literature studies, there may be cost avoidance from electric leaf blowers that will offset some additional costs, fuel savings, and maintenance savings. A University of Arkansas study found that its campus electric leaf blowers cost less than one-third of the operations and maintenance costs over a five-year period as compared to its gasoline or combustion engine-powered alternatives.³ This was a savings of \$360 per year per piece of equipment. Similarly, the Town of Chevy Chase calculated up to \$345 in annual operations and maintenance savings.⁴ Based on these, we estimate \$350 in annual savings per leaf blower.

G. Discussion on Estimates.

At a time when all leaf blowers are being replaced, it would be strategic to evaluate needs of total leaf blowers, and/or purchase of corded electric leaf blowers instead of powered, as which is best for individual needs and cost reduction. However, replacements for DGS, DOT, MCPS, and MNCPPC are estimated using battery powered (not plugin), with expectations for additional batteries for each piece of equipment. In areas where leaf blower operations

³ https://sustainability.uark.edu/_resources/publication-series/project-reports/reports-electric_power_tools_ua-2017-ofs.pdf

⁴ <https://www.townofchevychase.org/DocumentCenter/View/3097/Leaf-Blower-Cost-Comparisons->

require heavy use for multiple hours a day, the operators will require the purchase of additional battery(ies) at \$250 or more each, estimated at three additional batteries per blower. These costs are captured in the estimates shown above.

Additionally, for heavy use, a gasoline leaf blower lasts five to ten years, and an electric will last five years then likely require some replacement batteries in future years. For less use batteries will need to be replaced less frequently. This estimate is based on heavier use. This estimate assumes that there is no need to update infrastructure for charging batteries overnight, as a 110v outlet is acceptable. This estimate also assumes that there will be no daytime charging in trucks and that spare (excess) batteries would be used to meet daily needs. Upgrades are available for outlets, electrifying trucks for single plug ins, or battery backups on trucks for charging, that will greatly increase costs, and may be used strategically for heavy use.

3. Revenue and expenditure estimates covering at least the next six fiscal years.

See the response to Question 2.

4. An actuarial analysis through the entire amortization period for each bill that would affect retiree pension or group insurance costs.

The Bill is not expected to impact retiree pension or group insurance costs.

5. An estimate of expenditures related to County's information technology (IT) systems, including Enterprise Resource Planning (ERP) systems.

Bill XX-21 is not expected to impact the County's IT or ERP systems.

Later actions that may affect future revenue and expenditures if the bill authorizes future spending.

The Bill does not authorize future spending.

6. An estimate of the staff time needed to implement the Bill.

During implementation it could take up to approximately 40 hours per week to provide education, outreach, and manage the grant program. The anticipated workload will require one new position if a grant program is offered, a Program Specialist II. The estimate above reflects the hiring of one term staff member to handle these tasks. In addition, existing staff will also be needed to conduct enforcement functions from time to time. This requirement can be handled as part of existing staff workload in the to be created DEP Enforcement and Compliance Division.

7. An explanation of how the addition of new staff responsibilities would affect other duties.

In addition to a new term staff position for grants management, the implementation of this Bill will be handled mainly by the Environmental Compliance Unit. The enforcement is expected to be less than current enforcement efforts of the decibel level requirements.

8. An estimate of costs when an additional appropriation is needed.

See the response to Question 2.

9. A description of any variable that could affect revenue and cost estimates.

Electric equipment costs are decreasing, and the EmPower Maryland Utility program is under review. These two variables could reduce future costs to purchase new electric leaf blowers and leaf vacuums.

11. Ranges of revenue or expenditures that are uncertain or difficult to project.

Not applicable.

12. If a Bill is likely to have no fiscal impact, why that is the case?

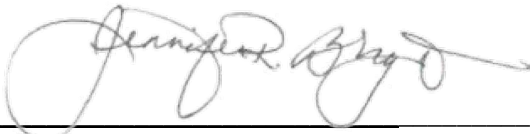
Not applicable.

13. Other fiscal impacts or comments.

Not applicable.

14. The following contributed to and concurred with this analysis:

Jason Mathias, Department of Environmental Protection
Patty Bubar, Department of Environmental Protection
Stan Edwards, Department of Environmental Protection
Mary Travaglini, Department of Environmental Protection
Steve Martin, Department of Environmental Protection
Gus Montes de Oca, Department of General Services
Jeffrey Knutsen, Department of Transportation
Lynne Zarate, Department of Transportation
Amanda Aparicio, Montgomery County Department of Parks
Rich Harris, Office of Management and Budget



**Jennifer R. Bryant, Director
Office of Management and Budget**

2 - 22 - 22

Date

LEGISLATIVE REQUEST REPORT

Introduction of Bill XX-21, Amendments to Chapter 31B

DESCRIPTION: Bill XX-21 would prohibit the sale and use of combustion engine-powered leaf blowers and leaf vacuums, authorize a grant program to partially offset the cost of replacing a combustion engine-powered leaf blowers or leaf vacuum with an electric leaf blowers or leaf vacuum, and revise County law regarding enforcement in noise control for leaf blowers.

PROBLEM: Leaf blowers are currently regulated in Chapter 31B to not exceed 70 dBA at a distance of 50 feet. However, gasoline leaf blowers, or combustion engine-powered leaf blowers (further referenced as CEPLBs) are common in landscaping, yard maintenance, and snow removal. These are a growing noise issue in Montgomery County, and are a public health risk to workers and residents in the communities where they are used.

Noise is known to create adverse health effects, as well as simply be a distraction and interrupt work for many. As to health effects, it is known to create hearing loss and tinnitus, as well as effects such as reduced mental performance and health and hypertension. Leaf blowers are known to create significant noise. These effects are exacerbated for leaf blowers operators in landscape companies often minorities, as well as those nearby especially children and elderly, those working from home, and those that work overnight shifts, sleeping during typical leaf blowing hours.¹

In Montgomery County specifically, noise from leaf blowers resulted in 62 formal complaints to DEP in fiscal year 2021. The current legislation regulates CEPLBs in Chapter 31B to not exceed 70 dBA at a distance of 50 feet. This legislation is difficult to measure and enforce if leaf blowers no longer have the original manufacturer labels. Additionally, noise is measured on a logarithmic scale in dBA. As such, the current 70 dBA allowance is doubly as loud a low 60s dBA noise more commonly seen in BLBs. As stated above, BLBs also don't have the penetrative low frequency tone. With the noise and health effects of CEPLBs, DEP is seeking to phase out CEPLBs through prohibiting sale January 1, 2022 and use beginning January 1, 2023.

The legislation also enables DEP to create a grant program for trade-in of CEPLBs or purchase of new BLBs to support this transition

¹ <https://www.audubon.org/magazine/spring-2021/why-cities-are-taking-action-limit-loud-and>

away from CEPLBs for private citizens and companies in the County. With this grant program, and already affordable alternatives, this legislation is a benefit to communities and workers ensuring Montgomery County is a healthy place to live and work.

GOALS AND OBJECTIVES:

Bill XX-21 addresses the increasing noise issues from combustion engine-powered leaf blowers through phase-in of plug-in electric and battery options. This is supported through authority to create a grant program and updates to the enforcement mechanism for the noise control ordinance.

COORDINATION:

Department of Environmental Protection

FISCAL IMPACT:

Office of Management and Budget.

ECONOMIC IMPACT:

Office of Legislative Oversight.

RACIAL EQUITY AND SOCIAL JUSTICE IMPACT:

Office of Legislative Oversight.

EXPERIENCE ELSEWHERE:

There are more than 170 communities that have regulations related to leaf blowers with more than 100 prohibiting or limiting their use.² Both DC and Chevy Chase Village have bans on leaf blowers that go into effect January 1, 2022.³ DC's legislation allows for the sale of a petroleum-powered leaf blower, if the customer is given written notification that it cannot be used in DC after January 1, 2022. The Town of Chevy Chase is offering a rebate on electric blowers of \$200 as of April 2021. They have processed over 20 applications to date. California, in May 2021, introduced legislation to require determination of an appropriate phase out of gasoline equipment, but regulation timelines are not yet proposed.⁴

SOURCE OF INFORMATION:

Jason Mathias, Department of Environmental Protection

² <https://www.audubon.org/magazine/spring-2021/why-cities-are-taking-action-limit-loud-and>

³ <https://trackbill.com/bill/district-of-columbia-bill-234-leaf-blower-regulation-amendment-act-of-2017/1445642/> and https://www.chevychasevillagemd.gov/DocumentCenter/View/3414/ReslNo_12-01-19_Chapter-20-Sec--20-2-Leaf-blowers_finaladopted

⁴ https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=20210220AB1346

APPLICATION
WITHIN
MUNICIPALITIES:

This bill applies to all municipalities that accept or adopt the County Noise Control Ordinance.

PENALTIES:

Class A