

Memorandum



DATE June 8, 2022

CITY OF DALLAS

TO Honorable Chair and Members of the Environmental Commission

SUBJECT **Environmental Health Committee Recommendation on a Gas-Powered Landscape Equipment Policy**

As requested, this memorandum outlines the recommendation of the Environmental Health Committee regarding a policy on the use of gas-powered landscape equipment, including leaf blowers and other gas-powered machinery. After an evaluation of numerous medical studies and peer-reviewed articles, the Committee agrees that there is a correlation between gas-powered landscape equipment and negative health effects for vulnerable populations, equipment operators, and the community at large.

Health issues associated with gas-powered landscape equipment include cardiovascular disease, pulmonary disease, and hearing damage and loss. Studies from the American Speech and Hearing Association, Centers for Disease Control and Prevention, and the Environmental Protection Agency (EPA) acknowledge the negative health impacts.

A 2011 EPA study found that gas-powered landscape equipment emitted approximately 6.3 million tons of Volatile Organic Compounds (VOCs) and criteria pollutants, including carbon monoxide, nitrogen oxide, and Particulate Matter (PM10 and PM2.5).^[1] Ground-level ozone (formed by VOCs and NOx in the presence of sunlight) and fine PM cause or contribute to early death, heart attack, stroke, congestive heart failure, asthma, chronic obstructive pulmonary disease, and cancer.^[2-8] The Dallas-Fort Worth region consistently fails to meet regulatory limits on ozone pollution and exceeds the state and national rates for childhood asthma.^[9] Dallas County leads the region for hospitalizations from childhood asthma, and respiratory issues are a leading cause of absenteeism among Dallas Independent School District students.

Therefore, the committee recommends that the Environmental Commission support a phased transition from gas-powered landscaping equipment to battery-operated or electric-hybrid equipment to reduce particulate matter and other pollutants that affect health and contribute to poor air quality.

For more information, suggested readings include:

- [National Emissions from Lawn and Garden Equipment](#)
- [Electric or Gas Leaf Blowers...Neither?](#)
- [Turning Over a New Leaf: Leaf Blowers and Lawn Mowers](#)

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- [Environmental Noise and the Cardiovascular System](#)
- [Using a low-cost monitor to assess the impact of leaf blowers on particle pollution during street cleaning](#)
- [Lawn and Garden Equipment Sound: A Comparison of Gas and Battery Electric Equipment](#)
- [Auditory and non-auditory effects of noise on health](#)

If you have any further questions, please do not hesitate to contact the Office of Environmental Quality and Sustainability or me.

Thank you for your time and consideration.


Candace Thompson (Jun 10, 2022 13:07 CDT)

Candace Thompson
Chair, Environmental Health Committee
City of Dallas Environmental Commission

c: Dr. Folashade Afolabi
Dr. Sarah Ashitey
Ms. Haddi Bayou
Carlos Evans, Director OEQS
Susan Alvarez, Assistant Director OEQS
Erin Diehl, EVC Board Coordinator

References:

[1] National Emissions from Lawn and Garden Equipment, US Environmental Protection Agency, Region 1, September 2015, Jamie L Banks, Robert McConnell.
<https://www.epa.gov/sites/default/files/2015-09/documents/banks.pdf>

[2] American Heart Association. Facts: Danger in the Air -Air Pollution and Cardiovascular Disease. Accessed 1/6/14 at http://www.heart.org/HEARTORG/Advocate/IssuesandCampaigns/Advocacy-Fact-Sheets_UCM_450256_Article.jsp

[3]American Lung Association. State of the Air 2014 and 2022

[4] Integrated Science Assessment for Particulate Matter- Final Report, US Environmental Protection Agency, December 2009, EPA/600/R-08/139F.

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[5] Provisional Assessment of Recent Studies on Health Effects of Particulate Matter Exposure, US Environmental Protection Agency, December 2012, EPA/600/R-12/056F.

[6] Integrated Science Assessment for Ozone and Related Photochemical Oxidants, US Environmental Protection Agency, 2013, EPA/600/R-10/076F.

[7] Air Pollution and Cancer, K Straif, A Cohen, J Samet (Eds), Scientific Publication 161, International Agency for Research in Cancer, World Health Organization, Lyon Cedex FR:IARC, 2013.

[8] Shah ASV, Lee KK, McAllister DA, et al. "Short Term Exposure to Air Pollution and Stroke: Systematic Review and Meta-Analysis," BMJ 2015;350:h1295.

[9] Cook Children's (website). Asthma: Six-county profile. content from their regular Community-wide Children's Health Assessment and Planning Survey (CCHAPS).
<https://www.centerforchildrenshealth.org/en-us/HealthIssues/asthma/Pages/Asthma.aspx>. Retrieved online May 18, 2018.