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CITY ATTORNEY'S OFFICE

(As revised by the City Council at the July 28, 2020, City Council meeting)

# OAKLAND CITY COUNCIL

## ORDINANCE NO. \_\_\_\_\_ C.M.S.

### AN ORDINANCE ADDING OAKLAND MUNICIPAL CODE CHAPTER 8.64 TO PROHIBIT THE OPERATION OF COMBUSTION ENGINE-POWERED LEAF BLOWERS AND STRING TRIMMERS WITHIN THE TERRITORIAL LIMITS OF THE CITY OF OAKLAND; AND ADOPTING APPROPRIATE CEQA EXEMPTION FINDINGS

**WHEREAS**, combustion engine leaf blowers and string trimmers most often employ two-stroke engines that require a mixture of gasoline and oil<sup>1</sup>. Such engines cause extreme and unreasonable amounts of pollution in several forms<sup>2</sup>: liquid and solid particulate matter (PM), ozone, carbon monoxide, nitrogen oxides, and hydrocarbons (CO, NOx, and HC). Particulate matter air pollution is of special concern as it consists of particles small enough to remain suspended in the air for hours to days unless removed by precipitation or another force. This pollution compounds the Bay Area's particulate matter levels, which are increasing<sup>3</sup>; and

**WHEREAS**, over the course of an hour, a single leaf blower produces as much smog as 17 cars, re-entraining an estimated 2.6 pounds of particulate (PM10) dust emissions per hour of use. Moreover, these machines, along with other motorized handheld equipment, produced more particulate matter emissions than automobile exhaust<sup>4</sup>, according to one study of a group of roadway maintenance workers; and

**WHEREAS**, global demand for fossil fuels continues to accelerate apace<sup>5</sup>, and is the primary driver of greenhouse gas emissions. To minimize chances of

<sup>1</sup> How Does a Weed Eater Work? <https://homeguides.sfgate.com/weed-eater-work-89639.html>  
<sup>2</sup> LEAF BLOWER FACTS, <https://www.nonoise.org/quietnet/cgs/leafblow.htm>  
<sup>3</sup> <http://www.lung.org/local-content/california/documents/state-of-the-air/2017/sota-2017-statewide-press-english.pdf>  
<sup>4</sup> Particulate matter emissions: Trimmers and chainsaws are worse than highway traffic, <https://www.sciencedaily.com/releases/2013/05/130530094627.htm>  
<sup>5</sup> Fossil fuels still dominate U.S. energy consumption despite recent market share decline, <https://www.eia.gov/todayinenergy/detail.php?id=26912>

breaching the 2 degree Celsius atmospheric temperature threshold that would produce devastating climatic instability, widespread extinctions and resultant biodiversity loss, social unrest, and heightened conflict, scientific evidence demonstrates that wealthy countries must reduce total greenhouse gas emissions (GHGs) by at least 10% per year<sup>6</sup>. Therefore, all efforts to curb unnecessary fossil fuel combustion are warranted; and

**WHEREAS**, entrained dust harbors numerous toxins, namely molds, pollens, heavy metals such as lead, arsenic, and mercury, as well as pesticides, animal feces, and viruses. Both blower operators and passersby are exposed to this pollution, although entrained dust is significantly less pollutive compared to combustion engine exhaust; and

**WHEREAS**, before the COVID-19 pandemic, the United States was already undergoing a massive epidemic of chronic, non-communicable, and mostly preventable diseases<sup>7</sup>, one major cause of which is air pollution<sup>8</sup>. Air pollution irritates eyes and throats, harms lungs, and causes cancer<sup>9</sup>, neurological conditions, and premature death, including sudden death from heart attacks. Because combustion engine-powered leaf blowers contribute to local air pollution, they increase the toxic burden on humans, lowering health outcomes and quality of life. Every year, 200,000 people in the United States die prematurely from air pollution<sup>10</sup>; and

**WHEREAS**, according to a new nationwide study from Harvard T.H. Chan School of Public Health that looked at the link between long-term exposure to fine particulate air pollution (PM2.5) and the risk of death from COVID-19, determined that people with COVID-19 who live in U.S. regions with high levels of air pollution are more likely to die from the disease than people who live in less polluted areas<sup>11</sup>; and

**WHEREAS**, the California Air Resources Board reports that air pollution costs the state billions of dollars per year<sup>12</sup> in health care and damage to crops and buildings. Several common air pollutants produced by fossil fuel combustion damage agricultural plants, causing mottled foliage, burning at leaf tips or margins, twig dieback, stunted growth, premature leaf drop, delayed maturity, abortion or early drop of blossoms, and reduced yield or quality. Ozone, sulphur dioxide, nitrogen oxides, ammonia, peroxyacetal nitrate (PAN), chlorine, and ethylene stand out among the most harmful air pollutants. Acidic pollutants deposit on soils, lowering their pH, impeding their ability to

<sup>6</sup> The why and how of radical emissions reductions, Kevin Anderson, <http://www.climatecodered.org/2014/01/radical-emissions-reductions-1-kevin.html>

<sup>7</sup> Air pollution and chronic airway diseases: what should people know and do? <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4740163/>

<sup>8</sup> Children's environmental health, Air Pollution, <https://www.who.int/ceh/risks/cehair/en/>

<sup>9</sup> National Emissions from Lawn and Garden Equipment, <https://www.epa.gov/sites/production/files/2015-09/documents/banks.pdf>

<sup>10</sup> Study: Air pollution causes 200,000 early deaths each year in the U.S., <http://news.mit.edu/2013/study-air-pollution-causes-200000-early-deaths-each-year-in-the-us-0829>

<sup>11</sup> Air pollution linked with higher COVID-19 death rates <https://www.hsph.harvard.edu/news/hsph-in-the-news/air-pollution-linked-with-higher-covid-19-death-rates/>

<sup>12</sup> What would you like to know about California's Air Quality?, <https://www.arb.ca.gov/adam/aqfaq/index.html>

incubate food, and rendering them infertile. Acid rain, comprised of the common pollutants sulphur dioxide and nitrogen dioxide, is the chief cause of corrosive damage to the built environment<sup>13</sup>; and

**WHEREAS**, in addition to air pollution, noise pollution is widespread in cities, posing several health hazards. Combustion-engine powered leaf blowers emit noise pollution in levels known to cause many negative health effects<sup>14</sup>, including stress<sup>15</sup>, cardiovascular problems, gastrointestinal distress, depressed immunity, and interrupted sleep<sup>16</sup>; and

**WHEREAS**, the comfortable hearing range for human beings is 0-90 dB. According to the Occupational Safety and Health Administration (OSHA), blowers measuring 70-75 decibels (dB) at 50 feet can attain 90-100 dB volume at the operator's ear, exceeding comfort levels for most people. Such high noise levels pose a high risk of ear damage, and hearing losses therefrom contribute to industrial accidents. Because workers are closest to the point of origin of the noise, they are most susceptible to suffering hearing damage. Hearing loss causes severe health effects<sup>17</sup>, including increased stress<sup>18</sup>, heart disease risk, gastrointestinal problems, impaired enjoyment of music, entertainment, social interaction, and an impaired ability to recognize sounds of danger. By contrast, electric blowers can be significantly less noisy by tens of decibels<sup>19</sup>; and

**WHEREAS**, hazardous effects of air pollutants and noise are particularly harmful to workers operating combustion engine-powered equipment. Exhaust emissions are particularly concentrated at the point of origin<sup>20</sup> and noise is the loudest the closer to this equipment a person is. Modern protective equipment is not sufficient to protect workers from those hazards; and

**WHEREAS**, urban air pollution and noise<sup>21</sup> not only negatively impact humans, but also flora and fauna, both on land and in water, through photochemical oxidants,

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<sup>13</sup> Detrimental effect of Air pollution, Corrosion on Building Materials and Historical Structures, [http://ajer.org/papers/v3\(3\)/ZT33359364.pdf](http://ajer.org/papers/v3(3)/ZT33359364.pdf)

<sup>14</sup> Auditory and non-auditory effects of noise on health, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988259/>

<sup>15</sup> Too Loud! For Too Long! Loud noises damage hearing, <https://www.cdc.gov/vitalsigns/pdf/2017-02-vitalsigns.pdf>

<sup>16</sup> Numerical list of EHCs, [https://www.who.int/ipcs/publications/ehc/ehc\\_numerical/en/](https://www.who.int/ipcs/publications/ehc/ehc_numerical/en/)

<sup>17</sup> Chronic noise exposure, high-frequency hearing loss, and hypertension among automotive assembly workers, <https://pubmed.ncbi.nlm.nih.gov/2401922/>

<sup>18</sup> The Covariance between Air Pollution Annoyance and Noise Annoyance, and Its Relationship with Health-Related Quality of Life, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4997478/>

<sup>19</sup> LEAF BLOWER FACTS, <https://www.nonoise.org/quietnet/cqs/leafblow.htm>

<sup>20</sup> Carbon Monoxide Hazards from Small Gasoline Powered Engines, <https://www.cdc.gov/niosh/topics/co/>

<sup>21</sup> Effects of Air Pollution and Acid Rain on Fish, Wildlife, and Their Habitats: Urban Ecosystems, <https://nepis.epa.gov/Exe/ZyNET.exe/9100UMGS.txt?ZyActionD=ZyDocument&Client=EPA&Index=1981%20Thru%201985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&UseQField=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D:\ZYFILES\INDEX%20DATA\81THRU85\TXT\000000199100UMGS.txt&User=ANONYMOUS&Password=anonymous&SortMethod=hj-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSe>

atmospheric metals, acidifying air pollutants, and miscellaneous urban air pollutants. Airborne pollutants can inhibit plant photosynthesis and bioaccumulate in plant and animal tissues. A well-known example of this is the widespread, global build-up of fossil fuel-sourced mercury in fish, rendering them toxic to human consumption; and

**WHEREAS**, because Oakland is home to several regionally important ecosystems, including the redwood groves of the hills, SF Bay shoreline, wetlands and Lake Merritt, the nation's oldest wildlife sanctuary, it is especially important that urban air pollution be minimized where possible. Curbing the use of fossil fuel-powered leaf blowers and string trimmers in favor of exhaust-free alternatives will further protect local non-human life forms and habitats; and

**WHEREAS**, many municipalities have already either completely banned or restricted the use of<sup>22</sup> combustion engine-powered equipment. Municipalities that have banned combustion engine-powered leaf blowers include the cities of Berkeley, Piedmont, Beverly Hills, Claremont, Laguna Beach, Lawndale, Los Altos, Menlo Park, Santa Monica, and Vancouver, BC; and

**WHEREAS**, viable alternative technologies exist to replace fossil fuel-powered leaf blowers as well as string trimmers. These include both corded and cordless electric machines, rakes, and brooms. Use of this alternative equipment does not have any negative effect on productivity. For example, one study by the Los Angeles Department of Water and Power found that a grandmother using a rake and push broom outperformed electric leaf blowers and almost matched the performance of gas-powered leaf blowers in the same task<sup>23</sup>; and

**WHEREAS**, the combustion engine-powered leaf blower and string trimmer have a net negative effect on human health and climate mitigation efforts compared with their electric analogs. Their ongoing use is therefore unjustifiable, warranting a citywide ban and replacement with battery-powered machines; and

**WHEREAS**, the City of Oakland may adopt ordinances for protection of health and safety pursuant to its general police powers, Sect 106 of the Charter of the City of Oakland, and Article XI of California Constitution; and

**WHEREAS**, the majority of contractors hired by the City of Oakland for Wildfire Prevention Fuels Mitigation are Oakland-based businesses and the City Council wishes to allow contractors who are performing the work of Wildfire Prevention Fuels Mitigation additional time to comply with the prohibition on combustion engine-powered string trimmers;

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<sup>22</sup> Blower Bans Are Working in California Cities, <https://www.nonoise.org/quietnet/cqs/other.htm>

<sup>23</sup> ASSESSMENT AND PERFORMANCE TESTING, Conducted By The Los Angeles Department of Water and Power, Leaf Blower Task Force <https://www.zapla.org/present/dwptest.html>

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OAKLAND DOES ORDAIN AS FOLLOWS:**

**SECTION 1. Recitals:** The City Council finds and determines the foregoing recitals to be true and correct and hereby makes them part of this Ordinance.

**SECTION 2. Addition of Chapter 8.64 to the Oakland Municipal Code:** The Oakland City Council hereby adopts the addition of Chapter 8.64 to the Oakland Municipal Code, as follows:

**Chapter 8.64 Prohibition on Combustion Engine-Powered Leaf Blowers and String Trimmers.**

**8.64.010 – Title.**

This Chapter shall be known as the “Prohibition on Combustion Engine-Powered Leaf Blowers and String Trimmers Ordinance.”

**8.64.020 – Definitions**

“Combustion Engine-Powered Leaf Blower” means any leaf blowing device powered by an internal combustion or rotary engine using gasoline, alcohol or other liquid or gaseous fluid. Lawn mowers and electric leaf blowers are not included in this definition.

“Combustion Engine-Powered String Trimmer” is a string trimmer powered by an internal combustion or rotary engine using gasoline, alcohol, or other liquid or gaseous fluid. Electric string trimmers are not included in this definition.

“Combustion Engine-Powered Yard Equipment” shall mean only combustion engine-powered leaf blowers and combustion engine-powered string trimmers, for purposes of this Chapter.

“Electric Leaf Blower” means any leaf blowing device powered by only electric means, including but not limited to battery-powered leaf blowers and cordless rechargeable leaf blowers.

“Electric String Trimmer” is a string trimmer powered by only electric means including but not limited to battery-powered string trimmers and cordless rechargeable string trimmers.

“Leaf Blower” is any motorized device that is used to blow leaves, dirt, and other debris off sidewalks driveways, lawns, and other surfaces.

“String Trimmer,” also known as a strimmer, line trimmer, whipper-snipper, weed eater or weed whacker, is any motorized tool which uses a flexible monofilament line instead

of a blade for cutting grass and other plants near objects, or on steep or irregular terrain.

**Sec. 8.64.030 – Prohibitions.**

A. No person shall operate any Combustion Engine-Powered Yard Equipment within the City in either public or private settings.

B. No owner of real property, tenant in possession of real property, or person in control of real property shall allow the operation of Combustion Engine-Powered Yard Equipment on the property.

C. No person who owns or operates a gardening, landscape maintenance or similar service shall operate or allow an employee or agent of that service to operate Combustion Engine-Powered Yard Equipment within the City.

**Sec. 8.64.040 – Enforcement and Remedies.**

A. Violations. Any person violating this Chapter shall be subject to administrative citations pursuant to O.M.C. Chapter 1.12. In addition, any violation in excess of three violations in a 3-year period shall be a major violation subject to a civil penalty of up to \$1,000 per violation.

B. Infractions. Any person who violates, causes, or permits another person to violate any provision of these regulations is guilty of an infraction unless otherwise provided.

C. Responsible Parties. The responsible parties for any and all violations shall be those parties listed in Section 8.64.030 (B) and (C). Employees of parties listed in Section 8.64.030 (C) are not considered responsible parties under this Ordinance.

D. Public Nuisance. Continued operation of Combustion Engine-Powered Yard Equipment in violation of this Chapter after issuance of a notice is a public nuisance.

**Sec. 8.64.050 – Appeal.**

Violations may be appealed pursuant to OMC 1.12.080 or other alternate or additional standards and procedures as may be promulgated by the City Administrator.

**SECTION 3. Direction to the City Administrator:** Within three months of the adoption of this Ordinance, the City Administrator or designee shall (1) notify the public regarding the Ordinance through the City's and Public Works' websites and/or website pages and (2) send a copy of this Ordinance with an accompanying letter to landscaping businesses and hardware stores operating in the City of Oakland that are likely to sell or operate the equipment prohibited by this Ordinance.

**SECTION 4. Grace Period:** No penalties authorized by this Ordinance shall be imposed during a period of six months beginning on the effective date of the Ordinance. Violations of the Ordinance occurring following the termination of the six-month period shall be subject to the penalties authorized by the Ordinance. The six-month grace period shall be extended by an additional six months if the City Administrator determines, based on the City's current equipment inventory and public safety considerations, that additional time is needed for the City's compliance with the Ordinance. Contractors hired by the City for the purposes of Wildfire Prevention Fuels Mitigation are granted a grace period of 24 months on the use of combustion engine-powered string trimmers after the final adoption of the Ordinance.

**SECTION 5. Effective Date:** This ordinance shall become effective immediately on final adoption if it receives six or more affirmative votes; otherwise it shall become effective upon the seventh day after final adoption.

**SECTION 6. Severability:** If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the Chapter. The City Council hereby declares that it would have passed this Ordinance and each section, subsection, clause or phrase thereof irrespective of the fact that one or more other sections, subsections, clauses or phrases may be declared invalid or unconstitutional.

**SECTION 7. CEQA Compliance:** This action is exempt from the California Environmental Quality Act ("CEQA") pursuant to sections of the CEQA Guidelines, taken together and each as a separate and independent basis, including but not limited to: Section 15378 (regulatory actions), Section 15060(c)(2) (no direct or reasonably foreseeable indirect physical change in the environment), and Section 15061(b)(3) (no significant environmental impact). The legislation contains no provisions modifying the physical design, development, or construction of residential or nonresidential structures. Accordingly, it can be seen with certainty that there is no possibility that it: (1) may have a significant effect on the environment and/or (2) would result in any physical changes to the environment.

IN COUNCIL, OAKLAND, CALIFORNIA,

PASSED BY THE FOLLOWING VOTE:

AYES - FORTUNATO BAS, GALLO, GIBSON MCELHANEY, KALB, REID, TAYLOR, THAO AND  
PRESIDENT KAPLAN

NOES –  
ABSENT –  
ABSTENTION –

ATTEST: \_\_\_\_\_  
ASHA REED  
Acting City Clerk and Clerk of the Council of the City of  
Oakland, California

Date of Attestation: \_\_\_\_\_

**NOTICE AND DIGEST**

**AN ORDINANCE ADDING OAKLAND MUNICIPAL CODE CHAPTER 8.64 TO PROHIBIT THE OPERATION OF COMBUSTION ENGINE-POWERED LEAF BLOWERS AND STRING TRIMMERS WITHIN THE TERRITORIAL LIMITS OF THE CITY OF OAKLAND**

This ordinance adds a new Oakland Municipal Code Chapter 8.64 that prohibits the operation of combustion engine-powered leaf blowers and string trimmers.