



TOWN OF FAIRFAX

STAFF REPORT

April 6, 2022

TO: Mayor and Town Council

FROM: Sean Youra, Climate Action Coordinator

SUBJECT: Discuss the concept of Prohibiting Gas-Powered Landscape Equipment and provide direction to staff

RECOMMENDATION

Discuss the concept and direct Staff to create and administer a community survey on the potential regulation of gas-powered landscape equipment prior to pursuing an ordinance, or direct staff to bring an ordinance to a subsequent Council Meeting without first conducting a community survey.

BACKGROUND

At its March 6, 2019 meeting, the Council adopted Resolution 19-04 that endorsed a declaration of a climate emergency, and in doing so, committed to a “town wide just transition and climate emergency mobilization effort which ends town wide greenhouse gas emissions as quickly as possible and no later than 2030”¹.

At its July 7, 2021 meeting, the Council adopted Resolution 21-26 to adopt the Fairfax Climate Action Plan 2030. Resolution 21-26 directed staff and the Climate Action Committee (CAC) to implement the Climate Action Plan (CAP). The CAP established a goal of a 100% GHG emissions reduction target by the year 2030 from a 2005 baseline, meaning that emissions need to be reduced by 31,484 MTCO₂e by 2030 to meet the goal².

Under the Renewable Energy & Electrification strategy in the CAP, Measure R-6, Electrify all landscape equipment, includes the following recommended actions:

- Adopt an ordinance to phase out use of all fossil-fueled landscape equipment
- Seek financial incentives and technical assistance to support residents in making the transition to non-fossil-fuel landscape equipment

To implement Measure R-6 from the CAP, the CAC is recommending the following:

- Adopt an ordinance to prohibit the use of gas-powered landscape equipment (a CAC goal of its 2020-2021 CAC Annual Action Plan)
- Consider budgeting and implementing a take-back program for existing gas-powered landscape equipment similar to what the Town of San Anselmo implemented

¹ Fairfax Resolution 19-04 : <http://www.climatefx.org/fairfax-climate-emergency-resolution.html>

² Fairfax CAP: https://www.townoffairfax.org/documents/climate-action-plan_2030/

- Consider having Town staff remind residents, as appropriate, of the prohibition on gas-powered equipment prior to when the enforcement provisions of the proposed ordinance would take effect
- Replace the Town's gas-powered landscape equipment with electric versions

Depending on the Council's direction, the Town Attorney would prepare an ordinance, similar to the attached model ordinance, for consideration at a future meeting.

DISCUSSION

To adequately assess the impact of a proposed ordinance that would prohibit gas-powered landscape equipment, staff recommends the Council consider the following:

Emissions Impact from Landscape Equipment

According to the CAP, electrifying all landscape equipment could result in a GHG emissions reduction of 0.6% of the total needed emissions reductions to achieve zero emissions by 2030. Although this would be a small reduction in the total emissions required to reach zero emissions by 2030, electrifying landscape equipment would likely have a much more immediate and quantifiable impact on the Town's GHG inventory than other measures identified in the CAP.

In 2020, California daily nitrogen oxides (NOx) and reactive organic gases (ROG) emissions from small off-road engines (SORE), primarily found in lawn and garden equipment, were higher than emissions from light-duty passenger cars¹. Emissions occur during both operation (from exhaust and fuel evaporation) and storage (from fuel evaporation) of GLGE².

State and Local Jurisdiction Regulation of Landscape Equipment

The California Air Resources Board (CARB) has had emissions standards for SORE since 1990. As a result of these standards, SORE are 40-80% cleaner today than before the standards were put in place. Despite these standards, emissions from SORE continue to increase. In fact, the CARB estimates that by 2031, "small engine emissions will be more than twice those from passenger cars,"³ as shown in Figure 1.

¹ AB 1346: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB1346

² CARB SORE Presentation: <https://ww2.arb.ca.gov/sites/default/files/2020-06/6.8.20%20SORE%20Workshop%20Slides%20ADA.pdf>

³ CARB Fact Sheet: https://www.arb.ca.gov/msprog/offroad/sore/sm_en_fs.pdf?_ga=2.102221764.490063601.1647550393-339637189.1645141270

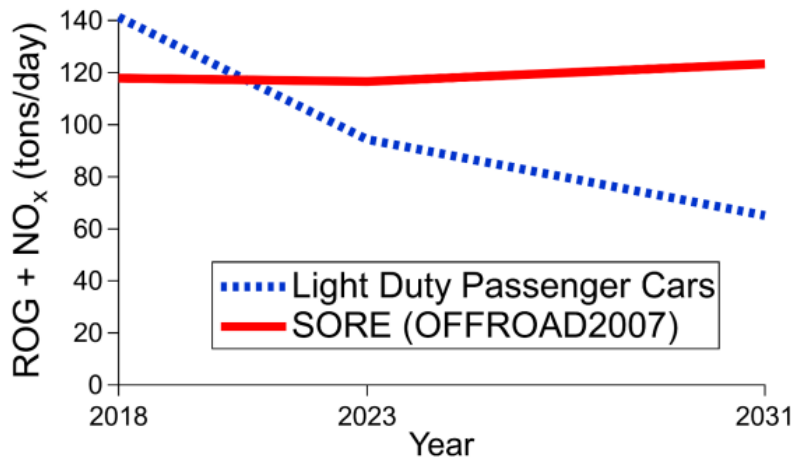


Figure 1: Predicted emissions from SORE and light duty passenger vehicles through 2031.
Source: CARB¹

To address these rising emissions and air quality issues from SORE, California has enacted AB 1346, *Air pollution: small-off road engines*, to prohibit engine exhaust and evaporative emissions from new SORE, which are spark-ignition engines rated at or below 19 kilowatts (25 horsepower). The regulations on these engines will apply on or after January 1, 2024². In addition, the State has a goal of transitioning to 100% zero-emission off-road vehicles and equipment by 2035, as stated in Executive Order N-79-20³. Therefore, it is anticipated that future State regulations will cover transitioning existing gas-powered SORE equipment to zero-emission equipment.

Several jurisdictions throughout California have either already implemented regulations on gas-powered landscape equipment or are in the process of doing so. Belvedere⁴, Los Gatos⁴, Mill Valley⁴, Corte Madera⁵, Larkspur⁶, Tiburon⁷, Sonoma⁴, and San Anselmo⁸ have all prohibited the use of gas-powered leaf blowers (with exemptions in some cases). Staff at Sausalito are also drafting an ordinance that would ban gas-powered leaf blowers and phase-out other gas-powered landscaping equipment⁹. Novato has delayed their proposed ban on gas-powered

¹ CARB SORE Presentation: <https://ww2.arb.ca.gov/sites/default/files/2020-06/6.8.20%20SORE%20Workshop%20Slides%20ADA.pdf>

² AB 1346: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB1346

³ EO N-79-20: <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>

⁴ SFist Article: <https://sfist.com/2020/01/06/berkeley-style-gas-powered-lawn-mower-ban-may-go-statewide/>

⁵ Corte Madera Ordinance : https://library.municode.com/ca/corte_madera/codes/municipal_code?nodeId=TIT9PESAMO_CH9.36NO_9.36.040LEBLRE

⁶ Larkspur Ordinance: <https://larkspur.municipal.codes/Code/9.57.010>

⁷ Tiburon Ordinance: https://library.municode.com/ca/tiburon/codes/code_of_ordinances?nodeId=TITVIPUHESAWA_CH30LEBLHETR

⁸ San Anselmo Ordinance No. 1157: <https://www.townofsananselmo.org/DocumentCenter/View/27799/Ordinance-No-1157>

⁹ Marin IJ Article: <https://www.marinij.com/2022/03/15/sausalito-to-ban-gas-powered-landscaping-equipment/#:~:text=Sausalito%20is%20planning%20a%20ban,for%20consideration%20and%20a%20vote.>

landscape equipment, which would have banned gas-powered leaf blowers, lawn edgers, vacuums, and trimmers, to give businesses a longer timeline to comply¹.

Health Impacts from Landscape Equipment

GLGE such as leaf blowers, trimmers, and mowers not only produce high levels of localized emissions, but also produce hazardous air pollutants. Workers using GLGE, as well as members of the public, are exposed to these hazardous air pollutants routinely².

For comparison purposes, one hour of operation of a commercial leaf blower can emit as much smog-forming pollution as driving 1100 miles in a 2017 Toyota Camry while one hour of operation of a commercial lawn mower can emit as much smog-forming pollution as driving that same Toyota Camry 300 miles³.

Reportedly, electric landscape equipment is not as noisy as gas-powered equipment, so switching to electric may also help reduce noise pollution⁴.

Technical and Financial Feasibility

Several electric zero-emission landscape equipment models currently exist that can replace GLGE for residential and commercial uses. CARB maintains a list of these models on its website for mowers, string trimmers, hedge trimmers, chainsaws, and leaf blowers including cordless and corded options⁵.

Over half of household lawn and garden equipment used in the State is already electric, but uptake of electric equipment among landscapers has been much lower, as Figure 2 shows.

¹ Marin IJ Article: <https://www.marinij.com/2021/05/12/novato-delays-proposed-ban-of-gas-powered-landscaping-tools/>

² EPA Study: <https://www.epa.gov/sites/default/files/2015-09/documents/banks.pdf>

³ CARB Fact Sheet:

https://www.arb.ca.gov/msprog/offroad/sore/sm_en_fs.pdf?ga=2.102221764.490063601.1647550393-339637189.1645141270

⁴ KQED Article: <https://www.kqed.org/science/1977168/the-sounds-of-silence-california-bans-new-gas-powered-leaf-blowers>

⁵ CARB Zero-Emission Lawn Equipment: <https://ww2.arb.ca.gov/our-work/programs/zero-emission-landscaping-equipment/zero-emission-lawn-equipment>

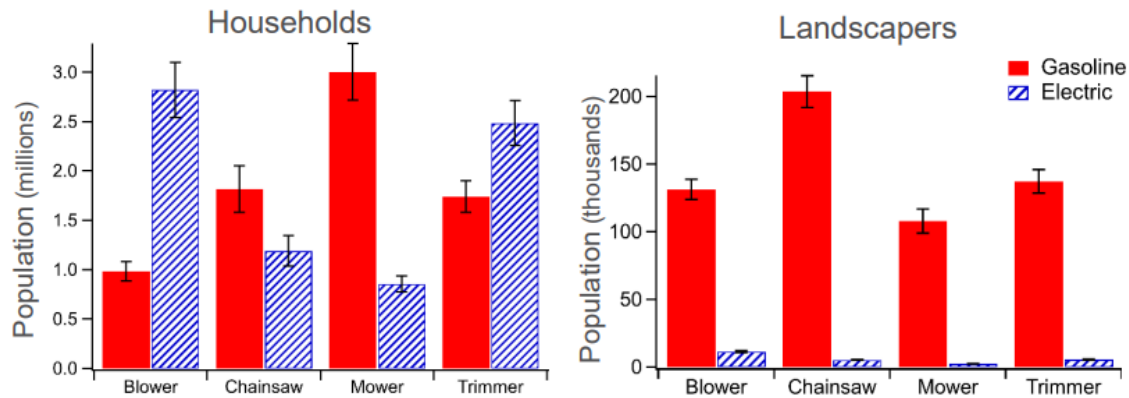


Figure 2: Gasoline vs. electric lawn and garden equipment adoption in California among households and landscapers. Source: CARB¹

Potential reasons for the lower adoption rates among landscapers are likely the higher cost of some electric landscape equipment and reduced efficiency compared to gas-powered landscape equipment². Importantly though, cost and efficiency largely depend on the type of equipment and whether the electric version is corded or cordless. For example, corded electric leaf blowers tend to be cheaper than gas-powered leaf blowers and the power output is usually equivalent to gas-powered leaf blowers, but they're limited in terms of the user's mobility having to be close to an outlet. Cordless electric leaf blowers are more maneuverable and power output can also be equivalent to gas-powered leaf blowers, but the costs are higher than the corded versions and they can be more expensive than gas-powered leaf blowers³. Batteries to power the cordless electric landscape equipment can also run in the hundreds of dollars, and a single electric lawn mower can take up to four batteries to power it. Charging stations will likely be required for commercial landscaping so that multiple batteries can charge simultaneously and upgrades to electrical systems may be required, which will add further costs⁴. These costs will likely be passed on to the customer by raising the price of landscaping services.

Without financial assistance, landscape workers may not be able to afford the costs of replacing their current gas-powered landscape equipment with electric versions considering that the hourly mean wage of landscape workers in California is \$18.68⁵, which raises equity concerns. However, some of these costs may be offset by lower maintenance and fuel costs with electric landscape equipment³. Furthermore, as with most technologies, the more adoption of electric landscape equipment that occurs, the lower the costs for this equipment will likely become.

¹ CARB SORE Presentation: <https://ww2.arb.ca.gov/sites/default/files/2020-06/6.8.20%20SORE%20Workshop%20Slides%20ADA.pdf>

² LA Times Article: <https://www.latimes.com/california/story/2021-10-09/california-moves-toward-ban-on-gas-lawnmowers-and-leaf-blowers#:~:text=Gavin%20Newsom%20on%20Saturday,Board%20determined%20it%20is%20feasible>

³ Consumer Reports – Leaf Blowers : <https://www.consumerreports.org/cro/leaf-blowers/buying-guide/index.htm>

⁴ AP article: <https://apnews.com/article/lifestyle-technology-business-environment-and-nature-gardening-c669f3901ba435bf76750bb5e339adba>

⁵ BLS Occupational Employment and Wage Statistics: <https://www.bls.gov/oes/current/oes373011.htm>

Additionally, California has set aside \$30 million in incentives to assist landscapers and gardeners in transitioning from gas to electric equipment¹.

Implementation and Enforcement

In determining how best to implement and enforce conversion to electric landscaping equipment, staff will consider the following:

- **Scope:** The scope of the prohibition as far as whether all gas-powered landscape equipment should be prohibited or only a subset of equipment such as leaf blowers should be prohibited as other Marin jurisdictions have done. Possible exemptions may be necessary such as exemptions for use of gas-powered landscape equipment during times of emergency, in remote or poorly accessible areas, or if viable electric alternatives do not yet exist.
- **Timing:** Sufficient time should be allocated to ensure that landscapers and residents can purchase electric landscape equipment and retire their existing gas-powered landscape equipment. For example, San Anselmo provided residents and landscapers three months following adoption of their ordinance prohibiting the use of gas-powered leaf blowers before enforcement took effect².
- **Funding:** To help address cost and equity concerns over transitioning to electric landscape equipment, funding such as a rebate program could be offered to individuals who trade in their gas-powered equipment for electric equipment. For example, San Anselmo included \$5,000 in their FY 2020-21 Town budget to fund a rebate program that provides a rebate for the purchase of new, electric leaf blowers of up to 50%, or \$150, when individuals trade in their gas-powered leaf blower (drained of fluids). The rebate application was provided in English and Spanish. Individuals brought their gas-powered leaf blower to San Anselmo's Corporation Yard with their completed rebate application and then would receive the rebate when purchasing an electric leaf blower from a local hardware store^{2,3}. Residents accounted for 57% of the issued rebates and the funds from the rebate program have nearly been expended.
- **Enforcement:** To enforce the prohibition, staff recommends evaluating options that do not involve using the Police Department. Complaints would be taken via the Town's website, and warning letters and potential fines would be directed toward the property owner who directs the landscaping work. In keeping with Fairfax's focus on Diversity, Equity, and Inclusion (DEI), staff recommends avoiding criminalizing landscape workers. As an example of how enforcement could work, San Anselmo requires violations of their ordinance to be reported to Town Code Enforcement during the hours of 9:00 AM to 5:00

¹ LA Times Article: [https://www.latimes.com/california/story/2021-10-09/california-moves-toward-ban-on-gas-lawnmowers-and-leaf-](https://www.latimes.com/california/story/2021-10-09/california-moves-toward-ban-on-gas-lawnmowers-and-leaf-blowers#:~:text=Gavin%20Newsom%20on%20Saturday,Board%20determined%20it%20is%20feasible)

[blowers#:~:text=Gavin%20Newsom%20on%20Saturday,Board%20determined%20it%20is%20feasible](https://www.latimes.com/california/story/2021-10-09/california-moves-toward-ban-on-gas-lawnmowers-and-leaf-blowers#:~:text=Gavin%20Newsom%20on%20Saturday,Board%20determined%20it%20is%20feasible)

² San Anselmo Leaf Blower Enforcement: <https://www.townofsananselmo.org/1499/Leaf-Blowers#:~:text=Background,%2C%20health%2C%20and%20noise%20pollution>

³ San Anselmo Electric Leaf Blower Rebate Program: https://www.townofsananselmo.org/DocumentCenter/View/27959/English_rebate-form

PM Monday through Friday, but violations outside of these hours can be reported to Central Marin Police. Additionally, San Anselmo is currently providing warnings to anyone in violation of the ordinance, but after June 30, 2022, a \$100 citation will be given to anyone still in violation and if a warning was already previously given. Increasing citations of \$200, and \$500 may also be issued for repeat violations¹.

Staff recommends that a community survey be conducted to address any concerns over a potential ban or restrictions on gas-powered landscape equipment and quantify support for initiatives such as a rebate program similar to what San Anselmo did prior to introducing their ordinance². This could also help provide information on the types of equipment used in Fairfax, the frequency of use, and how much of this equipment is used for personal or professional purposes. The CAC could help with distributing the survey and raise awareness about the negative impacts of gas-powered landscape equipment.

FISCAL IMPACT

Staff time to create and administer the community survey. Staff time to review the draft ordinance, create and implement the reporting mechanism and enforcement process. The Town owns a large gas-powered ride-on mower and other gas-powered landscape equipment not yet budgeted for replacement, which will need to be replaced with electric landscaping equipment.

ATTACHMENT

Model ordinance (for discussion purposes only)

¹ San Anselmo Leaf Blower Enforcement: <https://www.townofsananselmo.org/1499/Leaf-Blowers#:~:text=Background,%2C%20health%2C%20and%20noise%20pollution>

² San Anselmo Landscape Equipment Survey: https://sananselmo-ca.granicus.com/MetaViewer.php?view_id=1&clip_id=447&meta_id=71009

ORDINANCE NO. _____

AN ORDINANCE REGULATING THE USE OF GASOLINE POWERED LANDSCAPE EQUIPMENT

THE CITY COUNCIL OF THE CITY OF [X] DOES ORDAIN AS FOLLOWS:

SECTION 1. Chapter [X], entitled “Gasoline Powered Landscape Equipment,” is hereby added to Title [X] of the [X] Municipal Code to read in full as follows:

“CHAPTER [X]: GASOLINE POWERED LANDSCAPE EQUIPMENT

Section

- X.010 Findings and Purpose.
- X.020 Definitions.
- X.030 Prohibition Against Use of Gasoline Powered Landscape Equipment.
- X.040 Use of Landscape Equipment Generally.
- X.050 Scope and Limitations of Chapter.
- X.060 Enforcement and Penalties.

§ X.010 FINDINGS AND PURPOSE.

The [X] City Council finds and expressly declares as follows:

- (A) [Information regarding local climate and environmental regulations affecting use of gasoline vs. electric powered landscape equipment].
- (B) The State of California has enacted AB 1346, which will ban the sale of new gasoline-powered leaf blowers and generators effective January 1, 2024.
- (C) The State of California has also committed to providing up to \$30 million in incentives to help businesses and consumers transition from gasoline-powered landscape equipment to zero-emission equipment.
- (D) At present, professional landscapers who use gas-powered landscape equipment are forced to endure sustained exposure to high amounts of noise and hazardous exhaust.
- (E) The City Council now seeks to reduce greenhouse gas emissions, and ensure compliance with AB 1346, by regulating the use of gasoline-powered landscape equipment.

(F) Transitioning to all-electric landscaping equipment benefits the health, welfare, and resiliency of [X] and its residents.

(G) The Council finds that the provisions of this Ordinance are consistent with the goals and policies of the General Plan, as well as other adopted ordinances and regulations of the City.

§ X.020 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

GASOLINE POWERED. Any item or equipment that is powered by an internal combustion engine that runs on gasoline, diesel, or other volatile fuel.

LANDSCAPE EQUIPMENT. Equipment such as, but not limited to, a lawn mower, leaf blower and/or edger-trimmer used to maintain lawns, gardens, sidewalks and driveways.

LANDSCAPE MAINTENANCE BUSINESS. A business that performs lawn and yard maintenance such as, but not limited to, cutting grass and removing leaves.

§ X.X PROHIBITION AGAINST USE OF GASOLINE POWERED LANDSCAPE EQUIPMENT.

(A) Effective January 1, 2023, the use or operation of any Gasoline Powered Landscape Equipment for personal, non-commercial purposes by any resident of the City is expressly prohibited, except as provided in Section X.

(B) Effective January 1, 2025, the use or operation of any Gasoline Powered Landscape Equipment for commercial purposes by any Landscape Maintenance Business is expressly prohibited, except as provided in Section X.

§ X.X USE OF LANDSCAPE EQUIPMENT GENERALLY.

(A) Subject to the restrictions of Section X, the use of Landscape Equipment is otherwise permitted within City limits as follows:

(1) No Landscape Equipment shall be operated except between the hours of eight o'clock (8:00) a.m. and six o'clock (6:00) p.m. on weekdays, and between the hours of nine o'clock (9:00) a.m. and four o'clock (4:00) p.m. on weekends and holidays.

- (2) Except for emergency use by the City or its employees, agents, or contractors, the use of Landscape Equipment within City limits shall not extend into the public right-of-way, including streets, sidewalks, and planting strips, in order to maintain safe and healthy thoroughfares for pedestrians and cyclists and to promote active transportation in the City.
- (3) Persons operating Landscape Equipment shall not deposit dirt, dust, leaves, grass clippings, trimmings, solid waste, or debris onto a neighboring property or into streets, gutters, or storm drains.

§ X.X SCOPE AND LIMITATIONS OF CHAPTER.

(A) This chapter shall be construed and applied in a manner consistent with all applicable federal and state laws and shall not apply to any of the following:

- (1) A department, agency or contractor of the federal government;
- (2) A department, agency or contractor of the State of California; and/or
- (3) A local public entity, including the City or its contractor.

(B) This chapter does not apply to the use of chainsaws with blades or blade attachments longer than eighteen (18) inches.

§ X.060 ENFORCEMENT AND PENALTIES.

(A) The City Manager, or his or her designee, has primary responsibility for enforcement of this chapter.

(B) Any person violating any provisions of this chapter shall be guilty of an infraction for each such violation, which infractions are punishable pursuant to sections [X and Y] of this Code.

SECTION 2. Compliance with CEQA. This Ordinance was assessed in accordance with the authority and criteria contained in the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and the environmental regulations of the City. The Council hereby finds that pursuant to CEQA Guidelines section 15061(b)(3), this Ordinance is exempt from the requirements of CEQA because it can be seen with certainty that the provisions contained herein would not have the potential for causing a significant effect on the environment. Further, and in the alternative, the Council finds that the Ordinance is exempt from the requirements of CEQA pursuant to CEQA Guidelines sections 15307 and 15308 as an action by a regulatory agency taken to protect the environment and natural resources. The Council hereby directs the City Manager, or his/her designee, to prepare and file a Notice of Exemption within five business days following adoption of this Ordinance.