

REPORT TO COUNCIL

SUBJECT

Leaf Blower Study and Findings (Study Issue)

REPORT IN BRIEF

Leaf blowers are commonly used to maintain landscape and hardscape by property owners or maintenance professionals. While they serve as a convenient tool for the quick removal of leaves and debris, they are also a source of air and noise pollution within the City and a minor contributor to climate change. Many communities have taken actions to restrict the use of leaf blowers ranging from banning gas-powered blowers either citywide or in specific areas to specifying allowable operating times or requiring training and certification of operators.

This Study Issue examines local concerns about leaf blower use in Sunnyvale, the current Sunnyvale regulations, a review of actions taken in other communities, available alternatives, and impacts of potential actions.

Many community members have strong opinions about leaf blowers, either in support or opposition of their use. Gas-powered leaf blowers, especially older models, can be particularly noisy and highly polluting on a per-minute basis. Electric leaf blowers on the market today are quieter but have limiting factors including the need to be connected to an outlet, short battery life, and less power compared to gas-powered blowers. Because of these factors, electric leaf blowers are more suitable for light-duty conditions (residential and smaller areas).

Staff recommends Alternative 1: Direct staff to incorporate public education to Sunnyvale residents and landscape professionals regarding the current Municipal Code restrictions related to leaf blower use and education to leaf blower operators on best practices into the City's environmental education efforts as allowed within existing resources and priorities.

This report was considered by the Sustainability and Parks and Recreation Commissions. The order of the alternatives presented has changed and a new alternative (Alternative 4) was added since the Commissions reviewed the report.

The Sustainability Commission considered this issue on March 2, 2015. Commissioners voted 4-2 (Attachment 5) to recommend that the City Council direct staff to prepare an ordinance modifying Chapter 19.42.030 of the Municipal Code to ban all leaf blowers in residential zones and to direct staff to conduct public education as necessary to support the ban (presented in this report as Alternative 3). The Commission's motion further specified that the ban should be phased-in over 18 months with public education to start immediately to support the ban.

The Parks and Recreation Commission considered this issue on March 11, 2015. Commissioners voted 4-1 (Attachment 6) to recommend the staff recommendation that the City Council direct staff to

incorporate public education to Sunnyvale residents and landscape professionals regarding the current Municipal Code restrictions related to leaf blower use and education to leaf blower operators on best practices into the City's environmental education efforts as allowed within existing resources and priorities (presented in this report as Alternative 1).

BACKGROUND

Study Issue ESD 14-01 (Attachment 1) was sponsored by the Sustainability Commission. As proposed by the Sustainability Commission, the objective of the Study Issue was to "examine banning two-cycle gas-powered leaf blowers in the City because, although they are popular among landscape management businesses and professionals, these gas-powered blowers are a major source of both air and noise pollution in Sunnyvale." ESD 14-01 was prioritized by the City Council during the February 7, 2014 Council Study and Budget Issues Workshop. At that time, Council amended Study Issue 14-01 to "clarify that, in addition to or as an alternative to banning, restrictions on use by hour or by zoning could be considered; in addition to gas-powered, electric could be considered; staff could return with alternatives that vary from no ban and restrictions on gas-powered use by certain zonings or times to, on the other extreme, actual bans and present some alternatives after we've looked at that and gotten some public input from the businesses affected."

Leaf Blowers

Invented in the early 1970s, the leaf blower is now a widely used garden and landscape maintenance tool. It is considered an efficient alternative to rakes and brooms, and preferable to the use of a hose or pressured water, particularly in water-scarce regions of the country. Leaf blowers are handheld, backpack-mounted, or walk-behind motorized devices capable of directing air in excess of 200 mph. The gasoline-powered two-cycle engine is the most popular type, with four-cycle engine, plug-in electric, and battery powered blowers becoming more common in recent years.

Gas-powered models are generally more powerful than electric leaf blowers but emit exhaust fumes that contribute to ozone levels, climate change, and possible health hazards. Four-cycle engine models have a lower power-to-weight ratio and are considered less harmful; however, they are more expensive. Corded electric models must be tethered to an outlet. Cordless electric models are less powerful and require batteries to be recharged. Electric models are quieter than gas, although low-noise options are available for both gas and electric. Unlike electric models, gas models require fueling and regular maintenance. All leaf blowers generate dust, including stirring up harmful fine particles.

EXISTING POLICY

Sunnyvale Municipal Code, Title 19 Zoning, Section 19.42 Operating Standards

- *Section 19.42.030 (d)* A "leaf blower" is a small, combustion engine-powered device used for property or landscape maintenance that can be hand-held or carried on the operator's back and which operates by propelling air under pressure through a cylindrical tube. It is unlawful for any person to operate a leaf blower on private property in or adjacent to a residential area except between the hours of 8:00 a.m. and 8:00 p.m. Effective January 1, 2000, all leaf blowers operated in or adjacent to a residential area shall operate at or below a noise level of sixty-five dBA at a distance of fifty feet, as determined by a test conducted by the American National Standards Institute or an equivalent. The dBA rating shall be prominently displayed on the leaf blower.

General Plan, Chapter 6: Safety and Noise

- ***Goal SN-9:*** Acceptable limits for community noise -- Maintain or achieve acceptable limits for

the levels of noise generated by land use operations and single-events.

- Policy SN-9.1 Regulate land use operation noise.
- Policy SN-9.3 Apply conditions to discretionary land use permits which limit hours of operation, hours of delivery and other factors which affect noise.

General Plan, Chapter 7: Environmental Management

- Goal EM-11: Improved air quality -- Improve Sunnyvale's air quality and reduce the exposure of its citizens to air pollutants.
- Policy EM-11.1 The City should actively participate in regional air quality planning.

Climate Action Plan, Off-Road Equipment (OR) - Goal to minimize emissions from lawn and garden and construction equipment.

- OR-1.1 Partner with the BAAQMD (Bay Area Air Quality Management District) to re-establish a voluntary exchange program for residential electric lawnmowers and backpack-style leaf blowers.

ENVIRONMENTAL REVIEW

Environmental review is not required under the California Environmental Quality Act (CEQA) because this is a study for possible future actions. (CEQA Guideline 15262).

DISCUSSION

Concerns Relative to Leaf Blowers

There are four main concerns relating to leaf blower impacts on the environment and community: local air pollution, particulate matter, greenhouse gas emissions, and high noise levels. The environmental impacts are well defined by research and are generally small in comparison to other sources of pollution. A literature review by the California Air Resource Board (CARB) in 2000 found that "potential health effects from exhaust emissions, fugitive dust, and noise range from mild to serious," but the report did not "conclusively determine the health impacts from leaf blowers." The possible impacts vary with leaf blower type. While only combustion engine (i.e. gasoline) blowers emit greenhouse gases and toxic fumes, all leaf blowers re-suspend and generate dust particles and noise.

Local Air Pollution

The two-cycle engines commonly found in leaf blowers are inexpensive but inefficient and highly polluting when in use. The simple design requires lubricating oil to be mixed with the fuel, and approximately 30% of the fuel undergoes incomplete combustion. Four-cycle engines are cleaner, but still lack exhaust controls found in vehicles. According to the CARB report, this causes gasoline-powered leaf blowers to be small, but real contributors to local air pollution, including ozone. Exhaust emissions from leaf blower engines, while high compared to on-road mobile sources on a per engine basis, are a small part of the overall emission inventory.

Small off-road engines, including those found in leaf blowers, have been regulated by the EPA and CARB since 1995, with increasingly stringent standards imposed in 2005 and 2008. As a result, newer leaf blowers produce fewer emissions compared to older units. Still, studies show that gas-powered leaf blowers continue to be much dirtier than modern vehicles on a per-minute basis. Comparing a late model two-cycle leaf blower with a late model ultra-low emissions vehicle, the leaf blower emitted 299 times more hydrocarbons, 23 times more carbon monoxide, and twice as much

oxides of nitrogen.

Table 1. Comparison of Engine Emissions

Source	Engine		Emissions (grams/hr)		
	Type	Year	NMHC	CO	NOx
CARB	Pre-catalytic vehicle	1975	201.9	1310	--
CARB	Light duty vehicle	2000	0.4	16.0	--
Edmunds	Low emissions vehicle	2012	1.0	11.5	0.6
Edmunds	Ultra low emissions vehicle	2011	0.3	16.6	0.3
CARB	Two-cycle leaf blower	2000	199.3	423.5	--
Edmunds	Two-cycle leaf blower	2011	89.7	386.7	0.6
Edmunds	Four-cycle leaf blower	2011	10.9	222.8	1.9

Particulate Matter

Along with moving leaves, grass, and other debris, leaf blowers contribute to airborne particulate matter (PM), a mix of small particles including acids, organic chemicals, metals, soil, and dust. Overall, CARB estimates that leaf blowers produce between 1% and 5% of statewide PM₁₀ emissions, a small but probably significant contribution.

Particulate matter emissions are heavily influenced by the type of surface being maintained. A study commissioned by the San Joaquin Valley Unified Air Pollution Control District in 2006 evaluated particulate emission rates of gas-powered leaf blowers, electric blowers, rakes, and brooms on various surfaces. The gas blowers, electric blowers, and brooms had similarly high PM emission factors on concrete surfaces, while brooms produced fewer emissions on asphalt, and rakes produced very few emissions on both surface types. All devices produced very few emissions on lawns, but power blowing of packed dirt resulted in high PM levels.

Greenhouse Gas Emissions (GHG)

Gas-powered leaf blowers emit carbon dioxide, a greenhouse gas that contributes to climate change. The Sunnyvale Climate Action Plan (CAP) estimates there are 5,738 gas-powered leaf blowers and 1,564 gas-powered lawn mowers in the City of Sunnyvale. As a long-term tactic, CAP measure OR-1.1 calls for a 50% reduction in gas blowers and mowers through a voluntarily exchange program offered in partnership with BAAQMD, which would mitigate 100 metric tons of carbon dioxide (MTCO₂) per year, a very small portion of the City's overall 2035 reduction target of 649,120 MTCO₂. Electric and battery-powered leaf blowers do not directly emit GHGs, but their use would indirectly contribute to climate change if the source of electricity is a fossil-fueled power plant. Overall, the 2010 BAAQMD Emissions Inventory found that off-road equipment, including industrial, commercial, and lawn and garden equipment, generates 3.0% of total Bay Area GHG emissions.

Noise

Exposure to leaf blower noise has not been widely studied but is a frequent complaint and the most common reason for restriction at the local level. Most gas-powered leaf blowers sound levels range from 62 to 75 decibels (dB), with an average of 70 dB (measured at 50 ft., according to the American National Standards Institute (ANSI) rating system), though some models have higher sound ratings.

This level is comparable to the sound of a vacuum cleaner. CARB found that the sound produced by gasoline-powered leaf blowers is more intense and higher in frequency compared to the ambient environment, such as an average home sound level of 50 dB, which contributes to their higher level of annoyance. Electric leaf blowers are generally less noisy, although sales of quiet gas-powered blowers (at or under 65 dB by ANSI standard) have increased in recent years. Comparison testing by Consumer Reports (2010 and 2013) found all electric models tested met a 70 dB limit and 45% met a 65 dB limit, while only 30% and 10% of gas blowers met those respective noise limits.

Stormwater Impacts

In addition to the four main concerns discussed above, leaf blower operations can also contribute to stormwater pollution as litter and trash can be blown into public streets along with leaves. This leafy debris and litter can be washed into storm drains and enter local waterways and degrading water quality and threatening wildlife. Additionally, during large storm events, City wastewater crews responded to storm drain flooding caused by the presence of significant amounts of leafy debris in the storm drain catch basins. Blowing of leaves off private property into the public right of way by leaf blower operators can exacerbate this issue.

Current Regulations and Enforcement Approach

Currently, the Sunnyvale Municipal Code restricts the use of leaf blowers in residential areas to between the hours of 8 a.m. and 8 p.m. The Municipal Code also specifies that all leaf blowers operated in or adjacent to a residential area shall operate at or below a noise level of 65 dBA at a distance of 50 feet, as determined by a test conducted by the American National Standards Institute or an equivalent, and that the dBA rating shall be prominently displayed on the leaf blower. This section of the Municipal Code is enforced by Neighborhood Preservation (NP) on a complaint basis.

Leaf blower complaints are normally reported by concerned residents via e-mail or a phone call. The majority of the complaints received by NP are time of use complaints. When responding to complaints, staff will solicit cooperation from a resident or landscape maintenance contractor who may be unaware of how to comply with the provisions of the ordinance. Staff will contact the operator or homeowner to educate him or her about the restrictions. If the complaint is specific to the noise level, which rarely occurs, staff will check the leaf blower to see if it has a sticker indicating its noise (dBA) rating.

Between 2012 and 2014, the NP staff responded to 23 complaints regarding leaf blowers. On average, staff spends about thirty minutes per complaint. With an annual workload of approximately 4,000 cases, complaints regarding leaf blowers are not a significant portion of NP's workload, nor are they among the priority issues which focus on health and safety, illegal construction, zoning violations, and neighborhood blight.

In addition to the complaints reported to NP, the City has also received public comments regarding leaf blowers through the City Council Answer Point and the City's Customer Response Management (CRM) system. Between 2012 and 2014, the City received 17 messages through these channels. These cited a variety of concerns including noise, dust, exhaust emissions, as well as irresponsible and ineffective use of leaf blowers. Eight of the complaints specifically requested a partial or complete ban of leaf blowers.

Actions in Other Communities

Many cities in California and around the country specifically limit leaf blower noise levels and restrict their operation to specific hours and/or days of the week. At least 24 cities in California have ordinances that further preclude the use of leaf blowers including 20 that have banned gasoline-powered blowers and four Southern California communities that disallow the use of any leaf blower, whether gas or electric. These are primarily smaller communities such as Del Mar, Hermosa Beach, and Laguna Beach, as well as Santa Monica, a mid-sized city.

Three cities in Santa Clara County specifically prohibit the use of gas-powered leaf blowers. Since 2005, Palo Alto has banned gas blowers in residential zones. The City permits electric blowers in residential zones and gas and electric blowers in non-residential zones. Gas-powered leaf blowers have been banned throughout the City of Los Altos since 1991, and Los Gatos implemented a City-wide ban on gas-powered blowers effective July 1, 2014.

Effectiveness of bans varies based on the enforcement approach and priorities set by the governing body. Typical enforcement of leaf blower bans are complaint based and are generally handled as a low priority item, unless otherwise set by the City Council (i.e., Santa Monica). Los Gatos took a “soft enforcement” approach for its ban from July 1, 2014 to January 1, 2015. Beginning January 1, 2015, Los Gatos Code Compliance staff may issue citations for violations to bring the community, gardeners, and property owners into compliance. A challenge identified by Palo Alto, where only electric leaf blowers are allowed in residential zones, is that some gardeners use gas-powered generators to power an electric leaf blower. While this practice is technically compliant with the Palo Alto ordinance, it does not have the intended effect, which is to reduce noise or emissions released.

Gas-powered Leaf Blower Alternatives

Electric leaf blowers are a readily available alternative to light to medium duty gas-powered leaf blowers. According to Consumer Reports, the performance of corded, electric leaf blowers, which are quieter and less polluting than gas-powered blowers, are improving and these can be good alternatives for small properties. However, corded electric blowers require access to an electrical outlet and long, trailing cords must be managed for safety purposes. The typical battery life of cordless leaf blowers is 45 to 60 minutes, and they typically have less powerful motors. These factors limit the applicability of electric leaf blowers in heavy-duty applications and when maintaining large areas.

Manual clearing and collection of leaves using brooms and rakes is more time and labor intensive, and may not be viable for some homeowners due to advanced age or physical disability, or for those maintaining large commercial or public areas. Another common past practice of clearing leaves and debris includes washing with a hose and water. This alternative would be more efficient than sweeping, but comes with other environmental concerns including use of scarce water resources (especially during times of drought) and contribution to stormwater pollution as street pollutants are washed into local waterways.

Impacts to City Operations

Another consideration is the applicability of any action to City operations. The City’s landscape maintenance programs maintain approximately 764 acres of open space, including 52 acres of hardscape (pathways, patios, and parking lots). Blowers are primarily used to clean hardscape and collect vegetative debris from turf. Public Works currently has approximately 40 handheld or backpack gas-powered leaf blowers that are used regularly. The City does not own any electric leaf blowers.

Estimates vary as to the time required to maintain a landscape with leaf blowers in comparison to electric blowers or manual equipment such as rakes and brooms. Results differ according to geography, time of year, and surfaces cleaned. An anecdotal study performed by the City of San Mateo suggests manual upkeep requires nearly twice as long as maintenance with gas-powered blowers. Since transitioning away from gas blowers in City operations, Palo Alto's parks maintenance contractor, which switched to mostly electric blowers plugged into gas-powered generators, found that the alternative equipment takes slightly longer and resulted in a slight increase in contract costs to account for the additional time and equipment needed to comply. Palo Alto parks staff maintain other public facilities primarily with electric blowers plugged into gas-powered generators, with limited supplemental use of push-behind blowers and battery powered blowers, and very infrequent use of gas blowers (allowed by an exemption permit). Palo Alto staff notes challenges including higher frequency of electric blower burnout, frustrated park visitors, and reduced time available for other maintenance tasks due to increased duration of blower use, increased risk of injury due to lifting generators, and extension cords that pose a tripping hazard to staff and park visitors.

Possible Actions

There is a range of possible actions the City could take in response to the environmental and community concerns regarding leaf blower use in Sunnyvale. Four actions are described below, starting with the least costly and least impactful to the most costly and most impactful.

Additional Education of Existing Regulations

This alternative includes broader education of residents, business, and leaf blower operators of the existing Municipal Code requirements with an emphasis on the proper times for operations and the current noise requirements. Education targeting leaf blower operators could also include information on best practices to address inappropriate use and blowing of leaves into the public right-of-way. Some communities have instituted training and certification programs for leaf blower operators. This may address some of the noise concerns as it would inform the community about proper operating hours for leaf blowers and could alleviate some of the dust and other operating concerns by educating operators on best practices. This could be done as a special education campaign, which would require additional resources, or a smaller scale effort integrated into existing outreach efforts.

Separate from any additional education efforts, City staff is preparing to implement a small scale rebate type incentive program to encourage homeowners and landscape professionals to exchange gas-powered leaf blowers for new electric models. The modest budget of \$2,500 for this effort comes from the settlement of a 2012 air quality violation for the Water Pollution Control Plant. This incentive program would be offered on a first-come, first-served basis and could result in the exchange of up to 50 gas-powered leaf blowers. It could potentially address some of the environmental and noise concerns.

Institute Additional Time of Use Restrictions

This alternative could address some of the noise concerns by codifying further restrictions to allowable times for leaf blower operations in residential zones, and/or expanding time restrictions to apply to additional zoning districts. Many cities ban leaf blowers on public holidays and further limit the hours of use on Saturday and Sunday. Opportunities may exist to align time-of-use restrictions with the policies of nearby cities which may improve adherence by professional landscapers. City resources would be needed to educate the community about new time of use restrictions. As with other ordinance options, this could be enforced on a complaint basis as part of NP's regular code

enforcement responsibilities with no additional resources needed to pursue compliance.

Ban gas-powered leaf blowers in residential zones only

This alternative would allow only the use of electric blowers in residential zones and continue to allow use of gas or electric leaf blowers in other areas of the City including City properties. It would address some of the environmental and noise concerns associated with gas-powered leaf blowers. This would allow for the use of electric leaf blowers in its most suitable application (i.e., smaller properties). With no comparably efficient and effective alternative among electric blowers, there would still be significant impacts on landscape professionals who primarily contract with homeowners. City resources would be needed to educate the community about the ban. This could be enforced on a compliant basis as part of NP's regular code enforcement responsibilities with no additional resources needed to pursue compliance.

Ban all leaf blowers citywide

This would result in eliminating the use of any leaf blower, gas or electric, citywide. While this action would address almost all of the environmental and noise concerns, it would be severely limiting for some homeowners who may be physically unable to manually manage leaves or have large areas, as well as for large, commercial and public properties. Additionally, this alternative would significantly impact landscape professionals working in Sunnyvale. Eliminating the use of blowers on City maintained properties, including parks, would significantly impact City resources and staff's ability to meet established service levels. City resources would be needed to educate the community about the ban. This could be enforced on a compliant basis as part of NP's regular code enforcement responsibilities with no additional resources needed to pursue compliance.

FISCAL IMPACT

Depending on the potential action taken to address leaf blowers, the fiscal impact could range from modest to significant.

Proactive public education and implementation of the planned small-scale incentive program (Alternative 1) could be conducted with a modest cost impact. As discussed earlier in this report, \$2,500 is available from the 2012 air quality violation at the Water Pollution Control Plant to implement the small-scale incentive program. Additional outreach to residents, businesses, and landscape professionals would be integrated into other outreach efforts as priorities allow.

For implementing operating time restrictions on blower use (Alternative 2) in addition to those already in place, the estimated costs are approximately \$30,000 to draft the ordinance and conduct public education about the changes to Sunnyvale residents, businesses, and landscape professionals who work in Sunnyvale. This cost estimate includes \$10,000 for up to 200 contract staff hours for drafting of the ordinance and to conduct the community education in preparation for implementation. Additionally, up to \$20,000 is allocated for direct outreach costs including utility bill inserts, advertisements in the Sunnyvale Sun, and direct mail letters to Sunnyvale businesses and landscape professionals with a Sunnyvale business license. Enforcement would be conducted on a complaint basis and integrated into existing code enforcement resources. The source of funding for the additional costs would be the City's General Fund.

To implement a zone specific ban of gas or all leaf blowers (Alternative 3 proposes a ban in residential zones) the costs would essentially be the same as the costs to implement new operating time restrictions and are approximately \$30,000. This cost estimate includes \$10,000 for up to 200 contract staff hours for drafting of the ordinance and to conduct the community education in

preparation for implementation. Additionally, up to \$20,000 is allocated for direct outreach costs including utility bill inserts, advertisements in the Sunnyvale Sun, and direct mail letters to Sunnyvale businesses and landscape professionals with a Sunnyvale business license. Enforcement would be conducted on a complaint basis and integrated into existing code enforcement resources. The source of funding for the additional costs would be the City's General Fund.

Additionally, if a ban is applied citywide and includes City operations (Alternative 4), estimated costs would be \$30,000 as described for Alternative 3 in addition to additional City operating costs. Although staff has not completed thorough cost comparison studies, based on experience, staff believes it would have a significant impact to operations, either fiscally to maintain service levels or by lowered service levels. As noted, electric leaf blowers increase labor costs because they are not as powerful as gas-powered and therefore take longer to move material, battery operated blowers have limited run times, and corded electric blowers take longer due to cord movement and associated use of generators. Using manual tools, while maintaining the same level of service, would also cause significant labor cost increases. If a ban on gas-powered leaf blowers were applied to City operations, staff estimates (following the Palo Alto model of using generators) that it would require \$25,000 in one-time equipment replacement costs and an additional \$170,000-\$200,000 in annual operating costs due to the increased labor required to maintain hardscape, turf, and landscaped areas to existing service levels with electric leaf blowers. It is estimated that the current labor cost will approximately double our current costs to account for moving the generators around the park, using extension cords, and additional equipment maintenance. If no generators are used with electric blowers, staff estimates an additional annual operating cost of \$300,000 which is based on additional staff time required to account for battery powered blowers which are weaker and require additional time spent at each location to achieve the same level of service. If the work is performed manually, staff estimates an additional annual operating cost of \$600,000. The City has 52 acres of hardscape that where it currently uses leaf blowers, and it is hard to estimate how much it would cost to achieve the same level of service manually. However the \$600,000 represents an increase of approximately four times the current operating costs. Under all scenarios, staff would anticipate the funds will need to be use to add additional staff to perform the function if the same level of service is expected. The source of funding for these additional costs would be the City's General Fund. Over a twenty year period, the financial impact of a ban could range from \$4.5 million to over \$15 million. If a ban on leaf blowers were applied to City operations, staff would return to the City Council with more detailed cost estimates and evaluation of impacts to current service levels.

PUBLIC CONTACT

In addition to reviewing records of complaints received by the City, staff conducted two community meetings to gather resident and business feedback on leaf blowers and possible actions. These meetings were held on January 7 and January 8, 2015. Notices about the meeting were sent and advertised through the following channels:

- E-mail to Sunnyvale neighborhood associations groups, Sunnyvale Cool, Sunnyvale Garden Club, and other interested residents;
- Posting of meeting notices at the Sunnyvale Community Center, Library, and Lowes;
- E-mails and phone calls to industry groups including Santa Clara County Green Gardeners, the Bay Area Chapter of the California Landscape Contractors Association, and the Bay Area Gardeners Association;
- E-mails to landscape related businesses and Economic Development newsletter
- City's website

Additionally, there was media coverage promoting the community meetings by the San Jose Mercury News and KCBS radio.

The community was also encouraged to send comments via email or to contact staff directly. A summary of the comments received at the community meetings is provided in Attachment 2 and a summary of the comments received by staff is provided in Attachment 3. Almost 40 individuals attended the meetings, mostly Sunnyvale residents including several representing businesses and one landscape professional. Overall, the majority of the residents expressed concerns and frustrations related to the noise of leaf blowers used in their neighborhoods, often citing noise disturbance impacts throughout the day. In several instances, this is compounded for residents living in higher density areas such as townhomes and apartments. Dust from leaf blower use was also commonly cited as a concern among residents, especially during walks or while biking. While most of the residents supported a ban on gas-powered blowers or all blowers, a small group of attendees supported leaf blowers, expressing concerns and limitations with electric or battery powered leaf blowers or manual removal of leaves.

While staff attempted to reach out to professional landscapers and businesses to gather feedback on leaf blowers, response was limited. Property management companies expressed concerns about the lack of comparable alternatives for maintaining large areas and that electric leaf blowers are less effective than gas-powered blowers. Anecdotally, a professional landscaper shared his experience with using both gas-powered and electric blowers and stated that when using an electric blower it takes more time to maintain the same amount of area compared to using a gas-powered blower and that the battery used in a cordless electric blower is expensive and has a short battery life (in this case less than 30 minutes). Additionally, this landscaper shared concerns that any restrictions on gas-powered leaf blowers would result in added labor to complete service for his customers. While the increased labor cost could be passed onto the customer, it could also result in loss of customers and lowering the total number of customers that could be served on a daily basis.

Public contact for this report was made through posting of the City Council agenda on the City's official-notice bulletin board, on the City's website, and the availability of the agenda and report in the Office of the City Clerk. Information was also sent to community members that attended the community meetings or provided comments directly to staff.

Attachment 4 includes information provided by Julia Miller, former Sunnyvale Mayor, related to leaf blower restrictions considered during her tenure on the City Council. This information was provided to the Sustainability Commission at its March 2, 2015 meeting and asked to be shared with the Parks and Recreation Commission and City Council.

ALTERNATIVES

1. Direct staff to incorporate public education to Sunnyvale residents and landscape professionals regarding the current Municipal Code restrictions related to leaf blower use and education to leaf blower operators on best practices into the City's environmental education efforts as allowed within existing resources and priorities.
2. Direct staff to prepare an ordinance modifying Chapter 19.42.030 of the Municipal Code to amend the allowable operating times for leaf blowers and appropriate \$30,000 from the General

Fund Budget Stabilization Fund to implement.

3. Direct staff to prepare an ordinance modifying Chapter 19.42.030 of the Municipal Code to ban gas-powered leaf blowers or all leaf blowers in residential zones and appropriate \$30,000 from the General Fund Budget Stabilization Fund to implement.
4. Direct staff to prepare an ordinance modifying Chapter 19.42.030 of the Municipal Code to ban gas-powered leaf blowers or all leaf blowers citywide, appropriate \$30,000 from the General Fund Budget Stabilization Fund to implement, and direct staff to return to the City Council with a more detailed cost estimate for impacts to City operations (estimated to be as much as \$600,000).
5. Do not pursue any action on leaf blowers at this time.
6. Other actions as identified by the City Council.

STAFF RECOMMENDATION

Alternative 1: Direct staff to incorporate public education to Sunnyvale residents and landscape professionals regarding the current Municipal Code restrictions related to leaf blower use and education to leaf blower operators on best practices into the City's environmental education efforts as allowed within existing resources and priorities.

Given the limitations of electric leaf blowers, including the lack of comparable heavy-duty electric alternatives, staff is recommending that additional education about existing Municipal Code requirements and best practices be incorporated into the City's environmental education efforts as allowed within existing resources and priorities. This could address some of the most common noise and dust concerns expressed by the community. Staff will leverage the upcoming small scale incentive program for gas-powered leaf blower exchange to provide outreach on existing requirements and best practices.

Additionally, staff may be better positioned in the future to act on this issue. The adopted Climate Action Plan includes activity scheduled for the longer term, with nominal targets for greenhouse gas reduction compared to the overall targets. It is possible that the performance of electric leaf blowers will continue to improve over time. Staff will also remain alert to grant or partnership opportunities to enhance outreach and incentive efforts.

COMMISSION RECOMMENDATIONS

This report was considered by the Sustainability and Parks and Recreation Commissions. The order of the alternatives presented has changed and a new alternative (Alternative 4) was added since the Commissions reviewed the report.

The Sustainability Commission considered this issue on March 2, 2015. Commissioners voted 4-2 (Attachment 5) to recommend that the City Council direct staff to prepare an ordinance modifying Chapter 19.42.030 of the Municipal Code to ban all leaf blowers in residential zones and to direct staff to conduct public education necessary to support the ban (presented in this report as Alternative 3). The Commission's motion further specified that the ban should be phased-in over 18 months with public education to start immediately to support the ban.

The Parks and Recreation considered this issue on March 11, 2015. Commissioners voted 4-1

(Attachment 6) to recommend the staff recommendation that the City Council direct staff to incorporate public education to Sunnyvale residents and landscape professionals regarding the current Municipal Code restrictions related to leaf blower use and education to leaf blower operators on best practices into the City's environmental education efforts as allowed within existing resources and priorities (presented in this report as Alternative 1).

Prepared by: Melody Tovar, Regulatory Programs Division Manager

Reviewed by: John Stufflebean, Director, Environmental Services

Reviewed by: Manuel Pineda, Director, Public Works

Reviewed by: Grace K. Leung, Director, Finance

Reviewed by: Robert A. Walker, Assistant City Manager

Approved by: Deanna J. Santana, City Manager

ATTACHMENTS

1. Study Issue ESD 14-01
2. Summary of Community Meeting Feedback
3. Summary Community Feedback Received by Staff
4. Information Provided by Member of the Public
5. Draft Minutes of the Sustainability Commission Meeting of March 2, 2015
6. Draft Minutes of the Parks and Recreation Commission Meeting of March 11, 2015