



AGENDA MEMORANDUM

City Manager

Regular Meeting Date: October 7, 2020

To: City Council
From: Dana A. Souza, Deputy City Manager
Date: September 7, 2019

Legislative Quasi-Judicial

SUBJECT:

Public Hearing and First Reading of an Ordinance amending Chapter 22 – Environment, Article II – Nuisances, Section 37 (a) Definitions, (c) Specific noise prohibitions.

SUMMARY:

City Council is asked to consider an Ordinance to amend Chapter 22- Environment, Article II – Nuisances, Section 37 (a) Definitions, (c) Specific noise prohibitions that would prohibit the use of certain leaf blowers within the City's corporate limits.

City Council is provided with three options for amending the Ordinance.

First, City Council may consider prohibiting all gasoline powered leaf blowers and, battery and electric powered leaf blowers that exceed 65 dBA as shown on the manufacturers label affixed to the leaf blower. This option would allow contractors and residents to use only those battery and electric powered leaf blowers that have a dBA rating of 65 or less.

Second, City Council may consider prohibiting all leaf blowers that exceed 65 dBA as shown on the manufacturers label affixed to the leaf blower. This option would allow contractors and residents to use only those leaf blowers that have a dBA rating of 65 or less regardless of their power type.

Finally, City Council may give staff direction for an Ordinance amendment different from what has been proposed. If this option is preferred, staff will prepare a revised Ordinance, based upon City Council direction, for discussion at the October 21, 2020 Regular City Council meeting.

BACKGROUND:

During Public Comment at the May 13, 2019, City Council Workshop, Mr. James Streicher, representing the Old Naples Association (ONA), presented a petition to City Council requesting relief from noise generated by the use of lawn (leaf, debris, etc.) blowers in the ONA area. More specifically, the petition, which included 198 electronic signatures, requested the City consider requiring contractors to use lawn blowers that do not exceed 65 decibels dBA.

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During City Council discussion, former City Councilor Reg Buxton asked that the City review options that would prohibit the use of gasoline-powered lawn blowers in the City. City Council agreed to schedule a Workshop discussion at a future date to consider ONA's petition and Councilor Buxton's suggestion. The City Council workshop was held on December 16, 2019.

At the December 16, 2019 City Council workshop, Council directed staff to present a text amendment that would include a 1-year lead time for landscapers to comply with equipment and decibel requirements, schedule discussions with landscape industry concerning the Ordinance amendment, and analyze enforcement issues for the Ordinance amendment. At the December 2019 workshop, staff included an option where properties exceeding one acre in size would be exempt from any Ordinance prohibiting gas powered leaf blowers. After consideration of enforcement issues, staff has not included that exemption in the current Ordinance options. This may create a hardship for contractors or property managers who maintain large properties (i.e., golf courses, parks, airport, etc.).

As previously directed, Ordinance options 1 and 2, provided for City Council consideration, propose an effective date that is one year from the date City Council approves an Ordinance at second reading.

Staff conducted an on-line survey to obtain feedback from the landscape contractors and residents. Public meetings were not held due to the COVID-19 public health emergency. Staff has considered Code Enforcement issues related to each Ordinance option.

Naples Noise Ordinance

Noise is regulated under Chapter 22 – Environment, Article II – Nuisances, Section 37 Noise, of the City's Code of Ordinances. As the Ordinance does not provide any specific regulation of leaf blower noise, regulation falls under the 'General prohibitions.

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| <p>(b) <i>General prohibitions.</i></p> <ul style="list-style-type: none">(1) It shall be unlawful and prohibited for any person to make, continue, or cause to be made or continued any noise, as defined in this section, or to create any noise disturbance within the limits of the city.(2) It shall be unlawful and prohibited for any person owning or in possession of any building or premises to use, allow the use, or rent the same for any business or residential use, or for any purpose of pleasure or recreation if such use makes, continues, or causes to be made or continued, any noise, as defined in this section, within the limits of the city. |
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Noise is defined as:

Noise, or noise disturbance, means any sound that:

- (1) Exceeds the maximum permitted sound levels set out in Table 1 of this section; or
- (2) Is loud and raucous so as to unreasonably disturb, injure or endanger the comfort, repose, health, peace, tranquility or safety of reasonable persons of ordinary sensibilities;
- (3) Constitutes a breach of the peace or a public nuisance;
- (4) Is plainly audible at a distance of 25 feet or more from the property line;
- (5) With respect to vehicles and vessels, is plainly audible at a distance of 25 feet from the noise source.

The Ordinance also regulates noise of various 'octave band levels':

- (e) *Octave band levels*. In addition to the noise limitations listed in this section, for any source or sound that can be detected on a receiving property, when measured at the nearest point of the property line of the receiving property, the maximum allowable sound level limit for the individual octave bands shall comply with Table 1. In no case shall the noise level on the premises of any other occupied property measured at a point on the nearest adjacent property line closest to the noise source, or if a condominium, apartment house, duplex, or attached business, within any adjoining unit, exceed the ambient noise level by more than five decibels.

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Table 1

Octave Band Center Frequency (in Hertz.)	Residential Site or Unit*		Non Residential Site or Unit*		Manufacturing, Industrial, or Agricultural Site or Unit*
	Day 7 a.m.— 10 p.m.	Night 10 p.m.— 7 a.m.	Day 7 a.m.— 10 p.m.	Night 10 p.m.— 7 a.m.	
31.5	69	64	74	69	79
63	69	64	74	69	79
125	66	61	71	66	76
250	62	57	67	62	72
500	58	53	63	58	68
1,000	53	48	58	53	63
2,000	49	44	54	49	59
4,000	46	41	51	46	56
8,000	42	37	47	42	52
DBA	60	55	65	60	70

The Ordinance provides both simple and complex definitions and measurement of noise. The use of leaf blowers in the City continues to be a source of complaints from some residents as evident through the petition from the ONA.

Leaf blowers are used liberally by landscape professionals, homeowners, and other trades workers throughout the City. The City’s Code Enforcement Division receives few formal complaints concerning leaf blower use. When a complaint is received, more often than not, the individual using the leaf blower has stopped using the machine by the time a Code Enforcement Officer arrives at the scene. If a Code Enforcement Officer does arrive while someone is using a leaf blower, the Code Officer will check the leaf blower for proper operation to include mufflers, excessive exhaust emission, fluid leaks, etc. If the machine does not have any mechanical problems, there is nothing the Code Officer do.

The Community Services Department receives periodic complaints about the use of leaf blowers in City parks by staff and contractors.

Old Naples Association Request for Neighborhood Specific Ordinance

In their petition, the ONA requested that City Council approve an Ordinance (or similar directive) to prohibit commercial landscapers from operating leaf blowers that exceed 65 decibels only in the ONA Neighborhood. The boundaries of the ONA are shown below.



The City Attorney met with Mr. Streicher (ONA representative) and staff to discuss the ONA's neighborhood-specific request. The City Attorney explained that any amendment to the City's Noise Ordinance to prohibit leaf blowers only would need to apply to the entire City. A copy of the ONA petition is included in the agenda packet.

Measurement of Leaf Blower Noise

The American National Standards Institute (ANSI) is a private, not-for-profit organization dedicated to supporting the U.S. voluntary standards and conformity assessment system and strengthening its impact, both domestically and internationally (*source: ANSI website*).

ANSI has issued ANSI B175.2-2000 (R2005) for the testing of Hand-Held and Backpack, Gasoline-Engine-Powered Blowers. The testing of leaf blowers is complex as explained in the ANSI testing standard for leaf blowers. The decibel level of leaf blowers is measured at a distance of 50' from the source. This measurement is used by leaf blower manufacturers when marketing their equipment to potential buyers. A copy of this standard is included in the agenda item packet.

Based upon their testing, ANSI rates blowers in the following categories:

- Category 1: Leaf Blowers that are rated at 65dba or lower
- Category 2: Leaf Blowers that are rated between 65dBa to 70dBa's
- Category 3: Leaf Blowers that are rated at 70dBa and above

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ANSI B175.2-2000 (R2005) requires leaf blower manufacturers to include a label that identifies which Category and therefore the decibel rating for each leaf blower sold in the United States.

In December 2018, Washington DC (DC) approved legislation that will ban the sale and use of gas-powered blowers in the City effective January 1, 2022 (3-year phase-in). An article titled, "Get Off My Lawn" appeared in the Atlantic Magazine in April 2019 and discusses leaf blower noise and the DC ban. A copy of this article is included in the agenda packet.

A Technical Note titled "Leaf Blower Noise" was developed for the DC discussion. The study measured 7-commonly used leaf blowers. Three (3) were gas-powered and 4 were battery powered. This technical note concludes with a finding that gas-powered blowers created a lower frequency noise than battery blowers and that this low-frequency noise transmitted into residential properties more easily than the noise generated by battery blowers. The Technical Note is included in the agenda packet and the conclusions are inserted below.

5 Conclusions

Based on our measurements we conclude the following key points from our review of the results:

- The gas powered leaf blowers tested all generated more low frequency noise than the battery powered leaf blowers tested
- The low frequency noise of the gas leaf blowers transmitted over greater distances and was more readily audible over the longer 400 and 800 foot measurement distances
- The low frequency noise of the gas leaf blowers transmitted into a residential house more easily and were louder inside than the battery leaf blowers tested

Source: Chris Pollock, PE, Arup, 2018

While the DC study and eventual legislation concluded that battery-powered blowers produced less noise than gas-powered blowers, not all battery-powered or corded electrical blowers are rated with a 65 dBA sound rating (or lower) as requested by the ONA petition.

Emissions

Some cities and towns have prohibited gas-powered leaf blowers due to concerns with emissions generated from 2-stroke engines (operates on a mix of gasoline and oil). These communities either allow battery and electric-powered blowers or ban all leaf blowers regardless of the power type.

The United States Environmental Protection Agency (EPA) conducted a study in 2015 titled "National Emissions from Lawn and Garden Equipment" to study emissions from lawn and garden equipment. The study concludes that lawn and garden equipment do generate emissions and increased educational campaigns should be used to increase public awareness about generated emissions. The study is included in the agenda packet.

There are multiple articles available that discuss the concerns of emissions generated by 2-stroke engines that are used broadly throughout communities. Two articles are provided in the agenda packet. The first is from Washington University in St. Louis which discusses concerns

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with 2-stroke lawn equipment. The second article is from the Sierra Club titled “Lifestyle Eco-Actions: Gas-Powered Leaf Blowers” which speaks more specifically to the concerns of using gas-powered leaf blowers.

Additionally, staff has provided a scientific paper titled “Less Noise, No Fumes – Testing Cordless Leaf Blowers” for informational purposes.

Town of Palm Beach, Florida Leaf Blower Regulation

There are many cities and towns in the United States that regulate or prohibit leaf blowers. Examples of Washington DC and Burlingame, CA restrictions and prohibitions were provided in the previous section of this memorandum. The Town of Palm Beach, FL is a community that has been previously discussed with City Council as it is a Florida community that has effectively restricted the use of leaf blowers to address the concerns raised by residents.

First, Palm Beach provides a specific definition for leaf blowers and prohibits the use of gas-powered leaf blowers on any property within the Town that is less than one acre in size. This means only battery or electric-powered leaf blowers can be used on parcels under 1-acre in size whether residential, commercial, or public in use.

(12) *Gasoline powered leaf blowers.*

- (a) **Definition.** Leaf blowers shall mean any air blowing machine that uses a concentrated stream of air to push, propel or blow dirt, dust, leaves, grass clippings, trimmings, cuttings, refuse or debris.
- (b) **The use of gasoline powered leaf blowers is prohibited on any property within the town which is less than one acre in size. This prohibition shall be effective as of October 1, 2017.**

Second, Palm Beach prohibits the use of leaf blowers that exceed 65 decibels measured at 50 feet from the source (ANSI Standard) in any location. This means gas, battery and electric-powered blowers must all be rated at 65 decibels or less to be used within the town.

- (d) **Leaf blowers shall not exceed a decibel level of 65 dBA as measured at 50 feet from the point of operation. It shall be unlawful to blow, sweep or rake yard trash or clippings into the public street or storm drains.**

The Town phased-in compliance over a 6-month period and, the use of blowers as provided in the Town Ordinance applies to commercial operators, Town operations and residents.

Staff has discussed the effectiveness of the Town Ordinances with the Code Enforcement staff in Palm Beach. There is good compliance to the Ordinances now. Once the Town Council approved the Ordinances referenced above, educational information was sent to commercial operators and residents. Friendly enforcement (warnings) were issued after the 6-month phase-in period. Offenders were provided with a one-time warning and their information was entered into the Police CAD system. If a second offense occurred (1st official offense), the fine was \$120. Fines increased for second and third offenses to \$250 and \$400, respectively.

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Public Engagement – On-Line Survey

To obtain public input from residents and contractors, the City conducted an on-line “Leaf Blower Survey” during the month of March 2019. The COVID-19 public health emergency prevented any follow-up public meetings. The survey; however, provided good feedback for this public policy process. The City solicited responses to the survey by sending emails to landscape contractors registered with Collier County and residents through a variety of City electronic databases and communications with the Presidents’ Council.

In total, the survey received 192 responses. Respondents answered most but not all the survey questions. A copy of the full survey is included in the agenda packet.

The survey illustrates that 61 (32%) of the 192 respondents identified as contractors and 131 (68%) respondents identified as residents.

The survey asked respondents if they supported amending the City Ordinance to allow only battery powered leaf blowers that have a decibel rating of 65 dBA or lower, 107 (55.7%) responded yes and 85 (44.27%) responded no.

Landscape Contractor Concerns:

In general, landscape contractors who service properties in Naples do not support prohibiting equipment they use and need to perform their work efficiently and effectively. Landscapers are concerned that prohibiting leaf blowers with a dBA rating over 65 that they currently own, will increase their costs that will be passed along to customers and result in higher fees to manage the same property.

Landscape contractors are also concerned with the option that prohibits the use of gasoline leaf blowers in favor of battery and electric leaf blowers (Option 1). Electric leaf blowers (rated at or below 65 dBA) may be sufficient for homeowners, but they are not a viable option for landscape contractors. Battery powered leaf blowers (rated at or below 65 dBA) have a higher upfront cost than gasoline powered leaf blowers because of the cost of backup batteries. The lifetime costs of battery powered leaf blowers, however, are lower than the lifetime costs of gasoline powered blowers. A representative from Stihl will provided City Council with additional information concerning lifetime costs of leaf blowers. The agenda packet includes information on equipment cost and Stihl battery run times.

The City’s survey asked landscape contractors and residents who own a leaf blower to estimate how much it would cost to purchase compliant equipment (rated at or below 65 dBA). Approximately 16% of the respondents believe their compliant equipment costs would range between \$5,000 and over \$10,000.

As illustrated in the survey results (Question 9), landscape contractors and residents who own a leaf blower favor the longest possible lead time for their companies to purchase equipment that would comply with any Ordinance amendments approved by City Council. The survey results are included in the agenda packet.

Options to Consider:

1. Amend Ordinance to prohibit the use of gasoline-powered leaf blowers within the City *and* restrict the use of electric or battery powered leaf blowers to those that do not exceed 65 dBA.
2. Amend Ordinance to prohibit the use of leaf blowers that exceed 65 dBA. This allows for the use of gasoline, electric or battery powered leaf blowers within the City.
3. Other – As may be recommended by City Council and reschedule first reading for an Ordinance amendment at a future City Council meeting.

Potential Impact of Options

1. Amend Ordinance to prohibit the use of gasoline-powered leaf blowers within the City *and* restrict the use of electric or battery powered leaf blowers to those that do not exceed 65 dBA.
 - Potential Impact - Prohibiting the use of gasoline-powered leaf blowers will require contractors to replace equipment and purchase backup batteries so they may perform their required work within the parameters of a revised Ordinance.
 - This cost could be mitigated by making the effective dated of the Ordinance 1-year from approval at 2nd reading. Assuming landscape contractors replace leaf blowers periodically, contractors can begin the acquisition of battery-powered leaf blowers in advance of an effective Ordinance date.
 - Staff has spoken with a representative of Stihl equipment. Staff was informed that the upfront cost of purchasing battery-powered blowers and batteries is more expensive than gas blowers; however, the life cycle cost of battery-powered blowers is less than gas blowers.
2. Amend Ordinance to prohibit the use of leaf blowers that exceed 65 dBA. This allows for the use of gasoline, electric or battery powered leaf blowers within the City.
 - Potential Impact - Allowing the use of gasoline-powered leaf blowers would not address the concerns of residents who raise concerns over the use of emissions generated by gasoline powered leaf blowers.
 - Potential Impact - Prohibiting the use of gasoline-powered leaf blowers with a decibel rating of 65 decibels or less will require commercial landscape contractors to replace equipment.
 - This cost could be mitigated by making the effective dated of the Ordinance 1-year from approval at 2nd reading. Assuming landscape contractors replace leaf blowers periodically, contractors can begin the acquisition of blowers with a maximum decibel rating of 65 decibels or less in advance of an effective Ordinance date.

Application

City Attorney Jim Fox recommends that any changes recommended by City Council apply city-wide. It would not be feasible to enforce an Ordinance that is specific to the ONA area of the City or any other neighborhood association area.

The Ordinance amendments drafted for consideration would apply to contractors and residents alike.

Code Enforcement

Code Enforcement Manager Karla Gibbs has contributed to the development of the Ordinance options presented to City Council. The following information provides some insight from Code Enforcement.

- (1) Prohibiting gasoline leaf blowers (Option 1) can be easily enforced when Officers observe a gasoline leaf blower in use or when they receive a complaint about a gasoline leaf blower from residents.
- (2) Requiring leaf blowers to have the manufacturers label affixed to the machine allows Officers to check the label for compliance with the Ordinance when complaints are received.
- (3) When responding to complaints about leaf blowers, the equipment user may have left the area or put the equipment away which may complicate enforcement efforts.
- (4) The City will need to create educational information concerning an Ordinance amendment so residents, contractors and property managers can acquire equipment (if needed) that complies with the Ordinance. An example of Saratoga, CA informational brochure is included in the packet. The City of Saratoga

Leaf Blower Labels

Both Option 1 and 2 proposed that leaf blowers used in the City cannot “exceed a decibel level of 65 dBA as shown on the manufacturers label affixed to the leaf blower”. The manufacturers label shows the leaf blower has been tested in accordance with ANSI B175.2 and the decibel rating printed on the label represents the decibels generated 50 feet from the point of operation.

As previously stated, the ANSI B175.2 ratings are:

- Category 1: Leaf Blowers that are rated at 65dba or lower
- Category 2: Leaf Blowers that are rated between 65dBa to 70dBa's
- Category 3: Leaf Blowers that are rated at 70dBa and above

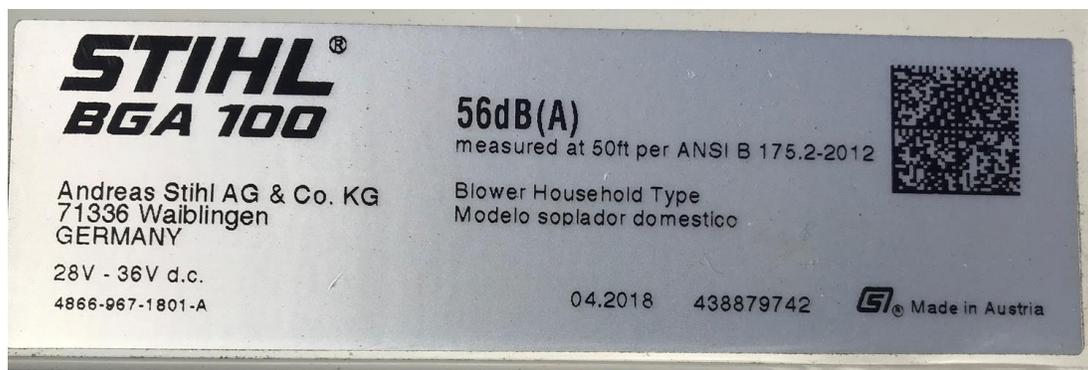
Some labels may only show the decibel category for the leaf blower, only show the decibel rating, while others may show both the dBA rating and the Category. Examples of labels are shown below.

The following statement is from the Echo publication titled “A Training Manual in the Proper Use of Leaf Blowers” which speaks to the effectiveness of noise ordinances that rely on labels to enforce the use of ‘quiet’ leaf blowers.

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“If there must be an ordinance, here’s one that works. Require landscapers and homeowners to use only “Quiet” leaf blowers. What is a “Quiet” blower? It’s one that is at least 70 dB(A) or less according to the ANSI Standard, B-175.2. Sixty-five is better, but really not necessary in most cases since the whine generated by the fan is no longer an issue. This type of ordinance is easy to enforce and therefore complied with voluntarily by landscapers. Why? **Because the manufacturer marks “Quiet” leaf blowers with its sound level per the industry Standard.** This allows the police to simply stop and look at the product at any time convenient to them, in order to catch violators. No need to wait for a complaint. No need to rush across town to catch a violator in the act.”

An example of a leaf blower label, showing the dBA rating of a leaf blower is shown below. Other examples are provided in the agenda packet.



While the ANSI Standard B-175.2 is required for gasoline powered leaf blowers, most manufacturers provide the same label on battery powered leaf blowers such as the Stihl BGA 100 shown above. However, other manufacturers of battery powered leaf blowers do not include a dBA rating on their equipment such as the Greenworks GBB 700 label shown below. Based on the Ordinance options provided for this discussion, the Greenworks leaf blower could not be used within the City limits.



Fines

The Ordinance currently provides for the following fines for violations of the Ordinance:

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“A violation of this section is a non-criminal infraction, and the civil penalty is \$100.00 for the first offense and \$500.00 for each subsequent offense occurring within one year after a finding of violation of the previous offense or a plea of no contest.”

Staff has not recommended any changes to the fines for violations.

Industry Presentation

Michael Surrena, Stihl Southeast District Manager for Florida will present information to City Council concerning both gasoline and battery powered blowers. Mr. Surrena was recommended to City staff by the Town of Palm Beach. After speaking with Mr. Surrena staff believes he can provide valuable technical information for this discussion. Mr. Surrena’s presentation is included in the agenda packet.

Notes:

1. The use of decibels, dBA, dBA, etc., are all considered to be the same and are interchangeable for the purposes of this discussion.

MASTER PLAN/CAPITAL IMPROVEMENT PROJECT:

Vision Plan: This project serves to meet the following goals from the adopted 2007 Vision Plan:

1. Preserve the Town’s distinctive character and culture – Core Goal
2. Maintain an extraordinary quality of life for resident – Critical Element Goal

RECOMMENDED ACTION:

1. Conduct Public Hearing and discussion.
2. Approve First Reading of an Ordinance amending Chapter 22 – Environment, Article II – Nuisances, Section 37 (a) Definitions, (c) Specific noise prohibitions.

Options for City Council to consider for Ordinance amendments include:

1. Prohibit all gasoline powered leaf blowers and, battery and electric powered leaf blowers that exceed 65 dBA as shown on the manufacturers label affixed to the leaf blower.
 - a. Ordinance would be effective one-year from the date approved by City Council at 2nd reading. (Option 1 in packet)
 - b. This option would allow contractors and residents to use only those battery and electric powered leaf blowers that have a dBA rating of 65 or less.
2. Prohibit all leaf blowers exceed 65 dBA as shown on the manufacturers label affixed to the leaf blower. (Option 2 in packet)
 - a. Ordinance would be effective one-year from the date approved by City Council at 2nd reading.
 - b. This option would allow contractors and residents to use only those leaf blowers that have a dBA rating of 65 or less regardless of their power type.
3. City Council may give staff direction for an Ordinance amendment different from what has been proposed.

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- a. If this option is preferred, staff will prepare a revised Ordinance, based upon City Council direction, for discussion at the October 21, 2020 Regular City Council meeting.